

Microsoft SharePoint : on-premise or online?

The HEIG-VD's "centre de compétences SharePoint" point of view

In this document we provide an overview of the Microsoft online services (<http://www.microsoft.ch/online>) which are now available in Switzerland. We are looking at main differences between the "SharePoint Online" solution and a "self-hosted" or "on-premises" Microsoft Office SharePoint Server (MOSS).

After a short reminder about the online services in general, we will focus in more details on SharePoint online.

For that, we will consider the solution from different points of view, from the end user to the developer, without forgetting to reveal some financial advantages of this innovative approach.

Finally, according that Online Services are especially well-suited to meet SMBs needs, we will present a real case study build for a company who choose the "SharePoint online" solution.

Microsoft Online Services

Microsoft Online Services are available in Switzerland since this spring.

It is a set of functionalities that covers the essential needs of any modern office worker. It includes Exchange, SharePoint, Office Communication and Office Live Meeting. You can get it as a whole or just get the parts you need, all this from the Cloud!

What does it mean? Have you already tried to install a back office system with a working operating system hosting your server applications, installed and configured an Exchange Server, a SharePoint farm, manage a backup strategy, make sure that the restore is efficient (if working at all), handle redundant hardware to allow high availability, find a room to host everything and at least one IT professional to make sure that everything work smoothly even when he is on holidays? And what about security, disaster recovery plan, updates and patch?

Microsoft Online Services handles all that, you can concentrate on your business and strategy.



Microsoft® Online Services

Microsoft SharePoint Online

In this section we will focus on the main differences between a SharePoint Online and a SharePoint “on-premises” solution, according to three points of view: end user, IT manager and developer. For a more detailed discussion, you can refer to the “[Microsoft SharePoint® Online Standard Service Description](#)”¹

End user point of view

From the end user point of view, there is no difference. The access methods and the user experience are the same.

Browser access, Office integration, webdav², all these access methods are available.

The end user may even have a more flexible access: no extra security consideration such as company firewall avoiding access to internal network facilities from outside, no need for a virtual private network.

All SharePoint site collections are effectively accessible through standard https protocol over the Internet, assuming a secured traffic between the clients and the servers using standard 128 bits ssl encryption.

IT manager point of view

Well, this part is quite easy: you may almost go without an IT staff!

All the IT infrastructure and related tasks (servers, hardware, licensing, backup, disaster/recovery, building, etc.) are handled in the cloud: no need to

know where and how, just read (and agree to) the License agreement.

This SLA promises a system availability of more than 99.9% (which means a maximum downtime of less than half a day per year).

No need to make the usual “automatic updates” on the server or to run the service packs. Everything is done silently.

All the server side tasks and challenges are out of your responsibility. The only job that is still on the IT manager’s hand is to provide a browsing access point to the Internet to its users.

Developer point of view

Here we find the most challenging part.

There are many different ways to modify or extend basic SharePoint functionalities. Some of these ways are available on both worlds (online and on-premises installation) while some others are only available when you manage your own servers.

Using the browser, you have access to the same set of functionalities on your site collections. All you can do on your “on-premises” infrastructure can be done on “SharePoint Online”.

Using SharePoint Designer, the situation is the same: you can customize pages, integrate data from external applications (through web services), manage workflows (with the usual limitation, the workflow is attached to a single list) and so on.

Specific customizations, like third party or self-made webpart, feature or solution, are nevertheless not available. This is not a surprise as you have to install those custom features directly on the server(s) hosting the SharePoint site collection (although there is a “Dedicated SharePoint Online” version available from 500 accounts and more).

Does it mean that you cannot customize SharePoint Online? Not really, you just have to forget the usual Visual Studio development tools

¹ Microsoft. (2009, May). *Microsoft SharePoint® Online Standard Service Description*. Retrieved from Microsoft.com:
<http://www.microsoft.com/downloads/details.aspx?familyid=1BEF6A35-9785-4A0B-B227-387C0EE85A36>

² Webdav is a way to access data using the usual file browser tool and allow drag-drop of files, multiple selections and so on.

for SharePoint. But there are alternatives; we will show one of them in the following Case Study.

Costs

On the budget perspective, the cost of SharePoint Online is pretty interesting. Today, the list price starts at 10.21 CHF for 1 user and 1 month.

Depending on your collaboration profiles, you can even imagine offering read-only access and fill out forms rights to a “deskless” worker, for less than 3 CHF a month.

From individual products to the complete Business Productivity Online Standard (BPOS) Suite³, you can estimate the budget yourself using then online “estimator” available on

<http://www.microsoft.com/online/estimator/default.aspx?lang=fr-CH>

In our Case Study, the Online solution was really cheaper than any other solution taken into account. And that was not the only one parameter that leads to the choice of the “SharePoint Online” solution!

Case Study

ISMAT Consulting SA is a “deskless” company whose purpose is to offer work organization and team management solutions. This small business mandates external consultants who have various and complementary skill sets. They all work together and coordinate their meetings through ISMATs' custom made Customer Relationship Management (CRM) online platform. The needs analysis revealed that the heterogeneity of their document management practices was slowing down the expansion of the company. The objective of the project was to centralize, secure and

³ BPOS includes Exchange Online, SharePoint Online, Office Communications Online and Office Live Meeting for 21.12 CHF per user per month.

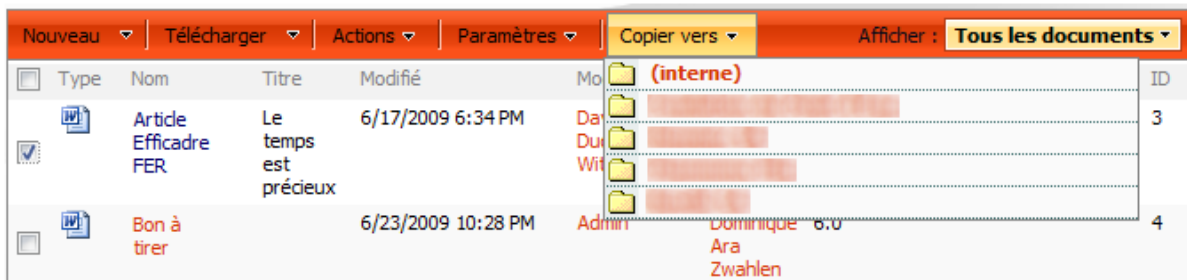
optimize information classification, on a platform accessible from anywhere.

Investigation has been made⁴ to find out which document management system was the most appropriate for ISMAT. It revealed that Microsoft SharePoint Online was the most competitive compared to its classical hosted version, Microsoft Office SharePoint Server 2007, as well as frequently cited open source alternatives, like the popular Alfresco Enterprise Content Management System. For 15 ISMAT users, calculations showed that SharePoint Online would reach CHF 153.- a month, whereas a hosted version of Office SharePoint Server 2007 would cost them CHF 537.- (excluding the onetime set-up fee). Summing the internet provider hosting costs and standard installation and maintenance fees, the open source alternative was as well more expensive!

ISMAT's direction made its ultimate decision after reviewing each products pros and cons as well as evaluating their ease of use through small demonstrations. The end user experience was indeed a major factor in the decision process, as ISMAT was not a large enough company at the time to invest in extensive training and support for its consultants, hired on a daily basis. SharePoint Online's seamless integration with Microsoft Office, as well as its centralized online administration site, meant ISMAT wouldn't need to allocate any significant IT resources to it after the solution would be implemented. It was therefore chosen because it covered all of ISMATs' requirements in terms of documents management, was very competitive, and also rapidly deployable.

A proof of concept based on the trial version of SharePoint Online was firstly conceived, configured and adapted to fulfill ISMATs' requirements. The set up of a prototype was an opportunity for the

⁴ DUDOK DE WIT David, “*Optimisation de la Gestion Electronique Documentaire dans une société de consulting*”, Bachelors' thesis in IT Management, University of Applied Sciences Vaud, July 2009, 49pp.



Picture 1: Screen capture of the Documents Copy Plugin in action

company to model a new documents classification schema. It took into account the concepts of SharePoint lists, libraries, columns and authorizations, which sped up the conception of the new logical classification. Documents were therefore destined to be centralized, secured, version controlled, and rapidly accessible thanks to metadata customization and sorting facilities.

The development of a custom Java connector, which made the link between the SharePoint Web Services and ISMATs' CRM platform, opened the doors to business data integration. It allowed the company to maintain its current infrastructure⁵ and make it interoperable with SharePoint Online, as well as maintain up to date customers' information on both platforms. Today, customer data manipulation from ISMATs' CRM platform is automatically synchronized with SharePoint Online.

In order to sustain an internal business process, an extension was written in JavaScript and jQuery which worked with the SharePoint Online Web Services. This extension allowed ISMAT to copy multiple documents to customers' folders, while adding business metadata along the way. This allowed collaborators to get copies of generic teaching material ready to be personalized for each customer. It was entirely integrated into the user interface of SharePoint Online, which proved the extensibility of the service and its ability to

sustain ISMATs' particular business needs (see Picture 1: Screen capture of the Documents Copy Plugin in action).

The objective was to automate a part of the customers' document management process that was entirely manual before. Indeed, it was the source of classification problems like duplicates or lost information. The implementation of this plugin had four main advantages for ISMAT:

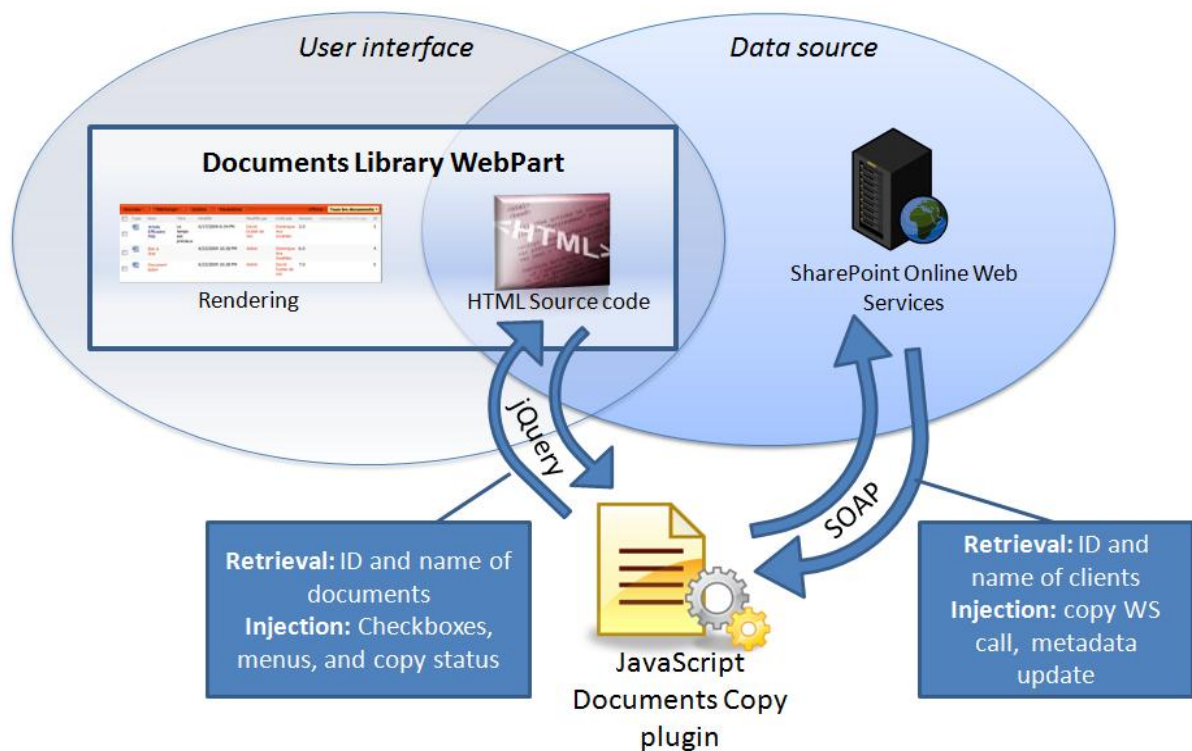
- Productivity increase by reducing the number of manual actions to perform by the user to customize teaching materials for a customer.
- Decreased risks linked to misfiled documents, like information loss or duplicates, thanks to the automatic mapping of customers' metadata.
- Less training necessary for the end user, as the process is fully integrated into SharePoint Onlines' user interface.
- Minimized maintenance: the plugin was designed to be easily installable, configurable and portable. Indeed, just a line in a content editor web part is necessary to enable it, and the plugin requires almost no configuration. Furthermore, it is entirely cross browser compatible and can't possibly crash SharePoint Onlines' servers as the code is executed on the client side.

The plugin works like this: "Checkboxes are added near the documents displayed in a Document Library WebPart. Clicking on any of those checkboxes generates a new "Copy to" button that appears in the Web Part's toolbar. When the user moves his mouse over this new

⁵ ISMAT's CRM is hosted on a Linux-Apache-PHP-MySQL server

button, a list of customers is revealed in a drop down menu. These customers all come from a list that resides in the same SharePoint Site collection. Each time the page is loaded, the plugin fetches the updated list of customers. Once the user clicks on a customer's name in the menu, the selected documents are copied to a customers' library that resides on another site. These documents are updated with business metadata along the way."⁶ Another particularity of this plugin is that it uses SharePoint Online's Web Services as well as structural HTML patterns as data sources (see picture 2, Bidirectional interactions of the Documents Copy Plugin).

This alternative way of extending SharePoint Online's Standard functionalities proves to be particularly interesting for small companies like ISMAT, who do not have enough employees to be able to benefit from the dedicated variant of the service which allows custom code deployment. SharePoint Online helped ISMAT improve the productivity of its mobile collaborators by centralizing documents and administration, as well as and harmonizing its internal document management practices.



Picture 2: Bidirectional interactions of the Documents Copy Plugin

⁶ DUDOK DE WIT David, "Optimisation de la Gestion Electronique Documentaire dans une société de consulting", Bachelors' thesis in IT Management, University of Applied Sciences Vaud, July 2009, p. 31.

Conclusion

In some scenarios the “SharePoint Online” solution is the evidence while there is no alternative to in house SharePoint hosting in others.

However, most of the situations are in between and seem to require a more detailed study to make a choice. We believe that these studies will quite often end on the ultimate question: “Am I ok to store my inestimable valued data in the cloud?”

Say “yes” to that question and the online solutions are for you. Say “no” and go through the “on-premises” way⁷.

The technical aspects are mainly the ability to customize the “out of the box” functionalities. We have seen that there are ways to do that on both worlds.

In our still short experience, we are convinced that “SharePoint Online” solution is the answer in a big set of situations. The ISMAT case study has proven it in a small company; discussions in bigger situations show that the online way is, at least, worth the study.

The “Centre de Compétences SharePoint”

As a University of Applied Sciences, the School of Business and Engineering Vaud (<http://www.heig-vd.ch>) is aiming to reduce the gaps between training and industry activities.

The “centre de competences SharePoint” is built on the two pillars of our school: education, with the **Communication, Engineering, Management** - comem⁺ - department of the HEIG-VD and applied research with its Institute of Information and **Communication Technologies** - IICT -

It helps anyone interested to find partnership, resources, know-how, financing and coaching in the SharePoint products area.

For more information: <http://www.cc-sharepoint.ch> (in French)

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⁷ Or read the “Security in the Business Productivity Online Suite from Microsoft Online Services” White Paper, <http://technet.microsoft.com/en-us/library/cc742708.aspx>



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