Benchmark of e-Commerce solutions

2013 edition

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NBS System

NBS
System

About NBS System

NBS System was born in 1999 and is now providing services to 3000+ websites, hosting them, securing them and answering their needs on a daily basis. Based in France and in United Kingdom, our teams are made of black belt admins and security experts, able to tackle the biggest challenges. As e-commerce provided us with a tremendous growth over the last 5 years, we published that book to give a bit back to the community.

NBS System Offers

Consulting

The authors provide services if you want to get more details. We can provide training, webinars, private consulting to help you choose your solution and conferences.

Just take contact with us to study the possibilities for your business : contact@nbs-system.com

E-Commerce Hosting

NBS System offers high quality managed hosting services, with a particular highlight on performances, security and high availability. As you will discover in this book, we are not only here to "reboot the server" but we very knowledgeable about the solutions themselves.

Our support team provides advanced cares & services to make your site successful : contact@nbs-system.com

Link to the full study

http://is.gd/e_commerce

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Introduction

Foreword about this book

A bit more than a year passed since we published the first benchmark of E-Commerce solutions. We have been read by more than 15 000 persons from 44 different countries and we would first like to thank you for this success.

We consider that the goal of this book is to help decision makers, technical and business one, to find the proper e-Commerce solutions for their needs.

"This book aims to provide a reliable and impartial source of information to Emerchants."

To help in the decision process, we have decided to integrate new tables, KPIs and analysis grids but even more important, more software solutions.

For the people who read our previous book, "The whitebook of Ecommerce solutions", some may have identified "predictions" we made that came true. Prestashop CEO's strategy to run after Magento has been disavowed and he has been replaced by a new one, focused on the small and mid-sized e-shop and how to monetize this customer pool.

We also named Hybris a "rising star", identifying the large momentum and very precise positioning of the solution as a real trend. Hybris rose 30 million dollars in early 2013, and was bought by SAP some days before we published this book, consolidating the company as a major player in the field of high end e-Commerce.

Some other statements were made in that previous release of the book and a lot were comforted by facts over 2012. The one last we may mention is the fact that RBS Change was an underestimated solution and it has been gaining momentum in the last 6 months, tripling its partner's agencies and gaining some market shares in the Tier 3 market.

Solutions covered

We raised the number of **analyzed solutions to 12**. (The 5 new, along with updated analyzes of Magento, Prestashop, Oxid Eshop, Hybris, Intershop, Drupal Commerce and Change)

"Oracle ATG, IBM Websphere, Opencart, Virtuemart and Zen Cart are now analyzed. "

This type of study is a never ending work since several frameworks are born per year, growing an already impressive lineup of more than an hundred solutions.

Demandware, a solution that appeared technically interesting last year, is not covered anymore. Since it showed absolutely no interest in communicating with us (and others), even if we made several tries in Europe, we decided to give up. We could not include a solution without tests, reviews, interviews and benchmarks, hence the decision we took. *(Edit: The editor finally took contact in May but it was then impossible to include it anymore)*

The other editors manifested a strong interest in our work and provided us with meaningful amount of time of their very skilled and front line staff members, directors or VP. We had access to their technologies, documentations, presentations, demonstration stores, roadmaps, feature list, references and much more. The authors would like to address their deepest gratitude to all those persons in the editor crews, who contributed indirectly to this book through the dialog with had with.

To editors: if you feel a slight needle of ours, it is not by any mean a void and mean critic. It is our way of informing the merchants and it gives you a visibility on what we think can be an improvement area.

Introduction

About our Methodology

The analyses of all solutions were made through the means of :

- Interviews
- Technical tests
- Automated (massive) audit on sites using the technologies
- Dialog with end customers and integrator
- Documentations (Editor's and/or third party one)

The figures and graphics are mostly coming from one of our internal project: Colossus. This tool is actually crawling millions of websites to fingerprint the technology used on them, by fetching web pages and looking for typical signature of a framework. We also gather the time to generate the HTML (and not the complete page or not the network download time), which gives us a good hint around solution performances.

Our list being ranked by traffic (and being very large), it is usually statistically exact.
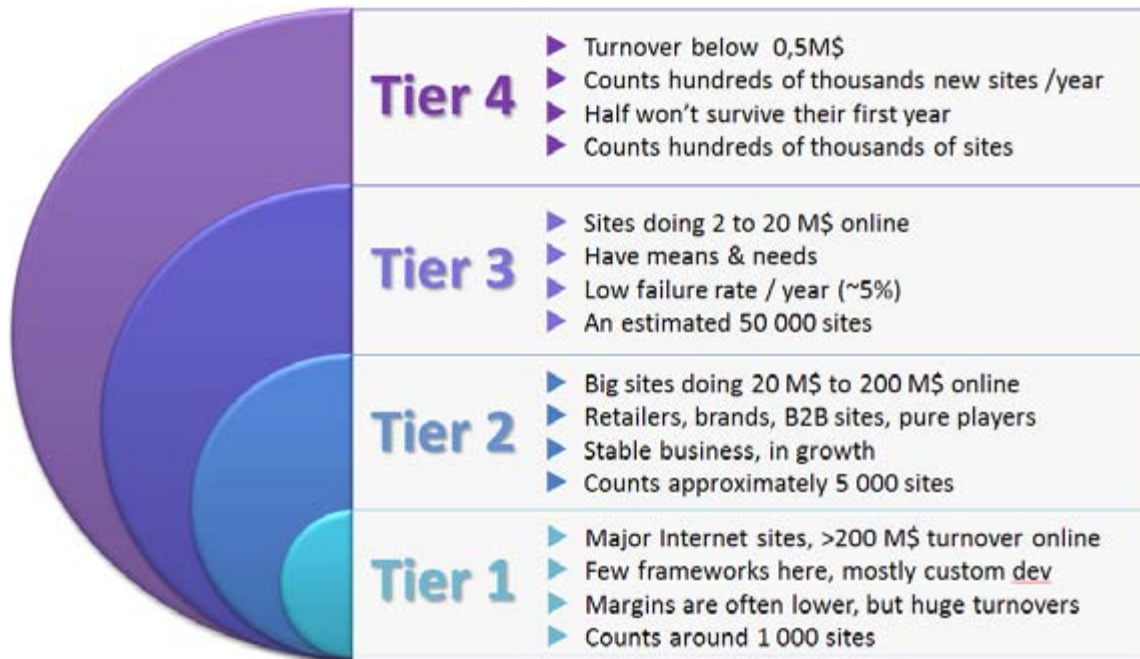
An independent editorial line

We have been assisted by the editors to test & review their solutions, we were able to interview them all, both on a technical and a strategic side. Still, apart from the direct quotes that you can identify by the double quotes enclosing them and in italic format with their author name ("quote"), the writings, findings, analysis and points of views are the author's one and none others. We are not sponsored, influenced or working for a team more than another.

After last year release, your common feedbacks, as readers, were very aligned on one point: this in-depth study was and is needed, to better understand and motivate choices. You told us that this book is a useful tool to go beyond editor marketing and get a third party point of view.

By the way, most editors themselves were happy to be "challenged" and get a neutral point of view over their work & software, hence the very large support we had from them.

Market segmentation

	Tier 4	▶ Turnover below 0,5M$ ▶ Counts hundreds of thousands new sites /year ▶ Half won't survive their first year ▶ Counts hundreds of thousands of sites
	Tier 3	▶ Sites doing 2 to 20 M$ online ▶ Have means & needs ▶ Low failure rate / year (~5%) ▶ An estimated 50 000 sites
	Tier 2	▶ Big sites doing 20 M$ to 200 M$ online ▶ Retailers, brands, B2B sites, pure players ▶ Stable business, in growth ▶ Counts approximately 5 000 sites
	Tier 1	▶ Major Internet sites, >200 M$ turnover online ▶ Few frameworks here, mostly custom dev ▶ Margins are often lower, but huge turnovers ▶ Counts around 1 000 sites

The graphic above must be looked at as it gives fundamental basis to understand the book

In order to be able to read our analysis easily, we must share some common grounds. To be able to differentiate customers & solutions, we have to introduce a simple mechanism: Tiers. The Tier 1 is the very high market, the biggest sites of all, the one ranking in Top 500 hundreds retails or doing several hundreds of dollars online, they are few, but represent a lot or turnover.

The Tier 2, a bit larger in size, containing sites doing 20 to 200 million dollars online. The Tier 3 consists in sites making 2 to 20 million and the Tier 4 is composed of small sites, either starting their activities, or being a new sales channel for a small companies or even shops small 'by design' (like sites made to provide complementary revenue in a couple).

Our philosophy & goals

E-commerce is a fantastic world, in a global expansion while most of the classical economy is nearly collapsing. We are willing help people going online, no matter if big or small, to find the e-commerce solution that will nearly perfectly fit their needs, or at least satisfy the 80/20% rule. E-commerce is an incredibly varied an innovative field, where merchants typologies are numerous and no solution can really pretend to cover everyone needs.

Also, e-Commerce brought a tremendous growth to our managed hosting activity over the last years. We now have the opportunity to give back a bit of what E-commerce brought us to the community and we are very glad to share this success, sincerely.

But, to trust that our opinion is independent, we think you may want to know all our motivations for spending more than 6 months of work on such a book, given for free, where our line of work is absolutely not the edition business.

The answer is simple: we are a managed hosting company, dedicated and specialized in E-commerce and we are willing to show that we are not only around to reboot servers or restore a backup for our customers.

"If you search an E-Commerce aware managed hosting company, feel free to contact us."

We know our E-merchants rhythms, processes, ways and uses. We know what a sales period is, what end of year time means or the stress that a new release of a site can cause. We know what a minute of downtime is worth and what are the E-commerce solutions made of, where are their strengths and pitfalls.

We also still have a very small hope that someone will feel like sponsoring us with beers.

The benchmark of E-commerce solution v2

2012 : A transition year for most actors

We expected a lot from the companies we reviewed last year, but few of them have been progressing and none did it on all fronts.

Magento forgot its CE and left the Opensource supporters a bit cold. It brought almost nothing new technically speaking even if the company was still progressing in terms of market shares and regarding the services & quality brought to Enterprise customers. Some projects also silently died like Magento Go (not even named on stage at Imagine) or the Fabric that was supposed to be a global hub to eBay's e-Commerce solutions & services.

Oxid eShop failed to settle in France and is not really showing meaningful profitability (if some), even while being leader in Germany. It seems the German company, even if relying on a very efficient and philosophically different software, has hard time to grow outside of its borders.

Drupal Commerce tens of thousands download per month and 25000 shops online (which seems a bit overdone)... The editor signed a strategic partnership with a very major integrator in France but is not that visible yet in terms of installed customers. As for RBS Change and Oxid eShop, Drupal Commerce is a solution that has a big potential but has not yet blast off. We still trust in these actors to become meaningful over the couple of upcoming years, that is why we kept them in the lineup of analyzed frameworks.

Intershop seems to be watching Hybris eats Europe while it is still struggling to figure a strategy to have local presence in other countries. If a comparison was to be found, most likely it would be a soccer one, they are going to go down one division, playing in Tier 2.

Hybris raised its customer portfolio by 20% but a meaningful percentage of the integrations are delayed due to complications with the framework integration. What is visible is fantastic and get the enthusiasm of many but sometimes, what matters is what is not said. This is true for Hybris but it actually applies to most actors.

Prestashop is suffering from certain choices and the company is having a large customer pool but still has problems to make money out of it. The profitability seems hard to reach but some strong reorganization and changes have been made over the last year for this actor counting the 2nd largest e-commerce customer base in the Top 1 million sites of Internet. The team is currently looking for a "disruptive" business model that would make it starts its real ascension.

RBS Change had to sort its internal schizophrenia by splitting its integrator model (RBS) from its editor line of work (Change). A year after, the biggest brake to Change expansion's remains RBS and this is regrettable. The version 4 of the product, announced for September is spectacular and by many points brilliant, but without more freedom, it is complicated for the company to gather an Opensource community because of a clumsy model. This seems to be evolving in the right direction, but the steps are a bit slow compared to the market race.

Regarding the newcomers Virtuemart, Opencart and Zen Cart, we had few hints or knowledge about their life before this year. (Where IMB & Oracle where already on our watch list last year) Hence, we have no specific opinion on what did progress or not in the activity of those frameworks.

Trends

"2013 & 2014 the real advent of the shop manager function."

Marketing is taking its revenge and is now back to operations in a department which is finally just another sales channel.

After many years where technic was still an itching point, where only technical teams or subcontractors where able to manipulate "the site", the industry deployed massive efforts to give back the control to non-technical populations. They are on the other hand more experimented in selling and know about customer needs, behavior and expectations, everyone is back in its expertise field, tech team to develop and integrate sales & marketing team to animate the website life and sales.

As we will see, the editors understood the message and adapted to this new reality, with more agile, simple, dynamic or user friendly tools that "empower" one of the real pivotal point of any e-Commerce project: the Shop Manager.

Also noticeable in the trends, the licensing model is evolving, especially for the "big" solutions like ATG, Websphere commerce & Hybris. We see new models arising like the "pay as you grow", "on premise", "on demand", etc. The good old license that you pay (in some case on a yearly basis or with a maintenance percentage next year) seems to be put aside by those new models. Still on the license point, be very careful about the pricing, property and limits. Not all editors act alike in this area, by far. For some you own a license version, for others you pay every year the same price while certain editors give you property of your license and updates in exchange of a recurring fee (between 18 and 25% of the license initial value).

Be careful though, WCS, Hybris & ATG are known to be expert at "canned" demonstration, where you are shown a very impressive system, as long as you do not look behind the curtain. If some precise features are important to you, demand extensive

live tests during the demonstration, to be sure that the product handles it correctly.

"The major actors of Tier 1 and 2 are lurking on the growth pool that Tier 3 represents."

But to be able to address those customers with lesser budgets, they are all converging to a new strategy: The customization of an existing demonstration store. Basically, instead of proposing an integration "from scratch", they now propose to customize a specific demostore, already very complete and functional. This lowers the costs of everyone while also providing better time to market options.

Last but not least regarding the trends, it is impressive to see the speed of convergence of roadmaps and feature lists. We decided to avoid covering the basic features that every framework has since it is not a differentiation point. Still, a lot of features are now available in all solutions. Things that were once unique to a solution or far more advanced are now available in all of them, as a standard. Differentiations points are easier to identify and we were able to focus more on the global philosophy and strategy of each solutions, more than on a boring list of features.

Introduction

The stakes of 2013

In the continuously evolving arena of e-Commerce, providers are constantly innovating while eShop managers are always trying to bring more and more value to their customers and company. In this perpetual movement, some editors are reacting faster than others and we defined some keys which will probably make sense for the year to come.

- **Multi, Cross & Omni channel:**

This relates to the capacity of an actor to provide seamless integration of its reselling channels, while staying coherent in its logistic. The company should also have an integrated service for the customer and transport a coherent image of the brand. This point mainly interest brands / retailers. Buy online & fetch in store, have a single stock on & offline, provide fidelity and recognition through all channels, etc.

- **Searchandising & Merchandising:**

The capacity of presenting the right information, in the right place, at the right time. It can consist in offering the proper product to the exact segment of customer through the right channel or in methods to boost up & cross selling. In a word, provide relevant content.

- **Mobile & Responsive design:**

The mobile is not a trend anymore, it's a fact. Not everyone has the same mobile capabilities and some business have more or less sensibility to this topic. Still, no one can skip on this, because consumers are using it more and more, in their bed, in the shop, on the couch or even in the subway.

- **CMS and templating capabilities:**

A site showing the brand under its best appearance, taking the visual codes from the company online and providing easy editing without going through painful integration means more flexibility and skinning capabilities.

- **Logistic & interfacing capabilities:**

Logistic, whether it is built in the product or externally interfaced is the key of many successes. Software providing these features or at least an easy way to integrate this aspect of the business with the rest of the world gives Small Corporation a boost and is totally mandatory for larger companies.

Introduction

A large upcoming battle in the Tier 2

Tier 1

The big houses (IBM & Oracle) were surprised with the speed of Hybris in taking quickly meaningful positions in the Tier 1 & 2. With a fund raise of 30 Million dollars to push forward its advantage, Hybris starts to be a bit too visible to the taste of Oracle and IBM, not to mention Intershop. But the major blow comes for IBM and Oracle comes now from a German champion: SAP.

"The fight between Websphere commerce, ATG and Hybris has changed the global balance of power."

That was to be expected, but now the Tier 1 game is definitely a three player system, maybe four if Intershop can digest this change and keep its position.

IBM lost a bit of ground over the last couple of years in Tier 1 market, to the profit of ATG. While both companies are less represented in Europe than in US, they were competing "privately" until Hybris showed up. IBM was planning its comeback against Oracle but now has to cope with a third player. In the meantime, Oracle found that ATG was not spread enough in Europe and started to build a plan to conquer more of this market, a plan that was also slightly bullied by Hybris.

Even if not really strong yet in the Tier 1, Hybris goals are clear, and they will try to score in this segment. The fact that they are now backed by SAP is positioning them higher in the value chain. It allows Hybris to think big and directly speak to the biggest customers. SAP will provide some key complementary Software components, like Oracle and IBM can, allowing Hybris to benefit from its famous ERP. Last but not least, SAP has acquired some key contacts in most of the major companies that Hybris aims to win.

Still, the major problems of all these competitors is that they aim for the same market and have all the need to work on larger accounts to become or stay relevant.

But the Tier 1 remains a "small market" in terms of clients available. Yes, each and every of these clients are very big fishes, but they are not changing easily their e-Commerce systems. Few new accounts appears every year in this segment, but each signature counts triple, whether it is for the reference, or for the turnover made.

Tier 2

In this game of the giants, Intershop will have hard time to cope with all the flying bullets and already has been pushed from Tier 1 to Tier 2, in only a couple of years. The father of so many e-Commerce software spin off suffers from its quietness while the competition is either being very aggressive or preparing the fight back. ATG, IBM and Hybris are also looking to the Tier 2 market where there is space for growth and where more customers are available or raising.

Magento, on its side, is trying to ascend to this segment and starts to get some results and customers.

E-Commerce is far from being only a brand business nowadays and other niches are opening their doors to this channel, especially in tier 2, like pharmaceuticals, B2b, industries, telecom, etc.

For some the companies studied in this book, the Tier 2 is the one that will either be a graveyard for their reputation or an Eldorado. For example, when an emblematic customer like Nespresso switches from Hybris to Magento, it scores negative for one and positive for the other.

"Far from being a small portion, Tier 2 is a ground where customers are mature, have budget, objectives and means."

Tier 3

The Tier 3, known as "the proving ground", will also be a place of intense competition.

But emerging players like Drupal Commerce and Change are also willing to grow in this segment, along with Oxid eShop and some others. Tier 3 is "the proving ground" to start making money and profits and it is also the door to the Tier 2 market.

"Magento is dominating this large and very productive segment.

Magento will maybe lose a bit of its dominant position because it has somehow taken distance from the Opensource model, giving most of its attention to the Enterprise class customers. It creates a space that attracts a lot of attention, from many emerging players.

In this Tier 3, customers are big enough to pay licenses and services and they may push an editor to the next level with their names serving as references. The market is large enough to make a meaningful turnover and it is still growing in size. The drawback is that this Tier is fairly accessible in terms of complexity and exigencies, hence its attraction power to newcomers.

Tier 3 stays the biggest of all markets. Simply consider that even with 500 customers making on average 100 million online, the Tier 1 weights "only" 50 billion. The tier 3 counts tens of thousands of sites, and if we take the hypothesis that they make an average turnover of 2 million, we speak here of a market 10 times bigger than the Tier 1 in volumes with a hundred times more unique customers, hence the name we gave it: "The proving ground".

Tier 4

Tier 4 is more and more occupied by SaaS products, made to address the hundreds of thousands of new e-Commerce sites created per year. Even if most of these players will never reach heights, and even if most will die in the year following their creation, this tier is large.

In this segment, if you are a Framework like Prestashop, you are in a perpetual fight with the actors of Tier 3 where you would want to capture a bit of the customers and with the SaaS designed to address the Tier 4, that are very competitive pricewise.

Good point for the existing players in this area, few newcomers are trying to break in this ground, providing a kind of security, but margins and turnover are hard to harvest. Customers are often either very uneducated regarding e-Commerce or sometimes very exigent even with a budget vastly undersized. When a client shows up with a $10 000 budget, willing to have the logistic of Amazon, the design of Tag Heuer and the user experience of Zappos, you feel *very* lonely…
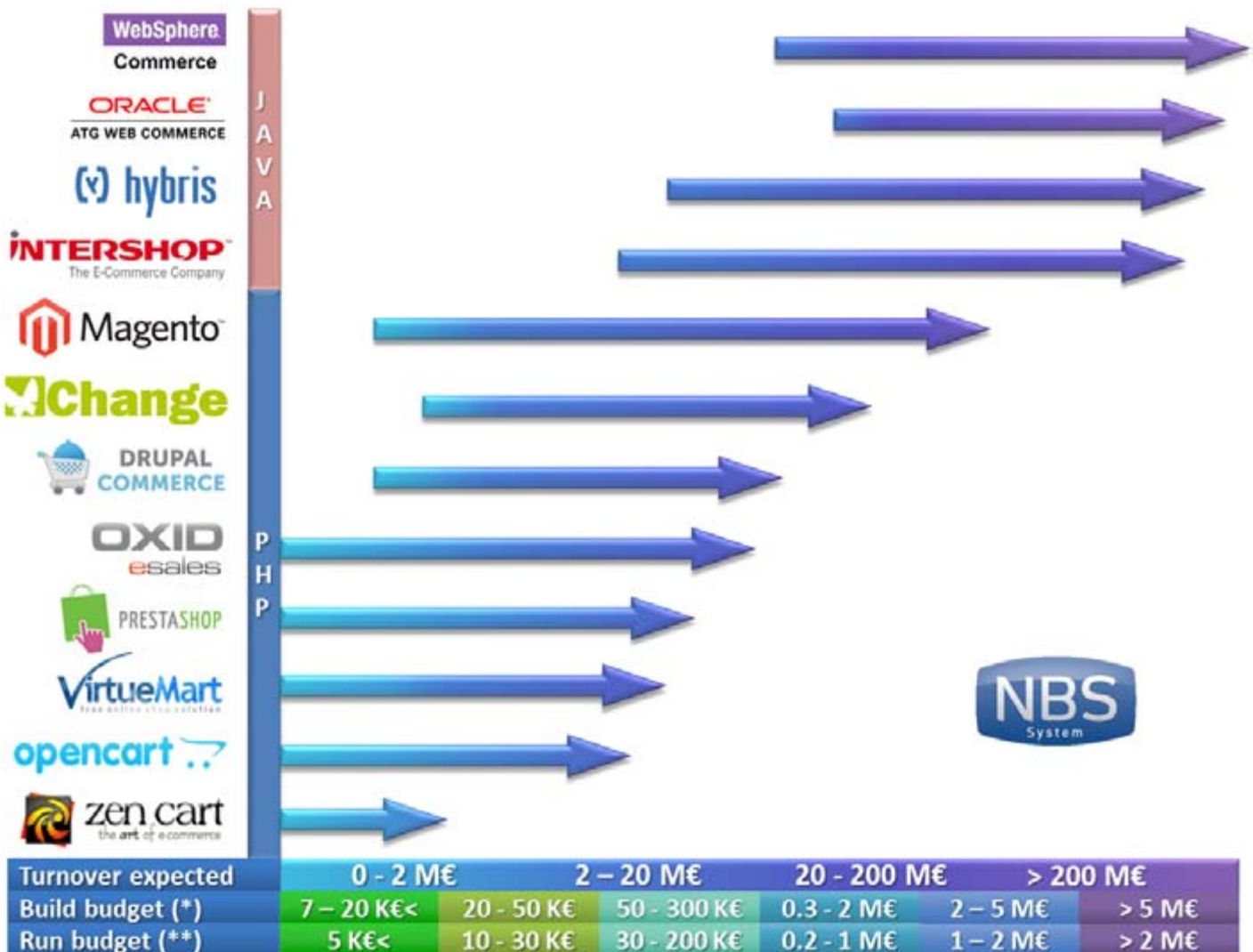
Merchant typology

Merchants are not all alike. In order to provide a more accurate vision of the Framework capabilities, we need to provide categories, in which most will fit.

The needs of those belonging to one category usually are very similar, which should help you to quickly discard the frameworks that are not adapted to your needs. Here are the categories we kept:

- Generalist store (Amazon, Pixmania, Price minister, Newegg, etc.)
- Department store online (Galeries Lafayette, Macys, etc.)
- Private or flash sales systems (Vente Privée, Brandalley, Rue La La, etc.)
- Brands & retailers store (Nike, Levis, H&M, etc.)
- Topic specific shop (myfishtank, scooterworld) or product specific shop (lamps.com, bike.com)
- Non material goods (music, ebooks, software, apps, games)
- B2B (selling mainly to professionals or companies)

"Comfort zone" per solution

Turnover expected	0 - 2 M€		2 – 20 M€	20 - 200 M€		> 200 M€
Build budget (*)	7 – 20 K€<	20 - 50 K€	50 - 300 K€	0.3 - 2 M€	2 – 5 M€	> 5 M€
Run budget (**)	5 K€<	10 - 30 K€	30 - 200 K€	0.2 - 1 M€	1 – 2 M€	> 2 M€

(*)   Budget includes licenses (when needed) and developments/integration.
(**)   Budget includes License/maintenance fees, site evolutions, hosting.

Last year, this graph raised some understandings regarding its content. Of course, if the arrow ends on 100 M€, this absolutely does not mean the solution cannot handle more. The arrow length & positioning have been carefully thought but this is an average. Some customers may do 20 M$ with OpenCart and some 1 M€ with Hybris, but this is not the "usual" case.

On the very upper segment for example, solutions are more adapted to take a large number of users on the backoffice and very flexible when it comes to interfacing, hence they are more adapted to a bigger business and their costs are also higher.

Introduction

Measured territorial occupation per solution

This graphic represents the "weight" of each solutions per segment. We here divided the market in 6 tiers instead or our usual 4 to give a better precision. The dot size represents the strength of the solution in a given segment. The bigger, the better.

When two dots are of same size, this means the market shares figures are very comparable (i.e., ATG and Websphere commerce both are leading in number of very big sites, with 49 sites vs. 45 detected in the Top 10 000 sites of the web). When a dot is smaller from a magnitude, it means the number of sites are significantly less in number than for the one having a bigger one.

For example, Magento has a very large dot in the medium sites, with no dots of second or third rank because the second after him in this segment is two magnitudes below it. In this case Magento has 7 times more sites than its followers.

Last point, this ranking (the site size) is made depending on the traffic of the site. That is why some "small" or "Emerging sites" are using Websphere Commerce, ATG or Hybris. They are actually not small but B2B, and get few traffic but still make a very meaningful turnover, hence the need for larger e-Commerce solutions.

Java or PHP ?

You will see that **Java** and **PHP** are two different worlds. Java solutions are mainly focus on the very accounts (Tier 1 & 2), which can be easily understood. Among others, four key points drive this fact:

- The speed of the back office, especially in case of many concurrent connections
- The license and service costs are much higher (PHP is more accessible)
- The capability to handle massive number of references (SKU)
- The presentation layer is separated from the logic one, providing easier and often better scalability

But the Java offers also drawbacks. Already, you need to separate the Logic, data & presentation layer, meaning you need a larger infrastructure. So if you are a "middle" size account that can usually work on 4 servers, you will most probably grow this number if not double it.

These companies working on Java (Intershop, Hybris, IBM & Oracle) are proposing higher price for their licenses and services. The TCO is globally almost always more expensive with a Java framework, but the possibilities are also often superior.

Large clients can think freely about both worlds since more and more PHP based solutions (and their integrators) are "Business Class" and reliable. While Java is also an obvious option, one of the points beyond TCO and feature list is the philosophy. PHP products are all backed by a community and often a large one. They also are Opensourced and can be tweaked at a deeper level, offering large and inexpensive extensibility. When a problem occurs, it is easy to track and analyze, finding a solutions is also usually very easy, through forums and blogs.

WebSphere Commerce

WebSphere Commerce

Belongs to	IBM
Number of employees (worldwide)	434 000
Revenues in 2012	$104 billions
(ecommerce) Business model	Licence, pay as you grow, SaaS
Cout des licences	see below
Technology	Java
Framework	All-in-one architecture
Database supported	DB2, Oracle, Apache, Derby
Version (at the time of study)	WSC V7 (Feature Pack 6)
Licence	Proprietary & subscription
First release	1996
Origin	United States
Budget to create a website (low/middle/high)	100-200 k€ / 500 K€ / > 500 K€
Our merchant typology recommendation	Retailers, generalists, Multi-channel, B2B

Tier 4	Tier 3	Tier 2	Tier 1
Not targeted	Marginal	Co-leader	Leader

Two years of assimilation

When one thinks about e-commerce, dynamism and new trends, few think of IBM. Still, the corporation is behind a meaningful part of modern information systems and not being a startup does not mean you are outdated.

A giant like IBM cannot be knocked off any market. It can, for reorganization reasons suffer from a temporary inaccuracy in one of its strategies, but it is always up to something.

With the "Smarter" line of product (smarter city, smarter commerce, smarter planet, etc.) big blue is setting the e-Commerce as one of its top priorities. The firm was a bit shy these last two years in this field, mainly because it was busy acquiring technologies and staffs to better address its customers.

After nearly 3 billion dollars invested in several acquisitions and a consolidation cycle, IBM has now Sterling commerce, DMODigital Analytics and Tealeaf integrated with WCS, the giant can be back in the arena.

These two years were needed to create a coherent business line, but they had a cost, opening the door to a new player (Hybris) and giving time to an already existing competitor (ATG) to prepare its own strike back in Europe. (Even if in the northern countries, as well as in UK and US, IBM lost less ground and image.)

A major actor is back

"The features packs are delivered every 6 months to keep with the market dynamic. "

The e-Commerce product line of IBM, Websphere Commerce Server (shortened to WCS hereafter), started back in 1996. Now with the version 7 (released end of 2009) and the feature pack 6 (called FEP6), IBM has a product which is everything but outdated. For example the FEP6 brought (among other things) the click to edit visual feature across the site and a convenient Preview URL system, without the need to logon.

Already a major player in the Tier 1 & Tier 2, its market share in the top tier is above Oracle's ATG or Hybris. IBM is not very renowned nowadays in the e-Commerce area mainly because the last three years in the market where all devoted to innovations, new comers, revolution, etc.

But with references like Staples (15 Md$ made online), Canon, Ikea, Sony, Goodyear, Zara and many other alike, IBM could look like a Tier 1 "only" player. In reality, the strategy of the corporation is to dig deeper in the Tier 2 market and maybe try to address also the upper part of the Tier 3. But with the appearance of the SaaS offer, customers whose online turnover goes from 5 or 10 M$ to several billions can now take a serious look to WCS.

A very up to date product

WCS is told by competitors to be "rubbish", supposedly also complex and very costly (among other amiabilities). The technical demonstration we saw was far from that and IBM has very serious card to play, where we expect him the least.

Sure there are new kids in town but no one should forget that leadership is not gained or lost in a couple of years.

Having a totally integrated product line is sometimes a bit of a headache. If you pick WCS, it comes with the DB2 database (Oracle is supported also) and the home

made application server (a modified Apache and a Java Virtual Machine).

On the other hand, by having its product from one end to the other, IBM can securely tell you what you need to handle a specific volume or traffic typology. Also, making an upgrade is somehow safer since the complete chain is reproducible in their lab before they release a service pack. Even if this system is very scalable it comes at a price : you have to adapt you environment to IBM's stack since it won't work the other way around.

A noticeable fact also: WCS has a very exhaustive documentation, sometimes even too big, and perfectly public. For sure some competitors were getting a lot of inspiration of these precious resources to enhance their own product. It is sometimes striking to see how similar certain functions are in other software, born quite after WCS.

WCS has a convenient **Flash based back office** (the management center). Some would tell you that it is a very peculiar choice but in the end, it makes the administration very convenient, allowing for example drag & drops and giving a user friendly interface to the shop manager. Even if it is not compatible on Ipad, this is not an issue since managing a large e-Commerce website from an Ipad is not really an option anyway.

The current version embeds a catalog editor totally comparable to Magento's one and a promotion engine that is almost strictly similar.

"The bundle and configurable products system is of very good quality, to the point that the configurator is used by Cisco and some car producers and resellers."

The back office is responsive, clearly organized and functional. It also provides a deeper access to key functions: a "precision marketing" system, a cross canal management, and also an integrated access to the optional components OMS (Order Management System) and DMO (Digital Marketing Optimization).

The search engine is powered by SOLR and WCS benefits from a very decent faceting system. By the way, it is interesting to learn that the concept of faceted navigation was brewed by IBM and the company even had some patents around this. A nice feature that we appreciated, the Backoffice features some pedagogic videos to help the user understanding some features.

The complementary bricks that IBM can provide are "Plug 'n Play", meaning that no specific integration is needed to get OMS, DMO or Tealeaf working together with WCS. The main product itself is based on Java, Apache's Struts and Rational Application Developer (on an Eclipse IDE enhanced with visual plugins).

License, SaaS & tarification

The software catalog of IBM is obviously very large. To avoid losing customers in its complexity, IBM made several choices. On the specific WCS product line, this translated to a pay as you grow system along with a plug & play approach of the complementary products.

The classical WCS license, that includes the applicative stack & DB2, comes in several types :

- Express
- Professional
- and Enterprise

The **express edition** has been tailored for mid-market companies (fewer than 1000 employees) . The **professional edition** is more powerful as it has much more functionalities, the most important one being the possibility to manage the cross channel order processing. The solution will be able to link the ERP with points of sales (POS) and other distribution channel partners. This edition is dedicated to bigger B2C e-Merchants who have a network of POS or an e-Commerce website that generates high turnovers (Tier 2).

The **Enterprise edition** is for the e-Merchants who have higher turnover and it includes all the features listed above with the multi-store management and B2B capabilities. IBM guarantees that this feature will enable e-Merchants to create multiple, unique sites to serve different brands, regions or targeted groups of customers all on a single instance of the software.

The Licenses come with use case documents, wireframes, style guides, test tools(unit test, selenium scenarii, non-regression, etc.), and a static store to quickly realize a proof of concept (convenient for integration partners).

It is then possible to easily add the OMS, DMO or Tealeaf. This approach is the "classical" one, rather oriented toward the Tier 1 customers.

But the competitors have moved the lines and forced IBM to haste toward a pay as you grow model and more varied billing models. It is now possible to use WCS as a SaaS, where the price of your licenses depends on your turnover. SaaS is trendy in IBM's strategy since some other products are already available through this delivery mode.

The license includes the software, its maintenance and later revisions of the software (minor & major), documentations and templates. The first year, the support is included in the price and then the yearly price is 20%. The support is 24/7 and unlimited, the tickets are handle within 2 hours.

Demostores & customization approach

"WCS features are usually demonstrated in an "Aurora" example store, which is very complete. Some other market specific stores are available: B2C, B2B, Mobile, language or country located, etc."

This allows the customer willing to go in the integration path to understand and see the main features of each one. For the clients going for a customization based on one of these templates (the SaaS version), it is convenient to pick the base that is the closest to their needs.

The integration of a major project usually takes 6 to 12 months. This is a full project cycle, where IBM is very at ease with its long time consulting approach. On the other hand, the customization method is able to bring a project online in 2 to 4 months. After two years, the "reversibility" is total and guaranteed. Whenever you want to get back your data & design, they are yours.

This "full OPEX" direction, where your site is accounted as a running cost and not an investment, is trendier in the emerging business testing their business model or in the companies willing to lower their investment plan during those crisis years. The current billing model is related to the peak traffic but we believe it will evolve too in the direction of a turnover based system as well, the concept being anyway to have a "pay as you grow" model.

This integration method is currently named "SaaS", referring to the original sense of the term: it is a software, rented as a service. But IBM had good reason to urge toward this direction. First, Hybris is providing the most flexible license pricing around. Second, no doubt WCS is powerful, complete and scalable, but it is a complex product to understand and to develop.

To some extents, the users are usually very happy of the functionalities, but the developers suffer from the complicated applicative stack, totally IBM brewed and thought. If you are looking for your usual Java practices, the learning curve will be steep.

Will WCS succeed in this path? It is too early to tell. As for Hybris, few customers already benefited from these methods to shorten the development timings. But if IBM wants to reach Tier 3, with customers having less internal resources or budgets, walking this path is a necessity. The "classical" tailor made integration is reserved for the major clients with large budgets and longer schedules.

Performances

The IBM applicative stack gives very good native performances. The drawbacks of not being standard and close source is here compensated by a full control over all the components, giving IBM a very accurate vision of the technical needs for a specific project.

In last year's book, we have emphasized a lot on the issues or performances of caches systems of the solutions. This point is definitively a key to scalability, efficient unitary performance and cost.
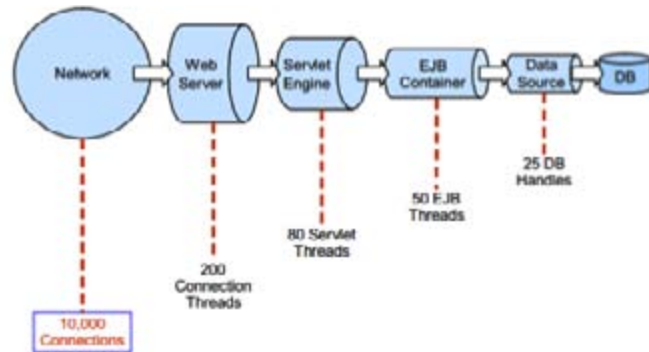
WCS integrates the « Dynacache » system on this precise point. Also, it is noticeable that most Java solutions and especially WCS use the "Funnel model", which lowers the pressure on the resources at each stage (see graphic).

"The Dynacache itself is able to multiply the platform throughput by a time 3 factor, which provides performances totally comparable to the most efficient one on the market. "

For the one familiar with Magento, the system is very close to a FPC (Full Page Cache) & a block cache merged together. Still, the dependency system is more advanced that Magento's one, allowing WCS to make specific cache invalidation at all stage of a surf session, without invalidating the whole FPC. A comparable feature was added to Magento EE 1.13 recently, even if it is still less "constraints" oriented. WCS only invalidate a dynamic block or static bloc (called fragment) if it has to.

From what we understood, the cache dependencies are resolved also by the Cache filter of the Dynamic Cache Engine that provides invalidation, Hit or Miss to the client query. Noticeable also, this cache system is fully customizable by the site admin who can define the cache strategy.

To put it short, WCS never invalidates a cache fully but can continuously assess what depends on what and which fragment or static content needs to be invalidated or not.

To conclude on this very impressive system, the Edge fragment caching is natively supported.

Delivering top performances comes at a price: one must know a lot of different technologies and the specific IBM environment. If you wish to leverage the full power and

fine tune every point, you should be trained in this Dynacache system and savvy in tuning the following technologies: JVM, Queue settings, DB2, JMS, on top of the classical (OS / CPU / HDD / Network). Therefore, it is highly recommended to pick a hosting company that has developed a real expertise in these fields.

A mind blowing marketing and personalization tool

The customer centric approach based on its behavior is now more than words, it is now a visual tool.

In the illustration below, you can see a complete scenario, based on this tool, totally edited through a simple visual editor.

The marketing team, the store manager, can now dynamically and with drag and drops, create customer path, navigation scenarii, A/B testing and much more.

"The -Precision Marketing Tool- is a feature we saw as absolutely unique on the market since, to date, and so far we know, WCS is the only solution providing such an advanced tool combined with an intuitive interface."
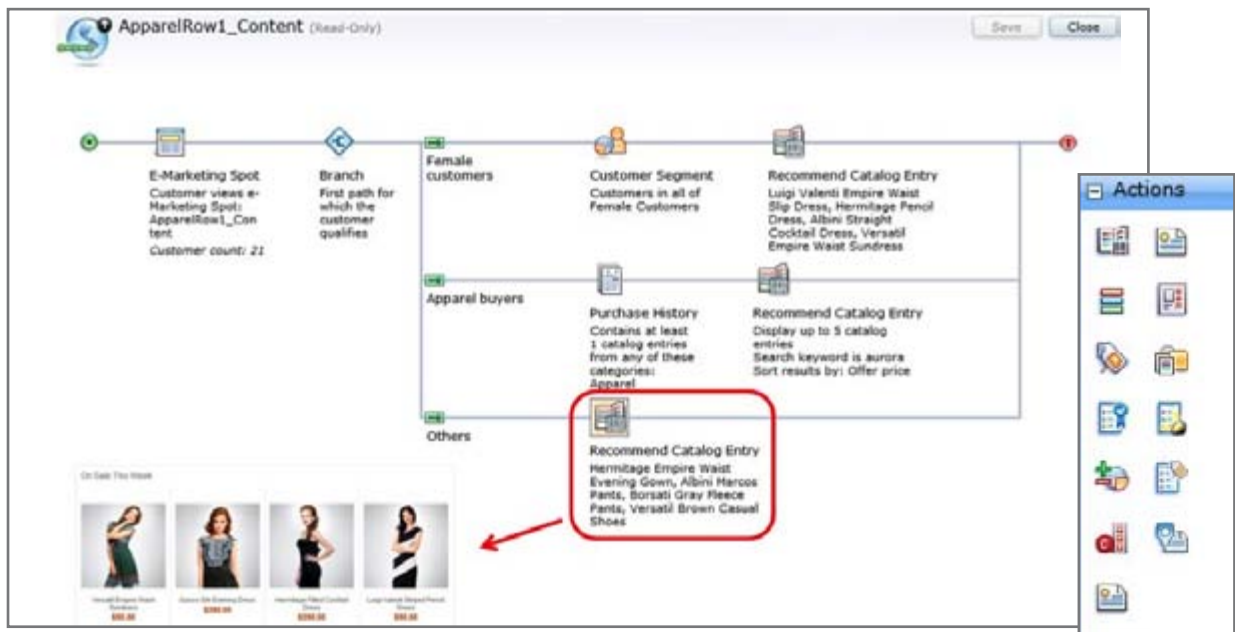
With around 20 triggers (channel, social, history, browsing, search etc.), and as many actions (promotion, cross/up selling, point of sale, email, sms, kiosk, etc.), the possibilities are huge. Your external referrer is Google? The customer query was cappucino? You can then dynamically push on the homepage your lineup of coffee machine.

With the DMO tools on top, it becomes possible to use "intelligent offer", which automatically detect the recommendation to push to the user, based on an analysis

of the traffic and transactions made (ie: user buying X usually also buy Y). DMO also offers a joint analysis of Precision Marketing scenario efficiency. As IBMers calls it, DMO represent the "Wisdom of the crows", allowing the recommendation and scenario to adapt "on the fly". Still WCS Precision Marketing tool is autonomous without DMO, is a nice add on but not mandatory.

The possibilities are just amazing. Let's imagine a shop manager wants to reward one of the brand's ambassador, it can detect the people speaking the most of the brand on social Medias and send them SMS or Emails to offer them a discount code. It can also automatically do the basic revival of abandoned cart after 7 days without activities from a visitor. A/B testing, conditional branching on a specific searched word, cross canal marketing, specific page layout depending on various parameters, etc. it seems that creativity is the only limit here.

On top, all the rules are auditable to understand why a decision has been triggered and the system comes with a self-training video in 13 languages, so not only the feature is intuitive to use, but also it benefits from a complete documentation.

Tealeaf & DMO

Tealeaf is a very nice product acquired recently by IBM. It basically identifies problem, troubles and ruptures in the customer's navigation. If something is bugging them, turning them down or blocking their buying decision, Tealeaf should allow you to identify it.

It is a "Customer Experience Management" that allow the merchant to view what the customer view, to lower abandonments and use a global dashboard to prioritize sites enhancement based on the "silent" user experience, the one they don't tell you directly.

DMO is a « wisdom of the crowd » solution. It allows the shop managers to understand the trends and behavior of the visitors. Basically, it is a web analytics solution but e-commerce oriented, that checks a lot of parameters and reactions to bring intelligence to the statistics.

In conjunction with the Precision Marketing tool, it is a very accurate and efficient system to profile and dynamically react to user actions.

Ecosystem

The ecosystem is less developed than for an Opensource e-commerce solution like Prestashop, Drupal Commerce or Magento. But the internal resources of IBM are large, with more than 300 persons in the world mainly based in Canada for the e-Commerce lab.

The complexity of the catalog and transverse integration of competency leaded the giant to segment its offers and make them as modular as possible. This allows external partners to work on one or several components, depending on their needs or size.

The editor itself provides the products and consultancy, along with some project support. The customers or integrators can also access consulting experts (billed by Global Business Service), to help on performances, training or other aspects.

Regarding the partners, Aliznet, Technology Everywhere, Salmon, Micropole, CGI, Sogeti, Infosys, HCL, Pixelixir, Ecocea and many others across the world are able to develop on the platform. (Anyway, by contacting IBM, you will most likely be redirected toward an able partner)

OMS, Multi canal & mobile

The mobile development is based on Worklight which provides HTML5, Hybrid & Native capabilities, including private app server and a REST API. IBM speaks about the "Omnishopper" concept and the cross channel strategy starts here, at the confluence of the mobile capabilities and the OMS product.

"Sterling Commerce was acquired by IBM for its OMS. It already was the world leader in this area of Order Management System and was equipping 6 out of 10 of the biggest customers of these solutions."

The book is mainly focused on the e-Commerce solution, so we will only walk quickly through the side functions, but obviously for Tier 1 & 2 customers, an OMS makes a big difference.

IBM Order Management allows the design of very efficient workflows to cope with the numerous orders an e-commerce website has to deal with. The suite is composed of the Order Management, Always in stock, Drop ship & Store associate mobile. To speak only to the OMS, it allows the cross commerce to be more efficient with the buy online / pick-in-store. For example, after a command is completed online a physical store can be notified that it has to prepare the command for the customer pick up. Several actions can be triggered at any stage of the command, toward all channels. For example, when the pickup is ready, the OMS can trigger a SMS message to the customer to notify him.

The store keeper can see the orders directly from its browser or through a very complete phone application, making it convenient to manage on a daily basis (with functions like barcode scanning on a sleeve or credit card reader).

The OMS is able to manage threshold on stocks, poll in real time the inventory of the various stocks on various distribution channels, handle loyalty card and much more, making it a must have for the cross channel activities in a larger site. (Some features are demonstrated here: http://www.youtube.com/watch?v=OCyc9S6XNIE)

Regarding the PIM capacities, IBM's Master Data Management (MDM or PIM) is pre integrated and configured with WCS. It's still less evolved than Hybris's one and some customers demanding more than the basic features of a PIM decided to pick Heiler's one.

To complete the cross channel aspects, the POS (Point of Sale), if already using an IBM machine, can use smarter checkout on its cash register.

The CMS

The CMS is organized through the Management center. It manages assets which can be files (images, docs, etc.) or URLs. Assets are stores and sorted and can be used in any product sheet or by the marketing tool to dynamically fill an e-spot section (a precision location in a page).

Some typical pages are available and the store manager can pick a specific template to create a new content easily or reorganize the home or cart page, without the need

for any coding skill. The solution allows managing a staging workspace to avoid breaking anything in the live instance of the site, with a complete user access authorization management. Every workspace allows simulation (sotcks, customers segment) and pre visualization, which gives the ability to simulate a flash sale before it takes place for example. The system allows also a click to edit facility and a team can work on putting the new collection online, without interfering with the main website.

Conclusion

"With a very complete product and an amazing marketing approach, Websphere Commerce Server is a natural player of the Tier 1 market."

As many players, IBM adopted the "kickstart" approach, with a SaaS model and adaptable demostores, allowing customers to build web shops quickly and without the complexity of a full "from scratch" project.

But with this new strategy, IBM is able to answer to more "reasonable" demands. Actually, WCS is as stunning for a modest costumer than for Staples, giving the Tier 2 & 3 customers an amazing opportunity to leverage the power of WCS for their own business. For comparable prices, some customers are now given the possibility to either go for a Magento, or an IBM WCS, with similar time to market.

As Oracle and Intershop, IBM will have to review its plan due to the acquisition of Hybris by SAP. IBM offer is very complete but they are now three big firms to be able to provide an extensive catalog of software and services.

We can only regret the fact that WCS's entire applicative stack is proprietary, which fits neither in the classical LAMP nor Java industry templates. This philosophy is very old school and could benefit from lifting especially since IBM has been a serious Opensource supporter, too bad this philosophy hasn't reached WCS yet. These choices forces the hosting company to be competent regarding the DB2/JVM/ Apache-derby applicative stack, but on the other hand, this bundle provides an easy and safe to scale option. Still on the progression margin, WCS offers less flexible and complete Data management than Hybris at some point but we can probably expect advancements in this area since Hybris is considered a main competitor now.

WCS is providing an amazing feature coverage and can, most likely, manage all your needs. But everything comes at a cost and buying the "full" complete suite can become very expensive.

The Tier 1 is still a natural playground for Big Blue where is offers expertise per industries, per solutions and with customers that can afford the "global package", with DMO, the OMS, and Tealeaf.

The main feature that hypnotized our team was definitely the Precision Marketing tool. This one is totally unique in its approach and completeness. The main point here is that the Marketing team is fully autonomous to use extremely advanced features, without needing any technical background. With a simple drag & drop, it is possible to applying filters, conditional branching, analysis and more.

Of course, this point only should not make us forget about a strong & integrated Cross canal approach, an impressively efficient cache system, a very strong Webservice and very decent searchandising system.

The plethoric documentation could be considered a plus or not given its size, but one can't really complain to have access to this resource when needed. Let's just underline that it could be more centralized, structured and friendly. The complementary products DMO and the OMS or even Tealeaf will completes nicely the global picture, at a complementary cost, of course.

WebSphere Commerce

Websphere synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	WCS
Turnover to consider the solution	> $ 5M ($2M in SaaS)
Current market settlement	Tier 1 - 2
Editor direction	Tier 1 - 3
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,R,B2B,P
Opensource	No, Java
Editor emphasis	Marketing tools
Editor emphasis	Cross Commerce
Editor emphasis	Personnalization
We are impressed by	Marketing tools & cache
We are sceptical about	Proprietary stack, costs
Min budget to create site (developping from scratch / customizing an example shop)	300 K€ / 150 K€
General KPI	**WCS**
Cost of the solution (license, integration, hosting)	★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★★☆
Time to market (developping from scratch / customizing an existing example store)	★★/★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	★★★★
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★
Eco-system (community, partners, integrators, forums, etc.)	★★★
Backoffice friendliness & ease of use	★★★★
Technical KPI	**WCS**
Development technical complexity (more stars => less complicated)	★★☆
Number of third party softwares / extensions / services available	★★
Number of complementary product / services from the Editor	★★★★★
Speed of the Front Office (customer web page rendering)	★★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★★☆
Native CMS capabilities	★★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★★☆
B2C Feature list (default, without add-ons or side programs)	★★★★★
Mobile (Native App, Hybrid App, Responsive design)	★★★★★
Advanced features KPI	**WCS**
Advanced searchandising & user personnalization capabilities	★★★☆
Multi / cross / Omni channel capabilities	★★★★★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★★★
Integrated or natively interfaced OMS (order management system)	★★★★★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★★★★
Native B2B capabilities	★★★★

ATG Oracle

ORACLE
COMMERCE

Belongs to	Oracle
Number of employees (worldwide)	~115 000
Revenues in 2011	$37.1 Billion
(ecommerce) Business model	License
Licence Cost	Not communicated
Technology	Java
Framework	DAF, Nucleus, Data Anywhere Architecture
Database supported	Oracle, MySQL
Version (at the time of study)	10.2
Licence	Proprietary & subscription
First release	1998 (ATG belong to Oracle since January 2011)
Origin	United States
Budget to create a website (low/middle/high)	100-200 K€ / 500 K€ / >500 K€
Our merchant typology recommendation	Retailers, Department store, Brands.

| Tier 4	Tier 3	Tier 2	Tier 1
Not targeted	Not targeted	Co-leader	Very strong

A bit of history

Art Technology Group (ATG) was created in the 90's by two MIT graduates and it has been bought by Oracle for $1 billion in 2010. ATG was one of the few companies that survived to the dot-come bubble and it became one of the leaders in the e-Commerce world, a story somehow similar to Intershop's one by the way.

When Oracle decided to acquire ATG, its financial results were not the best among all its competitors but the technical potential was clear and attracted Lawrence J. Ellison, the charismatic CEO and business tycoon leading Oracle.

The solution is now part of the Oracle environment and competes in the Tier 1 sector with the other Java based frameworks such as Intershop, Hybris and IBM Websphere Commerce. And, as for IBM, these acquisitions led to an

"Just as IBM, Oracle acquired other leading and high potential companies, in order to strengthen its offer, namely RightNow, Fatwire, Retek and the famous Endeca."

assimilation process that took nearly 2 years.
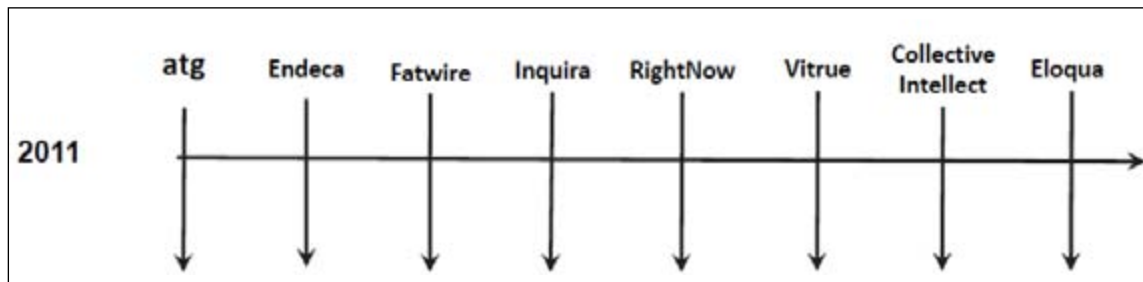
History of acquisitions made by Oracle related to e-Commerce

Oracle knew the potential of e-Commerce in the future of the web industry and did not hesitate to invest a lot for its shopping. It is anyway a usual behavior for Oracle which is a serial buyer and is known to love this growth method. The move to buy Sun, along with the famous Java and MySQL was also very strategic, as almost all of Oracle's moves.

Even if the billion dollar company (even the billion dollar treasury company shall we name it) lost ground in Europe, its forces are converging to make this change. As for IBM, the quick rising of Hybris was a surprise to Oracle but the giant has a plan. Basically, Oracle has some of its products in most of the big companies, whether it is the Database, PeopleSoft, ATG, MySQL, Java or one of the hundreds of software it manages. This very large footprint in the leading industries gives to Oracle's local representatives, engineer, working forces or sales person an amazing network to collect the needs of customers and a great way to whisper directly in the ear of the decision makers.

IBM proceeds alike and Hybris hired people with existing networks precisely in this intention, but the three of them are now going to use very similar networks to detect projects, especially with Hybris being helped by its big brother SAP. But we can maybe extrapolate what happens in France. A group of a three sales persons, along with several presales and a CRM/retail specialist is supposed to be formed anytime soon, some of them coming from Pixmania. If the movement is replicated in other EU country, the editor message is clear: ATG is back in Europe.

On the contrary of Hybris, Intershop and IBM, we have perceived no real will of Oracle to try to reach smaller customers. The "core" segment of ATG is the Tier 1 and more precisely the TOP 500 retailers. The Oracle's representative we discussed with seems to have no real intention to address customer running a business not reaching at least 15 million euros online. On the other hand, they consider this amount as a good base to help the customer to reach new heights, especially through internationalization.

ATG's philosophy: Customer experience is the key

ATG's three pillars are Customer experience, Customer behavior and providing tools to be competitive. The vision of the company is that managing a retail business is made of three main activities: buy, merchandise, sell. The next step is just ahead: Price & Promote since having the best prices (not the lowest) are a key to better sales & margins. On this, Oracle relies on Retek's software and experience, acquired very early in the stream of e-Commerce buying made by the giant.

Running an online business is a combination of both inbound marketing & outbound marketing. Hence one of the priorities: moving the budget invested from the back office operations to the front, to the customer acquisition, experience and loyalty.

To achieve this, the dynamism and the pace of changes is a key. Adapting to an ever evolving market, in the best possible way, providing consumers with a consistent buying & support experience, through all channels seems to be a leading philosophy.

"Like we do, Oracle considers that most e-merchants now face Amazon. It is no longer a game of IBM versus Oracle; it turns now to a retailer versus Amazon battle."

Oracle's intention to provide the best tools to deal with this new paradigm is materialized in one strong orientation: Customer experience.

You can provide a deeper, more complete and tailor made customer experience with adapted tools that Amazon will be able to deliver and, on top, a retailer will also be able to leverage a physical store network. Amazon has to satisfy everyone and all type of needs where a specific merchant can focus on bringing a more consistent experience on its products only. Think of it as the difference between buying a pair of Nike in a Footlocker or at Wal-Mart.

- Customer experience to acquire visitors,
- Customer experience to convert them,
- Customer experience to make them talk about you brand,
- and customer experience to bring satisfaction and make them come back.

And this is not only words since the acquisition of Endeca was made in this precise direction and that one of the two back office is made for « User experience » and the other for the e-Commerce.

The personalization "inside out" allows the retailer to bring its most loyal customer a more convenient experience and the personalization "outside in" allows the site to morph itself for a new visitor, based on the surf session profiling made by Endeca. Instead of really separating the marketing in a different module, it is considered an extension of the personalization.

When it comes to the cross channel, the representative we spoke with simply says: «A channel is essentially an organizational barrier», clearly underlining that there is maybe an internal differentiation made by the company but that no such a thing as a distinction between channels exists for a customer.

Integration versus development

As Hybris, IBM and some others, Oracle proposes ATG pre made stores, but named "Customer Reference Stores". They are made to avoid the creation "from scratch" that requires usually a more project oriented management. Reference stores allow a quick integration by customizing an existing shop, developed in the best practices by the core team. A second version of this Customer Reference store exists, the B2B one.

This system is also a tradeoff between a totally tailor made approach and a quick time to market. The time required to be online with a Reference Store is around 6 months where a global commerce system can require a year of work or more, depending on the level of maturity of the client.

"The Reference Store is multi lingual, multi country, multi currencies and integrates most of the classical features of both ATG & Endeca."

Endeca: a sniper shot

When Oracle acquired Endeca, no doubt that both Hybris and IBM felt slightly upset. On top, IBM already saw Oracle acquiring one of the cornerstone technologies of its strategy: Java… But regarding the precise niche of e-Commerce, buying Endeca was a chess master move from Oracle.

Hybris was working intensively with Endeca and numerous large customers wanted to go beyond the embedded SOLR capabilities in terms of faceting. The same applies for IBM but big blue already had worked on a deeper integration and customization of SOLR, bringing better capabilities. Anyway, when Oracle bought Endeca, it somehow cut the possibilities of long term collaborations between these entities, or at least Oracle gained a larger control over how Endeca can collaborate with Hybris and IBM. Up to now, it seems the product is still available to IBM & Hybris when the customer wants it, but to be honest, when a customer imposes Endeca, Oracle is

probably instantly made aware of an e-Commerce project where it can compete with ATG.

Endeca and ATG now share the same building in Boston, allowing for a deeper interaction between the teams. They are all in touch with the mother company Oracle, providing Retailer solutions like back end, Databases, ERP and much more.

Before Endeca, Oracle created customer personalization through technic, now with Endeca, it creates personalized user experience through all the previous consumer experience and through the crowd wisdom.

Endeca: the ultimate personalization tool

If so many key customers were using Endeca in tier 1 (Hybris, WCS and ATG), it is most likely because this solution was the best for searchandising, customer experience and faceted navigation.

"After two years of work, Endeca is now totally fusion with ATG, in a nice, borderless, integration."

This is where you can tell that Oracle is both experimented in software edition and company acquisition because having such a perfect integration can only be the fruit of experience and work.

In a world where Amazon is a massive leader, e-Commerce solutions needs to bring differentiation axis. "The customer experience of Amazon is not that exceptional" (so they say) hence, the strategy of Oracle is to maximize this point. The pivot is to deliver an advanced customer experience along with retaining the customer on the long run (especially when you see nowadays cost of customer acquisition).

Endeca has a multi dimension management of the catalog, somehow close to Magento's EAV model.

The exchanges can be made in JSON, with XML messages, making this solution a very versatile and easily accessible one, in any language. So not only the system is good by itself but it is easily extensible with other programming languages.

The role of Endeca is to provide all the personalization features that Oracle sell in its e-Commerce suite. No matter if the visitor is a newcomer or a regular visitor, Endeca will catch its information and be able to provide the right product using different strategies.

If a known visitor comes to the website, Endeca will check his buying history and the information it stored regarding the profile of the visitor. The displayed products will

then appear according to the taste of this customer and along with marketing rules. This is the inside-out method.

If the visitor is unknown, the marketing method applied will be outside-in. Edenca will try to understand how the visitor came to the website (where from, using the referrer and URL parameters), what kind of keywords he typed on Google, the way the visitor surf into the site, the way he looks at the products and then displayed items will adapt to this unique customer behavior, step by step.

When enough data have been gathered, it is possible to create business rules that will match the content of the website with the visitors' profiles. This feature is really great as all e-Commerce professionals know that providing right contents at the right time to the right customer is one of the most difficult aspect of e-Commerce. When a website can personalize all the contents according to the taste of the visitor, the conversion rate should mechanically soar. The templates can be dynamically modified on specific triggers, referrer, channels, dates, segment, device used, or by component, locations or else.

"Endeca is not a fully automated tool though and work need to be done and updated, but it provides a great framework to "morph" the site content to the user typology."

Rules than have been triggered by the system can be audited to check the reasons and quickly correct it in case of incorrect behavior.

Below are screenshots of a personalization process on the ATG and Endeca demo stores. We had the chance to participate to a live demonstration and what struck us was the ease of use of all Endeca features. As an example, on these screenshots, you can see all the steps to setup the display of some specific pants on the home page just for the «Thirtysomething» group. This behavior can be setup in minutes and used for critical periods such as Christmas for example. The
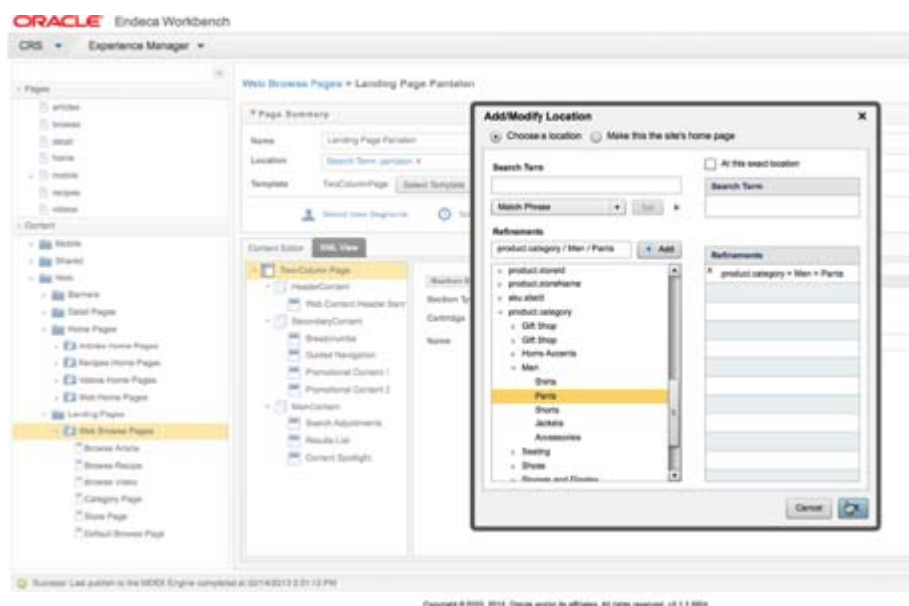
eMerchant can setup different home pages for several groups: men, women, men around 25 years old, women that only buy pants, etc.

ATG comes with Endeca built in (and really neatly integrated by default) and the product can (still) be bought aside, to integrate with another e-Commerce platform.

ATG Oracle
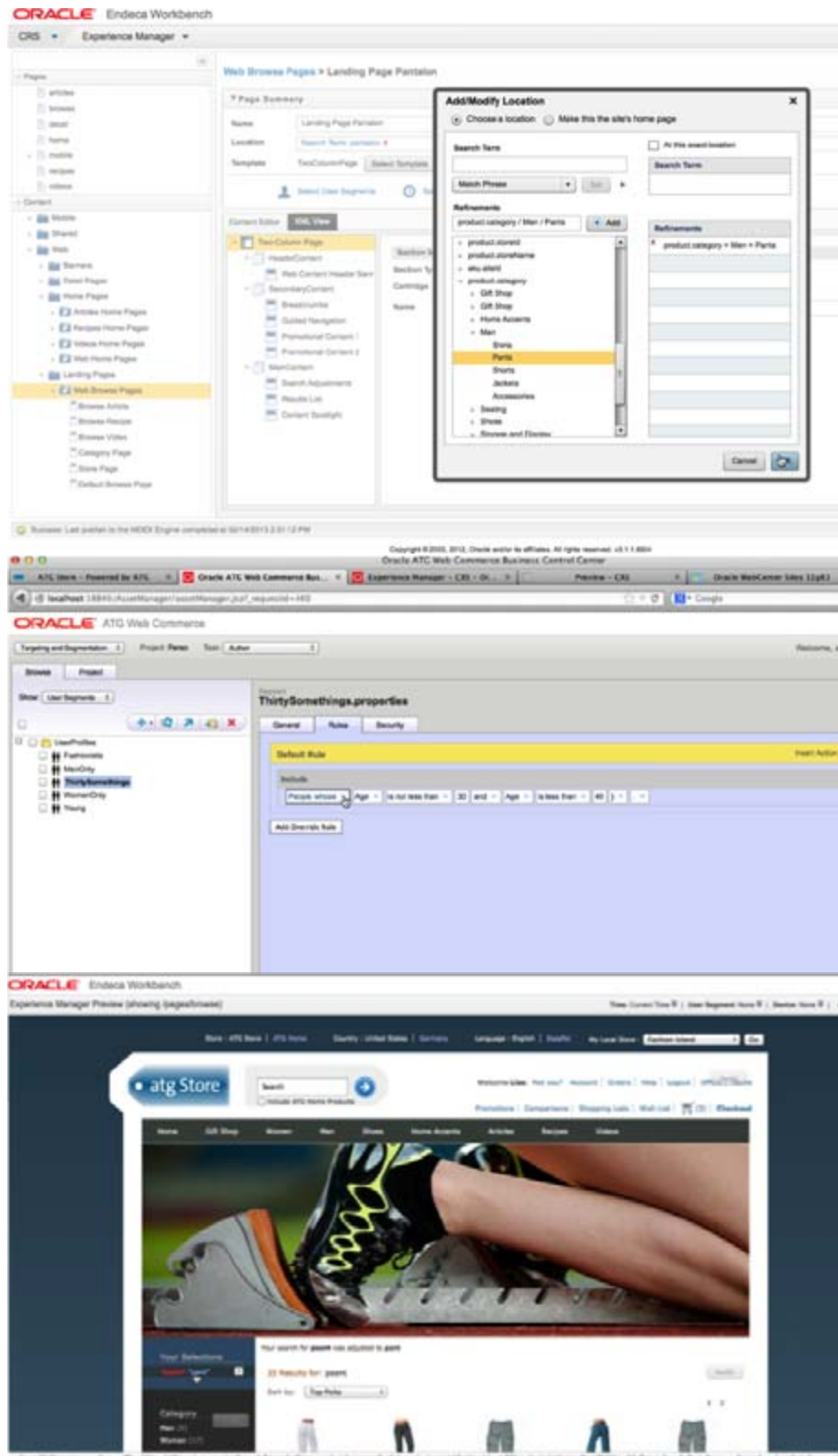
Multi & Cross Channel

One should call the product Oracle commerce and not oracle e-Commerce since the company, as most cross channel solution, the editor is willing to remove the barrier between e-commerce and «classical» commerce from the retail organizations. The "silo" of physical commerce and online commerce only exists on an internal organizational level and Oracle fights this logic by providing products in this direction.

In real life, customers are surfing between channels, collecting information on one, publishing an opinion on another and buying through a third one. In this context, "Channels" tend to be organizational barriers. Still, for the company, this borderless commerce implies some strong products to back this flexibility. Not a real problem for Oracle that counts thousands of products and specifically very strong ERPs to integrate the supply chain, logistic, billing, shipment, fulfillment, etc. Like IBM, the company software portfolio is very wide and Oracle especially owns several ERP solutions, for the biggest business as for the mid-size one.

The heart of ATG is multi-site since a bit more than a couple of years and multiple channels are handled like Web, Mobile, Call Center (embedded in ATG), Social and physical store. The latest release (10.2) offers a universal application for both Ipad and Iphone, we can regret that the Android SDK is not yet available for the current version of ATG but the editor will most likely solve this.

"Sephora and Louis Vuitton even manage in-store sales using the website on a tablet in their physical shops."
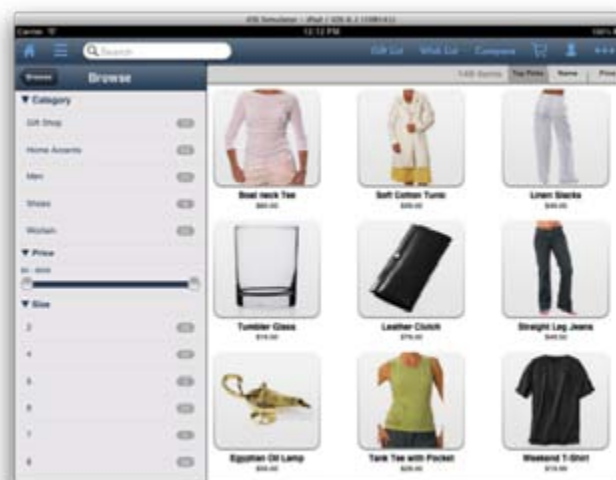
B2B

The 4 leaders of the Tier 1 & 2 are all providing high level skills in B2B.

No wonder why, these customers make meaningful turnovers, are requiring a lot of specific features and are consuming a lot of complementary products.

Hence, ATG has included some serious B2B features in its product. The B2C and B2B modules used to be separated but now, the product comes natively with both, most likely because the lines are getting blurry for many businesses, doing both B2C for their end customers and B2B for their resellers.

A specific reference B2B store is available, with specific command workflows, including cost center, allowances and limits, automated billing, recurring orders, order generations, and more. The personalization that is somehow the heart of the B2C experience is also available in B2B.

Completed with other components like eBusiness Suite, Siebel or DOO, the product really excels in delivering an efficient B2B service. The BCC (Business Control Center) allows the management of various organizations, contracts, users, approbations along with a dedicated pricing per customer, volume & tiered pricings, specific catalogs and way more.

A very appealing & scalable back office

During the demonstration, we really enjoyed the back office Console organization. It is not really revolutionary in terms of technology but the concepts are very interesting.

First, the console is always contextual. You don't have a herd of menus, sub menus and icons permanently under your eyes. Hence, you do not spend your precious time to search your way, the BackOffice shows only the interesting items you need to see in the context where you are. If you are editing the catalog, the visible items on screen only shows actions related to this task. After seeing a lot of various back office, the simplicity and the tidy aspect of this one really made a difference.

The console itself is based on Flex to be able to include drag & drop features. The drawback is obviously that you can't use it from a tablet. A bluffing feature is also embedded: the possibility to switch between front & back easily to preview a change you made. The interesting part is that you can rollback at any time, without the need for a preproduction environment. On the fly, you test a modification and you validate it or you rollback as simply as you would undo a manipulation in desktop software. You can also easily simulate a customer segment view or audit your marketing rules and the visual merchandising tool allows a nice visual edition of the frontend pages.

"The promotion engine is smart enough to be reactive and when a volumes in the Cart nears a threshold (like 98$ in cart vs 100$ for the promotion), the promotion will display."

The promotion engine is very close to Magento & WCS's one, complete and efficient. Nothing really unique, but the major points of a leader solution are all available.

The application server structure, common to all Java products, allows the back office to perform well, even if numerous actors are using it simultaneously. The system embeds clear workflows, with validation stages, multi user work, a rollback system, staging and preproduction.

The navigation is clear and simple, shop manager oriented.

The two consoles are separated (back office & sales) to allow better overall performances. The sales console is made in HTML and Javascript, using Ajax to allow sales from a Tablet. It is light and efficient, allowing hundreds of sales persons to use it at the same time without killing the system performances. And if you are a very large customer, with impressive volumes, Oracle will bring Exadata and Exalogic in the dance, it costs a lot but the results are not really questionable.

Complementary technical details

The software is, of course, multi store, multi-currency and the reference store uses JSPs. User profiles can be shared among all store views and the cart can also benefit from this sharing mechanism, the catalog can be filtered per site and the search bar provides auto completion by default.

On the performance level, we saw a demonstration on a standard laptop and Endeca was still very fast, giving the best hopes regarding the front end global performances. The fact that Endeca's engine is not in Java and is not using a database access (for the frontend view) contributes to these performances. (To administrate it though, you will need Java)

Framework

Oracle's e-Commerce platform is a set of different solutions called the Oracle ATG Commerce suite. There are several "root" components in ATG (all in the product by default):

• «Dynamo Application Framework» (DAF) provides the foundation layer of code necessary for running the e-Commerce platform on any server.
• Nucleus is a framework of predefined Java components and services that application developers can customize and use as the basis for building a Web site.

- Endeca is the searchandising and personalization engine
- Fatwire provide the CMS capabilities

You can then add add-on applications that maximize the framework's performances, on demand. The main ones are ATG Web Commerce Merchandising, Search, Business Intelligence and Service Center. If you want to know more about all the applications, we recommend you read this official documentation (*).

A **recommendations solution** is also available to assists the e-Merchant to display the right product at the right time by forming deep statistical relationships across the online store, product catalog and the shopper behavior. The products recommendations are then linked to these data and rather than being based on past purchases.

"The recommendations solution is just focusing on products whereas the personalization module enables to change dynamically the whole content of the website."

PIM & advanced product management

On the contrary of Hybris where the PCM (PIM) is a central component, included in the solution, Oracle and IBM provide side components to handle this work. The result is a higher cost but the PIM/PCM themselves are more advanced than Hybris's one.

As for WCS or Hybris, ATG has a very advanced PIM, covering all aspects of the problem and not only e-Commerce. The product is named "PIM Data Hub". Internally, in ATG, you already have an advanced product catalog, easily extendable specifically for e-Commerce.

Webservice & structure

ATG rely on an integration framework named Data Anywhere Architecture which allows interfacing various Datasource, using XML structures. DDA embeds:

- The ATG datasets (users, orders, catalogs, etc.)
- External connectors (Database, LDAP, HTML, XML) along with an advanced cache system
- A universal connector (Integration Repository) which allows to program a specific "custom made" connector in Java
- The global interfacing between the integration and the data model is fully XML based

The Webservice will allow you to interact with almost all of the ATG's component core features, namely: all datasets, user sessions methods, commands (create, update,

(*) http://docs.oracle.com/cd/E24152_01/Platform.10-1/ATGMultiApp/html/s0101introduction01.html

etc.) , pricing, promotions, inventories, catalogs, etc. The Webservice methods allows almost everything, one can update a cart, logout a user, poll a stock level or update any rule.

It is possible to extend this very rich Webservice by designing your own methods, through a wizard, to handle any object or call any method. On top, all of these services are also accessible in a REST mode.

The CMS : Fatwire

The CMS acquired by Oracle is named Fatwire but the integration in ATG, as for Endeca, is total. The global command center is named **WebCenter Sites**.
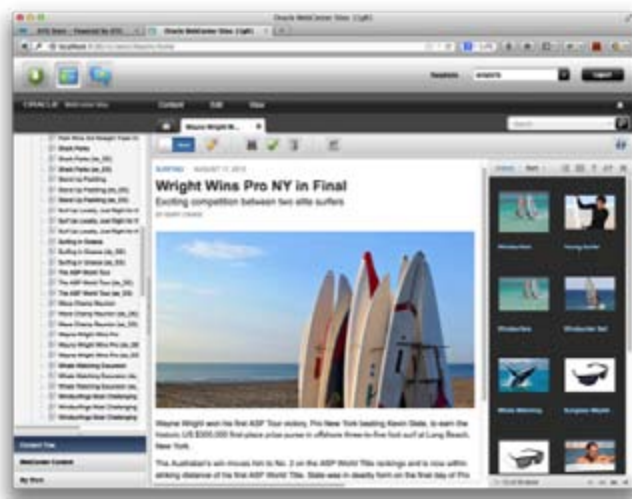

ATG also provides numerous "build in" default page layouts to animate the sites promotions. Oracle will soon release some whitebooks to help understanding the integration methods and procedures of an efficient template.

Endeca and the CMS are working tightly together, allowing the creation of pages containing both products and various items like documentation, video, images, etc. Landing the visitor to the adapted creation is then handled through **Endeca Experience Manager**.

"The editor is using Drag & Drop and is totally WYSIWYG. The various blocs composing a page are moveable using drag & drop and the contents are editable and auditable easily, directly in the context."
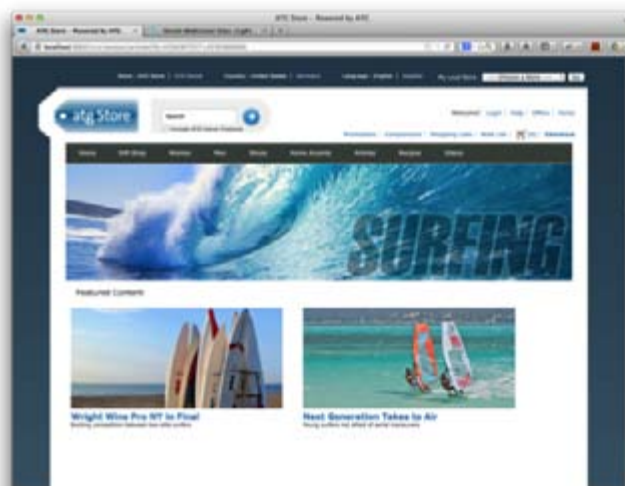
License model

The license model is very classical with an initial buying, followed by a yearly fee representing 22% of the global licenses billing. This system gives access to all new versions and to the support team.

The SaaS delivery and billing model is currently studied by Oracle, probably because the competition is clearly either heading that way (IBM) or has already made the step (Hybris).

But Oracle is already very « SaaS aware » since several of its product have already adopted this delivery model, like HCM (Management des Ressource Humaines) or some CRM product. The project is in motion; it will probably take some quarters to become final.

Currently, the use of the licenses is either billed on a per processor basis or on an application user one. Oracle is very transparent on its pricings (available publicly on the website here), this said, with the will of getting back in business and Hybris putting pressure to acquire references, there is probably room for negotiation.

Conclusion

Let's be honest : if you are not a Tier-1 (or a large Tier-2), ATG is probably not a logical choice. The editors focus its efforts on the companies making at very least a couple of tenth millions online if they target an exponential growth. On the other hand, if you are already above those figures, ATG is a solution you simply cannot ignore in a call for proposal. Even if one of the most expansive e-commerce software package, it is undoubtedly one of the most complete as well.

Regarding the time frame needed to launch an e-Commerce activity with ATG, it can be fast (6 months) with a pre-coded website. If the needs are complex, it can take a lot of time. The method consisting in the customization of pre-coded website is still in a very early phase. To be honest the experience seems to start now for Oracle. (Hybris has 6 months of experience in this direction and IBM roughly 3 when we write these lines.)

We could not really gather evidence of an embedded OMS (which Hybris offers natively and IBM delivers through the excellent (optional) Sterling commerce) but some tools exists regarding B2B, like eBusiness Suite, Siebel or DOO. If the OMS is important to your B2C business, the point has to be dug directly with Oracle's team during a meeting since we have found no real integrated solution to address that need in ATG. This is somehow intriguing since the solution aims to cover the needs of major retailers & brands as well as B2B. Any large B2C organization will face one

day the need for a Complete Order Management System, so Oracle is probably up to something on this precise topic.

Another known issue is the search engine performances on large catalogs. This point seems to raise the need for deep optimization and thinking, even if we had not the opportunity to check that by ourselves.

On the contrary, some points are made very easy by ATG, like the multisite / multi country / multi-currency deployment, which is very convenient and quick to put in motion.

You can buy any brick you want (ATG comes with Endeca natively though) in the portfolio. If your business requires a lot of the software Oracle can bring, the editor will bring architecture consulting and come with an adapted integrator.

The documentation around ATG is fantastic, very complete and can be found online easily. ATG integration black belts exists, just be ready to pay them dearly, as the need for them is great, the price are reflecting it.

ATG is an expensive solution, dedicated for high end customers. The corporation firmly intends to get back in the business in Europe, where it has been less active over the last years, losing ground to the greater profit of the newcomers. As IBM, Oracle seem to have used these two years of discretion to build up a deeper integration of its acquired technologies in a central framework, now the time for (re) building a global momentum has come. When it comes to Europe, the expansion of ATG implies now some local sales representative, a partner network and some real strong and localized support team to correct the image it previously had. But the storm is coming with the SAP/Hybris alliance since the new major power will try to expand quickly in Europe where Oracle firmly intends to be back. But worth, this new duet can also reach America in a more efficient manner than Hybris alone.

ATG Oracle synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	ATG
Turnover to consider the solution	> $ 10 / 20 million
Current market settlement	Tier 1
Editor direction	Tier 1
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,R,B2B
Opensource	No, Java
Editor emphasis	Personnalization
Editor emphasis	Merchandising
Editor emphasis	Experience in Tier 1
We are impressed by	Navigation & backoffice
We are sceptical about	Project timings, costs
Min budget to create site (developping from scratch / customizing an example shop)	500 K€ / 250 K€

General KPI	ATG
Cost of the solution (license, integration, hosting)	★☆
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★
Time to market (developping from scratch / customizing an existing example store)	★★ / ★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	★★☆
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★★☆
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★★
Eco-system (community, partners, integrators, forums, etc.)	★★★★
Backoffice friendliness & ease of use	★★★★★

Technical KPI	ATG
Development technical complexity (more stars => less complicated)	★★
Number of third party softwares / extensions / services available	★★★
Number of complementary product / services from the Editor	★★★★☆
Speed of the Front Office (customer web page rendering)	★★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★★★
Native CMS capabilities	★★★★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★☆
B2C Feature list (default, without add-ons or side programs)	★★★★☆
Mobile (Native App, Hybrid App, Responsive design)	★★★★

Advanced features KPI	ATG
Advanced searchandising & user personnalization capabilities	★★★★★
Multi / cross / Omni channel capabilities	★★★☆
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★★★
Integrated or natively interfaced OMS (order management system)	★★★☆
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★★★
Native B2B capabilities	★★☆

Intershop

INTERSHOP™

Belongs to	Intershop
Number of employees (worldwide)	530
Revenues in 2011	€50M
(ecommerce) Business model	eCommerce products (various business models), Professional Services, Full Service, Online Marketing
Licence cost	Pricing can be done by core/CPU by number of transactions or by online revenue. Perpetual license cost starts at ~€75,000
Technology	Java
Framework	-
Database supported	Oracle
Version (at the time of study)	Intershop 7.3 & Enfinity Suite 6.4
Licence	Proprietary
First release	1992
Origin	Germany
Budget to create a website (low/middle/high)	€75k-€100k / €500k – €800k / > €800k
Our merchant typology recommendation	Brands & retailers, B2B, department stores

Tier 4	Tier 3	Tier 2	Tier 1
Not targeted	Outsider	Strong	Outsider

History

Intershop is a German company established in 1992 and listed on the Frankfurt Stock Exchange. It is not only one of the oldest e-Commerce solutions around but also one of the few companies that resisted to the dot-com bubble in the late 90s.

The solution is used by large companies such as T-mobile, HP, Sun Microsystem, Smart, Tom Tom and many others. Intershop targets companies that are in the Tier-1 and Tier-2 only, their main competitors being Oracle ATG, IBM Websphere and Hybris.

"Intershop is a multi-national company with offices all around the world and it represent a force in the e-Commerce landscape."

The references acquired along with the image of a very experience company are assets that Intershop tries to leverage in order to be THE solution among the others. Large companies know that working with Intershop will cost money but they are sure that the job will be done in an efficient manner. The worldwide famous "German rigor" is the DNA of the company.

On the other hand, this image can also be a drawback because Intershop can be seen as lacking a bit of creativity. As often and as for Oxid eShop for example, Intershop is not the best in promoting its products, innovations or very big clients. Their competitors on the other hand, like Hybris, do everything to be seen in the media. When Intershop 7.0 has been released, the communication was not impressive at all and we did not really read something about it outside Germany… This sounds a bit odd for a solution having customers and users all around the world. However, Intershop is strengthening its Product Marketing team which will put more focus on positioning and talking about the great technology and platform Intershop has.

Now Intershop is facing a new challenge, keeping its place in the landscape when IBM and Oracle are back to business and Hybris is pushed forward by its new "friend" SAP. The worst news for Intershop being definitely the last one since Intershop and SAP are both German based companies, it seems more than obvious that SAP can easily attack Intershop's German customer with Hybris.

However, the integration into the existing SAP landscape will potentially take some time and Intershop might see this merge as a potential opportunity rather than a danger. SAP's known bureaucracy might slow down the business of Hybris, from product to marketing to sales, go to market, partner enablement, and most importantly the fast spirit. There is a possibility that many of the top-management and leaders might leave because of a loss of motivation. Talents leaving will additionally slow down the power of innovation for the Hybris platform.

A scalable product tailored for large players – the "3-tier system"

Intershop is a solution that provides an amazing scalability.

Capable of handling millions of products and processing tens of thousands of orders per day, Intershop solution is designed for major e-Commerce projects, having an international and multi-site strategy. A single famous brand is, for example, running no less than 25 Intershop online stores with millions of products, in over 30 countries and translated into 20 languages.

*"With 20 years of experience, Intershop continues to show impressive results."*

Here come some other impressive statistics, given to us by Jean-Claude Noguès,

a French reseller of Intershop. One of his clients, La Monnaie de Paris (the organization creating the French euros and collectible coins / medals), is making up to 10 000 orders/hour when a new French euro is made available. Still according to M. Noguès, Intershop is really scalable as it is possible to add servers during activity peaks without limits, in a "hot plug" way. Intershop has been tailored for the biggest and some of the major clients of the solution are doing 5 orders/seconds every day!

In total, if we put all Intershop customers together, they are running websites in 75 countries, in more than 50 languages, serving an impressive 1.5 billion pages and displaying over 250 million products, which are viewed 715 million times, per day... That translates into 1.3 million orders and sales accounting for 200 million euros – every single day on average.

The 3-tier architecture (web tier, application tier, data tier) designed by Intershop is one key to the high scalability of the solution. This system allows each individual tier to be scaled as required, through a caching mechanism that ensures consistent speeds and reliable response times. It is, in a way, comparable to IBM's design in WCS, except that the "Hot Plug" capability is here unique. (NBS System is the only managed hosting company able to provide this type of hot plug platform extensibility for Magento, but due to internal R&D and not product native capability like in Intershop.)

The 3 applications have their own mechanisms and are designed to be optimized in what they provide. The web tier manages the cache system and page serving, checking what can be static and what need to be dynamic. The application tier runs all essential tasks, from generating pages to querying delivery information in the shipping system. Finally the data tier is split into a relational database and a shared file system, handling the data repository.
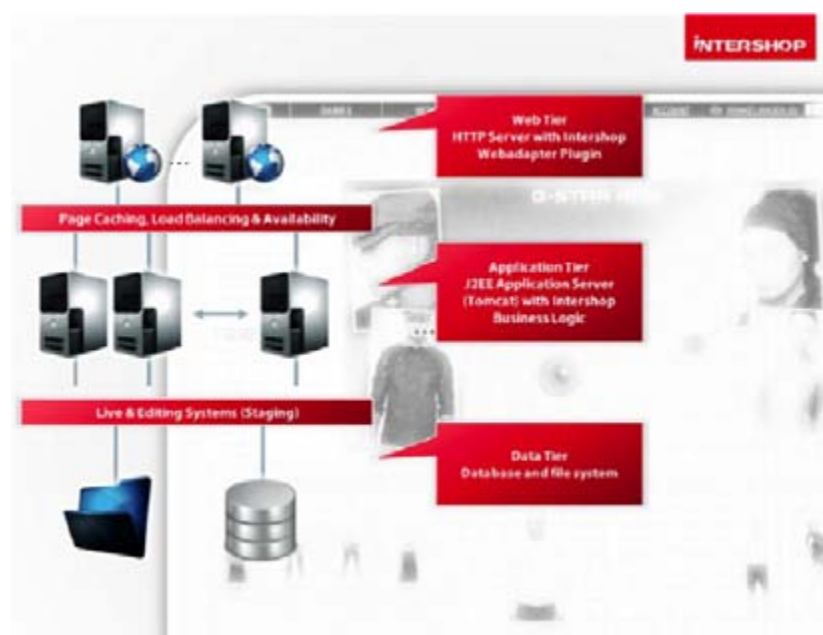
Intershop decided to do a "division of the workload" in order to develop specific optimizations on each level, which allows the solution to be robust and reliable when a traffic peak shows-up.

The illustration above shows Intershop architecture's segmentation, anyway common to all Java frameworks.

The Multi-Touchpoint Application framework

"The Multi-Touchpoint Application is the cornerstone of Intershop's multichannel strategy."

Intershop is dedicated to large international projects that require high technical needs and a platform able to manage many complex issues within the global scope. Thus, Intershop has developed a "Multi-Touchpoint" Application framework (see image below) that helps companies optimizing their whole Information System through a segmentation of the organizations, applications and repositories.

The Multi-Touchpoint Framework enables merchants to add easily various touchpoints, assign them to the organizational structure and access repositories that hold different data domains and content types. Touchpoints and data can be shared across regions, segments or brands. Functionality preferences and workflows can be configured based on specific requirements of a touchpoint.

Looking ahead, the goal is to arm business users with a visual tool that enables them to model and configure the complex Commerce environment consisting of different organizational structure, touchpoint applications and data repositories.
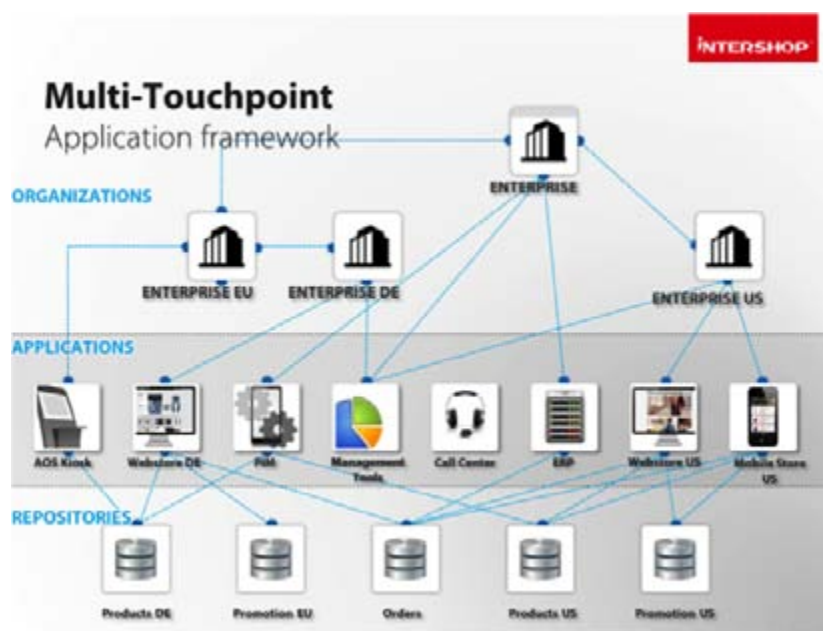
Searchandising and merchandising

Intershop has several interesting search features that are included in the standard version of the solution.

• Searchandising

Intershop offers a search services framework which easily enables the integration of different advanced search engines. Intershop has so called adapter cartridges which integrate SolR and FACT Finder. Other search engine provider can be easily connected like FAST or Fredhopper. Here are some features of Intershop's searchandising.

The interface provides a standard pipeline and template set to add a guided search function to an Intershop7 storefront. When a user submits a query to the simple search, a set of filter attributes is presented along with the results. The filter attribute values can be used to refine the search, hence narrow down the result set.

The search services interface can be used to implement a dynamic navigation. Dynamic navigation facilitates catalog browsing by indicating for each category how many products the individual categories and sub-categories contain. Intershop also provides a dynamic recommendation function that offers possible completions for search term fragments while typing the search term.

Finally, with integrated Solr technology Intershop provides flexible and intuitive browsing with faceted navigation and keyword search capabilities. Using faceted navigation, shoppers can narrow and broaden their search results based on specific combination of attributes that are important to them. This allows quick browsing of huge product catalogues.

• Merchandising

Regarding the merchandising and recommendation, Intershop offers a feature called Intershop Advanced Recommendation Engine based on Prudsys RDE solutions. Prusdys is a German modular real-time analytics software that developed a Real-time Decisioning Engine (RDE). Prudsys is working with IBM, OXID eSales and Hybris as well.

"Prusdys RDE enables comprehensive optimization and sales process personalization at all customer touchpoints, without manual intervention."

It converts data obtained from real-time analysis into personalized product and information offerings, a process that also enables the creation of individual recommendations for anonymous website visitors. Depending on sales objectives, the recommendation function can also be used to dynamically set prices in order to boost margins.

Interhop's application architecture

Intershop has a seriously different philosophy in terms of development compared to most other solutions. This Eclipse-based development environment is called Intershop studio, in which developers translate all their logical process and workflows into a graphical user interface. According to Intershop users, this method is really a gain of time when it is mastered. For sure, people have to be trained but this atypical approach allows developers to free their mind when it comes to logic of development as they can try, test and optimize their thoughts almost "live" through the IDE.

This development method still implies that the developers have an understanding of the concept at the root of the product, but it then enable them to translate their thoughts directly in a graphical interface instead of coding. A very positive aspect of this method is that coding mistakes are less usual since developers do not have to code day and nights to develop something complex. With Intershop, they rather have to think how to put together the visuals components in the Visual Pipeline Manager (VPM) in order to create something logical. Then, Intershop Studio automatically generates the corresponding Java code, impressive!

To better describe this touch of magic, the illustration below shows the layers that are part of the application architecture. The process starts with the business object mapping and goes then to the pipelets and pipelines managers in order to be translated into code through a visual interface. All end up in the the presentation layer that displays the web page in HTML with templates and style sheets.
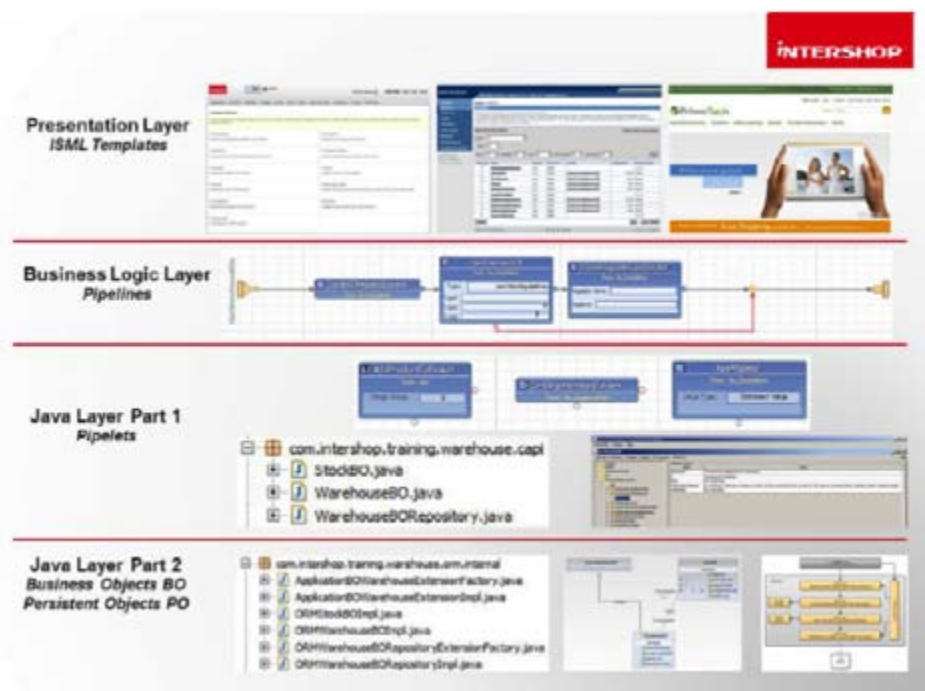
• **Business object layer**

First layer of the architecture, the business object is where Intershop 7 is configured, adapted, and expanded. This interface enables eMerchants to map entity objects together with their attributes and relationships through an application interface.

• **Pipeline layer**

Pipelines are at the center of Enfinity's ability to separate business logic from code and web design. A pipeline is a logical model of a specific business process. Each pipeline consists of a number of "pipelets" (comparable to conventional Java servlets and providing a specific functionality), which are used to model a complex business process. A unique feature of the development process is the use of a graphic editor in Intershop Studio to manage, create, and modify pipelines.

• **Pipelet layer**

A pipelet is an individual program element with a specific and clearly defined business function, such as "get the price of this product" or "show which categories this product belongs to." Pipelets are Java classes that divide the functionalities provided by the business object layer into small, reusable components. Each of these components has its own discrete function, which can be used in different pipelines.

• **Presentation layer**

The last layer of the architecture is made to "present" the developments that have been made. It shows the final results in HTML pages and allows seeing how a page can be structured through Intershop studio. Templates and style sheets are the mains tools on this layer. Style sheets specify how pages and static content are displayed. In addition, templates can contain Intershop Markup Language (IML) statements and expressions that provide dynamic content relating directly to the particular session or visitor (shipping information or personal profile data). These tools, mixed with Intershop's architecture, enable eMerchants to create various pages with a single template. The IML also allows pseudo dynamic content, the inclusion of a dynamic bloc, in a static content, optimizing the performance.

"With such an architecture, an Intershop based project is around 25% of specific development and 75% of the workflow customization can be done without touching one line of code."

This model dates back from 1999 and it is one the greatest strengths of Intershop. Intershop does not provide accelerators or kickstart stores such as IBM or hybris but this development model reduces the requirements in terms of time and total budget. This is why Intershop commercial proposals can sometimes be very competitive pricewise.

Product Information Management

Intershop's clients are among the biggest brands in the worlds and the solution is known to be one of the best in B2B. As a result, Intershop has its own Product Information Management (PIM) technology which is really interesting.
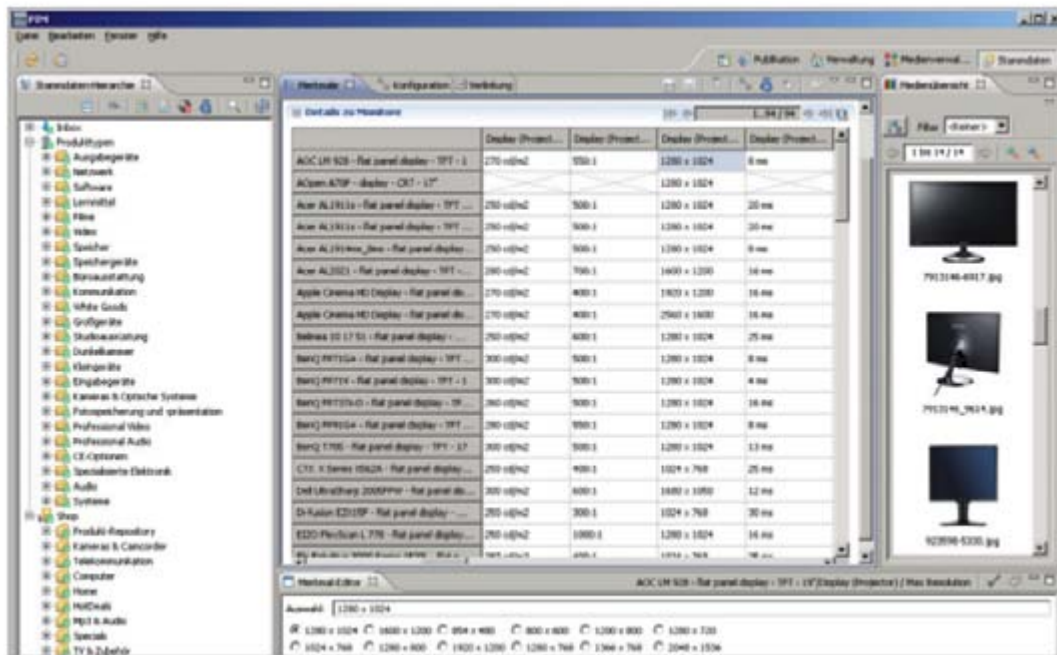
When managing thousands of products, the printing the company's catalog can be a nightmare. With Intershop, all the product information are stored and centralized in a single instance which gives the ability to publish information to each of the channels and automatically generate print content.

The structure of the PIM is pretty simple. The shop manager has to define product types, attributes and substructure for the products. Then, if an information changes, it will be easy to change it on the whole list of products as data quality is assured.

Another great asset of Intershop's PIM is the ability to import data directly from an ERP. It automatically analyzes import file formats and merges them with the data model in Intershop.

"The PIM will translate the information he received from the ERP into Intershop ones."

Mobile commerce

Regarding mobile commerce, Intershop has a dedicated feature, called Intershop Mobile Connector, which uses Sevenval FIT technology. This technology allows e-Commerce stores to be accessed via any device (PC, Tablet, smartphone) through

an automatic scan. The store adapts its contents according to the applications that use the client: not only with the OS but also with the browser, screen resolutions, special requirements of touch displays, keypads, scroll wheels and pens.

This native responsive design is a good point for Intershop. It can really reduce development time if all the pages are designed in a way to adapt all the devices. After the development, everything is automated and it is much better than a full responsive design that tries to fit all devices. Intershop chooses to deliver unique pages in order to provide custom-tailored shopping experience.

Intershop also offers its own mobile commerce platform solution. Based on the RESTful API of Intershop's platform, it is used to support native apps, mobile websites, WebApps, Desktop Web, Terminals etc.

It is also important to know that, with Intershop, data is consistent across all touchpoints. User can apply the same login data for all applications. He can see the same product data, the same prices and promotions, and share baskets. The user can for instance add products to a basket via the mobile App and checkout by using his desktop.

Furthermore Intershop offers a reference mobile site which is based on mobile specific JavaScript frameworks, JQuery Mobile and HTML5. The reference templates and content can be used as an accelerator for mobile commerce projects. Next to its platform solution Intershop supports many 3rd party technologies such as Sevenval and Mad Mobile.

CMS

Intershop's CMS provides all the necessary features for IT and business users. Rich media content can be administrated and managed within the CMS and it supports live WYSIWYG editing for non-technicians.

Template variations for categories, products, user groups or segments, promotions or A/B testing can be created and managed by business users without any code deployment required. Changes and dynamic content done with Intershop studio in the application architecture can be previewed in the CMS.

B2B

The B2B model is the historical activity of the solution and built its success on this model. Hence, Intershop provides an amazing list of features for B2B, actually the most complete of all solutions we analyzed so far.

Intershop has stores in 75 countries and is translated in more than 50 languages. The solution fits the requirements of large companies who need e-Commerce stores in many languages for all their international clients.

The solution has the ability to adapt itself to the business model of its client. There is no preconceived model for e-Merchants as the B2B is quite complex. Intershop's features and flexibility in B2B allows the solution to fit almost any complex architecture the customer can have.

"HP, one of the biggest clients of Intershop, has to manage 17 languages and more than 40 currencies through a complex and unique B2B model built with Intershop."

As business buyers demand for a similar purchasing experience like individual customers – relevant content, user-friendly tools and convenient ordering – Intershop offers a centralized Commerce solution that allows merchants to manage both customer types and business models (e.g. B2B and B2C) from a single platform. Therefore, Intershop's Commerce capabilities such as Search and Navigation, Web Content Management, Product and Catalog Management, Checkout, Shopping Cart, Promotions, SEO and others can be applied for both B2B and B2C. Nevertheless there are requirements that are unique to the B2B segment such as Customized Catalogs and Pricing, B2B Customer Management, My B2B Account Dashboard, Quick Order, Order Templates, Order Approval, Quoting and Punchout that are specific to the needs of B2B organizations.

Centralized Intershop 7 Commerce platform enables B2B organizations to create and manage multiple customer types such as 'individual customer', 'business customer' or 'punchout customer' within Intershop's Business Management Console. Also multiple users can be assigned to a specific customer type. Using prebuilt templates an unlimited number of store sites can be created and configured easily for addressing different customer types. Those sites can share content and can be managed centrally. In addition Intershop opens up its platform and exposes extensive Commerce capabilities to enable B2B organization building and managing multiple selling touchpoints such as online stores, mobile-optimized sites or mobile Apps, call center tools, POS kiosks and other.

Intershop's Strategy

Intershop is one of the oldest e-Commerce solutions on the market but we do not really see the team during professional events and official communication across the borders of Germany.Intershop has no subsidiaries in France and in the United Kingdom. Some companies are resellers of the solution but there is no real deep strategy or help brought to them locally. It is regrettable since Intershop is a solution that large companies mightbe interested in, all over the world.

The resellers try to be visible on their markets but they fight against other more visible solutions and sometimes even with each other when an eMerchant is interested by Intershop.

Intershop has to do something, at minimum in Western Europe, because the solution is more and more seen as a sleeping while its potential is impressive and its competitors aggressive. Also, the German company mainly focuses the US market and Asia and has left aside Western Europe, opening the door to its competitors. The team seems to have a bit of a "glass cockpit syndrome", nested in its tower of Jena (German city) since it is a bit distant from the very quick changes happening in its market.

Intershop drawbacks

Intershop is dedicated to a few potential customers only, as usual the top 1000 world biggest retailers. The solution is undoubtedly powerful but the team does not really provide communication or marketing effort in order to tell the world what exactly it is able to do. For instance, the sales team thinks that having a Product Information Management (PIM) is something usual or the possibility to change the frontend without efforts is something common. Thought by engineers, grown by engineers and led by engineers, it seems the company has some room for improvement regarding Business and marketing strategy.

Intershop knows that its business philosophy has to be change in order to be better equipped against its far more extraverted competitors. When we see that Magento is capable of creating an event like Imagine e-Commerce (and make profit out of it), other bigger solutions look way smaller. As another example, the presence of Hybris in the media and online has been sustained the last couple of years, leading to a real hype. IBM and ATG bet on their already existing networks inside the targeted companies to be able to impose their solutions.

This point is now a development key and Intershop knows the "low-profile" strategy cannot be held any longer. The editor is now trying to improve its partnership program and wants to be more visible on an international scale. The goal is to show to the competitors that the solution has many years of experiences and the teams is ready to fight against the newcomers, eager to eat a slice of the Tier-1 and 2 pie. Because not only IBM and Oracle want to be back, but Hybris is taking shares in this place and Magento firmly intend to ascend to Tier 2. When the weather gets stormy like this, the strategy will play a fundamental role, especially with SAP's recent acquisition of Hybris.

The last drawback we identified regarding Intershop is the fact that the solution integrates Oracle database only. According to Interhop's specialists, Oracle's database is expensive and complex to master even if it is a very powerful tool.

only. According to Interhop's specialists, Oracle's database is expensive and complex to master even if it is a very powerful tool.

From what we know, Intershop is the only Java solution that works only with one database (even ATG supports MySQL). It clearly reduces the scope in terms of cots optimization and imposes to have an Oracle compliant information system. Interestingly enough, this is also a way for Oracle (which owns ATG), to know when and where an Intershop project is planned. However, regarding the scalability aimed by the solution, this choice is somehow self-explanatory. Still, we asked them the question and and Intershop answered that Oracle provides Hot Backup/Standby facility and Clustering Mechanism and finally it has a rock solid performance and its management makes it almost rookie-programmer proof.

Intershop's flexibility costs

Intershop offers the customer flexibility in regards to infrastructure support, deployment scenarios and licensing models.

The pricing can be done by core/CPU or by subscriptions by number of transactions or by online revenue. The platform can be rolled out into the customer's datacenter, into Intershop's own datacenter (SaaS, e.g. our full-service customers) or into a 3rd party private or public cloud. The deployment can be done on-premise, in a hosted environment or in a hybrid environment.

Intershop lets you start low risk (transactional/revenue based model) and at the point where transactional pricing starts to create Operational Expenditure which is too large for the business, you can switch to license ownership model. In doing this you can trade in some of the investment you have made in transactional/revenue based fees so you get the best of both worlds. There are no penalties or technical implications. The same applies for infrastructure and deployment

Conclusion

*"**Very competitive on the B2B needs coverage, with many core features and brilliant case studies with clients such as HP, Merck or Deutsche Telekom, Intershop is a leader in this area.**"*

Intershop is a mature and complete solution that provides features for high technical and international projects in Tier-2. One issue of Intershop is the gap between its B2B and B2C features.

It is a powerful and very mature e-Commerce solution that needs to be considered when it comes to think about a large e-Commerce website.

However, Intershop tries to catch up its lack of innovation in B2C compared to other solutions and this is why the new version of the solution (Intershop 7) was designed to improve this point. The multi-channel framework (called multi-touchpoint) for the multi-channel strategy is one of the new features that Intershop focus on in order to strengthen the B2C side. Besides, the PIM, the searchandising and the merchandising features have been greatly improved. Still those tools are less iconic than Hybris PIM, WCS Precision Marketing tool or ATG Personalization system (Endeca).

The market will become very competitive for Intershop in Germany (specifically with the arrival of the SAP/Hybris couple) and worldwide with IBM & Oracle maneuvering while SAP will try to acquire more and more accounts in e-Commerce, with a very interesting joint ticket with their ERP.

We found that Intershop studio and its application architecture are impressive and can greatly reduce the costs of development for eMerchants but also the time to market, as usually JAVA projects can have development cycle between 6 and 12 months, at least.

Intershop is a powerful solution. It has to be said and said again. It suffers from a huge lack of communication and more and more people see Intershop as an "has been" e-Commerce actor while it is one of the most respectable one.

His founder is also the one who founded Demandware later on ! Intershop has many assets and some of them are top rated among our KPI's list but, for the e-Merchants, the issue we can think about right now is the ecosystem. There are not so many well-known Intershop integrators and the only ones who still trust on the solution are tempted to specialize on hybris as it is the blooming solution right now. Intershop has to be back in the game, quickly and with strength since it is now in an unstable position instead of impersonating a naturally leading one.

InterShop

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Intershop
Turnover to consider the solution	> $ 5 million
Current market settlement	Tier 1 - 2
Editor direction	Tier 1 - 2
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,D,R,B2B,Pv
Opensource	No, Java
Editor emphasis	Experience
Editor emphasis	Scalability
Editor emphasis	B2B
We are impressed by	The code generator
We are sceptical about	Lack of market awareness
Min budget to create site (developping from scratch / customizing an example shop)	400 K€

General KPI	Intershop
Cost of the solution (license, integration, hosting)	★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★
Time to market (developping from scratch / customizing an existing example store)	★★★☆
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★
Eco-system (community, partners, integrators, forums, etc.)	★★☆
Backoffice friendliness & ease of use	★★★★

Technical KPI	Intershop
Development technical complexity (more stars => less complicated)	★★★★
Number of third party softwares / extensions / services available	★★★
Number of complementary product / services from the Editor	★★★★
Speed of the Front Office (customer web page rendering)	★★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★★☆
Native CMS capabilities	★★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★☆
B2C Feature list (default, without add-ons or side programs)	★★★☆
Mobile (Native App, Hybrid App, Responsive design)	★★☆

Advanced features KPI	Intershop
Advanced searchandising & user personnalization capabilities	★★★☆
Multi / cross / Omni channel capabilities	★★★☆
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★★★
Integrated or natively interfaced OMS (order management system)	★★★★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★★☆
Native B2B capabilities	★★★★★

Hybris

Hybris

Belongs to	SAP
Number of employees (worldwide)	approx. 58 000 people (estimated)
Revenues in 2012	~€16 billion
(ecommerce) Business model	Products and services
Licence cost	From 150 K€ for an omni commerce platform including Hybris PCM, Hybris Commerce (B2B or B2C), Hybris Customer service, Hybris OMS, Hybris WCMS, Hybris Accelerator, Hybris Mobile
Technology	Java
Framework	-
Database supported	Oracle, SQLServer, MySQL
Version (at the time of study)	5.0
Licence	Proprietary
First release	June 2002 (belongs to SAP since june 2013)
Origin	Swiss
Budget to create a website (low/middle/high)	€100-200k / €500k / > €500k
Our merchant typology recommendation	Brands & retailers, B2B, department stores

Tier 4	Tier 3	Tier 2	Tier 1
Not targeted	**Trying**	**Leader**	**Breaching**

Who is Hybris ?

Hybris, dynamic player in the market for over a decade, had impressive results in terms of growth and performances lately. With an unrivalled experience on best practices (through hundreds of projects) involving catalog and product management systems, Hybris has gained ground among the leading European e-Commerce solutions.

"The company founded in 1997 in Munich has experienced growth for years, until it caught the e-Commerce wave and started to soar a couple of years ago."

Nowadays, whatever criteria you examine Hybris under; you will probably find it very successful, as their investors that recently injected $ 30 million.

Better even, some month later in June 2013, Hybris was acquired by one of the biggest software

in the world : SAP. With similar culture, language and mindset (Hybris is a Swiss based solution), Hybris and SAP were naturally compatible. SAP will reinforce Hybris positions by providing key entry points to the major accounts it already work with and also reinforce the software foundations with it database and, mostly, its world-wide famous ERP system.

ERP is already a central element in an e-Commerce strategy that Hybris was missing anyway to rival with the dominant players: IBM & Oracle. This is now history since in few months this part will be covered by the king of this specialty: SAP. This great wedding is forging a new super power in the world of e-Commerce.

As success rarely happens by chance, at Hybris, CVs of experienced people are the norm. Most of the top managers made their experience in major software companies (Sales force, SAP, etc.). They usually stack years of practice and a large personal network. Their recipe for success: expertise, references and software that can handle complex project and volumes without flinching. Another noticeable fact is the recent recruitment of Brian Walker who formerly worked at Forrester. This transfer cast a bit of suspicion around the objectivity of Forrester's analyses on Hybris but this makes one more very knowledgeable manager in the company.

We used to consider Hybris as mainly a Tier 2 player in our previous release of this book, but the solution made its way to Tier 1 and Hybris is now a player to be considered, even in the biggest projects like the recent signatures of Metro, Cosco or Samsung prove. The fact that it is now owned by SAP makes it even more obvious since the company is focused on the biggest customers as well.

On top of the ERP component, getting closer to SAP will also bring some synergies to Hybris, like a very good insight about customer relationship across channels with SAP Jam social and a real time analytic platform, Hana, with its in-memory database treatment system.

The "newcomer"

Oracle ATG, Websphere Commerce and Intershop, the three big leaders of the Tier-1 & Tier-2 were competing smoothly for years. They acquired massive contracts for international brands with no real dangers on the horizon. Competition was almost organized, at least known and even the appearance of Demandware was expected and dealt with. Everything was good in the world of Java solutions but one day, a Swiss team gently blown up the landscape of this smooth game…

Different strategy, different philosophy, experimented managers, serious product, Hybris caught them rather unprepared and accelerated very quickly. With its high level features, mainly targeting large customers oriented toward cross-canal, Hybris started to score meaningfully. Today, Hybris is perceived as "one of the three", with

Oracle's ATG & IBM Websphere commerce. They innovated in a segmented where nothing really new happened in the last couple of years and found their place with an aggressive strategy.

Initially, Hybris was mainly known for its Product Content Management (PCM), but by integrating an Order Management System (OMS) and implementing its multi-channel strategy, they quickly became a very complete actor.

However, keep in mind that Hybris is not the only solution that performs well in those features even if it is actually very visible and is most likely the one communicating the most, giving an impression of being the only one innovating on the market. That point underlined, the current hype around this solution has some serious ground to rely on.

The three pillars of Hybris

• Product Content Management (PCM), the Trojan horse

The Product Content Management (PCM) is the cornerstone of the solution and its strongest asset. Today, few solutions are able to provide such a complete PCM, especially in an e-commerce context. Some solutions do exist but currently few are natively interfaced with e-Commerce software (except the rising Akeneo). Hybris PCM is an ace card and is one of the main features that convince the biggest brands to include Hybris in the tender.

Product management concerns different channels and all related activities are associated with them: print, media, physical store, social networks, etc… Real trademark of Hybris, this specialization is precious to major brands that have to cope with millions of products and willing to frequently change over time.

"The content-centric approach can also be seen in the various "cockpits" of the solutions (management centers) which all nicely display extended information about the product when they are handled/seen/modified."

The main strength of the PCM is its ability to manage products in a very convenient way. As an example, let say a new product color comes in the catalog and the product needs to be updated. On top of being user friendly, the PCM will enable the eMerchant to update the new color on the website, all the POS but also in the printed catalog through a direct bridge between Hybris PCM and InDesign (Iquest. comet developed by Werk-2). This is pretty convenient when one knows the time it takes to update the contents of print files one by one. The PCM is a gain of time, so a gain of productivity, especially for the eMerchants that need to handle very large list of products. Also appreciable for the eshop manager, the PCM reports incomplete product sheet when it finds one to able quick correction.

Of course the PCM can handle bundle, rules, virtual assets and advanced, object oriented, attributes. The only potential slight glitch we can find is the tradeoff Hybris decided to do between size & performance. To avoid the pitfall of the EAV model (the one used by Magento for example) that force a lot of "join" queries to completely fetch all parameters of a product, Hybris works by default on a 100 column matrix. They are pre prepared whether they are used or not and duplicated for each catalog if a product is present in many of them, making the system fairly fast but a bit resource hungry when it comes to storage.

Hybris knows its PCM product is a strong one and among the five hundreds customers the solution claims, a bit less than a half have not yet adopted the e-Commerce solution but the PCM itself. The strategy to settle this first brick in a client environment to then convert him fully to Hybris software suite is a house specialty.

• Order Management System

Major e-Commerce solution editors tend to improve their system through acquisition of other technologies. We especially observed the Javas based solutions buying companies as they are the ones who have the most of cash. Hybris is no exception to the rule, with the acquisition of iCongo in 2011. This integrated order management system (OMS) was a strategic acquisition, aiming to add new features to the solution and then be even more competitive for all the major accounts that would like to choose Hybris.

"The OMS has been designed to optimize the global logistic process, a key to profitability and scalability, like Amazon demonstrated. „

One of the main features of this OMS is to be able to check the stocks from all the warehouses and point of sales, in real time, by status, item, stockroom, quantity, etc. With Hybris, the client sets the rules he wants to apply on its logistics (let's say emergency or costs reduction) and the OMS targets the right warehouse or point of sales (the closest if it as an emergency or a cheaper one to reduce costs) according to the geo-location of the client.

The OMS supports NoSQL over MongoDB (for performances and cost reasons), it embeds an advanced rule system to be able to price the delivery costs and automate the stocks queries depending on several factors. This brick is not separated of the global work and instead work in a global workflow, allowing the various preparation phases (picking, packing, labeling, expediting …) to be managed centrally. Slightly less complete than IBM's Sterling Commerce, the solution still provides a very complete and evolving framework, able to handle most exigent customers.

To avoid impairing the performances, the ERP and OMS are not directly bound together in a real time link; they instead work in an asynchronous way, which provides resilience to failure and slowdowns of the ERP backing the system.

• Multi-channel strategy

The global vision of Hybris is to become a solution that provides all the needs of an eMerchant from the item to pick-up at the warehouse when a purchase has been done on a phone or a website to the in-store physical delivery. All the channels must be covered and all the data have to be gathered in a central system called Master Data Management (MDM).

Anyway, beyond the current hype, the solution speaks about multi and cross channel since 2005 and it embeds real dedicated product (like the OMS & PCM) or bridges to enable the client success in this field, like the OCC (Omni Channel Connect). In the version 5, Hybris also provides an "instore manager", a tool allowing the merchant in a physical store to provide the customer with information coming from the site or even to directly make the sale from the physical point of sale like.

In other words, Hybris becomes the central layer of the whole e-Commerce system by gathering datas from online/offline channels, all the users and internal/external sources. With Hybris, you can pretty much connect everything you want. Hybris wants to be seen as an omni-channel solution that enables the omni-commerce by giving the customer a single view of the merchants across digital and physical commerce.

This can be resumed by this global graphic.

"According to M. Chemouny, Vice President Southern Europe and Latam of Hybris, "the multi-channel strategy is the DNA of the company, Hybris was born with it"".

Mobile

No multi-channel strategy would be complete without a Mobile management.

Here again, the shopper changed its habits and software editors had to cope with new usage. Hybris took, once again, the problem in a global and different approach. The need for mobility is growing in cities where it becomes more and more complicated to drive from A to B without facing hours of traffic jams.

Along with other thoughts, this led the editor to think of Mobile as a totally different channel that indeed needs to be managed centrally and harmoniously but with specific use. The content displayed is issued from a specific catalog, with an app that totally varies according to your typology.

Some brands are just displaying a catalog, other are handling massive catalogs to make your food supplies shopping and finally some are B2B… This denotes not only different use and needs but also different channels, customers, volumes, etc.

A brand will maybe need only a responsive design where a B2B actor will need a transactional App with less look but more performances & functionalities.

"Hybris is considering these aspects and provide an App for IOS or Android mobile but mainly a SDK to allow developers to make tailor made applications."

CMS

The included CMS is very decent, allowing for visual edition of the contents and some advanced features, without the need to call an HTML integrator. Besides, the CMS is the link between the data and the view, two distinct functions that need to work tightly together.

The CMS also allows, like most of Hybris components, a collaborative way of working along with a workflow. It permits modification, previzualisation and validation of the various updates.

B2B

The B2B is natively a good market for Hybris. With multi canal functionalities and centralized catalog management (including the printed version), the basis were there already. Pushing its advantage further, Hybris created some specific tools.

Hybris customers can delegate some functions to their own clients, like issuing de-

mands, creating quotation, managing budgets, creating recurring order, etc. It is also possible to manage rights for the various profiles, allowing for a tighter control and a larger delegation.

A dedicated B2B accelerator is also available, putting a bit more the accent on this specific feature. Intershop is still a bit ahead on this precise point, but the very important cross channel accent of Hybris makes it a natural contender on this segment.

Delivery model

Another great strength of Hybris is its ability to provide applications either on-demand, on-premise or in a hybrid way. This flexibility in the license billing enables the clients to try specific features of the solution and then to move from a more integrated solution.

• OnDemand

If an eMerchant needs just a few features or does not have the full budget to run all Hybris applications, he can decide to select some of them and pay on-demand. Hybris on-demand model is SaaS (already hosted) and a good way to try a new market or try an e-Commerce activity for a well-established brand.

"In the "On demand" model, it is a percentage of the turnover made online that is billed, with a monthly fee and a pay as you grow per threshold."

The pricings are based either on a "pay as you grow" or "revenue based" basis.The on-demand model allows to migrate to an on-premise or hybrid model, if the eMerchants wants to own all solution. This new delivery model of Hybris is clearly a way to compete Demandware and its on-demand SaaS model.

Hybris knows the complexity and the time it takes for a large brand to start a project so it uses this delivery model as a first contact with the client. This strategy is clever and it is one of the today's successes of the solution. However, beware that Hybris bet on your success in this mode and the reversibility of the contents (the fact that you can reclaim them back) is only possible under certain circumstances, tying the client to the solution until it reaches some threshold.

• OnPremise

On-premise means that you own all the solution and the pricing is based either on cores/CPU or in "pay as you grow". This model can also be chosen with the Hybris managed services if the client does not want to be in charge of the hosting or already have a partner on this topic.

have a partner on this topic.

The billing is calculating depending on the number of cores. The minimum amount is 100 K€ but the license is then perpetual, including the new versions (major & minor). The yearly recurring cost for maintenance and upgrade is ranging from 18 to 26% depending on the service level required.

During those integration projects, Hybris is now insuring itself the quality manage-ment to avoid issues that sometimes showed up in the past. Anyway, it is what the Tier 1 customers are expecting from a major player, and the On Premise mode is mainly made for them.

• Hybrid

The hybrid model is a mix between on-premise and on-demand. Here is a quote from Ariel Ludi, CEO of Hybris who explains the model: *"With the Hybris hybrid model, a customer can start with OnDemand and when they reach critical mass or want to have more control over certain aspects of the solution, they move that part to OnPremise. The customer is ultimately free where to make the cut between OnPremise and OnDemand and they can over time move more pieces to OnPremise when needed."*

Hybris can also provide a support on business plan for a new e-Commerce project and then provide the right features to the client. For instance, a brand can ask just for the PCM and, step by step, asking for more features as long as the website is growing. As a result, Hybris is involved in the whole project and knows all the clients' needs.

The pricing model is then based on the targeted turnover of the project at the begin-ning. When other solutions have very strict licensing models, Hybris made the choice to start slowly and do business hand in hand with its client through a powerful solu-tion that will make them grow.

The Accelerators

The partners are actually divided in two groups: the one working on the accelerators and the one doing integration. In France, for example, Decade and Business & Deci-sion are partners around Tier 2/3 accelerator integration where GFI, Keyrus and Sqli are working on "full integration", as Accenture (on a world scale).

An accelerator is a demonstration store, already fully functional, with a dedicated purpose like B2B or telecom. An eMerchant can choose to go with those pre-setup stores, enabling shorter timings before the go live. The time range considered varies from three to six months, which is a quick timing for a complete solution like Hybris.

The accelerator is a good way to get the best practices of the solution and to start an e-Commerce project from scratch in order to validate a business model before ramping up to a bigger version.

Instead of spending time in the redaction of a specification document, the Accelerators allow the customer and integrator to work only on the delta between what a specific accelerator already does and the customer needs. Due to the careful separation between the data model and its presentation layer, the accelerator becomes mainly a CMS, allowing quick integration and still enabling the customer to enjoy the full power of Hybris.

"There are several accelerators available in B2B and B2C depending on your market focus: electronic store in B2B, retail store in B2C, department store, telecom, luxury, non-material seller, etc. "

Accelerators stores are ready to be displayed on phones and the design customization can be done very easily which will lower the integration time and raise the success rate. Several Hybris' clients are still using the accelerators as their main e-Commerce website.

Even if the accelerator ties the client to Hybris in a way, it also provides a very meaningful access to Hybris capacities, for a lower cost. Every medal has to coins, but this tradeoff, if carefully assessed, can be a very interesting one.

The recent acquisition of Hybris by SAP may change slightly this point since the agenda of SAP is unknown to date. Will SAP bring Hybris to concentrate on Tier 1 customers mainly? Whether this will to be more accessible to middle class customer will survive this strategic change or not is unknown to the date of release of this book.

Searchandising and mearchandising

As all the JAVAs, Hybris has advanced features in searchandising and merchandising. These two marketing concepts are really important for Tier-1 and Tier-2 eMerchants. They allow optimizing the conversion rate (the Holy Grail in e-Commerce) by displaying the right product at the right time and at the right visitor.

In other words, the searchandising is the way to facilitate and integrate the search for an e-Commerce website. For instance, having many filters such as the choice of colors, size, product universe, and an autocomplete search that will understand what you are looking for and display products in a dynamic way is what we called searchandising optimisation.

Mearchandising is the way a website adapts its display according to the behavior, the purchases, abandoned carts, flash sales, etc. The website is fully dynamic and the marketing team can choose which products will be pushed with a specific time-

the marketing team can choose which products will be pushed with a specific time-frame. When eMerchants have thousands and thousands of products, this is the only way to personalize the contents just like when you shop in a physical store and you decide to go in the women department in order to buy something specific.

With Hybris, these two marketing concepts are managed with Endeca, a powerful solution that has been bought by Oracle ATG (see ATG part for more information about Endeca). Endeca is still a strategic partner for Hybris but this acquisition clearly weakens Hybris in these 2 fields that are strategic for all large eMerchants. What will happen if one day, Oracle decides to stop doing business with Hybris?

Hybris strategy

More and more brands are attracted by Hybris and we saw that the solution won market shares in Europe over its competitors. A quick view at the 2012 recent figures shows us the growth of the solution: +126 customers, +60% growth, total revenues above $M110 and a +200% increase of the revenues in North America.

Hybris wants to stay the fastest growing e-Commerce solution in terms of revenues and raised $M30 to do so. The exit strategy of the investor here was clear : the IPO. SAP buying the company finally offered them a quicker return on invest it seems. But whatever position you consider (investor or SAP) Hybris has to raise its market share and colonize new markets. This could also lead the company to "eat" a bit more of its ecosystem's turnover by making more things internally than currently, consolidating some incomes actually made by others. The company is already often considered to be a "solo" player by potential or existing partners but the need to massively grow its own turnover may amplify this perception.

Regarding internationalization, Hybris starts with a very solid background: Europe. Multi lingual, multi-currency, except maybe for the incomprehensible taxation system of the US, the solution already have experienced the complexity of internationalization through its European experience.

On the Tier 1 & 2 expansion, Hybris benefits from three proven strategies. The first one, we spoke about it earlier, consist in putting the foot in the door with the PCM. The second one is once again more about the philosophical approach. The presale action of Hybris is often related to the business plan itself. To put it short: "Tell what are your plans and I will establish real figures, leveraging your real potential on and offline, and we will build your business plan together". You like it or not, but the customer sensitive to this mindset can be quickly convinced. Last but not least sales team is focusing its efforts on precise target. They literally hunt the client they want to acquire and have a sniper method, not spending efforts uselessly on minor targets but focusing on key accounts.

The last method usually used was to practice very variable prices depending on the "value" and interest the targeted customer had to Hybris. But now that the firm has to leverage far larger incomes, this time of intense flexibility around the price grid for the Tier 1 & 2 may belong to the past. Anyway, on Tier 1 market, the solution often competes with specific development more than with other competitors, and in-house development is very costly, positioning Hybris as a good option anyway, regardless of a large discount rate on public prices.

But the growth expected by the investor cannot only be done by lowering the bargaining margins, doing more in-house and settling in new countries. The company has been very innovative regarding the licensing system and the cost billing, with a pay-as-you-grow system that allows it to look to a seriously large growth pool: the Tier 3.

What will it change for e-merchants? The Tier-3 is the core of the market where almost all solutions are competing. If Hybris develops a model based on the accelerators, even easier than today, where just a few customizations need to be done, there is a chance that Hybris become one the main e-Commerce solution leaders with a presence on 3 Tiers (1, 2 and 3).

Hybris has big plans for the future and the executives will do everything they can to conquer the market. We definitely have to pay attention to this solution because they will do a lot of announcements in 2013 and the new version (Hybris 5.0) will be just the start.

Once again, this strategy may evolve during the next upcoming months and years since SAP can change the direction, even if it seems unlikely since the two companies are reinforcing one another.

The Endeca « incident »

When Endeca was acquired by Oracle, this was a double bad blow for Hybris. Not only Endeca was Hybris exclusive reseller for the US but it was also powering most of its installation with its own searchandising layer. The relations are now different and Endeca is still seen in some Hybris installation but the future of the couple is no longer obvious.

This move from Oracle also forced Hybris to quickly find an alternative to Endeca when customers expose advanced search & merchandising needs. The team somehow solved the problem with a deeper integration of SOLR, but the urgency made this integration a bit less advanced than IBM's current one, yet.

It would make sense now that SAP acquire a company specialized in searchandising and personalization like FredHopper or Celebros, to complete the lineup and replace Endeca.

Progression margins

Do not count on the staff to tell you where the progression margins are located in Hybris.

They are as trained as politicians and you have to listen to what is not emphasized to find potential weak points in this super strong solution. But when you dare to confront the biggest name in the business like IBM or Oracle and want to compete with one of the most experimented solution like Intershop, you need to have an almost perfect answer to every point. It is also true if you want to cope with smaller merchants in the Tier 3 and Hybris, like everyone, has progression margins.

In the first place, Hybris needs to enhance its ecosystem, by enabling partners to work and win with the editor. Evangelization is obviously another point since many Tier 1 and Tier 3 are not yet aware that Hybris can fit their needs and, as every other solution, the framework needs to be known and mastered by developers to allow more customers to be delivered.

The caching of pages by reverse proxies and the caching system itself are not yet optimal, leaving space for performance improvement even if out of the box, the framework deliver very fast unitary page load. But one does not contradict the other since individual page rendering speed speaks for quality of the global engine where cache handling is more related to the cost of scaling. Right now Hybris is very fast in page rendering but can be optimized regarding its resource consumption to lower its scalability price. On the other hand we appreciated the fact that the tools have separated access to the data, and even different database sometimes, giving a good capacity to make several people work at the same time on the platform.

On the searchandising and merchandising part, the loss of Endeca strokes a hard blow and the product native capabilities can be enhanced. Still, nothing prevents the customer from adopting Endeca or other products like Celebros, Fredhopper or ordering a deeper integration of the native SOLR.

A less commonly known pitfall is the fact that, within Hybris software stack, there are two weaknesses. They are named Jalo and Impex. Jalo is a Java component (Jakarta Logic) embedding both data model and business logic. One of the main functions handled by Jalo is the session of the user, maintaining its parameters but the JaloSession object is not persistent. This poses numerous problems because the component is not maintained anymore by the community since 2001. It doesn't evolve anymore to adapt to new use or data structure and the Jalo is degrading the scalability of the platform, at least the cost to scale. Hybris thinks to replace the component by something more efficient and well maintained like Hibernator or JPA but nothing is done yet.

Also very intriguing, Impex, the layer used to import export (hence Imp-Ex) data. This way was used by old SGDB like Informix or COBOL, but it is definitely not XML compatible, it works in a CSV format. If your ERP or CRM is more evolved and work in XML (quite probably), a bridge XML -> CSV and CSV -> XML will have to be created. It becomes very complicated to use Blob / Clob (Binary or character large object). As well data which are intricate or hierarchized can become an issue. To palliate to this deficit, some customers are integrating a third party ETL like Talend, to match the two datasets.

Maybe also related to the relative freshness of the work, some integration went through issues and delays. The editor choice to massively orient the customers toward its accelerator was partly made to solve this point, as well as to conquer market shares in the Tier 3 segment. Accelerators being made by the core team, you have the certainty of a quality code and less integration hassles, which is a very constructive answer to the issue. Still, to be a Tier 1 & 2 player, your product has to be sometime customized to leverage the full potential. Hybris can do it, definitely, but as said before, the partner enablement will be a key.

To address these points and the also (mainly) the functionality roadmap, Hybris has a **Customer Advisory Board** which is the right place to express your demands to the editor in a structured fashion, something lacking to some other players like Magento.

Hybris & RBS Change: Two different approaches of the same question ?

Even if the companies are of different size, Hybris and RBS Change philosophical approaches of E-Commerce can be compared since they both have a multi/cross canal centric vision. Hybris point of view consists in a global integrated software suite than tends to handle as many points as it can. The vision of its cousin Change is to handle e-Commerce and let other softwares, usually already preexisting in the customer environment, do the job they are already take care of.

Change claims to be an e-Commerce software only, interfacing with others, where Hybris wants to be a complete modular commerce suite.

Complementary technical points

The solution is Java based and relies on frameworks for most of its components. It is definitely possible, if not recommended, to work with an IDE like Eclipse. The back office uses a XUL User Interface, allowing for a nice visual integration. Anyway, it has to be underlined that the back offices, even if not totally integrated with one another like in ATG, are very appreciable visually, with an "eye candy" presentation.

The mobile can be developed through a SDK. The webservice is very complete with

a full nomenclature easily accessible to develop side products, interfaces, bridges or services. It is among of the most developed we have seen so far.

Being a bit cut from Endeca by Oracle's move, Hybris have now to rely on SOLR to address the facets management and the searchandising, at least in the native version. The current integration of SOLR in Hybris is honest without being fantastic, but it covers the classical needs. If one needs to go beyond, in integration mode, it is possible to replace SOLR with a more advanced engine or to customize it according to the needs.

Conclusion

"Hybris is a very balanced solution, able to adapt quickly to changes and already mature enough to cover several needs."

Hybris is clearly strong, when not leader, on some KPI and needs to progress on features such as merchandising, searchandising and advanced marketing.

In terms of ecosystem, not so many integrators are working (yet) with the solution and it seems to be complicated to enter in this privileged world. Third parties softwares are not so numerous but the product is already very complete and anyway easily extensible.

Technically strong, sometimes complex to integrate but definitely powerful, Hybris did a smart move in providing lots of "accelerators". Those pre developed eShop, specialized for precise uses, will lower the integration time and raise the success rate, as well as give a good penetration on the Tier 3 market. EMerchants evolving at the frontier between Tier-2 and Tier-3, should probably consider the accelerator approach since it provides very comfortable cost and time to market opportunities.

Hybris knows this issue and did a smart move in providing Accelerators which are pre-setup stores that lower integration time and almost ready to use. They can be used either by eMerchants that do not have the full budget to start a Hybris project from scratch or bigger players that want to validate a business model.

The three main assets of Hybris are the PCM, the OMS and its multi-channel strategy. With these tools, an eMerchant will be ready to compete fiercely and its investment will be easily profitable if there is a team of skilled people that know how to manipulate these three weapons. In case for deeper needs, the very complete Webservice can help for specific integration.

Now that the solution is owned by SAP, the doors of the Tier 1 market are fully opened and a lot can happen between the four java solutions and within their customer pools. With a fundraiser and rock solid mother company, we can bet a lot on Hybris without risking much.

Hybris

Hybris synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Hybris
Turnover to consider the solution	> $ 5 million
Current market settlement	Tier 2
Editor direction	Tier 1 - 3
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,D,R,B2B
Opensource	No, Java
Editor emphasis	PIM
Editor emphasis	Cross canal
Editor emphasis	Accelerators
We are impressed by	The momentum
We are sceptical about	Jalo lib & XML import
Min budget to create site (developping from scratch / customizing an example shop)	250 K€ / 100 K€

General KPI	Hybris
Cost of the solution (license, integration, hosting)	★★☆
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★★★★
Time to market (developping from scratch / customizing an existing example store)	★★ / ★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	★★★★★
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★
Eco-system (community, partners, integrators, forums, etc.)	★☆
Backoffice friendliness & ease of use	★★★★☆

Technical KPI	Hybris
Development technical complexity (more stars => less complicated)	★★☆
Number of third party softwares / extensions / services available	★★☆
Number of complementary product / services from the Editor	★★★★
Speed of the Front Office (customer web page rendering)	★★★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★★
Native CMS capabilities	★★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★★★
B2C Feature list (default, without add-ons or side programs)	★★★★☆
Mobile (Native App, Hybrid App, Responsive design)	★★★★

Advanced features KPI	Hybris
Advanced searchandising & user personnalization capabilities	★★★☆
Multi / cross / Omni channel capabilities	★★★★★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★★★★
Integrated or natively interfaced OMS (order management system)	★★★★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★★☆
Native B2B capabilities	★★★★

Magento

Belongs to	eBay Inc.
Number of employees (worldwide)	400 (estimated)
Revenues in 2011	50 M$ (estimated)
(ecommerce) Business model	Freemium (free & paying version + services)
Licence cost	$1 5500 for the 1st server, then $11 970/ web server, annually. $5 900 for the peak license
Technology	PHP
Framework	Zend
Database supported	MySQL. Oracle & MsSQL are reported to work also. NoSQL & Mongo integration already attempted successfully with EE version.
Version (at the time of study)	Community: 1.8, Enterprise: 1.13
Licence	Opensource, OSL v3
First release	2008
Origin	United States
Budget to create a website (low/middle/high)	15 / 40 / 150 K€
Our merchant typology recommendation	Brands & retailers, topic or product specific shop

Tier 4	Tier 3	Tier 2	Tier 1
Key actor	**Leader**	**Breaching**	**Trying**

History

Magento's success is one of the most impressive ever in the field of e-Commerce. Few companies have been able to raise that fast and that high.

"Back in 2007, Roy Rubin and Yoav Kutner created the first bases of Magento, when the market was looking for an alternative to the dying osCommerce."

Nowadays, Magento is the leader in almost all (Tiers except the Tier 1), still benefit from a huge support from its community, and is taking a bigger place in the market every year.

Yoav Kutner, CTO, proposed to make a brand new framework from scratch, based on Zend and Opensource to get some community support. Roy Rubin, CEO, decided to throw all the companies forces and reserves in this bet.

Based in Los Angeles, the company leaders made so many regular visits to each nascent community, that they could buy a free ticket round trip to the moon with their accumulated miles. After 3 years of activity, PayPal identified them and bought a meaningful amount of the shares, eBay finished the acquisition a year later (the value of the transaction is often said to be around 180 M$).

The brilliant technical architect of this fantastic success, Yoav Kutner is now up to other creations, with its OroCRM software, an opensource CRM, dedicated to e-Commerce.

A year in the shadow of Magento 2

Magento "1" conquered the heart of nearly 150 000 e-Merchants and a bit more than 2 000 of them even decided to buy an Enterprise license from the editor. This was a deep and quick success. The product even started to touch some Tier 1 doing more than a hundred millions online.

Magento 2 is very expected for several reasons. This new platform will not only clean the past glitches but will also deeply refactor a lot of components. The code will be documented, simplified and some technological enhancement will be made (see below).

But while you are reworking your main platform to the ground, it is hard to sell the current one to customers who knows in advance they will have to rebuild their site after the release of the 2.0 version. This is the reason why the eBay was evasive when asked about the release date. It did not want to cripple the sales of the current licenses.

The fact that this Opensource project also gathers contributions also plays a role, along with the fact that almost every software development takes some delays at some point.The EE sales are already a bit under the expected figures on last semester in some countries hence it would not be very wise to impair those sales figures more.

To cope with these issues, the editor found a strategy: releasing a strong last version (namely the EE 1.13) before the 2 is released, and guaranteeing that it will benefit from a 3 years support. Magento 2 is expected in Beta for the end of 2013 and most likely will be production proof between end of Q1 and Q2 2014.

A quick look back to 2012

Goals we thought would be key during 2012

Late 2011, we assessed that the main keys for Magento to keep the leadership were to:

- Convince customers in the Tier 2 and maybe some in the Tier 1
- Be back in motion technically after the fusion with EBay Inc. & the departure of Yoav Kutner
- Strengthen its EE support desk in terms of competencies and responsiveness
- Raise the global performances of the solution
- Still continue to evolve the CE (free & Opensource) version

"Magento is the leader in terms of market shares (without merchant size considerations)."

On the Tier 3 market, it is dominating the place and found growth in the Tier 2 and even sparsely showed up in the Tier 1 segment. EBay helped the solution to break into bigger clients, the one making 10 to 100 million of dollars online. The break out in the Tier 2 starts to be meaningful and is surprising by its speed. Magento not only convinced bigger merchants but now also totally dominates the Tier 3 market with a market share superior to 25% and even reaching 40% in some regions…

Still, Magento has to be careful about its existing positions. No doubt it is leading in the Tier 3 but major players like IBM, and Hybris are lurking on this segment. And with their new approach of providing easy to customize packaged e-shops, those two firmly intend to convince a lot of small Tier 2 and Tier 3 players that they can get a more functional and developed product for a comparable amount of money. The EE license customer pool of Magento is clearly targeted and IBM & Hybris have very attractive features and prices to tease them.

On the problem of technical leadership, no solution or person will ever replace the loss of Yoav Kutner. This loss contributed in Magento acting as a sleeping beauty (technically speaking) over the last year. The reorganization of the Ukraine team and production sites by eBay also took its toll of skilled people. The technical team has been reorganized and some processes were strengthened. The roadmap did no real meaningful progress but it was so way ahead of the competition that Magento felt no emergency to push on this.

On this, M. Rubin told us: *"The product matured quickly and it was a good strategy at the beginning. Since eBay stepped in, the company was restructured and for 18 last months, we were more careful, because the pool of customers was larger and*

we had to care them and be cautious with every detail. The [technical] movement had to slow down and we had to be more careful. It's not really eBay's acquisition, it's the fact that we grew fast.»

EBay also focused in bringing stability to the Enterprise class customers and deliver quicker answers to the support queries. Even if the level and content of solutions found by the support team are still uneven, things progressed in this field. There is still room for improvement, especially when the editor wishes to compete with bigger solutions, providing a higher quality service in this field.

Regarding the staff, we can count another departure, which was planned, the one from Bob Schwartz. He has left the company after fulfilling the mission he was mandated for and can be proud of the results. Appointed by Roy Rubin to ramp up Magento and make it a frontline product, he did the job. Nothing really impairing businesswise for the company since, even if Bob Schwartz was a very skilled President, all of this was plan when eBay bought Magento and organized the fusion of the teams.

The Enterprise version made progress and is now one of the most stable products around meanwhile the CE version made no real progresses and its users felt a bit "lonely". It is no secret that M. Kutner was the one open source oriented person in the company where eBay is not really used to this model. The CE is quite "stalled", but we had the chance to test a very early version of Magento EE 1.13 and the performances are getting a very meaningful boost, this version marks a break in terms of efficiency and can "hold the place" until the version 2.0 is released.

Ebay, Magento Go, X.Commerce & the Fabric

The project was maybe too large, or too weakly defined, but in the end: "the Fabric was too challenging and it did not work". Now X.Commerce has been reoriented and centered on Magento.

And as Roy Rubin underlined during the interview: *"e-Commerce is not just only about our own technology; eBay brings us a partner network, a portfolio of technologies and skills, access to new data, etc. If merchants want to be able to compete, and even to face Amazon, I believe eBay group can bring a lot of value, tools & services in this area."*

One question remain, where is Magento GO? The editor launched it with a strong communication campaign a couple of years ago but totally forgot it during its last Imagine meet up. The approach was seducing, Magento as an entry level SaaS, this was a serious contender in this SaaS market. But it seems things went not that good in this case and Magento hates speaking of problems or failures, so a silent burial is always better than explaining some mistakes.

Maybe "Go" will reappear one day with Magento 2, with an eBay professional reseller dynamic in mind, or not, hard to say.

The community & the Opensource model

When Magento speaks about community, it has several senses. And given the success of this community, we can spend some lines analyzing it. First of all, Magento has a community of interests. This is the main success of the editor, bringing an ecosystem together, that is fruitful, and beneficial to everyone. It went beyond this, with friendships and personal stories but the starting and ending point are business here.

As long as this community share the same interests, it is alive and in good health. But one of the pillars of this community was the … Community version of the software. But

"For a couple of years now, the Community Edition version was a bit left behind, with few updates and no or few new features."

even during last "Imagine" (the yearly meeting in US), the CE 1.8 version was announced, during only 20 seconds, for an event lasting 2 days and a half… No other mention was made to the CE version.

This attitude bring doubts regarding the commitment of Magento to this version of its product and EBay also leaves space for the rise of another Opensource & free product, which could be a mistake given the speed at which a new product can push an existing one.

Besides, only a small percentage of Magento sites are using the EE version. The CE is a very accessible way to start with Magento and then upgrade later on to an EE license. Cutting the wings of the CE is then also impairing the capacity of this version to convince people to choose this framework over another one. The CE and globally the Magento product was far more advanced than the competitors, even with the recent technical break and eBay was able to stay on its position for a while, but now the emerging players are lurking.

EBay was not really an editor and, even if progressing on this side, is certainly not an Opensource oriented company. It is revenue driven business, which make sense, but the Opensource is not really a primary concern, hence the recent development of the EE version the stagnation of the CE one. The real change may come from version 2, either the license evolve to an even more strict model or the reworked codebase will keep an Opensource oriented license (Freemium model) and offer a second birth to the CE version.

Magento 2.0

This version will bring substantial changes to the Core code, the feature list and the efficiency. As everything comes at a price, Magento 2 won't be backward compatible with Magento 1. No direct upgrades will be possible, a migration path should be provided though. The deep restructuration of the software should also see the rebirth the CE version, that will benefit (all sources agree on this) from this new foundations.

Among the expected changes, we can name the following one:

- Reinforced Webservices, with the support of REST
- Support for other databases (like MS SQL, Oracle, NoSQL, etc.)
- Documentation
- Unit testing capabilities
- Heavy rewriting of the codebase to simplify it
- Better performances
- More advanced CMS & templating capabilities
- Etc. (you can see more on the GIT repository : https://github.com/magento:magento2)

Goals of 2013

Even with an almost public roadmap of Magento 2, we can highlight some of the missing features we would have loved to find in it some of the key elements that could provide the growth of tomorrow.

They already represent today's trends for some of them like: cross commerce features, extended webservice capabilities, advanced product management (PIM), advanced CRM, serious CMS features, etc.
But one the strength of Magento has always been its extensibility. The Magento connect store is packed with extensions and product that compensate the Core holes, with external pieces. In this, the former CTO Yoav Kutner will maybe provide a meaningful answer to the CRM point with OroCM, and Akeneo a serious game changer with its PIM (Product Information Manager) software.

Stays the Cross commerce and cross canal features that would be very interesting the find in the core anytime soon and, to date, no real steps are made in this direction. Probably for version 2 ?

About the EE license

With an indecent market share in most tiers, Magento not only settled itself as the

leader in most areas but is now challenging the bigger companies. The success of its enterprise license, which now powers a couple of thousands sites across the world, was a key factor for its growth and credibility and this bet was won.

Better even, the bigger they are, the more they tend to take the Enterprise license, with nearly a half of them in the Tier 2 are using it. The care Magento put in its customer relation starts to pay and the time spent by the support cell to organize and deliver better quality is also playing a role, along with the ever growing portfolio of references.

It is still regrettable that someone cannot "own" fully its EE license overtime. The cost of the license is fully recurring per year. Most of Magento's competitors make you pay their license one time and then a yearly fee (usually around 20%). Magento is closer to a "subscription service" granting you a right of use rather than a license. The EE package also offers a nice option, the peak license. With hosting companies more and more able to provide flexibility in the Cloud, servers can be spawned to cope with a temporary peak. The EE peak license is priced $5 900 for a maximum use of 25% of the time per year.

A scoop ?

EBay has nearly a hundred million active accounts, PayPal counts about 2 millions of them, Magento counts 150 000 stores and… There is something to play here. The project is not yet ready or official, but it seems an internal eBay workgroup is planning on bringing a new data mining service to the market.

But with all this data, eBay could be near to release a real-time service which would, through the simple integration of a JS file, allow the merchant to display products according to a dynamic behavior. The weather is changing? The customers on eBay are buying a lot of winter coats? The British citizens are rushing to provision flue pills? PayPal records a lot of transaction regarding a specific product? All of these collected facts could contribute to a live change in your store behavior, in the product highlighted or the one shown during an upsell action.

"Basically, this service would provide amazing real time flexibility to all merchants of eBay, Magento or GSI, based on all the information collected by eBay, through all its channels."

Conclusion

Extensible and flexible, the solution can cover a very wide range of needs, if not directly with its gigantic feature list, by one of its numerous extensions. Magento is

still a complicated product to code and not everyone is able to handle it properly. The choice of the editor to certify developers was needed to raise the level and let only competent people in. It also is a very smart one, since the companies are paying to get their label and not much is done (yet) to check the quality of their work. But if a partner is proposing references and a lineup of certified programmers, even if being silver or associate partners, they are usually reliable.

2012 and early 2013 also saw the CE (Community Edition, the free on) being left aside, nearly abandoned since nothing was made on eBay's side to make it progress. The pale 1.8 released at Imagine 2013 is not really making any meaningful progress. All the focus is made on EE, which is a worrying signal for the people counting on the CE version on the long term. Since the EE codebase is "private" and the CE left alone, the editor somehow took distance to its Opensource model, which is by many aspects regrettable.

Breaking in the Tier 2 market and sometimes starting to be visible in the Tier 1, Magento is also still pushing its advantage in the Tier 3. Its technical pause of 2012 is mainly related to the efforts the team is investing in its reorganization but mainly also in the version 2.

Not much is to be expected in terms of new features before Q1 2014 but the 1.13 version of the EE is bringing a big performance increase and more stability, to an already version clean product. We would have appreciated to get some new tools like an OMS (Order Management System), a CMS, some cross canal or B2B capacities to complete the already impressive feature list of the product, but this will have to wait at least until Magento 2.

Magento will have to face competitors but its recent focus was to gain momentum in the Tier 2 as well as sales, partners and process structuration. This part is done, now Magento 2 focuses all attention and it will be a turning point in the game.

The IT market is a fast one and the competitors of this leading company are no fools. Hybris rose 30 Million dollars to consolidate its leadership in the market Magento is targeting, while IBM, Intershop and Oracle firmly intend to be back in the chess board. Change will soon release a version 4 that is very powerful and efficient, oriented toward CMS and Cross Canal. Drupal Commerce expects to play a role in the Tier 3 market. Very strong and backed by a giant, Magento is still reachable by its competitor, at least in their own segments, like OS Commerce was when Magento came to revolution it all.

No (or very few) companies working on Magento are suffering from the crisis. The framework is technical to master and Magento will address this point in version 2, but the market developed by the editor seems to be a limitless and ever growing buffet, where every skilled IT professional is invited to eat.

Magento

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Magento
Turnover to consider the solution	> $ 500 K
Current market settlement	Tier 2 - 3 - 4
Editor direction	Tier 2
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,S,R,P
Opensource	CE Yes / EE No
Editor emphasis	Versatility
Editor emphasis	Community
Editor emphasis	Costs
We are impressed by	Ecosystem
We are sceptical about	Cross Commerce
Min budget to create site (developping from scratch / customizing an example shop)	25 K€

General KPI	Magento
Cost of the solution (license, integration, hosting)	★★★☆
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★☆
Time to market (developping from scratch / customizing an existing example store)	★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★★★★
Backoffice friendliness & ease of use	★★☆

Technical KPI	Magento (CE/EE)
Development technical complexity (more stars => less complicated)	★★★
Number of third party softwares / extensions / services available	★★★★★
Number of complementary product / services from the Editor	★★★
Speed of the Front Office (customer web page rendering)	★★/★★★★☆
Front Office scalability (capacity & cost to serve more customers with less servers)	★★☆/★★★★☆
Speed of the Back Office & scalability (number of simultaneous users)	★☆
Native CMS capabilities	★★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★☆
B2C Feature list (default, without add-ons or side programs)	★★★/★★★★★
Mobile (Native App, Hybrid App, Responsive design)	★★★☆

Advanced features KPI	Magento
Advanced searchandising & user personnalization capabilities	★★
Multi / cross / Omni channel capabilities	★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★☆
Native B2B capabilities	★★

VirtueMart

Belongs to	Virtuemart
Number of employees (worldwide)	5
Revenues in 2011	N/C
(ecommerce) Business model	Certifications & Modules
Licence cost	Free
Technology	PHP 5
Framework	Joomla!
Database supported	MySQL
Version (at the time of study)	2.0.20b
Licence	GPL
First release	1997
Origin	Germany
Budget to create a website (low/middle/high)	5 K€ / 5-10 K€ / 15 K€
Our merchant typology recommendation	Pure player

Tier 4	Tier 3	Tier 2	Tier 1
Visible	**Declining**	**Not targeted**	**Not targeted**

Mambo, Joomla! and VirtueMart, a complicated history

VirtueMart is an open-source free PHP e-Commerce framework based on Joomla!, one of the most famous CMS in the world, also open-sourced. VirtueMart has a complicated history as its development was tightly bound to Joomla's project. The open-source model can be a complicated one already, so when two Opensource projects are inter dependent, the complexity can sometimes be squared.

To put it short, before VirtueMart existed phpShop, an e-Commerce web application based on Mambo. Mambo was also an open-source CMS, which was forked in order to create Joomla! (abbreviated Joomla hereafter) in august 2005.

As a side note, Joomla is one of the few examples of a fork that has overcome its parent software.

"After the fork of Mambo, phpShop changed its name as VirtueMart, officially supporting the newly created CMS : Joomla."

During a long time, VirtueMart used the many features of php-Shop created by the lead developer Sören Eberhardt-Biermann. This e-Commerce module based on Joomla was the most famous in the community and the Joomla/Virtuemart duet was the only one able to provide CMS and e-Commerce for a long while.

However, new and much more modern e-Commerce open source projects rose, such as Magento or PrestaShop, making VirtueMart look a bit obsolete. Users were no longer satisfied of the solution and asked for a more stable and more professional and mainly more complete e-commerce extension. But at that time, the installed base of VirtueMart was already large and the CMS ability had convinced some meaningful sites, granting VirtueMart with market shares in tier 3 and 4.

It was time to create a brand new version in order to retain VirtueMart's user base and to be in accordance with the new e-Commerce practices. That is how Sören Eberhardt-Biermann came to choose Max Milbers as the new project leader and entitled him to design a completely new architecture and codebase. VirtueMart 2.0 was released in December 2011, including some of the best practices of modern programming.

VirtueMart e-commerce over Joomla's CMS: pros & cons

Nowadays, VirtueMart is still popular, used in production by a large number of e-Merchants but the stores using VirtueMart in the "live stores" section of the official website are not very famous and rather seem to be smaller e-Commerce projects. No international brands or world renowned retailers are presented. VirtueMart is mainly used by the Joomla's community and it could take time before it become as successful as other leading e-Commerce frameworks.

The success and popularity of the framework is related to its very large community and, of course, to Joomla's one. VirtueMart's official forum is dynamic with 300,000+ members and 250,000+ posts, with some new discussions started every day, sign of a living community. The extensions section in the VirtueMart's official website shows only 60 add-ons available (However, there are more than 200 Virtuemart extensions

only 60 add-ons available (However, there are more than 200 Virtuemart extensions on Joomla's official website). A research on themeforest gives only 19 results.

These statistics show us the problem of a solution that is based on a famous CMS. Like Drupal Commerce and its lack of in-house developments, VirtueMart does not provide many extensions (even paid ones) and uses the powerful Joomla!'s community to develop its side capacities.

There is always a bit of chicken and egg story in such a partnership between two pieces of software. If an e-Merchant upgrade Joomla or VirtueMart, will a version be compatible with the other? Will the Virtuemart dedicated extensions still work? Is Virtuemart autonomous regarding its roadmap? If an upgrade has been done on Jooma, will VirtueMart still support it and when?

Another concern with Joomla is the security. The software has been very popular in the field of security for years as a training ground for rookies. It was said that find vulnerability in Joomla or one of its extensions was more than easy. We often saw Joomla extension having very basic security breaches such as XSS (Cross Site Scripting) and SQLi (SQL injections), leading to critical issues for site owners. Joomla has a bad reputation on this matter and relying on this framework to develop a merchant system requires paying a very close attention to what is made and to selected extensions. A very strict minimum is (anyway) to make an audit or a pentest of the site before it is officially live.

These points will have to be taken in consideration when choosing VirtueMart. Being linked to a powerful CMS is a good thing but it also has some drawbacks that must be analyzed.

Features

VirtueMart provides the basic features of an e-Commerce solution: reviews, ratings, one page checkout, coupon handling, VAT management and all others features that need an e-Merchant to run a store in an efficient way.

However, it has a lack of advanced features if the needs become a bit more complicated than just a basic B2C store. Mobile commerce, B2B, multi-channel or multi store are some features that are not provided in the solution out of the box. On top, B2B and Multi-channel are complicated to build as extension since it requires a certain global structure of the underlying framework. The team developing the solution is only composed of 5 developers and they face an obvious lack of manpower to improve the solution.

On the positive note, of course, the CMS is very qualitative and Virtuemart ranks among the best in the PHP world on this precise point, with Drupal Commerce and

RBS Change. The templating system is also based on Joomla, which enables VirtueMart to have thousands of choices available as the CMS is used worldwide by a massive open-source community. As a result, the e-Merchant will be able to to setup and/or switch from a template to another, even if he is not so tech savvy.

VirtueMart can be seen as a Joomla module easily customizable through extensions and templates, developed by the Joomla community. Positive point also, it is fairly easy to find a good "Joomlancer" (Joomla freelancer), with affordable rates and if a feature is missing, the e-merchant will probably find it within the hundreds available one.

VirtueMart knows that stepping in a new framework like Joomla can be problem and tries to help with a well-made documentation section on their official website. Tutorials are intended to give step by step instructions on how to accomplish some specific task with VirtueMart and some manuals are provided for back office self-training. These guides are clear and written in a way that everyone can understand them; it is rare enough to be mentioned. For the developers, VirtueMart's team created a wiki, opened to everyone.
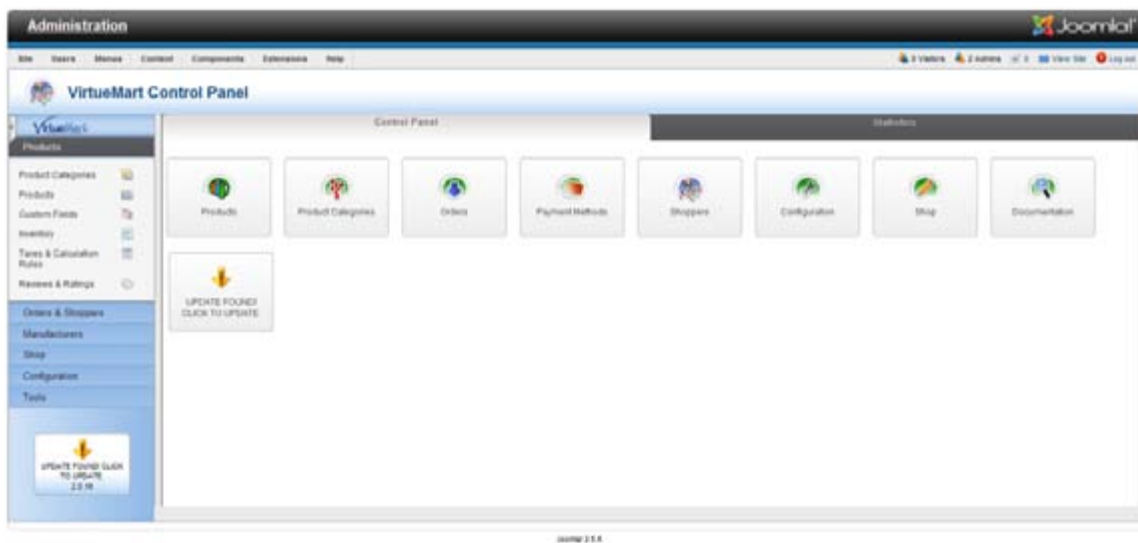
Administrator view of VirtueMart

Conclusion

The competition made by the Drupal & Drupal commerce duet to the Virtuemart / Joomla's one is obviously a hard one. Drupal has nothing to envy to Joomla regarding CMS capabilities, its e-Commerce extension is modern and efficient, on the rise and financed. The challenge is tough.

According to the last survey we ran in April 2013 (based on the top 1 million Alexa), VirtueMart is the second most represented e-Commerce solution on the web (after Magento). At the same time, we also found that Virtuemart lost a bit more than 8% of its customer base in 8 months. This decaying rate is far softer than Zen Cart's one but still, loosing roughly a percent per month in a market growing of more than 10% a year is no great news.

VirtueMart has been through many troubles over its life but this second version is also a sign of maturity. Still, keeping the existing customer base is one thing, acquiring a new one is another problem and five developers alone may not be enough to fight evenly with the competition.

The e-Commerce solution is stable, upgraded and a developer's team is working on it. Based on Joomla, it also takes advantage of its strengths: a flexible CMS, an easy to use templating system and a large community which provides many materials both to the CMS and the e-Commerce solution.

On the other hand, being based on Joomla might cause some problems. The concept of VirtueMart is to build an online store, using the available extensions. Selecting the extensions that fit a precise requirement is pretty simple and putting them together as well. The problem of this concept is that Joomla can be a disaster when too many extensions are installed. The CMS tends to lose a lot in terms of performances because since it is not really made to handle a large number of extensions, not to mention security. Since beginners have the bad habit to install as many extensions as possible without checking if there are still updated or compatible between each other or with the versions used, this can lead to some issues.

The other problem of VirtueMart is the fact that the users will have to master two products in order to be able to run a store properly. There is the Joomla's CMS with its particular environment plus the e-Commerce framework and all its specific rules that have to be learned. On the other hand, the ones who know Joomla will be at ease with VirtueMart as it is close to the CMS in terms of code and development concept.

Also noticeable, VirtueMart provides basic e-Commerce features when we compare it to other solutions that have the same age. They are not totally outdated, but not the latest as well. There are no advanced features such as B2B, mobile commerce or multi-channel. VirtueMart targets e-Merchants that want a store to be setup quickly,

with an almost free customization thanks to the extension market and the many templates available.

"Up to us, VirtueMart is a framework made for Tier-3 and 4, already equipped with Joomla."

It has many qualities but still needs to be improved in order to compete with Drupal Commerce or PrestaShop. The features provided are not enough for an e-Merchant that, for instance, would start selling at an international level or would like to have interactions with a physical shops group. A clear roadmap has to be announced by the team, the fact that features already provided by the extensions will never be developed in the native version of the solution may not be the best way to proceed in a long term view.

VirtueMart

VirtueMart synthetis report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Virtuemart
Turnover to consider the solution	From 0+
Current market settlement	Tier 4
Editor direction	Tier 3 - 4
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,P
Opensource	Yes
Editor emphasis	CMS
Editor emphasis	Simplicity
Editor emphasis	Community
We are impressed by	Templating system
We are sceptical about	Evolution pace
Min budget to create site (developping from scratch / customizing an example shop)	10 K€

General KPI	Virtuemart
Cost of the solution (license, integration, hosting)	★★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	n/a
Time to market (developping from scratch / customizing an existing example store)	★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★☆
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★★★
Backoffice friendliness & ease of use	★★★☆

Technical KPI	Virtuemart
Development technical complexity (more stars => less complicated)	★★★☆
Number of third party softwares / extensions / services available	★★
Number of complementary product / services from the Editor	★
Speed of the Front Office (customer web page rendering)	★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★
Native CMS capabilities	★★★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★☆
B2C Feature list (default, without add-ons or side programs)	★★☆
Mobile (Native App, Hybrid App, Responsive design)	★

Advanced features KPI	Virtuemart
Advanced searchandising & user personnalization capabilities	★★☆
Multi / cross / Omni channel capabilities	★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★
Native B2B capabilities	★☆

RBS Change

RBS Change

CMS E-COMMERCE OPEN SOURCE

Belongs to	RBS
Number of employees (worldwide)	~160 (RBS + Change)
Revenues in 2011	Unknown (but under 10 M€ for Change Licenses)
(ecommerce) Business model	License, support, trainings
Licence cost	500 to 8000 € depending on the component package
Technology	PHP
Framework	n/a (Zend in V4)
Database supported	MySQL, Oracle
Version (at the time of study)	3.6
Licence	Opensource – Affero GPL v3
First release	1997
Origin	France
Budget to create a website (low/middle/high)	€15k / €20-45k / €80k
Our merchant typology recommendation	Brands & retailers, B2B

Tier 4	Tier 3	Tier 2	Tier 1
Not targeted	Rising	Contender	Trying

RBS & Change

Change has been developed and fueled by **RBS**, a French company that has absolutely no link with the famous Scottish Bank. The group is dealing mainly with engineering and hardware reselling. Still, a bit more than ten years ago, some people at RBS decided to create a CMS, for their customers needs.

"Originally a CMS, the solution evolved over nearly a decade and started to include some e-Commerce features. It quickly became a global platform, totally open sourced since 2010."

Actually one of the most surprising actors of the market, Change is now a contender to be considered in the Tier 3 arena. The company objectives are serious and they quickly wish to raise their market share in the Tiers 3 & 2 markets while being still able to connect with projects having a 50 to 100 K€ budget.

Still, to raise funds and gain autonomy, the Change team needs now to be split from RBS, tis mother company. The activities are not the same, the goals either and even if RBS is funding the team, an Opensource Framework like Change needs some different company structure. Also noticeable, the mother company RBS has an editor activity that is perceived as sometimes competitive to Change's partners. It always feels uneasy to see an editor be potentially your competitor in integration from time to time.

Even if this situation happens less and less, for all other reasons above mentioned, Change needs now an autonomous life, which would allow it to raise funds and expand on an international level, along with sending a serious message to the market about its capability to play a major role in the years to come.

2013 is a transition year for Change, whether it is for the software itself or for the company. 2014 should see the explosion on a far larger scale of this very skilled player, with its brand new 4th version and a new structure, dedicated to the Editor line of work.

Change's philosophy

First, why the "Change" name?

First, Change defines itself as an e-Commerce CMS, cross canal oriented. That defintion speaks for a very clear vision and the framework is totally aligned with this pitchline. Anyway, along all our exchanges, we felt a great coherence between the speeches of all the interlocutors we had. The bottom line is clear, the ways are clear, those people know exactly where they are heading, technically speaking.

"We don't have any official answer but maybe just because the whole philosophy is different. The challenges tackled by Change are the same but the methods to solve them are somehow different."

And if the business development may leave space for improvement, the technical vision is already very mature.

The conception of the product is really different in several ways. As an example, when you create a product parametric sheet, you describe it using XML. Once done, the whole BackOffice now integrates automatically the newly fields of your products and automatically associate the proper component for editing it.

As well, some PHP code snippets are created along to help you integrate/query any parameter of your product or category directly from your code elsewhere on the site. You no longer describe your catalog in a way, you compile its structure and Change produces everything, from database to method allowing accessing the contents from the CMS.

Let's take, as an example, the framework's workflows. Associating the framework technical workflow with the human is a key and the primitive functions are built directly into the framework logic. They are, once again, configurable through XML and you can call any method of the Webservice and custom your own workflow.

If we take the "product return" workflow, you can describe it and the central site will validate each steps. Change can generate online the sticker to help your customer return the product by post and then the depot will scan this sticker with a codebar reader link to a C# application maybe, which will update the site Webservices and refund the customer while also counting this product as back in stock. Every user role can have the management of one part of a workflow.

"Workflow design is something very complicated task to ask from a webagency/ integrator and very few solutions offer such an easy framework to develop and custom yours" says Eric Voltzenlogel. Change team identified this as a modern stakes and worked a lot on this precise aspect and the result can only be qualified of smart and flexible. The partner integrators appreciate Change's "swiss army knife" design, which provides tools, without tying them to inflexible designs or processes.

This is just a second example, but the key here is the different philosophy. You need to customize the framework to make it fit your process, so no real "demostore customization" here, but this product can fit most business process like a glove, with a very logic and structured programmatic system. There is no need to deeply "program" Change to achieve this, since the engine manages the workflow themselves, provide easy configuration through XML and even generate some PHP code to help you.

"Change becomes a central hub of communication, providing an extended communication platform to your sale system, your ERP, your CRM or whatever other component through an HTTP/HTTPS access" told us the lead architect Franck Stauffer. The way of thinking may feel a bit technical, and it indeed is, but the results are a greater flexibility and a lot of liberty in the way you think your sales globally, it's a programmatic approach of e-commerce.

"Change" allows the CTO to decide how the dedicated business application will be made, in which language, on which device, aimed to which group of user, relying on one central datastore embedding also the transactional and workflow logic.

This flexibility and philosophy is a cornerstone to another main key of Change: The Cross Commerce.

Cross Commerce & Cross Channel

"Change" can also easily morph to a specific customer typology through this very efficient workflow system. As Eric Voltzenlogel told us: *"[Change] fills holes by handling every little glitch that other systems are not managing, at an affordable cost"*.

Once again a simple example to better explains the logic. Manfield, a brand using Change as an e-commerce system, has no central stocks or depot. Every command made online has to be checked into the internal existing ERP and then directly sent from the physical point of sale having the product in store. So if you command 3 items, they can come from 3 different locations, without the customer noticing.

The brands or retailers which own physical point of sales have often built their systems and process differently and each project becoming quite unique. Change way of thinking allows adapting to almost any typology without the need to change the existing systems, habits or methodology. If the POS is using a specific cash register, code bar reader or hardware, it can talk directly to Change's nervous system through its Webservice and Change will then proceed with the data, sending them to another software if needed or handling it itself if it's his to manage.

More than a cross channel direction, Change is heading toward an "Omni channel" standard. All channels tend now to be used at the same time as information, transaction, communication and loyalty vectors. Any channel should be able to provide all these features.

Technically: a feature rich framework

"The global conception of Change is very well engineered and ingenious. The architecture is elegant, light and flexible."

The external open source component picked up to cover some needs, like the CMS or search are of quality and were very up to date when chosen, like PHPtal, SOLR or Smarty.

The current 3.X versions still suffer a bit of the "in-house" spirit that led the development to its current state, not yet respecting all coding standards but the implementation is globally correct, explaining the very good performances of the solution.

The installation process could be made easier, but for what it's worth, the customer never does this himself in a Change project, an integrator make the job. Still, the structure could (and will) benefit from some cleaning, centralized configuration, a better installer and some normalization.

Regarding the Core features of e-Commerce, the faceting and search system rely on

SOLR and is very efficient, the management of the various states / steps of a command are nicely asynchronous, allowing fluid treatment and resilience to the failure of an external component (mailer, payement gateway, or else).

The order management is not as complete as Sterling Commerce or Hybris one but is very decent, especially since the workflows are very efficient in this case. The billing can be controlled inside or outside of Change with an ERP with available integration to Cegid, SAP, Navision, Colombus, and some AS400 applications. Delayed mails and payment can be triggered on order expedition. Finally, you will find all classical features that every e-commerce system can grant you.

The back office is using XUL, which imply the use of Firefox, but XUL expands the basic capabilities of HTML and make it look nicer. It's not crazily innovative or eye candy but still does the job and is pretty self-explanatory. The Webservice contains roughly a hundred methods in version 3.6.4, almost all oriented toward the catalog and product management.

About the side features, some goodies are natively included, like a Forum, a blog, a photo gallery and a very convenient form builder.

When CMS becomes a core logic

All solutions put some highlights in their positioning. Change & Hybris share a lot of common visions, apart from the point of doing most of the jobs with its own product (Hybris) or letting the other do what they already do and focus on the e-Commerce site (Change).

But beyond this first strong difference, one more common point unites them. Change is betting a lot on its CMS, as Hybris does. The CMS integrated in Hybris is very good from what we saw and Change tends to have a very comparable MVC (Model / View / Controller) orientation, separating the Data from the viewing layer.

When you intend to be a cross canal friendly solution, you definitely need to be able to deliver your contents on several different screen types, with various Internet connections & customer needs. We find again the Change philosophy here since it is totally possible to use the product base stored in Change and to replace the frontend application on any channel, if the customer feels more comfortable with another product or a preexisting one.

"To Change, the CMS is the pivotal point, once you understood its features and organization, all is become very simple."

The trainings are especially focused on this since in their mind e-Commerce = Merchandising = content management, a point of view largely shared by Drupal commerce.

Of course, the back office reflect this orientation with an easy customization capability and if you wish to use a deeper customization, templating is made very easy through the use of PHPTal & Smarty (and later in V4 of Twitter Boostrap). The framework also provides native PHP code snippets to access all the contents of catalog items or categories.

Blazing fast & highly scalable

Change's performances are just… stunning. They also are the fastest in our survey of a million sites, just ahead of Hybris.

Far from just relying on our first survey, we also have clients already using Change and also had the chance to bench it before. The product basically handles 4 times more traffic than a Magento with the same infrastructure, with lower time to load the core.

On the front web servers, we (internally) count 10 000 unique visitor per day per core, were we usually scale Magento on 2500 unique visitor per core per day. Moreover, the separation between Rand and Write access in the database for the front and the back office is really giving the framework amazing speed.

"Along with SOLR for the search, indexing very efficiently the catalog, we have simply here the fastest solution on the market to date."

Such a low footprint on server resources have a very positive impact: you spend less to scale, and the product scales very well.

In the version 4, the integration of AngularJS and the tidying of the code will makes it run even faster, which was not exactly an emergency given the already existing performances, but is still a nice bonus to consider.

A Clumsy Opensource Model

Change's Opensource model is currently a bit complicated for a real developer community to grow. If you want to have an activity with Change, you need to be trained in theory, which is a costly pre requisite. The principle is somehow healthy but refrain the rise of freelances developers and the blooming of a large amount of extensions.

The Affero license itself is not a real problem and is quite adapted. Anyway the code source is available on Github (*) and some people seem to start contributing, but we are far from Magento's dynamic which gathered thousands of developers in months.

Times are different and Change is not rising in an almost empty market like Magento

(*) https://github.com/RBSChange/Change

did. The issue can be also related to a marketplace which is not very convenient and the contribution list stays quite short.

Since the interface and openness of this extension market is a key to a quick adoption on an international scale, no doubt Change's team is working on an overhaul. The philosophy of Change is anyway to no dot everything in house and let experts do what they excel at and rather interface with them. Hence a framework not willing to do all by itself has to gather a community to create the bridges to other software and extensions to beef up or extend internal features.

Obviously also, raising the awareness of the developer community around this excellent framework should help it gain momentum.

The version 4

The version 4 of Change, expected for September, will revolution a lot of the solution foundations.
The concepts and spirit of the Change stay untouched, but lots of changes are announced on the technical side.

First, the solution will opt for **angularJS** (from Google), which allow many very cute enhancements. Even if Change was already the fastest and lightest solution around, Angular will boost even further the speed aspect by lowering the DOM manipulations and allowing also advanced view controller to be directly on the Client side, lowering the pressure on the servers.

The template engine, formerly PHPTAL, will be replaced by a more modern component: Twig. Also noticeable, as Drupal Commerce, Change will support Elasticsearch, a modern and very efficient search engine, capable of being distributed and RESTful. SQLite will also join the round of supported databases.

AngularJS also provide a very efficient MVC model and allows, among other great features, to dynamically populate a part of a page without the need to regenerate the whole HTML. Basically, this means one can "punch" a hole in a static page to populate it with Dynamic content. For those familiar with the Full page cache of Magento, it is a far more efficient version with the possibility to be in FPC all along, even when there is a customer based content displayed in the page. And on the contrary of the very neat and advanced cache of IBM which requires some fine tuning, the cache system of the V4 of Change will be simple to use and parameter due to the use of AngularJS.

Change was the fastest solution? Wait, this was before... Now it will switch from light, scalable and dazing fast to "did someone saw the page loading???"

The version 4 will also make the use of Twitter bootstrap, a very convenient and efficient to allow seamless integration of Responsive Design templates. The various actors on the market predict either the death of skinned application (ie "responsive design" sites) or the death of the application approach. We have no opinion on this but the obvious fact is that the APP technology and providers are evolving far quicker and are more difficult to code than a responsive design template. For this simple reason, Twitter Boostrap choice cannot be a bad choice.

Angular JS & **Twitter bootstrap** will also be integrated to the BackOffice to enhance it, get rid of the XUL layer and give the BO a maximum compatibility on tablets, mobiles and browsers that are not only Firefox or affiliates. Angular gives also the neat possibility to send a page, populated with a specific content, through a simple URL for review or validation purposes, with the exact same content for the recipient.

The Webservice will also be beefed up since the solution complete philosophy is to allow Change to interact with other components of an existing Information System. More methods will be available, in a REST approach, allowing for deeper interactions between components and with Change's logic, even without the frontend web interface. Change will be a presentation and transactional Hub between systems, displaying contents on various channels seamlessly. All contents will have Webservice methods to allow direct interaction. Actually, the webservice will have to be perfectly complete since the goal of the editor is to build the front & back end of Change themselves over the REST webservice.

Also available in the 4th version: the Workflow with validation steps & rights, an internal translation system and much more. No PCM / PIM (Product Information Manager) will be directly included but bridges will be made to ease integration with external ones, most likely like Akeneo, another OpenSource product, dedicated to PIM.

The current version also uses no framework and the 4th one will integrate Zend Framework. This move is important for several reasons but already for the standardization of the coding style and namespace. Actually the code is rather clean but there is a progression margin toward the current PHP Object best practices. The team is totally aware of this and the adoption of ZF2 is the result of this reflection. It will provide better customization capabilities, better evolving path, a "not all in-house" strategy and better installation standardization.
The 3.6 version is already very complete and the editors provide a migration path between the 3.6 and 4th version without problem. This allows the Editor to still sell the 3.6 before the 4 is out and the client to be sure to be upgraded to the 4th version as soon as it is available.

Last but not least on the landmarks brought by the 4th version of Change, the master / slave instance system. This feature is quite unique, nicely thought, and very useful for the eMerchants willing to deploy on an international scale. Let's illustrate this one with an example.

Imagine a company based New York. The company has subsidiaries in Paris, Tokyo and Reykjavik. With all due respect to our Icelandic friends, their market is smaller and the company takes a small contract with a local hosting company. The French market is important and they start a larger infrastructure and Japan is a middle size market where the company only expect five thousands visitor per day. New York will run the master instance, Reykjavik, Paris & Tokyo will get slave instances. They can manage locally their commands that are still consolidated to the central system in New York. Each local store manager has a back office and the master instance a consolidated one, seeing all across the slave instances. If the company wish to deploy Spain and Austria tomorrow, they just take a contract to local hosting companies, give the SSH access to the master instance and it will automatically deploy the local store.

On top of being a very fast deployment method, it's also a good scaling system with delegation locally of the management and a consolidation in the master instance. The dialog is made between the instances using native Change webservice methods and the core logic is "close to the customer", allowing once again bleeding edge performances.

Conclusion

Change is a platform storing contents, embedding a very smart and powerful workflow system and providing amazing performances. The solution position itself as CMS for e-commerce with a very strong accent on the cross channel / cross commerce. This positioning makes him face more often Hybris than Magento or Drupal Commerce, allowing Change team to offer a very cost efficient alternative to the very strong German solution.

The company counts already great references like Yamaha Motorsport, Ducan diet, Rossignol or Auber. Its natural market is definitely the upper Tier 3 and a bit of the Tier 2, where accounts make 5 to 50 million of online turnover.

With its already affordable license cost and a scalability costing 3 to 5 times less than its competitors, the solution is natively made to address customers looking for flexibility in their systems interactions. These highlights make Change a very logic and natural choice to integrate in a tenant for a brand or retailer having both physical points of sales and an e-Commerce website.

Change also adapt very easily to B2B demands, mainly due to its flexibility, until an average size is reached. For major B2B players, functions embedded in Intershop, IBM and Hybris to manage the channels will make the difference. Still, the threshold is situated around tens of millions, allowing mid-size B2B activity to step in the online business with Change.

The version 4 promise to be a rock solid foundation to Change's growth, as long as the framework takes its autonomy from the mother company RBS. Once done, we can bet on Change to become a very serious international player, one of the highest end PHP solutions for e-Commerce.

We recently discovered that the use of several front servers can be tricky in the version 3.x. Not impossible but not simple or polished either, which is somehow regrettable.

"Change's ecosystem grew by a time 2 factor over 2012 and 2013, gathering integrators, developers and third party partners, making it stronger and allowing the software to sign with larger customers."

The last steps are ahead: a strong V4 (in time), a split from RBS to allow a fund raiser and an internationalization right after. If these conditions are met, change will maybe switch its stance from "serious French actor on the middle market" to a major power in e-commerce worldwide in a couple of years.

RBS Change

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Change
Turnover to consider the solution	> $ 1 million
Current market settlement	Tier 3
Editor direction	Tier 2 - 3
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,D,R,P,Pv
Opensource	Yes
Editor emphasis	Cross Commerce
Editor emphasis	CMS
Editor emphasis	Workflows
We are impressed by	Architecture
We are sceptical about	Autonomy from RBS
Min budget to create site (developping from scratch / customizing an example shop)	50 K€

General KPI	Change
Cost of the solution (license, integration, hosting)	★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★★
Time to market (developping from scratch / customizing an existing example store)	★★★☆
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★
Backoffice friendliness & ease of use	★★★☆

Technical KPI	Change
Development technical complexity (more stars => less complicated)	★★★☆
Number of third party softwares / extensions / services available	★★
Number of complementary product / services from the Editor	★★
Speed of the Front Office (customer web page rendering)	★★★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★☆
Native CMS capabilities	★★★★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★☆
B2C Feature list (default, without add-ons or side programs)	★★★☆
Mobile (Native App, Hybrid App, Responsive design)	★★☆

Advanced features KPI	Change
Advanced searchandising & user personnalization capabilities	★★
Multi / cross / Omni channel capabilities	★★★☆
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★★
Integrated or natively interfaced OMS (order management system)	★★★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★
Native B2B capabilities	★★★

Drupal Commerce

DRUPAL COMMERCE

Belongs to	Commerce Guys
Number of employees (worldwide)	55
Revenues in 2011	NC
(ecommerce) Business model	Support, Professional Services, Training, Cloud Hosting, Marketplace
Licence cost	No license fees - support starting at $7,500 / year
Technology	PHP
Framework	Drupal
Database supported	mySQL, PostgreSQL, MangoDB, SQL Server
Version (at the time of study)	Drupal Commerce 1.5
Licence	GPL
First release	2011
Origin	France/United States
Budget to create a website (low/middle/high)	20K€ / 30-70K€ / several millions€ (according to editor)
Our merchant typology recommendation	Brands & retailers, topic or product specific shop

Tier 4	Tier 3	Tier 2	Tier 1
Rising	Rising	Trying	Not targeted

Drupal and Drupal Commerce

Drupal Commerce (D-C) is a solution based on a very specific model that needs to be understood if one wants to choose it for its e-Commerce activity.

So, who does what in Drupal Commerce?

First, there is Drupal, a powerful Open Source CMS used by a large community. Drupal has been created in January 2001 (date of the initial release) and has many years of experience. The CMS is robust, used by large companies such as Twitter, Ikea, MTV UK or the Whitehouse and easy to use.

"Drupal is known to be a superstar in the CMS field."

On top of that, an e-Commerce layer has been developed by Commerce Guys, the guys behind Drupal Commerce. This layer

brings the tools to create an e-Commerce website on top of Drupal: product & catalog management, tax system, checkout process, order management, etc. In other words, D-C is an e-Commerce solution built on the latest version of Drupal (V.7) that conjugates the flexibility of Drupal and the e-Commerce features needed by eMerchants.

Drupal Commerce is the youngest e-Commerce platform in this landscape. Version 1.0 was announced at the DrupalCon London in 2011 and achieved early success. The Drupal community was eagerly awaiting this release. Drupal users couldn't wait to know whether this framework will beat Ubercart (the previous Drupal e-Commerce module) and revolutionize e-Commerce on Drupal, as announced by Commerce Guys.

Commerce Guys claims that 25,000 websites are active since the first release (these figures seems «emphasized» to us). The CEO told us « *Nowadays, no solution went from 0 to 25 000 shops in 18 months. [...] this is clearly faster than Magento's or Prestashop's starts* ».

Also according to Commerce Guys, the French market represents only 8% whereas the USA and the UK are adopting Drupal Commerce at a faster pace.

The company

Some words have to be said about the company behinds D-C, namely Commerce Guys. This is a French and American company that also has a subsidiary in the United-Kingdom. They have (at the time of publishing) 55 employees in total and 30 are in France. The USA manages the community development with the charismatic "Mister Drupal Commerce" aka Ryan Szrama who tries to convert Drupal users to D-C.

Most of the Research & Development is made in France and the CTO is French also. Some American people are working in France and the whole team is full of different nationalities.

Commerce Guys rose $5M in march 2012 from Alven Capital, ISAI and also Open Ocean Capital, the guys who backed up MySQL some time ago. According to Frederic Plais, CEO of Commerce Guys, «to have people of MySQL's team behind us (one of the biggest success stories of the Open-Source) is something very rewarding».

"Drupal Commerce is pretty international and not afraid of expanding wherever there is room to do so!"

Drupal dependant: good or bad?

D-C uses the Open Source community to build-up its solution as the core of the framework can be customized with the 16,000 modules available for free. As a result, D-C did not add any new big features to the framework because, according to Commerce Guys, you can find whatever you want with the already existing modules. This is true in a way, but what if an eMerchant has very precise needs that require specific developments. Will he covers all its needs with the modules?

The great strength of relying on Drupal can also be a major weakness. D-C is not really fully in charge of its destiny since it heavily relies on a key layer that is not under its control. Moreover, Drupal is known to be very innovative. The technologies, core features and framework used are quickly evolving. D-C will have to adapt to those changes and has few control over them. Of course some main developers of Commerce Guys contribute to the building of the roadmap of Drupal, but still being totally dependent on foundations you have marginal control on can be a risky bet.

If you are a black belt Drupal developer and are asked to build an e-Commerce website, your choice can go naturally towards D-C. You already know the CMS perfectly and you will be quick and efficient with the workflows and the data management. A Drupal developer will gain time for sure since the framework has been tailored for him. But if you are coming from another background and have never worked on Drupal, do not underestimate the learning curve, it is as steep as Magento's one, at least.

The ease of use for end users comes at a price and eMerchants have to pay attention to this fact: Drupal is one the most evolved and complicated PHP frameworks on the market. Moreover, pay attention to the fact that Drupal is a product that constantly changes with a very fast pace.

"Drupal Commerce is a solution that combines two powerful layers but they might add complexity to the project."

Drupal 8 and Drupal Commerce 2.0

The feature list of Drupal Commerce is not yet rivaling with the one of the Tier 1 players or even with long timer like Magento or Prestashop. The quick versioning (5 releases in 18 months) denote a will to progress in this area.

As stated before, D-C is totally dependent on Drupal evolutions. This is illustrated, for the good and the bad, in the Drupal 8 project. This new version of the world class CMS is a very deep overhaul of the framework fundamentals. It will now partly rely on the ever growing Symphony 2 project, actually soaring in the PHP community. But this change is one of many since the Drupal 8 project is probably the most ambitious

overhaul of all versions. To put it short, when an Opensource project changes its major version, it is usually for major reason. The same apply for D-C, switching from its 1.X branch to a 2.X.

D-C being bound tightly to Drupal engine, the team decided to freeze the roadmap and development until the version 2 of Drupal is released, which makes a lot of sense. Drupal 8 should be out in a stable release in July or August 2013 and D-C 2 should be released along in Beta version.

We can expect new features to complete the list of existing capabilities and also a deeper Web service integration capability. API is a master word in the D-C project and Drupal 8 is going (as most of the IT industry anyway) in the direction of REST Webservices. This is a very good (and free) benefit for D-C which doesn't have to create it from scratch by itself. As usual in D-C pros & cons of Drupal often seem to compensate each other. The cart management will consume less resource with a signalization system instead of a systematic refresh. The pricing system will be useable through hooks with an API to allow better and lighter interaction. The checkout process will also be deeply corrected. All the deep changes and features integration can be followed on the roadmap page of Drupal commerce.

Kickstart stores

Developers who are not Drupal ninjas or for the ones who just do not want to spend hours on the project, it is possible to launch a "kickstart store" with pre-setup configurations. The language, the currencies, the VAT and many other features can be decided during the installation, in order to have a store ready to go as soon as possible. According to Commerce Guys, launching a kickstart store is a meaningful gain of time of 50 to 100 hours of customization.

This feature is a great achievement for Drupal Commerce as accelerator stores is something that we usually see in the Java frameworks and reserved to larger players. For an eMerchant, being able to quickly setup a store, while maintaining a fair customization capability is a great feature. One can easily test a business model without spending tremendous amounts of time or money.

The main pitfall of these accelerators is identical to the one of the Java family: If an eMerchant starts a website with an accelerator, he will be very deeply tied to D-C. If the eMerchant wants to stop using D-C, he will have to restart his project from scratch. Kickstart, accelerator and Demandware are very much alike on this point: they are convenient and provide a lower entry cost but they make the customer very captive and dependent.

Commerce Marketplace

Drupal Commerce has built its own marketplace in which you can acquire a PaaS (platform as a service), some add-ons, support and trainings. This is basically the place where you can find all the paid services D-C can provide.

• Commerce Platform

The PaaS (Platform As A Service), named "Commerce Platform", targets D-C developers. It is an environment in which developers can do their tests, manage several teams, create their own custom workflows and see who does what through a clean and well-designed interface. This platform is in a safe environment with continuous backup and a dynamic service recovery. Developers can use the platform in order to find new optimizations or create new development containers in a flexible way.

Have this platform been built to reduce the development complexity of Drupal Commerce? Maybe, and if so, it shows Commerce guys are aware of that barrier. They try to make life easier for developers and anyone can ask for an invitation on the beta version.

• Trainings & add-ons

D-C provides trainings for beginners, developers and a master class for the ones who lack direct drupal experience but want to convert their existing developer talents to D-C-ready skills.

Regarding the specific commerce paying add-ons, there are only 10 of them available right now such as PayPal, Skrill, be2bill, Kiala, Jirafe and others. It is mainly

composed of payment solutions, logistic and analytics tools. This number is worryingly low compared to Magento's one after a year, which reached several hundreds. There are 322 free extensions when we write these lines.

Of course Drupal is already providing everything around CMS, but Magento Connect extensions are far to be only about CMS. For a platform claiming its adoption to be way ahead of Prestashop & Magento in some months, these figures are surprisingly low…?

Why Drupal Commerce?

Drupal Commerce signed big references such as RoyalMail, Kenzo, McDonalds, Cartier or The Doors.

All of them need to manage a lot of contents (pictures, videos, songs, etc) in order to keep the brand identity that has been created for years in the "physical" world. For example, Kenzo and Cartier are two luxury brands that have very high requirements for their communication and marketing strategy. The only way to have the same strategy on the internet is to be able to handle contents easily and Drupal Commerce clearly meets these needs.

The CMS side (coming from Drupal) empowers the marketing team with a simple and efficient tool to manage the contents and visuals. One may also be interested by the e-commerce component since the CMS part is frequently already managing a visual identity online. The website can finally become the cornerstone of the company's image with the marketing team being directly able to adapt the contents according to trends, new products launch or another actuality from the company.

"Free and Open Source, Drupal Commerce can also be a good starting point for small e-Commerce & pure players that want a robust website fitting in a tight budget."

This possibility excludes most likely custom development. It consists more in a light integration and customization but Drupal commerce is scalable and can be adapted to many classical website lifecycles through its numerous modules. Moreover, if there is a problem that seems complicated to resolve on the CMS part, finding the solution on forums, events or other websites will not take a long time as the Drupal Community is simply huge.

Promotion engine, search & facets

There is a default, built in, promotion engine embedded in D-C. It can handle the basic needs of the promotion job, with the "frequently" used scenarii.

If one needs to make advanced rules, like the one M. Plais gave us as an illustration "-20% on the white products, Friday morning 6 to 10 pm, in Paris only", there is a more advanced tool named "Rules". More can be seen online here (http://bit.ly/10Cj2Oz).

For the classical catalog animation (slideshow building, new collection page, etc.), a very famous Drupal module is used, named "views" (yes, at Drupal, they keep it simple) which is extensible, meaning you can fit it nicely to your site needs, with some code.

The search is handled by Search API which can be bound to SOLR, Elastic search and some other search engines. This module also manages some "facets" features, like the filtering and some dynamic catalog displaying capabilities. http://demo.commerceguys.com/ck/products

The multi* features are partially handled by Drupal core engine (language, localization, etc.) and some others by the D-C engine (currency, catalogs, etc).

Cross Commerce, B2B and Mobile

Being young and full of talents doesn't bring instant maturity. Intershop, Change, and many others took years to develop their Cross Commerce and B2B features. On top, Drupal commerce doesn't seem to really target this market range, hence the few features you can find natively in the framework to cover these needs.

Companies having B2B or Cross canal activities would not really feel comfortable, yet, with Drupal Commerce. The version 2 of D-C, coming soon, will provide an extensive REST API, which will allow third party to compensate these issues, if someone is willing to contribute on these points. The only native ability of D-C regarding cross commerce is the Mobile capacities and it may be enough for an online pure player. But when brands with a physical distribution channel are willing to use the full power of Cross channel commerce, involving the physical Point of Sale, D-C has no answer yet to provide.

At the total opposite, it should be fairly easy to make a very nice Mobile "site" since the Drupal framework offers all capacities needed to develop a completely responsive design. The needed primitive functions are already part of the standards in Drupal, making any template easy to display on a tablet or a phone, whatever its type could be. This won't be for free, but the framework will not be limiting you.

Regarding a native APP made to be compatible with Iphone & Ipad, the "Commerce Kickstart" platform should provide it soon.

Drupal Commerce: a tremendous success?

According to the executive team, Drupal Commerce is a fabulous and unique success in the e-Commerce and Open Source market with tens of thousands downloads every month. Still according to the team, over 25,000 e-Commerce stores have adopted Drupal Commerce in just 18 months. In March 2013, Commerce Guys announced also 300,000 cumulated downloads of the framework…

Drupal Commerce had few stores in production according to "Alexa's Top 1 million" review done by Tom Robertshaw in March 2013. We have similar figures when running our own detection engine. D-C is complicated to detect though. The editor counts roughly 450 shops in the same sample, its detection method being accurate. If we extapolate their figures (and not ours), this gives us a bit more than ten thousand websites in production using Drupal Commerce...

That said, every editor we know played with its figures, Magento with their active shops, Hybris often «confuses» between their global customers (including PIM) and their number of customers of the e-Commerce solution itself, etc.

Another tool that gives a pragmatic view of the market is themeforest.net. This website is a marketplace dedicated to themes for CMS and e-Commerce solutions. If an eMerchant or a company wants to create a website quickly and does not want to manage the webdesign, he goes on themeforest, browses all the themes available and buys one from the list. The designers obviously provide themes for e-Commerce solutions and CMS that are massively used because they have more chance to earn money.

A Magento research on themeforest gives us 263 results (on May 18th), 62 with PrestaShop and 3678 with Wordpress. A Drupal Commerce research gives 5 results against 122 for the CMS Drupal itself.

Under every analysis we ran, it seems difficult that Drupal commerce has reached the figures it announces publicly, even if the start is already impressive, we regret a bit that the "need to seem big" led to a bit of exaggeration. (Those figures are sent back by Drupal's website)

Conclusion

"If Drupal Commerce should be described in one word, it would be flexibility."

The solution is tailored both for big brands and for small business. Brands need to deliver many contents easily with their marketing team and the powerful Drupal CMS is already one of the strongest for this usage.

For the small business, Drupal Commerce is a solution that can fit tight budgets for the creation of a scalable website. Drupal Commerce also launched its "kickstart" offer, with pre-setup stores that target the ones who do not have enough IT skills to start a website from scratch. This is why Drupal Commerce is a solution that fit so many businesses typology, with a comfort zone that goes from Tier 4 to the entry zone of the Tier-2.

We can somehow question the scalability of the business vision of D-C. Providing training & services is not really scalable. If your clients are multiplying fast, your human bandwidth will quickly become a bottleneck. The SaaS on the other hand scales quick well on the long run and is even stronger when the customer base grow larger. If we believe in these two points, there are major chances that Drupal Commerce will set full steam ahead in this direction, only using the service layer as a temporary income source, to fuel the other business units. That said, the fundraiser was also done to fulfill this point, leaving a slight doubt on the real underlying plan. Most likely, Commerce guys is looking to keep services only for the very major sites, that will never go for a SaaS offer anyway, but represent very good showcases.

The great ecosystem of Drupal is another reason of its flexibility: web agencies, developers and many other partners decided to focus on Drupal already and are a step away from its sibling Drupal Commerce. This is great for the eMerchants as we know that the ecosystem of a solution is often a key to success, especially in the Open Source business. Finding a good developer or an agency will not be so painful but newcomers to Drupal will have to face a steep learning curve, due to its very advanced and specific architecture. Our advice is, like for Magento, to take some experimented people to manage your site creation.

Being based on Drupal is what we can call a guarantee of quality. Choosing Drupal Commerce cannot be a fundamental mistake if your main focus is the content publishing more than the native features. Drupal is powerful and robust, having your e-Commerce activity based on its clean code is not a big risk to take. The architects behind the solutions, guiding the roadmap and development are Drupal black belts, totally able to anticipate and even leverage the best out of Drupal (the CMS) evolutions.

The version 2 of D-C will be an early overhaul toward a quicker maturity and stability. What we regretted in Prestashop 1.5.X branch, with too early, still "wet" releases, has few chances to happen with Drupal Commerce. The Framework is still very young and less complete that some of its competitors regarding the feature list, still it is a very deeply mature one when it gets to the fundamentals of coding and core development.

Focused on CMS and letting behind the B2B and Cross Canal tools, Drupal put itself in a very specific position, where it will not cover some needs of the biggest, while offering superb opportunities to the Tier 3 customers. But the Framework is still very young and we can safely bet that the holes in the needs coverage of bigger brands or retailers will be filled quickly.

Another key point in Drupal Commerce is its backoffice approach, highly customizable, to the point that a workflow can be broken into parts, each leading to a specific backoffice interface dedicated to a population. The backoffice can be totally tailor made, adapted, customized, to fit every need.

However, Drupal Commerce still needs to improve the learning curve for the ones who do not master the CMS Drupal. Commerce Guys tries to focus on the Drupal community in order to spread the solution as fast as possible but tends to forget the non-Drupal users, who might be interested by the solution.

Drupal Commerce is a Framework more than a solution, allowing the customer & integrators to do precisely what they want without bring all and every components of a global solution. The point is to morph the product to the customer rather than the other way around, a philosophy shared by more and more people in the e-Commerce world.

Drupal Commerce

Drupal Commerce synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Drupal Com
Turnover to consider the solution	> $ 500 K
Current market settlement	Tier 3
Editor direction	Tier 2
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,P
Opensource	Yes
Editor emphasis	CMS
Editor emphasis	Community
Editor emphasis	Modularity
We are impressed by	CMS
We are sceptical about	The figures announced
Min budget to create site (developping from scratch / customizing an example shop)	20 K€

General KPI	Drupal Com
Cost of the solution (license, integration, hosting)	★★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	n/a
Time to market (developping from scratch / customizing an existing example store)	★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	★★★☆
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★
Eco-system (community, partners, integrators, forums, etc.)	★★★★
Backoffice friendliness & ease of use	★★★★

Technical KPI	Drupal Com
Development technical complexity (more stars => less complicated)	★★★
Number of third party softwares / extensions / services available	★★
Number of complementary product / services from the Editor	★★★☆
Speed of the Front Office (customer web page rendering)	★★★☆
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★
Native CMS capabilities	★★★★★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★
B2C Feature list (default, without add-ons or side programs)	★★
Mobile (Native App, Hybrid App, Responsive design)	★★★

Advanced features KPI	Drupal Com
Advanced searchandising & user personnalization capabilities	★★☆
Multi / cross / Omni channel capabilities	★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★
Native B2B capabilities	★

Oxid eShop

OXID eshop

Belongs to	Oxid
Number of employees (worldwide)	60 employees
Revenues in 2011	Unknown
(ecommerce) Business model	Modules and themes marketplace, support, services
Licence cost	PE : €2 990, EE starting at €14 990 (on request), depend on the 'mandates' (side sites)
Technology	PHP 5
Framework	None
Database supported	MySQL
Version (at the time of study)	4.7
Licence	GPL V3
First release	2003 (outsourced since 2008)
Origin	Germany
Budget to create a website (low/middle/high)	3 K€ / 10-50 K€ / 100 K€
Our merchant typology recommendation	B2C, Specific shop

Tier 4	Tier 3	Tier 2	Tier 1
Very strong	Breaching	Not targeted	Not targeted

Background

Oxid was founded in 2003 by Andrea Seeger, Roland Fesenmayr, Lars & Eric Jan-kowfski and was opensourced (GPL V3) when it's forth release was made public, in October 2008. This is one of the 5 German solutions we cover in this book, making this country the most prolific in the e-Commerce solution market.

Recently, during the last Oxid Commons (the yearly meeting of Oxid's community), in a very "Steve Job" style, the product was switched to GitHub, live on stage, rooting the framework even deeper in the Opensource model.

As many modern frameworks, and especially as Magento, Oxid started its work in 2003 because only few solutions were available and most of them were commercial and closed source. The only option left was OsCommerce, which was already outdated in 2003 anyway. This led both the Americans from Varien and the German from Oxid to start editing their own solutions.

The goal of the team was to create a framework enabling third party integrators to create shops for themselves or their customers.

Nowadays, with solid references such as Neckermann (German Galleries Lafayette) or Medimops, making thousands of daily transaction online, OXID eShop is a mature, solid, production grade solution. The framework is very renown in Germany, where it fights toe to toe with Magento regarding market shares, but it lacks definitely some international visibility and strategy.

Oxid is sitting in the Tier 3 market with its freemium offers (Tier 4 with its free version) but it also aims to reach some customers that usually would fall for its German cousins Intershop or Hybris. This could seem to be a distant goal but the Editor already has some meaningful and prestigious customers like Carrera, Intersport, Zeiss, or the spare part shop of Mercedes Benz.

The three pillars of Oxid

A strong and successful community

The Oxid community, composed of partners, clients, contributors and the editor, is very alive and full of dynamism. The emblematic event gathering every professional and aficionado of the solution takes places once a year and is named *"Oxid Commons"*.

This year figures, if we only measure the forum metrics, give a count of nearly 30 000 registered users, 18 000 threads and 120 000 Posts.

Because this community is important, and as we will see later, it could also be the seed to other countries, some important tools will be update, like the Wiki, the tutorials, the translations, the newsletter system, etc.

This year Oxid commons (2013) hosted 800 attendees and 50 exhibitors. A Barcamp took place the next day, where nearly a hundred participants gathered to exchange thoughts and feedbacks to contribute to Oxid's roadmap regarding the update system, Solr, performances, etc.

A clean architecture and codebase

We can find the "German touch" of quality & control in Oxid's codebase.

Even if depending on how qualitatively made they are themselves, the unit tests are covering now more than 93% of Oxid's code. To date, no other Opensource framework (and very few paying one) can claim the same.

The code comments are not present everywhere, it is still way ahead of Magento's source code and the complexity of the database structure makes it far more scalable than its US competitor. Still in the quality process, the team offers some service to certify modules made by third party companies to make sure they are compliant with the platform requirements. Actually, 75 among the 500 extensions are certified in the module marketplace.

Noticeable also, Germany is an awfully complicated country regarding laws and uses, making the software already ready for most of the weird ideas that could come up in the mind of other governments. As an example, when we asked if the product was already compliant with the EU cookie regulation law, our interlocutor laughed since it is somehow the very least they could do, being forced to adapt to far more complicated regulations locally.

A simple upgrade system

Another deep key to Oxid success is its very interesting update system. E-commerce is an ever evolving context where tools are added and modified every day. Managing such an intense update activity is not easy for the Editor but it is even more difficult to organize as a final client.

No one really achieved a result comparable to the amazing Wordpress update system but Oxid did a great work around the scripting of upgrades, which is way above its PHP competitors.

If you wish to switch from a version to another, let's say version 4.7.0 to 4.7.5, you can use a cumulative patch update since most likely the DB and Template system won't be different, allowing for backward compatibility of your themes & extensions. (More about this feature here: http://wiki.oxidforge.org/Cumulative_Packages)

There is also an easy migration path from CE to Pro and from Pro to Enterprise version; you can even switch from CE to EE. The service is named "cross update". The migration is scripted, the main difference being the database patch. The support team is accessible to finish the job if you are a PE or EE customer.

Oxid eShop

Community, Professional and Enterprise editions

As for Magento, Oxid provides a segmentation named CE, PE and EE for Community Edition, Professional Edition and Enterprise Edition. It is even probable that Oxid created this market segmentation before Magento. Anyway, the initial code source is totally identical between all versions and some more services or features are brought on top of the CE version.

The PE version provides a built in WYSIWYG editor (WYSIWYG Pro). It is only available in the licensed version of Oxid, as of the PE version, since it not itself a GPL component. This component is not giving total satisfaction to the team and will be replaced soon, probably by a product compatible with the GPL license to provide it as of the CE version.

The PE version also comes with an additional SOAP connector system to link your ERP with your Oxid Shop. A service package is included, the professional support, which is accessible during business or extended hours depending on your needs.

The Enterprise Edition (EE) has been designed for the customers needing high load scenario and it is mainly dealing with scalability and peaks handling. To complete the EE offer, the software embeds deeper Rights & roles system, with a very fine grained tuning, down to the level of unitary fields management.

The EE also provides multi shop and multi catalog handling with an interesting system of "main shop" and "mandates", which are some sort of subservient sites. The database can be splitted in terms of access, the slaves doing READ access and the Master doing WRITE access, considerably easing the scaling of a high load site.

The License is a lifetime one and regarding the support cost, it is slightely less expensive than most of the competitors. The model starts with a 59 € per month for the PE support and a cost of 1% of the license fee per month for the Enterprise Edition.

B2B

B2B is not yet a deep strength of Oxid, which provides very basic functions natively in this specific context. If you have previously filled in a VAT number, even in a B2c shop, the VAT is not displayed anymore in an EE version, but this is not really a major deal.

That said, the editor thinks about it and the community provides some answers with exiting modules like the series edited by Shoptimax (SMX) and several others, bringing quantity discounts system, catalog printing management, VAT systems and more.

Still, B2B is not yet natively the strength of Oxid, from what we can assess.

Mobile & Multi-channel, including a POS access

Oxid is having some interesting tools in the Multi & Cross channel department. First, some of us had the occasion to see a kind of "very large Iphone", a tactile surface, made to browse the online shop, while in the store. This appliance, built by Polytouch, is very eye candy and attractive to customers that quite naturally step toward it to browse your catalog. If no vendor is available right that second, the screen can "buffer" the customer for some minutes until one is freed or it can also be used to make instore transactions.

The POS device is very specific and, once detected by the website, its display is adapted to specific local needs of the store. It allows some better handling of the browsing through an interface adapted to touch screens.

Germany is a market with a specific structure, with very exigent consumers, making the "Cross commerce" a default need for most brands and retailers. The hype around "Omnichannel" and "omniconsumers" even made our contact at Oxid smile since it was in the vision of the team for quite a while now.

Some classic features like store locator, the codebar scanner, or "pay-in store deliver at home" are embedded. Some of the modules available in the marketplace are made to enhance the native features of Oxid, making it Multi-channel friendly. Even if not perfect or complete on this point, Oxid can already offer a surprisingly affordable and correct experience for the company adopting it.

A Mobile design will be delivered in June, directly in the default template of the demostore, allowing for a quick customization. By the end of the year, a global responsive design will be delivered by the team, based on twitter Bootstrap. It will simply be an additional package, a default template natively made "responsive". The system is pretty simple: you can make your own custom template inherit from the main central one, allowing for a low cost to get a very efficient integration of the mobile channel.

Internationalization

A partner of Oxid, Mobilemojo, is also offering a native APP for Apple devices but it seems Android is left behind at the moment. Some other companies are publishing modules in the market place to help you start your mobile experience.
Internationalization

Even if the company tried to export itself to France in order to manage a first expansion move, the result was a failure (as we expected in the first version of this book). Creating a subsidiary, owned and managed by the core team seems to be a key to success but Oxid, by that time, tried to license the software exclusively to a third party reseller.
Nevertheless, this experience has been assimilated and the will to expand to another market is still somewhere in the mind of the company, even if nothing really urge them to do so.

The German domestic market is indeed one of the biggest in Europe, ranking either second or first according to the various studies and figures we could find. But expanding to another market, when you are an Opensource solution, can also be made through adapted tools for your community.

Regarding this, Marco Steinhäuser (Oxid's community manager) has a plan to globally overhaul the community tools, like the forum, the extension market, the translation system and some others.

Oxid eShop already provides a 100% full translation of both front & back office elements in :

- German
- English
- French

And 5 more are on their way. (More about this here : http://translate.oxidforge.org/)
As a second try, Oxid is now trying to set foot in Poland, through a very big and dynamic partner, Makolab. In a more general way, the company will most likely try to expand through a community of local partners, as Magento did with success before.

OXID eFire

Efire is providing a central point to interface with other platforms: payment gateway, price system, flux managers, retargeters, marketplaces, credit systems, loyalty programs, fulfillment, etc.

It pulls out data from your website and feed the third party platforms.

As an example, Efire can pull out the entire product list of items costing less than 30 €, unsold for the 30 days and publish them on eBay.

This is only one of the many features of this very unique and interesting SaaS model. The system is not totally yet "Enterprise grade" but it is on its way (end of year). But Germans are the cautions type, it is not yet Enterprise Grade, still it is widely used by the customers of Oxid, so it can't be that far from a finalized form.

EFire, seems at first sight, to be a very advanced and yet easy-to-use system, allowing to easily automate and integrate third party services.

Logical but regrettable, it seems eFire is only available to German Market yet. This feature is really well thought and bringing seamless SaaS services to the shop through this Hub is an interesting evolution of the model.

Technical points

Search

The default search engine provides the usual simple and efficient features you can expect from it and offers a small bonus by making possible the association of keywords and product. That allows you, for example, to automatically answer to the most common typos made by your customers.

It can also be replaced by Fact finder, a very efficient solution, offering a quality support. No wonder how the two teams met since both companies are based in the same city (Freiburg). Celebros is also interfaced through a module and Solr is easy to integrate.

Some merchants, like Mayersche are indexing no less than 6.5 Million products with an Oxid + Solr combo, proving that the limits are, at least, beyond those figures.

Code quality

Regarding the development methods, Oxid is coded with Agile methods, natively allowing the teams skilled in these techniques to get faster to the point.

Unlike Magento, that will first do it in the version 2, OXID eShop integrates unit testing functionality, with almost the entire surface of the software; nothing like German thoroughness!

Among the many code factories you can find in eCommerce, most experts that have been looking into Oxid Shop code have usually a positive feedback: The code and models are clean, among the most qualitative on the market. The Framework is much easier to master for a developer than Drupal Commerce or Magento one and yet less experimental than Virtuemart or Zen Cart.

Performances

The most obvious example is the site Medimops(*) which manages over three million products, thousands of order per day and shows good technical performances regarding the loading speed of the pages.

The cache system is efficient and the advanced cache backend like memcached are supported, along with the possibility to use Varnish ESI sytem and the «Dynamic Content Cache» system of Oxid reduces the number of SQL queries to about 1/10 of their original number. The database structure is fairly simple, having 5 times less tables than a Magento instance.

Various points

The new Enterprise version 5 gives also the ability to separate databases Read & Write, to provide an amazing scalability. This specific separation of both functions with MySQL has never really been implemented on a large scale by any other framework and this would be quite unique to Oxid.

The teams took some delay implementing a RESTful webservice, even if a community project exists. The e-commerce industry seems to massively adopt the RESTful philosophy since it allows non-blocking calls, along with better scalability, latency and security. But The Core team has not yet converted its webservice to a REST compatible version and Oxid is rather SOAP oriented right now, which is not blocking anyway.

Smarty is used as a templating system, but with less unitary performance than for RBS Change (using the same library), from what we have surveyed online. This said, scalability and unitary rendering speed are not always directly correlated and Oxid scales very well.

(*) http://www.medimops.de/

An easy way to start a shop is to download the Oxid system, deploy it and customize a child theme based on Azure (the default template). To finish the job, you can just have a look to the marketplace and find modules that will be needed in your site. You can also download, for test reasons, the demo data, if you want to benchmark the solution for example.

OXID's team provides, in addition to the web agency support, direct support from the editor. In the case of very special needs, as for example tailor made modules, the editor can sometimes handle it directly.

Conclusion

Oxid is a lightweight, qualitative and mature solution. It comes with many build in features that can easily be extended with the module marketplace.

The code and architecture stayed simple, a bit as in Prestashop, allowing for very fast integrations, a team of 2 developers has even been reported to be able to create a site in 2 weeks, from scratch. (http://www.ellapaul.de)

The eFire platform, that allows using many different third party services without the need for integration, is brilliant but limited to German use yet. Internationalization is one of the main weaknesses of Oxid anyway, with few company offering services in other countries. OXID eShop is much closer to a customizable e-commerce system where Magento is rather a framework to be integrated, resulting usually in a 50% shorter time to market.

The feeling of efficiency is enhanced by the facts: large websites select OXID eShop and are successful with it, volumes may be really impressive and the solution is rock stable. Finally, OXID eShop is a very strong competitor to Magento in its core target and the story would have been very different if the product had focused earlier on getting a Europe-wide visibility.

German clean and serious solution, the first meaningful customers in UK or France willing to try their chance with this product will undoubtedly benefits from all the German care and quality control you can imagine, to make sure these first references become successful customer cases.

Oxid eShop

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Oxid eShop
Turnover to consider the solution	> $ 500 K
Current market settlement	Tier 3 - 4
Editor direction	Tier 2 - 3
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,P,R
Opensource	Yes
Editor emphasis	Performance
Editor emphasis	Scalability
Editor emphasis	Easy upgrade
We are impressed by	Upgrade system
We are sceptical about	Ambition of the solution
Min budget to create site (developping from scratch / customizing an example shop)	50 K€

General KPI	Oxid eShop
Cost of the solution (license, integration, hosting)	★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	★★★☆
Time to market (developping from scratch / customizing an existing example store)	★★★★☆
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★
Backoffice friendliness & ease of use	★★☆

Technical KPI	Oxid eShop
Development technical complexity (more stars => less complicated)	★★★★
Number of third party softwares / extensions / services available	★★★☆
Number of complementary product / services from the Editor	★★★
Speed of the Front Office (customer web page rendering)	★★★☆
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★★
Native CMS capabilities	★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★
B2C Feature list (default, without add-ons or side programs)	★★
Mobile (Native App, Hybrid App, Responsive design)	★★★

Advanced features KPI	Oxid eShop
Advanced searchandising & user personnalization capabilities	★★
Multi / cross / Omni channel capabilities	★★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★
Native B2B capabilities	★

PrestaShop

PRESTASHOP
The Best E-Commerce Experience
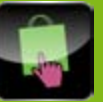
Belongs to	PrestaShop SA
Number of employees (worldwide)	70 employees
Revenues in 2011	6.1 M€
(ecommerce) Business model	Modules and themes marketplace, support
Licence cost	Free
Technology	PHP 5
Framework	None
Database supported	MySQL
Version (at the time of study)	1.5.4
Licence	OSL v3.0 & AFL v3.0
First release	Feb 20th, 2008
Origin	France
Budget to create a website (low/middle/high)	0 / 10 K€ / 60 K€
Our merchant typology recommendation	B2C, topic shop, product specific shop

Tier 4	Tier 3	Tier 2	Tier 1
Very strong	**Breaching**	**Not targeted**	**Not targeted**

About the solution

PrestaShop is a French, PHP and Open Source e-Commerce solution created by Bruno Lévêque, easy to use and widely spread over the world. There are 135 000 (2% being in SaaS) eShops that are running with PrestaShop today. Every month, it is between 100 and 150 eShops that are launched with PrestaShop. This solution is one of the e-Commerce leaders in terms of active eShops according to most surveys, including the one we have made with our own tool.

This is a very positive fact for all future eMerchants that want to use this solution. The more a solution is spread, the easiest it is to find help, information, free add-on, good agencies that know the solution, etc. By choosing such a solution, chances to fail are greatly reduced. This is the power of Open Source and PrestaShop has a large community.

With nearly 50% of its revenues coming from the Addons marketplace, the solution
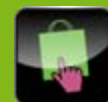
has now a business model that seem to be profitable. The company is said (by its CEO) to be back to profitability since 2013, while the Founder announces an intended $ 2Million turnover in US, which are a positive news.

Technically

Technically speaking, Prestashop is an object oriented PHP system, highly readable and easy-to-access. It relies on MySQL as a database and has a fair footprint on server performances. Prestashop is, by far, the easiest solution to develop with. This fact alone already explains the wide adoption of the framework worldwide. The very evolved coding technics of Drupal Commerce or Magento are surely elegant and somehow efficient, still they exclude a lot of developers by their complexity.

Still, simplicity doesn't mean being limited. The web service is one of the most advanced in the market with a large and constantly improved number of features. The Mobile application is good and rather complete, even compared to the one provided by billion dollars companies. The feature list is very extensive, due to short but inspiring appearance of Christophe Cremer in the company. Its dream to be a new Magento probably led the company in some excesses but surely Prestashop did a giant leap concerning its roadmap at that time.

Some meaningful part of the code had to be reworked since the haste which prevailed by that time was maybe good for marketing but not that efficient in term of quality. The founder himself was back on the core and corrected a lot of errors and some security flaws. When released, the version 1.5 was considered by many as an unfinished work, still of a beta quality. Now the issues seem to be fixed and PrestaShop's codebase is back to a very operational and cleaner status.

The cache system is less advanced than Magento's one and in effect not that efficient. Still, the system being quite light, the sites developed in PrestaShop can run fast, if the server configuration or performances are tuned correctly. On the gray zone, PrestaShop doesn't rely on any framework yet.

 We could imagine that the version 2 will be using one but right now, all is made "in house". The approach has some virtue but also some drawbacks that led most other solutions to rely on a Framework (Zend, Symfony, Drupal, etc.) and even some Java based solution are relying on frameworks. The pro is obviously that a lot of primary functions are held by the framework, allowing you to focus on your own added value. To illustrate it, what is the point of redeveloping a database connector, a form parser or a cache system if your framework provides it already?

Far from only running after the others, PrestaShop is also looking to innovate where it can, like with the shopping carts insurance or a direct export to eBay. Some interesting third party application allows handling the catalogue with a "rich" application
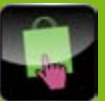
(written in C) to save a lot of time while editing it in offline mode (a synchronizing with web service is made after).

Like all PHP based solutions, PrestaShop cannot reach the very large (with several ten or hundred million euros online sales) because, beyond the technical challenges, PHP solutions are using an interpreted language (PHP), most of time MySQL and no middleware application server. This doesn't allow the Funnel design, like in the WCS solution, where thousands of simultaneous loads do not implies millions of queries in the database.

The BackOffice is in basic HTML (no Xul or Flash) but it is clear and friendlier than Magento's one and a fully functional demonstration is available online on their website, front & back office. (http://www.prestashop.com/en/demo).

When testing the speed of the solution, we had slow load times for PrestaShop but it is mainly due to the fact that people using Prestashop tends to have small budget and use inefficient and non-specialized hosting companies.

As expected, PrestaShop had a painful year

In our first edition, we stated that PrestaShop was tailored for small e-Merchants and its strategy to try to compete with Magento was probably a mistake. The last sentence of our conclusion on PrestaShop was : *"[…] no longer focusing on Magento strategy but having its own one could be beneficial. The solution has enough benefits to grow by itself. Being different, unique, taking advantage of its own assets has often many more benefits than going after the leader."*

What happened?

PrestaShop went through a bad storm in 2012 and many people thought the solution was almost dead. The 1.5 first releases were unpolished and buggy, the incomes were still shaky and the business model clumsy.

All started when the former CEO, Christophe Cremer, was dismissed by the associates. Its strategy to run after Magento was a mistake which cost a lot and PrestaShop nearly went bankrupt.

The company was short on cash and had to fire a lot of developers and some key people. An important part of those former members among them, some decided to trial the company, which in France, can really cost you *a lot*.

When all of this has been leaked, the whole e-Commerce ecosystem was wondering if PrestaShop would survive this crisis. But you judge people strength in the crisis,
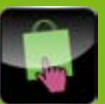
like the Chinese saying state: "The tiles that protect from the rain were all installed during sunny weather". The founder took back its prerogative and appointed M. Tezner as a CEO to restructure the company while he was fixing the technical side and tried to breach in the US market. The company changed its offices from the center to a suburb in Paris and started to change its communication strategy. Today, PrestaShop is not ashamed to say that the core target of the solution is small eMerchants. This is clever as we know that, only in France, 95% of the eMerchants have a turnover under €1M.

These rough decisions probably saved the company from a darker future and even if PrestaShop suffered, it is still alive and the product is having a continuous growth. Anyway, widely adopted Opensource software never dies. Once they reached such a magnitude, there will always be someone to take care of the framework, which allows merchants picking an Opensource solution to feel safe. Since September 2012, the accounts are told to be back in the green zone. This fact is difficult to check since the company does not publish its balance sheet or accountability. (According to French law, it should, but you can pay a fine to dodge this requirement).

The company seems now back on track and capable of reacting and adapting to an ever evolving market. The stress test was harder than for most competitors, but PrestaShop stood its ground. The ideas developed internally are interesting and some major moves are to be expected during 2013.

What's new in PrestaShop?

The 1.5 version was made to target bigger accounts. It was supposed to bring all the new features that lacked PrestaShop in order to be able to compete with Magento: multi-currencies, multi-stores, and multi-stocks… pretty much all the features that start with «multi».

This is the last heritage provided by the former CEO Christophe Cremer and PrestaShop could not stop it as a full communication strategy was planned to promote all these features. The positive side of the 1.5 is the possibility, for small eMerchants, to get features that are usually dedicated to the big ones.

The mobile application has been improved (even if it was already of the more convincing of the market) and eMerchants have now access to a wide range of responsive design themes on addons.prestashop.com. The development team really wants to make life easy for the users and the developers by providing them easy coding applications. The mobile application has been awarded at the French e-Commerce Fair as best application in the Mobile category.

Regarding the roadmap, PrestaShop already started the development of a 2.0 version and planned new minor releases in order to improve regularly the features every
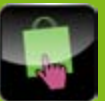
2 or 3 months. The team wants to keep going on the internationalization of its community with the objective to become the 1st e-Commerce solution in terms of active eShops worldwide. Another main objective of 2013 is to be an even easier solution to use for eMerchants and developers. The developers also work on an overhaul of PrestaBox, the SaaS version of PrestaShop, big changes will be announced in 2013.

Will PrestaShop tend to be a SaaS?

As we said above, only 2% of users are running the "SaaS like" version of PrestaShop whereas the company objective is to become the number one e-Commerce solution for small accounts. If PrestaShop wants to conquer the whole market we can guess that it will use its SaaS as a cornerstone of its long term strategy in order to be the easiest e-Commerce software to use in the world.

For EMerchants without knowledge in hosting, web-design, PHP and all the skills required to run an e-Commerce activity: the SaaS is the only solution.

But Prestabox cannot be, as is, the leading SaaS solution of tomorrow. It is not a fully autonomous, complete and scalable system yet. The competitors are serious and equipped, on its domestic market (France), Oxatis & Powerboutique and ePages have meaningful positions. On an international level, Venda, BigCommerce, Shopify, DemandWare are growing their market share. So to impose in this very competitive panorama, PrestaShop will have to bring both a very complete and efficient product, but also a disruptive business model. The experience stacked with Prestabox could also help the company to transform smoothly from a model to the other.

Still, PrestaShop comes from an arena where the bullets fly and where eMerchants are particularly exigent. Bringing the integration product to a comparable SaaS quality would undoubtedly wreak havoc among the existing players. If made in a very intelligent way, the integration Opensource product could share the same codebase as the SaaS, allowing PrestaShop to keep a single product line able to address also the SaaS market.

With 8.6% of market shares and 130.000 active eShops in the world, the SaaS model would be the logical next step for the solution and we might see a fierce competition arising very soon between these e-Commerce SaaS actors.

USA expansion

Bruno Lévêque, co-founder of PrestaShop, went to the USA in order to live its American dream and bring an international status to the solution. His goal is to compete directly on the field with other solutions and get 15% of the market shares in the USA. It seems quite difficult to achieve when we see that Magento (the global e-
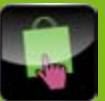
Commerce leader) runs 200.000 eShops all around the world and has 26% of market shares.

But this expansion is strategic for PrestaShop who understood that if they wanted to get a firm grip on the Tier-4 and positions in the Tier-3, being famous in France would be not enough. On the other hand, if the solution gets famous in the USA, the most competitive market for e-Commerce solutions, it can become an incontestable leader worldwide. Besides, M. Lévêque as a loves the US model, the way venture capitalist think and the global state of mind of its pair in the Silicon Valley. This is, for sure, a constant inspiration source to its plan.

M. Lévêque is a strategist and a technical expert but when PrestaShop had a bad time around October 2012, it may have been interesting that the co-founder of the solution itself talks to the community through press releases, press conferences or during a barcamp. Benjamin Teszner coped with the biggest part of the storm and did a lot of job by replying to all the people who tried to ruin the solution. This leadership issue could be a pitfall for PrestaShop who bet a lot on its community but lacks a leader to promote the product and its virtues. The former CEO had other drawbacks, but he certainly attracted a lot of attention to the product.
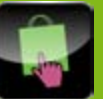
Conclusion

PrestaShop changed its strategy and that is the good news. The new CEO, Benjamin Teszner, decided not only to stop running after Magento but also to start earning more cash in order to be profitable.

PrestaShop lost a lot of time with this executive shift but the solution is still massively used by eMerchants and there is no doubt that it will learn from its mistakes. The goal to be leader in the Tier 4 seems reachable but will require a different and disruptive business model…

The team has now a clear roadmap, knows the strategy of the company and new features are planned. If PrestaShop invests in a SaaS version and consolidates its business model, we might see the rise of a massive leader in the Tier-4.

For the eMerchant starting online, two ways are possible: picking up a SaaS or customize an Integration framework to its needs. Right now, Prestashop fits in the second possibility and represent a very affordable solution, with easy to find qualified resources. The simplicity of the solution, the availability of a strong ecosystem all pledge for an easy integration, within controlled planning bounds.

Very efficient and well thought Templates are available, along with a lot of modules and the integrators is often left with a light work load, consisting in a tiny integration. For someone running a larger business but willing to dodge the complexity of other players, PrestaShop can also be a real alternative, especially for pure players since the framework is not designed to cover the physical store needs.
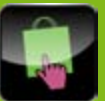
PrestaShop

PrestaShop synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Prestashop
Turnover to consider the solution	From 0+
Current market settlement	Tier 4
Editor direction	Tier 3
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,P
Opensource	Yes
Editor emphasis	Simplicity
Editor emphasis	Cost
Editor emphasis	Community
We are impressed by	Time to market
We are sceptical about	Soaring someday ?
Min budget to create site (developping from scratch / customizing an example shop)	**10 K€**

General KPI	Prestashop
Cost of the solution (license, integration, hosting)	★★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	n/a
Time to market (developping from scratch / customizing an existing example store)	★★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★★★
Backoffice friendliness & ease of use	★★★☆

Technical KPI	Prestashop
Development technical complexity (more stars => less complicated)	★★★★★
Number of third party softwares / extensions / services available	★★★★
Number of complementary product / services from the Editor	★★☆
Speed of the Front Office (customer web page rendering)	★★☆
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★
Speed of the Back Office & scalability (number of simultaneous users)	★★★
Native CMS capabilities	★★☆
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★★★★
B2C Feature list (default, without add-ons or side programs)	★★★★
Mobile (Native App, Hybrid App, Responsive design)	★★★☆

Advanced features KPI	Prestashop
Advanced searchandising & user personnalization capabilities	★
Multi / cross / Omni channel capabilities	★★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★★☆
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★★
Native B2B capabilities	★

OpenCart

opencart®

Belongs to	OpenCart
Number of employees (worldwide)	N/C
Revenues in 2011	N/C
(ecommerce) Business model	Modules
Licence cost	Free
Technology	PHP
Framework	None
Database supported	MySQL
Version (at the time of study)	1.5.5.1
Licence	GPLv3
First release	2009
Origin	United States
Budget to create a website (low/middle/high)	5 K€ / 10 K€ / >10 K€
Our merchant typology recommendation	Pure player

Tier 4	Tier 3	Tier 2	Tier 1
Breaching	**Strong**	**Not targeted**	**Not targeted**

Who is behind OpenCart?

OpenCart is an Open-Source PHP e-Commerce solution founded by Daniel Kerr. There is not so much information about the history of OpenCart and how the leaders decided to create it. It is somehow unusual since the Open-Source community loves to relay this kind of story.

"Opencart was created in 2009 and the solution shows already impressive numbers. The Wappalyzer's Top 10 applications survey ranks OpenCart in fourth position on a basis of 140,000 websites listed."

Tom Robertshaw's survey also ranks OpenCart in sixth position and granted this framework with a growth of nearly 40% in its market share in just six months.

An interesting Blog "incident"

We went through tons of websites and blogs talking about OpenCart when finally websynn.com caught our attention.
A post called "why not use OpenCart" attracted our attention and the author blames not only the editor's team because of its rudeness on forums but also the solutions' upgrade system.

We initially thought this was just a complaint post among others but what is interesting but the comments were really interesting. Official Opencart's team replied to the authors and started a war in the comments section, involving the Opencart fans and its detractors.

Several people pointed the negative aspects of the solution and the bad manners of the team on the official forum. It is probably why one of the administrators and main OpenCart's contributor called "Qphoria" commented the post by saying that, sometimes, it is true that he loses patience by answering in an unusual manner as he gets 10 times the same e-mails every day. Pretty harsh for a community manager answer but still, we have to keep in mind that OpenCart is an Open-Source solution, free to use. As Qphoria explained, there are only few developers working on the project and users are expecting professionals answers just like if it was a service.

The comments of this post are still a good source of feedback information. If you like having direct feebacks from the field, do not hesitate to have a look at them, but only if you have time as there are hundreds of them!

OpenCart – a big success?

We found overtime that having a quick look on an opensource solution forum usually brings interesting figures. OpenCart's forums show 52 000 users when in comparison, Magento has more than a million users and PrestaShop has 400 000. The solution is younger but still, the figures are not that impressive yet.

On the positive side, Opencart's community is small but pretty international and active. It is possible to find extensions that enable you to translate your website in no less than 17 different languages! Regarding payments, Opencart's official website claims that 23 payment gateways are already included in the product! Many contents can be found on the web about OpenCart. Overall, we think it is better to have a small community but full of people that are really motivated about the solution.

OpenCart does not seem to have any community events or barcamps (yet), even if they would allow connecting the community members together and with the editor's team.

Regarding the partners, OpenCart gained popularity in United-States where it already counts eleven partners and in United-Kingdom with seven of them.

"Overall, OpenCart is well spread internationally with partners in a total of 26 countries, showing that a momentum is starting to grow."

What about the core technical features?

OpenCart is based on a classical "Model View Controller" framework designed to facilitate the whole structure of the code to help developers working together through an organized hierarchy of data. This model is very helpful when several teams are working on a same project (web agencies and internal developers for example). The goal is to separate the database layer (model), template display for front and backend (view) and functional code (model) in order to reach the main objective: code reusability.

MVC framework's (almost all PHP solutions are based on this typology) help designing a clean and optimized code for the future site. A clean code is a basis to avoid troubles when a change occurs on the website. If there is only one mistake in your code, your website will suffer a lot after an update of the solution, especially if a deep change is made in the design of the framework or its workflow. It is called a "technical debt", go quickly to the goal but contracting a debt, that you will have to repay later on.

"OpenCart is a developer friendly solution: the system's architecture, inheritance setup, XML configuration system and use of the MVC pattern make it usually comfortable to work with."

The solution offers a wide range of documentation (how to install, set-up, manage the eShop, etc.) on its website which is positive for an Open-Source solution. Glorious competitors like Magento had far less documentation at their beginning and this library makes it easy for developers to try OpenCart.

The HTML integrators will also appreciate the existence of thousands of official themes that can be either paid or downloaded for free. An OpenCart research on themeforest.net shows 181 results whereas PrestaShop has 45 and Magento 212, proving also the interest of freelancers for the solution. Here again, the OpenCart community is small but efficient!

One of the most famous modules of OpenCart is «vQmod» (Virtual Quick Mod) created by Qphoria. This module has been created in order to make life easier for the ones who want to change the core files of the solution without crippling their ability

to update the software. VQmod is basically storing the modification made to the core under the form of XML files. The source is then patched with the script file changes, and saved to a temp file. That temporary file is substituted with the original during execution and the original source file is never altered.

This results in a «virtual» change to the core during execution without any actual modification being written to the core files. vQmod is not limited to OpenCart and it can be used on other CMS or platforms. Once again, we can appreciate the quality of the community!
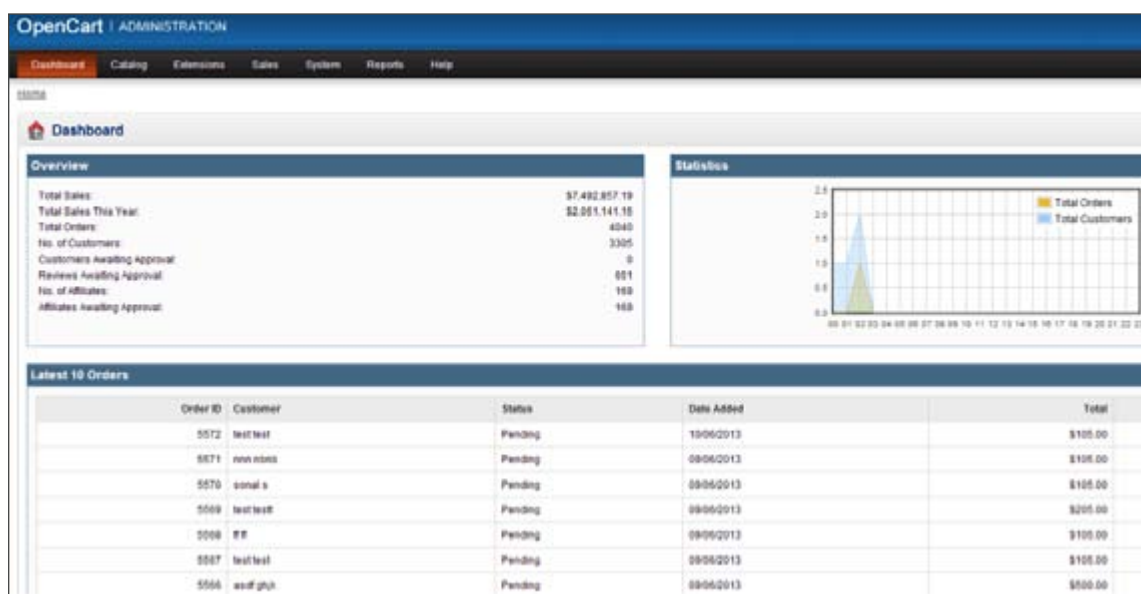
Administrator view of OpenCart

Advanced features available thanks to the extensions

Opencart is a solution that covers the basic needs of eMerchants. Features such as multi-store management, coupons, gift vouchers, multiple tax rates are included in the default version. The amount of available extensions is also very good compared to other solutions such as PrestaShop, Drupal commerce or even Magento, which have choice available!

"If some features are not yet available, you may have a chance to find them in OpenCart's extension directory since it contains more than 8,000 extensions (2,500 being free)."

This great advantage is also a weak point for OpenCart. The default solution does not provide advanced features such as mobile commerce or multi-channel tools for instance. However, it is easy to find an extension that can fit merchant needs. For mobile commerce, there are many templates available that are mobile-ready or extensions that provide a responsive design.

Same apply for B2B, blog management and many others features that a merchant could need.

The major drawback here is the extreme customization that can lead to performances issues. What will happen to a store if some of its extensions do not support a newer version of the core? The e-Merchant will have to find solutions, hire consultants, and maybe change the code of its website and this could lead to a waste of money.

As a result, OpenCart is not the best solution for e-Merchants that are not used of this model. Reviewing extensions, comparing them, check if they meet the security standards and finally install and test them is a long process. Even longer if the e-Merchants have no IT background. In Tier 3 and 4, many of them are not IT professionals and those two segments are OpenCart targets.

Conclusion

OpenCart is a solution that can be used for various businesses. Start-up, e-Commerce starters or even more experienced professionals can choose this solution for their business. OpenCart is a professional solution that provides a lot of e-Commerce features, for free: easy to install, easy to use, many themes available, small but international community that can help and reasonable regading hosting costs.

"The solution targets Tier-3 and Tier-4 and it is a very serious competitor in this segment. "

According to our researches and surveys, OpenCart seems to be more used by developers who have a strong background in PHP. They have adopted the solution and love playing with it through a complete customization with extensions and in-house developments. OpenCart is definitely a solution to consider if one has coding skills. There are thousands of themes and extensions available on the official website and a store can be easily customized. The setup of the solution is not so complicated, it is easy to use and the community can be helpful.

Somehow, this solution can also be looked at in an investment perspective. Some other frameworks like Magento started their massive success with comparable starts and figures. OpenCart has definitely a momentum, larger in US than in Europe, but this may just be a question of time before the ecosystem grows.

However, OpenCart might be difficult to use for a beginner without IT background who would like to start a first e-Commerce store. Even if the community is helpful and very efficient, we do not see many agencies that are offering OpenCart in their services yet. The e-Merchant tech savvy may develop his online store alone, the other can hire a CTO or start to find some community wizard to hire.

Opencart's strategy is not really readable and we do net really know what to expect from the company yet. We love finding "hidden gem" and this framework can be one. Many questions still remain opened when we think about OpenCart and its future but we definitely hope the best for OpenCart's future.

OpenCart

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Opencart
Turnover to consider the solution	From 0+
Current market settlement	Tier 4
Editor direction	Tier 3 - 4
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	B,P
Opensource	Yes
Editor emphasis	Extensions
Editor emphasis	Community
Editor emphasis	Cost
We are impressed by	Number of extensions
We are sceptical about	For good developpers
Min budget to create site (developping from scratch / customizing an example shop)	10 K€

General KPI	Opencart
Cost of the solution (license, integration, hosting)	★★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	n/a
Time to market (developping from scratch / customizing an existing example store)	★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★★
Eco-system (community, partners, integrators, forums, etc.)	★★★☆
Backoffice friendliness & ease of use	★★★

Technical KPI	Opencart
Development technical complexity (more stars => less complicated)	★★☆
Number of third party softwares / extensions / services available	★★★★☆
Number of complementary product / services from the Editor	★
Speed of the Front Office (customer web page rendering)	★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★★★☆
Speed of the Back Office & scalability (number of simultaneous users)	★★★
Native CMS capabilities	★★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★☆
B2C Feature list (default, without add-ons or side programs)	★★☆
Mobile (Native App, Hybrid App, Responsive design)	★

Advanced features KPI	Opencart
Advanced searchandising & user personnalization capabilities	★★
Multi / cross / Omni channel capabilities	★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★
Native B2B capabilities	★☆

Zen Cart

Zen Cart

Belongs to	Zen Ventures, LLC
Number of employees (worldwide)	NC
Revenues in 2011	NC
(ecommerce) Business model	NC
Licence cost	Free – Open-Source
Technology	PHP
Framework	None
Database supported	MySQL
Version (at the time of study)	v.1.5.1
Licence	GPLv3
First release	2003
Origin	United States
Budget to create a website (low/middle/high)	5 K€ / 10 K€ / >10 K€
Our merchant typology recommendation	Pure player

Tier 4	Tier 3	Tier 2	Tier 1
Strong	Marginal	Not targeted	Not targeted

An old but still famous solution

According to Zen Cart's official website, the first release of the solution dates back to June 2003. Zen Cart's code is originally a fork of Oscommerce and the solution is now very widespread in the world of eCommerce. Zen Cart has still developers and aficionados and it is fairly easy to find help and information. Zen Cart is even the most popular fork of Oscommerce!

Statistically speaking, Zen cart is seventh in the wappalyzer ranking with 5,652 websites using the solution. Our own crawling of the top 1 Million Alexa ranks Zen Cart in the fourth position, but with 2,000 shops less than last year. Zen Cart seems to have lost a very meaningful amount of its market shares in just one year!

1,600 plugins are available on Zen Cart's official website and more than 6 million downloads have been made. The number of plugins is not so tremendous considering the fact that the the solution is ten years old, but it is still a good source for e-Merchant needing a specific customization on his online store.

The forum is also a great source of help for all "Zenners" as it is used by many of them. Zen Cart claims that the forum is the official source for getting help about the solution. This is a deep sign that Zen Cart history is deeply rooted in the Open Source model.

Having a look at the statistics of the official forum is a great indicator to see if a solution is well known and still active. Zen Cart's forum has nearly 120 000 members and counts around a million posts. This is a positive aspect, showing that in case of problems, someone might help quickly and efficiently if a site is facing troubles.

Improving the solution step by step

Zen Cart's team takes its time and prefers doing small updates in order to improve the solution, step by step. This is why, today, the latest update was the v.1.5.1, released in September 2102. Still, the team is working hard to release the v2 of the solution. A good example of that is the PA-DSS certification (this certification provides security standards for vendors that develop payment applications) that the team got in 2012. According to the editor, it took a long time but the team can now be proud of it as only one other Open Source solution got this certification (namely Magento, with its Magento Secure Payment Bridge).

"The philosophy of Zen Cart is to make things right even if it has to take time."

Zen Cart has published a roadmap that shows the future evolutions of the solution. The main objective of the team is the release of the v1.6.0, which will rejuvenate the framework appearance by integrating a whole new layout.

"We have long been aware that the look of our current «default» out-of-the-box «classic» template is old fashioned, rather drab, and doesn't present our core product in the best of light. Well, that's changing soon!"

This signal is really positive indeed and it was also needed by the community, especially when we look at the recent abandonment rate that soared. Taking time is sometime not the best to do when the competitors are so active. The main reproaches were about a poor design, taking the solution too far away from today's e-Commerce trends.

Anyway, this overhaul of the look and feel shows that Zen Cart's team is aware of the current issues and that they are solving it. In the new version, the integration of HTML 5 & CSS3 along with responsive design for mobiles and jQuery will make the customizations much easier and will, hopefully, provide this veteran solution a second breath.

Zen Cart

Technically

One of the most famous features in Zen Cart is the template override system, which allows developers to customize the look and functionality of a store without having to modify core files.
All changes done in a template are kept and compatible after an upgrade or a patch has been applied. This is a clean separation between the model and the view, quite classical nowadays.

By allowing developers to install multiple templates for a store, the override system allows to change a store's look based on a seasonal context or to promote a clearance sale, a special product launch, etc.

A missed rendez-vous?

The keys on which the solution was build were not that bad or distant from the needs to cover in a modern e-Commerce solution though. With unlimited categories and product options, gift certificates and a decent promotion engine, the solution could have "naturally" evolved toward excellence.

Same apply to the mult*. Multi lingual, multi currencies, multi tax rate, this was a real good base for international stores. As well a simple but efficient permission system existed, along with some basic reporting tools.

But the administration modules were far too complicated and the roadmap did not emphasize the real urgent changes that were needed years ago. In a way, Zen Cart is a living example of what can happen to any solution evolving too slowly or in the wrong direction.

A bit outdated

Few major releases of Zen Cart have been released over ten years and the demo store looks a bit outdated. The design and the user experience are old fashioned and some basic features, now available in almost all concurrent frameworks, are missing in the core product. Product comparison system, social bookmarks, ratings or even the possibility to zoom-in on products' pictures are not available out of the box, among others and compared to all the solution we've analyzed so far, Zen Cart has a lack of basic features.

Same apply for the admin interface that is much less convenient and intuitive than almost all other solutions. This problem of features and design is a major weakness for Zen Cart, inherited from Os Commerce's lack of extensibility and outdated design.

Zen Cart

The e-Commerce world is more and more professional and the design is now a key point for e-Commerce stores. User experience standards and expectations are now very high and starting a store without so many investments is possible, thanks to beautiful templates done by modern web designers on modern platforms.

Zen Cart is a great Open-Source project but it seems that the leaders are not as motivated as they should be to adapt the solution to today's e-Commerce world. Having a look at the features list is enough to understand that Zen Cart does not answer e-Commerce challenges that e-Merchants faces today. B2B, B2C, SEO, mobile commerce, scalability, design, user experience, all these keys are not build-in with Zen Cart.

There is still a possibility to find plugins that will cover some of the needs, with the very help-ful Zen Cart community. Nowadays, if a solution

"Even cost wise, you are far from sure that a Zen Cart experience will be less expensive that a Prestashop one, Prestashop being far more friendly and complete out of the box."

wants to survive, it has to fight fier-cely against competitors that offer serious innovations capabilities. As we have witnessed over the last years, e-Merchants have now the choice of kings since they have the capability to choose among several solutions. Their first meetings with Zen Cart will most likely lacks key factor to enroll him in this direction.

Below, the Admin panel

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Conclusion

Zen Cart is an old solution that seems to be outdated when we compare it to competitors. It still fight to try to cope with the lag by doing releases every month in order to satisfy e-Merchants' needs and to adapt to e-Commerce new trends, but the base is functional enough to cover the distance.

In 2003, Zen Cart aggregated a big community and was a major success since the team tried to create something more advance than OsCommerce (leader by that time). By doing so, Zen Cart was one of the most advanced e-Commerce solutions and provided a ready-to-shop store, with basic but efficient features. It was a success and Zen Cart was adopted by a large community of developers.

A few years later, other solutions came-in, with the same idea than Zen Cart in 2003: to create a better solution to replace the dying Os Commerce. Magento and PrestaShop were the two solutions that had the biggest success and they quickly overtook Zen Cart's leadership. Fresher look, deeper features list, better scalability and usability along with modern designs were the focal points of these new solutions. For the anecdote, Magento even used Zen Cart's baseline, The art of e-Commerce, as the main theme of the 2013 Imagine conference in Las Vegas showing, if needed, that the teeth of this old lion were really worn out.

Zen Cart could have compete with these newcomers by raising funds and hire a complete developer's team in order to provide regular updates but it did not and the solution is now losing market shares and seems doomed to share its ancestor's (Os Commerce) fate.

"Zen Cart may come back to life with a brand new version of the solution, currently under development, but the distance to cover is very important."

Without the funds that Magento, Prestashop, Drupal Commerce and the other benefit from, the task is almost hopeless.

VirtueMart share the same concerns and started a new project, almost from scratch. This second version of VirtueMart convinced the users to keep using the solution and it was a success. Zen Cart should maybe also think about this opportunity and capitalize on its existing customer pool, on its name and brand, to prepare a comeback.

Zen Cart

Zen Cart synthetic report

(The more stars, the best. One star is the minimal rating. On every KPI at least one solution scores 5 stars, hence this is a comparison between solutions.)

General information	Zen cart
Turnover to consider the solution	From 0+
Current market settlement	Tier 4
Editor direction	Tier 4
Profile (B:Brand, R:Retailer, P:Pure player, D:Department store, Pv:Private sales, B2B)	P
Opensource	Yes
Editor emphasis	Community
Editor emphasis	Features
Editor emphasis	Cost
We are impressed by	not much
We are sceptical about	their futur
Min budget to create site (developping from scratch / customizing an example shop)	5 K€

General KPI	Zen cart
Cost of the solution (license, integration, hosting)	★★★★★
Flexibility of licensing costs (peak, pay as you grow, on demand, on premise …)	n/a
Time to market (developping from scratch / customizing an existing example store)	★★★★
Variety/Quality of demo shops to adapt to a specific use (apart from std demostore)	n/a
Marketing capabilities (promotion engine, coupon, gift card, etc.)	★★☆
Level of navigation & catalog presentation (faceted/multi-stores/multilingual/etc.)	★★☆
Eco-system (community, partners, integrators, forums, etc.)	★★☆
Backoffice friendliness & ease of use	★

Technical KPI	Zen cart
Development technical complexity (more stars => less complicated)	★★★☆
Number of third party softwares / extensions / services available	★
Number of complementary product / services from the Editor	★
Speed of the Front Office (customer web page rendering)	★★★
Front Office scalability (capacity & cost to serve more customers with less servers)	★★
Speed of the Back Office & scalability (number of simultaneous users)	★★
Native CMS capabilities	★
Native Webservice capabilities (Interfacing with third systems, e.g. ERP or Logistic)	★☆
B2C Feature list (default, without add-ons or side programs)	★★
Mobile (Native App, Hybrid App, Responsive design)	★

Advanced features KPI	Zen cart
Advanced searchandising & user personnalization capabilities	★
Multi / cross / Omni channel capabilities	★
Advanced catalog management (PIM, multi catalog, attributes, bundles, etc.)	★
Integrated or natively interfaced OMS (order management system)	★
Advanced marketing tools (adaptive marketing, dynamic navigation tunnels, etc.)	★
Native B2B capabilities	★

Conclusion

Conclusion

In a world where almost all businesses have now a strong competition, the solution editors have emphasized different strategies to equip their customers for the battles to come. Yes, the global e-Commerce market is indeed growing worldwide, still this is no Eldorado where one should head unprepared. The competition is tough and the margins are often small. To make things even more difficult, the advertisement systems, the retargeters, marketplaces and other webmarketing providers are also trying to eat on these skinny profits.

We have more worrying news ahead… We see the e-commerce world as divided in two groups nowadays: those who are Amazon and those who are not. It is forecasted by some serious analysts that Amazon may weigh up to 20% of global e-Commerce by 2017…

In the great gigue of e-Commerce, there are people with a natural place online. Mainly the renowned brands and retailers, that have a consumer group recognizing and valuing their products or services. Those players have no real competition from giants like Amazon (eventually from another brand rather). To put it short, if you are Diesel, you compete more with Levis than with Amazon.

Then come all the others… The one that are not brands, that have no "natural" space online and who will have to fight their way online. Even very large sites and classical mortar business have very hard time to compete with Amazon so, most likely, if you are not a brand, you do not want to step in this game.

And the link to the e-Commerce solution is exactly this one. If you are a brand you need to choose wisely your system but if you intend to be a niche player this is also very true. You may want to provide either a large variety of similar products (ie: "essential oils", "lamp shop", etc.) or provide an extensive group of products designed for a niche (ie: "all for recifal fish tank").

That way, you are not competing with Amazon which provides almost everything and anything but you bring value by being a specialist, providing an exclusive choice capability or an extensive knowledge of the designated domain, or even a very smart upselling process (like in the aquarium example). By providing a unique customer experience, specific knowledge, product variety, or eventually specific services or delivery options, you can create your own space on the Web.

Some Frameworks will help you achieve this by allowing a lot of visual customization. This will dip your customer in your universe There are various features in the solutions that can help a newborn site to acquire customers in their specific segment; we tried to underline them in this book.

The B2B actors are still the one preserving the best their margins and they usually are growing. These activities, to be properly managed, needs advanced tools and specific features, usually costing some serious bucks but the investment is worth it, most of times.

The solutions

All of them have a common ground and cover the basic needs (cart, catalog, etc.). Some of the solutions can bring you very far and help you excel in a particular zone that you consider as key for your business. The stakes are variable and are yours to define. Some eMerchant needs to be visible, other have to preserve already very weak margins. One may see its future in a totally integrated multi-channel strategy where another will focus on CMS to carry a strong brand image.

Of course, no one wants to pick a solution with holes but sorry, no solution ranked 5 stars on all selected criteria. Actually we will even get a lot of grunting from the editors themselves, who consider their solution as perfect on all aspects. But the goal of this book is to help you cutting a decision, and hopefully the right one for your business.

All along these lines, we have underlined the pros & cons, in the most objective way we could. We are not here to underline who is leader or not, like Gartner or Forrester. Our purpose was to dig into each solutions entrails, vision, and technological choices to bring you all elements we found meaningful. This study couldn't, by design, be exhaustive, so we highly advise you to pick two or three solutions that could fit your needs and contact them (or their integrator) to finalize your choice.

"The authors are available to help you cast your choice if you want some more details since only ~50% of the collected data could be published, for readability reasons."

ATG vs Websphere Commerce

In the Tier 1, they both provide very complete solutions.

The differentiation between the two of them can be made mainly on details more than on the core functions. IBM provides (up to us) a better Marketing tool while Oracle is having a total leadership on the personalization. Endeca (the personalization engine of ATG) can also be brought to WCS but the interfacing is totally native and borderless in ATG. On the aspect of multi & cross channel, IBM is a bit ahead, and for the ERP, Oracle is more equipped.

On the performance level, even if we couldn't really benchmark the two contenders on a Tier 1 level traffic, WCS caching system is simply superb and should allow for lower hosting costs. Even if this point is very subjective by nature, we felt like ATG's

back office was a bit more user friendly. Last but not least, the size to start considering ATG is higher than for WCS since IBM as a strategic interest for the Tier 3 merchants that Oracle does not demonstrate yet. Among differentiation points also, the mobile capabilities (a bit more advance for IBM). Small advantage for IBM in the OMS sector, covering both B2C & B2B needs, the fight is really tight.

The rise of the new couple Hybris/SAP will change this two player game when SAP will have fully integrated Hybris in its core offer and integrated its different products with one another. But already now, SAP can provide both high end ERP & e-Commerce system and this is a powerful combo.

Tier 1

In Tier 1, Hybris can be considered, but the advanced marketing and customer personalization is not reaching the quality of the two above mentioned players yet. Intershop is a contender mainly in B2B, but it is probably the strongest on this precise specialty. Anyway, all will fight to convince you they can cover your needs for a better price.

Of course, all high end solutions (Tier 1 & 2) are covering all major area of the game (cross channel, marketing, customer experience, Mobile, etc.) but differentiation factors exist. Each of these giants showed a major orientation in a precise area :

- Client personalized environment for Oracle
- Advanced dynamic marketing for IBM
- Product management for Hybris
- B2B for Intershop

Both IBM & Hybris are very oriented toward cross/multi-channel, slightly ahead of Oracle and Intershop, but the differentiation was not big enough to really stick this strength to one particular actor.

A noticeable point also, ATG, WCS & Hybris, have all decided to provide predevelopped stores to offer a choice: the "quick" customization or the development "from scratch". The movement is universal within those 3 companies, whether they name it reference store, accelerator, or demostore. Only Intershop seems to be a bit behind on this point but the company doesn't seem really "marketing driven" anyway. For Hybris & WCS, lurking on the Tier 3 market, these customizable shops are a way to propose better or quicker ROI to eMerchants with smaller budgets.

Tier 2

The Tier 2 benefits from a very large choice. ATG and WCS are still perfectly tailored for them, and we enter the excellence zone for Hybris & Intershop. But the choice gets broader even since Magento can be a very interesting solution pricewise, and some other PHP frameworks may fits specific needs brilliantly also.

Tier 3

If you are a tier 3 customer: you are blessed. Hybris & IBM solutions are willing to convince you to adopt their products and will bring amazingly powerful products for very affordable prices. Major players are willing to take ground since this expanding market represents a very large pool and is growing.

But this playground is the excellence garden of Magento. Alone, it could be facing difficulties to confront the ambitions of the smaller PHP players while containing the big 4, but Magento is far from alone. It is backed by eBay, another super power of the world of e-Commerce. Even if eBay's original business model is took some blows, the giant is still very strong and had time to diversify. The smartest move of all was probably to buy and develop PayPal, which now contributes to half of its profits. Magento, as we can see, is very hardened for this tier 3 market where it has a royal slice of the pie, superior to 25%.

Still, the leader of this segment suffered from its reorganization and from departures, along with the fact that their version 2 is delayed every quarter a bit more and that the Opensource version felt a bit abandoned to the greater profit of the Enterprise one.

Magento has a lot to cope with and the Version 2, depending on its quality and release date, will either allow the company to keep the advantage or make it loose ground. One sure thing, Magento will be able to count on its very strong ecosystem for a while, which helps it to slow play until the V2 is released. We sincerely wish this version will fill the gaps regarding cross commerce, advanced marketing and back office performances, to allow the product to reach new heights.

But the lines may move since quality competitors are in the run to try to bite the king's calves. They all suffer from various glitches, impairing their capacities to really rush in the small breachs left opened by Magento.

Drupal Commerce gain momentum, but slowly, and the current business model, service oriented, seems to be complicated to really start a large fire. The SaaS will maybe be an option. Change still has to solve its complicated relation with RBS and to finalize its 4th version, to be able to compete at the best level.

Prestashop had one the most awful year (2012) since it was created and is trying to find a way to monetize its incredible (potential) customer pool. Virtuemart future's is barely predictable yet and the solution lost some ground in the Tier 1 & 2, even if it seems to try to rebound.

Oxide Shop who succeeded in convincing one of the most exigent markets (Germany) couldn't really reach profitability and expand out of its borders. Last but not least ZenCart & Opencart, both having a meaningful footprint in e-Commerce world seems to be unable to really fuel their growth and are too "developer oriented" solutions, looking more like a geek playground than like a user oriented solution.

But these actors share also some common strength: they can be fueled, they can solve their issues, and some of them are gaining a meaningful momentum. It is only a matter of time before someone injects money in one of them and they could then leverage a serious business volume in the Tier 3 and eventually the Tier 2 market on the back of the king.

Another common features of all the PHP Opensourced solution, they are immortal, eternal. Once they reached a strong enough magnitude, there will always be someone to maintain it or fork them. Hence, picking one of these solutions is not a very risky bet, especially if you consider that you will keep a website 3 years on average before replatforming.

Our final thoughts on these "7 sisters" :

• Prestashop : The most accessible, featureful and now stable in version 1.5. It will maybe revolution its model in a year or so, heading toward a larger SaaS strategy. Almost the only actor able to address the Tier 4, and showing a real interest for it.

• OpenCart : The solution has an interesting architecture and philosophy and it can acquire momentum, especially with developers. The strategy of the editor is not yet really clear but the product deserve to be seen!

• ZenCart : The solution seems to be dying or not be production grade, for fans only.

• VirtueMart : Can either bounce or slowly extinct. This tool is mainly suitable for companies already having some Joomla in their IT services.

• RBS Change : has everything to become an important player with the version 4, but Change need to have an autonomous life aside from RBS to meet its destiny.

• Drupal Commerce : The Company made its first steps last year and pretended they were giant strides. It is maybe not the most objective point of view and the big names seems not to be convinced yet, but Drupal Commerce is surely building its future, maybe in a "mu" direction, a SaaS mode like WordpressMu.

• Oxid eShop : Oxid has to either become profitable by itself or find external funds to make people outside of Germany aware of their very interesting product. Still, dropping this family oriented thinking for a more business oriented one is maybe not what they wish anyway.

Conclusion

Tier 4

If you are a tier 4 customer : SaaS or not Saas is the first question you should answer to.

If you are willing to grow fast and just test your business model at a lower cost, switch for Prestashop, Oxid eShop, Opencart or even an "homemade" Drupal Commerce if you have the ressources.

These products will lead you surprisingly far with a respectable comfort. Once you reached a larger Turnover, you will have probably different stakes to manage and the mid-range product can then be considered.

Thanks you for reading us, for taking time to listen to our opinions and reading our reviews, you, reader, are the persons we care about while we write.

Philippe Humeau & Matthieu Jung, NBS System.

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After graduating Engineer in Computer science at EPITA 1999, Philippe became a security expert (pentester) and he is now in charge of developing NBS System's activity as CEO. He developed an expertise in E-Commerce as of 2006 with a main focus on technical aspects of solutions, especially on the optimization of websites performances.

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Matthieu loves the Web industry and is always looking for breaking news in order to be up to date with the e-Commerce best practices. He is in charge of the marketing and communication at NBS System and assist Philippe Humeau for the organisation of events. Matthieu also contributes to the blog Ecommerce-squad. com.

Greetings

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