

# ERP: ENTERPRISE RESOURCE PLANNING

## TD1 – LEARN FROM EXAMPLES OF REAL WORLD

With the growing of “Cloud computing”, one strong trend, for enterprises systems, is more and more to be available under SaaS mode. More than the technical side of this distribution mode, this work proposes to understand the advantages and the drawbacks for the company through the feedback of real cases.

### EXERCISE 1: WHAT IS SAAS?

- 1) Cloud computing providers offer different level of services. Find the meaning of the acronyms IaaS, PaaS and SaaS.
- 2) According to the provided level of service, the components to run the Enterprise Applications Software are installed and maintained by the enterprise itself or by a provider. Fill out the following table with an “E” when the component is installed and maintained by the enterprise and with a “P” when it is done by the Cloud Computing hosting provider.

Component	Classical model	IaaS	PaaS	SaaS
9. Applications	E			
8. Runtimes	E			
7. SOA Integration	E			
6. Databases	E			
5. Server software	E			
4. Virtualization	E			
3. Server hardware	E			
2. Storage	E			
1. Network	E			

- 3) To what category the following solutions belong:
  - a. Microsoft Azure
  - b. SAP ByDesign
  - c. IBM Bluemix
  - d. Amazon EC2

Extrait du Livre blanc du Cloud Computing, Symtec informatique

## EXERCISE 2: IS ERP IN THE CLOUD AN OPPORTUNITY FOR SME?

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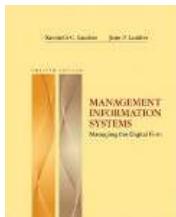
After reading the text of the appendix, you will answer the following questions:

- 1) What are the four companies cited in this text? Are its using CRM or ERP system?
- 2) Eight applications software are cited in the text. Fill out the information table below about these.

Application Software	CRM	ERP	Proprietary	Open-Source	Cloud-Based
1. Salesforce					
2. RightNow					
3. Compiere					
4. SugarCRM					
5. SAP					
6. Compiere Cloud Edition					
7. Oracle CRM					
8. Oracle CRM On Demand					

- 3) What is needed to use the **Salesforce** CRM system which is provided in the form of SaaS?
- 4) What is the *on demand model* cited in this text? How can we associate this model to *cloud-based infrastructures* or to *software as a service* offers?
- 5) What are the drawbacks of SaaS model?
- 6) Why SME can have difficulties to successfully build and maintain ERP or CRM applications installed in-house on local machines?
- 7) Why some large companies can also be interested in cloud-based ERP or CRM?
- 8) **Nikon** (which is a large company) switched its entire CRM system to **RightNow** which is cloud-based. However, **Nikon** has kept its ERP system installed locally in-house with **SAP**. So, finally, what reason made **Nikon** move to RightNow and what reason makes **Nikon** keep SAP internally?

## APPENDIX



### From the book:

Kenneth Laudon and Jane Laudon,  
*Management Information Systems, Managing the digital firm*,  
12th edition, Pearson Education (January 14, 2011), 640 pages, ISBN13: 978-0132142854.  
**Chapter 5, pages 203-205, "Salesforce.Com: Cloud Services Go Mainstream".**  
**Chapter 9, pages 358-359, "Enterprise Applications Move To The Cloud".**

**Salesforce.com**, one of the most disruptive technology companies of the past few years, has single-handedly shaken up the software industry with its innovative business model and resounding success. **Salesforce** provides customer relationship management (CRM) and other application software solutions in the form of *software as a service* (SaaS) leased over the Internet, as opposed to software bought and installed on machines locally.

The company was founded in 1999 by former **Oracle** executive Marc Benioff, and has since grown to over 3,900 employees, 82,400 corporate customers, and 2.1 million subscribers. It earned \$1.3 billion in revenue in 2009, making it one of the top 50 software companies in the world. **Salesforce** attributes its success to the many benefits of its *on-demand model* of software distribution.

The on-demand model eliminates the need for large up-front hardware and software investments in systems and lengthy implementations on corporate computers. Subscriptions start as low as \$9 per user per month for the pared-down Group version for small sales and marketing teams, with monthly subscriptions for more advanced versions for large enterprises starting around \$65 per user.

For example, the Minneapolis-based **Haagen-Dazs Shoppe** owned by **Nestle USA** calculated it would have had to spend \$65,000 for a custom-designed database to help management stay in contact with the company's retail franchises. The company only had to pay \$20,000 to establish service with **Salesforce**, plus a monthly charge of \$125 per month for 20 users to use wireless handhelds or the Web to remotely monitor all the **Haagen-Dazs** franchises across the United States.

**Salesforce.com** implementations take three months at the longest, and usually less than a month. There is no hardware for subscribers to purchase, scale, and maintain. There are no operating systems, database servers, or application servers to install, no consultants and staff, and no expensive licensing and maintenance fees. The system is accessible via a standard Web browser, with some functions accessible by mobile handheld devices. **Salesforce.com** continually updates its software behind the scenes. There are tools for customizing some features of the software to support a company's unique business processes. Subscribers can leave if business turns sour or a better system comes along. If they lay people off, they can cut down on the number of **Salesforce** subscriptions they buy.

[...]

**Salesforce.com** is the most successful enterprise-scale *software as a service*. Until recently [*nb: was written in 2011*], there were few other SaaS enterprise software applications available on the Internet. Today, that's changed, as a growing number of cloud-based enterprise resource planning (ERP) and customer relationship management (CRM) application providers

enter this market-space. While traditional enterprise software vendors like **Oracle** are using their well-established position to grab a share of the cloud-based application market, newcomers like **RightNow**, **Compiere**, and **SugarCRM** have found success using some different tactics.

Most companies interested in cloud computing are small to midsize and lack the know-how or financial resources to successfully build and maintain ERP and CRM applications in-house. Others are simply looking to cut costs by moving their applications to the cloud. According to the International Data Corporation (IDC), about 3.2 percent of U.S. small businesses, or about 230,000 businesses, use cloud services. Small-business spending on cloud services increased by 36.2 percent in 2010 to \$2.4 billion.

Even larger companies have made the switch to the cloud. For example, camera manufacturer **Nikon** decided to go with a cloud-based solution as it attempted to merge customer data from 25 disparate sources and applications into a single system. Company officials were hoping to eliminate maintenance and administrative costs, but not at the expense of a storage system that met their requirements, was never out of service, and worked perfectly.

**Nikon** found its solution with **RightNow**, a cloud-based CRM provider located in Bozeman, Montana. The company was founded in 1997 and has attracted firms intrigued by its customizable applications, impeccable customer service, and robust infrastructure. Prices start at \$110 per user per month and the average deployment time is 45 days.

**Nikon** had been using several different systems to perform business functions, and was struggling to merge customer data located in a variety of legacy systems. While looking for vendors to help implement a Web-based FAQ system to answer customer questions and provide support on the basis of these data, the company came across **RightNow**. **Nikon** found that not only did **RightNow** have the capability to implement that system, but it also had an array of other useful services. When **Nikon** discovered that it could combine outbound e-mail, contact management, and customer records into a single system in **RightNow's** cloud, it made the move, expecting to receive a solid return on the investment.

What **Nikon** got was far more than expected: an astonishing 3,200 percent return on investment (ROI), equivalent to a savings of \$14 million after three years! The FAQ system reduced the number of incoming calls to **Nikon's** customer service staff. More customers found the information they needed on the Web, call response times dropped by 50 percent, and incoming e-mail dropped by 70 percent. While **Nikon** still hosts its **SAP ERP** system internally due to its complexity, **Nikon** switched its entire CRM system to **RightNow**.

Not all companies experience gains of that magnitude, and cloud computing does have drawbacks. Many companies are concerned about maintaining control of their data and security. Although cloud computing companies are prepared to handle these issues, availability assurances and service-level agreements are uncommon. Companies that manage their CRM apps with a cloud infrastructure have no guarantees that their data will be available at all times, or even that the provider will still exist in the future.

Many smaller companies have taken advantage of a new type of cloud computing known as open source cloud computing. Under this model, cloud vendors make the source code of their applications available to their customers and allow them to make any changes they want on

their own. This differs from the traditional model, where cloud vendors offer applications which are customizable, but not at the source code level.

For example, Jerry Skaare, president of **O-So-Pure (OSP)**, a manufacturer of ultraviolet water purification systems, selected the **Compiere Cloud Edition** versions of ERP software hosted on the **Amazon EC2 Cloud** virtual environment. **OSP** had long outgrown its existing ERP system and was held back by inefficient, outdated processes in accounting, inventory, manufacturing, and e-commerce. **Compiere ERP** provides a complete end-to-end ERP solution that automates processes from accounting to purchasing, order fulfillment, manufacturing, and warehousing.

**Compiere** uses a model-driven platform that stores business logic in an applications dictionary rather than being hard-coded into software programs. Firms using **Compiere** are able to customize their applications by creating, modifying, or deleting business logic in the applications dictionary without extensive programming. In contrast to traditional ERP systems that encourage subscribers to modify their business processes to conform to the software, **Compiere** encourages its subscribers to customize its system to match their unique business needs.

The fact that the **Compiere** software is open source also makes it easier for users to modify. **OSP** was attracted to this feature, along with the robust functionality, scalability, and low cost, of the **Compiere ERP Cloud Edition**. Skaare said that he was comfortable that “the little idiosyncrasies of my company” could be handled by the software. Though Skaare is unlikely to make any changes himself, it’s important for him to know that his staff has the option to tweak **OSP**’s ERP applications. Open source cloud computing provides companies that flexibility.

Not to be outdone, established CRM companies like **Oracle** have moved into SaaS. Pricing starts at \$70 per month per user. **Oracle** may have an edge because its CRM system has so many capabilities and includes embedded tools for forecasting and analytics, including interactive dashboards. Subscribers are able to use these tools to answer questions such as “How efficient is your sales effort?” or “How much are your customers spending?”

**Bryant & Stratton College**, a pioneer in career education, used **Oracle CRM On Demand** to create more successful marketing campaigns. **Bryant & Stratton** analyzed past campaigns for tech-savvy recent high school graduates, as well as older, non-traditional students returning to school later in life. **Oracle CRM On Demand** tracked advertising to prospective students and determined accurate costs for each lead, admissions application, and registered attending student. This information helped the school determine the true value of each type of marketing program.