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## D7.1.2 – Cloud Business: a deeper dive into the SaaS market

*Activity 7: Business and Legal Activities*

*WP 7.1: Business Issues*

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<b>Author(s):</b>	Csilla Zsigri	451G
<b>Reviewer(s)</b>	Tabassum Sharif Daniel Field	FLEX ATOS



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## Executive Summary

Software Infrastructure-as-a-service is the space where we believe most cloud innovation is happening, but there is no secret sauce yet. OPTIMIS is considered to be a SaaS offering. According to The 451 Group's recent cloud market sizing report, the SaaS marketplace generated around €92m in revenue in 2010 and will grow at a CAGR of 61% to reach approximately €384m in 2013.

Market players in this space include on-ramps and cloud brokers, integration-as-a-service providers, cloud management and monitoring vendors, problem management software providers, resource utilization, capacity planning and billing vendors, among others. Customers range from cloud infrastructure providers and service providers such as telecoms and hosting companies, to customers of cloud providers and end users from different verticals. As companies move from traditional to cloud based infrastructure, their existing management tools are no longer sufficient and SaaS capabilities are here to fix this problem. The different flavors of automation and management substantially reduce effort and administrative time on the customer's side while the quality of operations is enhanced.

Powerful partnership programs which include VAR and reseller channels, service and technology partners are essential for SaaS providers to deliver their customers value above and beyond what a single company can achieve alone. Typical partners are cloud infrastructure providers, other technology, software and platform vendors, systems integrators and VARs and resellers. There are a lot of synergies in these 'cloud super groups' because these companies bring their homegrown revenue streams and customer bases with them.

Regarding customer relationship management, even though most SaaS products are self-service centered, ambitious providers actively work to grow, nurture and support their user community and partner networks. All users value self-service, automated support services and community support. Most users appreciate flexible pricing models offered by SaaS vendors (monthly subscription fees and pay-per-use options), but some of them still worry about running up huge bills unexpectedly when it comes to pay-per-use.

Concerning key resources, most service provider organizations we spoke with highlighted that human and intellectual resources are key to deliver their value propositions. These resources are crucial for them to develop the most innovative and flexible technology and to understand customer needs and market challenges. As for key activities, most interviewed companies listed deployment, operations and tech support. About half of the companies found marketing (product, partner and community), product management, sales and business development as important as deployment or tech support. These key resources and activities carry the most relevant costs inherent in the business model of the cloud providers.

According to our user survey, the most common level of spending on clouds in 2010 was between 1% and 10% of overall IT budget, but this percentage is expected to increase in 2011. While economic issues are important for the greatest number of respondents and cloud vendors are touting ROI advantages in the current economic environment, we found that flexibility and agility outweigh cost savings as the main driver for enterprise cloud adoption. The most popular workload types running in clouds today – and going forward – are Web applications and test and development functions.

While some users agree that the legal problems in the cloud are overstated and on rational analysis cloud services present few legal obstacles, for most respondents, trust and control issues remain the key inhibitors to adoption. These issues include IT security, data management and SLA issues. IT security is a highly functional requirement, while data management is concerned with compliance and data protection, as well as legal jurisdiction, liability and property rights.

The hybrid cloud is where the market is heading. The appetite among enterprises for a range of execution environments to serve the needs of different workloads reinforces our belief that successful cloud strategies will support 'best execution venue' practices supported in hybrid cloud environments. These will enable users to choose, via policy automation, different venues (public/private clouds) in which to run workloads, depending on price, latency, security, locality, eco-efficiency or other SLA requirements. OPTIMIS is on the right path...



## 1 Introduction

### 1.1 Purpose and methodology

In order to understand the business dynamics of the SaaS space, we have asked technology vendors, service providers and end users about their business models, business needs and drivers and relevant legislation affecting their business activities and decision-making.

This report is based on a survey of technology vendors and service providers active in the SaaS space and cloud end users, as well as interviews with a variety of stakeholders in the cloud industry. This research was supplemented by additional primary research, including attendance at a number of trade shows and industry events.

Section 3 provides a brief introduction to the Software Infrastructure-as-a-service space. Section 4 gives an insight into the business models of the vendors and service providers active in this market. Section 5 wraps up the answers of the users who participated in our survey supplemented by additional primary research. Section 6 gives an overview of the survey data and section 7 describes what our next report will be about. You can find the questionnaires we sent to technology vendors, service providers and end users in Annex A.

### 1.2 Glossary of Acronyms

Acronym	Definition
AMI	Amazon Machine Image
AWS	Amazon Web Services
CAGR	Compound Annual Growth Rate
CIO	Chief Information Officer
CRM	Customer Relationship Management
D	Deliverable
DR	Disaster Recovery
EC2	Elastic Compute Cloud
ERP	Enterprise Resource Planning
FS	Financial Services
HR	Human Resources
IaaS	Infrastructure-as-a-service
IT	Information Technologies
M&A	Merger & Acquisition
OEM	Original Equipment Manufacturer
OGF	Open Grid Forum
OPTIMIS	Optimized Infrastructure Services
PaaS	Platform-as-a-service
ROI	Return on Investment
S3	Simple Storage Service
SaaS	Software-as-a-service
SI	System Integrator
SaaS	Software infrastructure-as-a-service
SLA	Service Level Agreement
SMB	Small and Medium sized Business



SNIA	Storage Networking Industry Association
UK	United Kingdom
US	United States
VAR	Value Added Reseller
WP	Work Package

## 2 The Software Infrastructure-as-a-service (SaaS) space

As brought up in our previous report “*Cloud Ecosystem: Taxonomy and Value Networks*”, the bulk of revenue and activity in the cloud continues to be centered on infrastructure (IaaS, PaaS and storage). However, market activity demonstrates that the cloud world is moving up the stack and is beginning to incorporate tools needed to effectively manage a cloud environment such as the many flavors of management and automation. We have called this segment ‘Software infrastructure-as-a-service (SaaS)’.

SaaS represents the software component of a cloud infrastructure. SaaS encompasses the enabling technologies that are required for consumers to easily and efficiently use cloud functionality to their best advantage. The SaaS layer includes infrastructure services that provide management support, bridging the platform layer to the stacks above it. SaaS technology supports applications and other higher-tier cloud services. SaaS involves a service providing specific application and infrastructure support capabilities.

This is the space where we believe most cloud innovation is happening, but there is no secret sauce yet. According to The 451 Group’s recent cloud market sizing report, the SaaS marketplace generated around \$121m (€92m) in revenue in 2010 and will grow at a CAGR of 61% to reach \$506m (€384m) in 2013. These figures refer to applications that are delivered as a metered service from a third-party and therefore exclude on-premise management software applications. [4]

OPTIMIS meets the definition of a SaaS offering. Market players in this space include on-ramps<sup>1</sup> and cloud brokers (Kaavo, RightScale, Zimory, CloudBroker, etc); integration-as-a-service providers (Pervasive Software, IBM – Cast Iron, Boomi, etc); cloud management and monitoring vendors (Cloudkick, CA Technologies – Nimsoft, Tap in Systems, etc); problem management software providers (Altair, Majitek, etc.); resource utilization, capacity planning and billing vendors (Freedom OSS, Itheon, Zuora, etc.); among others. More details on the taxonomy and segment profiles can be found in our report “*Cloud Ecosystem: Taxonomy and Value Networks*” (OPTIMIS project D7.1.1).

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<sup>1</sup> The capabilities of on-ramp service providers are designed to move services into production by reducing potential variations and minimizing risk. On-ramp provider offerings manage the resources required to package, build, test and deploy services in production. In addition to offering a console from which users can manage their cloud deployments, on-ramp providers may offer pre-packaged, cloud-ready templates for commonly used server and application configurations.



### 3 Business models in the SaaS space

A business model describes the rationale of how an organization creates, delivers and captures value. A business model can best be described through nine building blocks that show the logic of how a company intends to make money. [2]

- I. **Customer segments:** this defines the different groups of people or organizations an enterprise aims to reach and serve.
- II. **Value propositions:** this describes the bundle of products and services that create value for a specific customer segment.
- III. **Channels:** this describes how a company communicates with and reaches its customers to deliver a value proposition.
- IV. **Customer Relationships:** this describes the types of relationships a company establishes with customers.
- V. **Revenue Streams:** this represents the cash a company generates from its customers.
- VI. **Key Resources:** this describes the most important assets required to make a business model work.
- VII. **Key Activities:** this describes the most important things a company must do to make its business model work.
- VIII. **Key Partnerships:** this describes the network of partners and suppliers that make a business model work.
- IX. **Cost Structure:** this describes all cost incurred to operate a business model.

We interviewed cloud providers active in the 'software infrastructure-as-a-service' (SaaS) space based on the abovementioned building blocks (see questionnaire in Annex A).

#### 3.1 Key customers

SaaS customers range from cloud infrastructure providers and service providers such as telecoms and hosting companies, to customers of cloud providers and consumers in different vertical markets like technology companies, media and household companies, financial markets and research organizations. Among end users, the IT department and the CIO, are the internal champions for cloud adoption.

#### 3.2 Value propositions

SaaS providers basically offer capabilities and enabling technologies that are required for a cloud to function easily and efficiently, such as technology and services to build tailored clouds, tools or suite of tools to manage and monitor systems deployed on cloud infrastructure or the infrastructure itself, consoles from which users can manage their cloud deployments, pre-packaged, cloud-ready templates for commonly used servers and application configurations, etc.

Some cloud management offerings allow customers to build large-scale customized cloud solutions, products or services in their existing environment.

As companies move from traditional infrastructure to cloud based infrastructure, their existing monitoring and management tools are no longer sufficient and SaaS capabilities are here to fix



this problem. The different flavors of automation and management substantially reduce effort and administrative time on the customer's side while the quality of operations is enhanced.

On-ramp and broker offerings abstract customers from the complexities of individual cloud infrastructure providers that are working hard to differentiate themselves from each other. The challenge here is to deliver cloud infrastructure abstraction in a way that still takes advantage of the specific strengths and unique capabilities that each cloud infrastructure provider offers. What customers want is to quickly and successfully get their applications on the cloud; automate, monitor and manage their applications with minimal IT resources; and alternate cloud infrastructure while preserving their choice and flexibility for future deployments.

A method that service providers are using to attract enterprise clients is by pushing vertically focused cloud offerings that cater to specific target market needs. This highlights the ability of existing vendors and new entrants to target a niche with highly vertically focused marketing message and service offering.

### 3.3 Channels

Powerful partnership programs which include VAR and reseller channel, service and technology partners are essential for SaaS providers to deliver their customers value above and beyond what a single company can achieve alone. Typical partners are cloud infrastructure providers, software and platform vendors, systems integrators and VARs and resellers. There are a lot of synergies in these 'cloud super groups' because these companies bring their homegrown revenue streams and customer bases with them.

The main communication channels SaaS providers use to communicate with their customers and the market are web-based: e-mail, website, facebook, twitter, blogs and support sites that include full documentation, demos, guides, active forums, etc.

Conferences and events are also popular venues to communicate with existing and potential customers and business partners.

Early pioneers are backed by reputation, thought leadership and success stories. They can leverage this success in their marketing efforts.

### 3.4 Customer relationships

To build custom clouds, customers expect to get support, integration and certification services.

Most SaaS products are built in a way that they can be used without the need of a sales rep or tech guidance (self-service centered) and most processes are fully automated and readily available. However, service providers need to implement a good support channel so every user gets prompt and tailored help when required. In some cases, customers may rely on SLAs to get personal assistance.

Ambitious providers actively work to grow, nurture and support their user community and partner networks. These companies empower their community with easy access to training and best practices so they can cost effectively make themselves successful. Examples of value-added services are setting up users to ensure they have all resources, knowledge and process alignment to succeed, full 24/7 support, support site, training courses and webinars, user conferences, user groups, community development and sharing, partner program, etc.



For the financial services market trust is a very important factor when choosing IT products and services. Some users in this vertical enjoy personal relationships with company founders and developers. For sporadic usage levels, web sales and sales force work reasonably well (media), but most users -especially research organizations- would value a closer link to vendors and service providers and would very much like to get a sense of their roadmaps so they can intercept new developments. All users value self-service, automated support services and community support.

### 3.5 Revenue streams

SaaS providers deliver and charge for their offerings 'as a service' or sell their software on-premise on a subscription basis, for example. Customers may pay for SaaS products and services on a monthly subscription basis which is established individually for each customer based on a set of features (e.g. number of servers monitored). Pay-per-use or pay-as-you-go is another common pricing model used by vendors and service providers in this space. Customers can pay by credit card.

Most users seem to like flexible pricing models such as monthly subscription fees and pay-per-use options, but some of them still worry about running up huge bills unexpectedly (e.g. due to an over-enthusiastic PhD student or a program bug).

### 3.6 Key resources

Companies we spoke with mentioned three types of resources that are key to deliver their value propositions: human, intellectual and financial with more emphasis on the first two. These key resources are essential to develop the most innovative and flexible technology and to understand customer needs and market challenges. Financial resources basically pay for human resources who bring their intellectual capabilities along to solve customer problems and deliver value.

### 3.7 Key activities

Most interviewed companies listed deployment, operations and tech support as their key activities to successfully deliver their offerings. About 50% of the organizations we talked to find marketing (product, partner and community), product management, sales and business development as important as deployment or tech support. More meticulous players include executive management, professional services (incl. education and training), finance and HR.

### 3.8 Key partnerships

All SaaS providers believe in the power of partnerships. Partnerships help deliver value above and beyond what a single company can achieve alone. Furthermore, these partnerships are powerful because the involved companies bring their homegrown revenue streams and customer bases with them.

All providers we interviewed agree that the top cloud infrastructure providers are very important partners for them as cloud infrastructure providers supply the infrastructure backbone of the cloud and they share customers. Beyond strategic partnerships, we see the seeds of M&A activity, incumbent IaaS provider buying small SaaS company to enhance its



cloud management and monitoring capabilities in order to improve the experience for its cloud users and increase overall support quality (e.g. recent Rackspace – Cloudkick deal).

Original Equipment Manufacturers (OEMs) can embed SaaS tools into their products (with vertical or horizontal focus) and sell it under their own license to their customers.

Value Added Resellers (VARs) can create solutions around SaaS products, usually bundled or integrated with other open-source components, and provide direct customer support for them. VARs add value by providing solutions tailored to specific –usually vertical-specific– business needs.

SaaS providers can also partner up with other service providers, software vendors and third-party add-on providers in order to benefit from additional functionality. Intermediaries may aggregate cloud and IT services from vendors and service providers and distribute them through a network of IT resellers to end customers – at the same time acting as a partner for the software vendors and the channel.

Professional Services firms and System Integrators (SIs) can provide customers with consulting, integration, support and implementation services associated to the offering in question. Professional Services firms and SIs can be large consulting companies as well as smaller, specialized firms with market or geographic focus. Many enterprises are seeking the assistance of consulting and professional services firms to advise them during their transition to the cloud. These partners are important because they often strongly influence large enterprise decision-making. System Integrators can also act as sales agents selling the SaaS offering on a commission basis.

Resellers and authorized distributors resell SaaS products throughout the world.

### 3.9 Cost structure

The most relevant costs inherent in the business model of the cloud providers are closely related to their key resources and activities. The most important costs the interviewed companies mentioned are development, tech support, hosting, human resources and marketing costs.

### 3.10 Legal issues and legislation

More than 50% of the surveyed vendor organizations did not mention any legal problems affecting their offering or business activities. Instead, some claim to help their customers address regulatory and legislative issues associated to the service they provide and others say that legal concerns sort themselves out as enterprises test the water. A few providers brought up the European data privacy laws as current legal concern among other issues like security, SLAs, control, regulatory requirements and change management. But again, they claim that these concerns sort themselves out as enterprises explore the terrain, address open questions and determine which areas and workloads benefit most from public, private and hybrid cloud infrastructures.



## 4 User cloudscape

### 4.1 Business drivers and expectations

Our user survey shows that the most common level of spending on clouds today is between 1% and 10% of overall IT budget. But this percentage is expected to increase in 2011 compared to 2010.

We asked users about their most important business drivers when it comes to the use of clouds or any IT services. We got the following answers:

- Instant availability of services
- Low cost
- Reduced need for capital investment
- Improved efficiency of operations
- Faster time-to-market
- Ease of access to 'temporary' capacity
- Business continuity and disaster recovery
- Flexible capacity
- Avoiding the deployment of large compute-farms in-house
- Allowing researchers to do their work faster, better and cheaper

While economic issues are important for the greatest number of respondents and cloud vendors are touting ROI advantages in the current economic environment, we find that flexibility and agility outweigh cost savings as the main driver for enterprise cloud adoption.

The second set of 'most important' drivers reflects the cloud's ability to improve operational performance and quicker time to deliver services and quicker time to market. Cost reduction and reduced capital expenditure are in a third grouping of drivers.

In addition to the most important business drivers, we also asked our survey participants about their expectations regarding cloud services. The 'desire list' we got is the following:

- Ability to grab resources/add capacity on demand and scale back when necessary
- Better uptime and security than users could manage themselves
- Ability to access services globally
- Mobile device access
- Agility of provision
- More flexible provisioning of capacity
- Low start-up costs
- Lower operating costs for basic compute requirements
- Transparent ongoing costs
- Minimal administrative overhead
- Cost reductions for the provision of capacity to meet peak demand

Some specific user expectations and desires were described in the previous section (sub-sections 4.2, 4.4 and 4.5).



## 4.2 Cloud deployments

All user organizations we interviewed use some kind of SaaS offering for communication, collaboration and CRM purposes. When it comes to IaaS, AWS enjoys the largest piece of the revenue pie with their products EC2 and S3, followed by Rackspace. The use of PaaS is becoming more and more popular as well (Salesforce.com's Force.com, Google AppEngine and Microsoft Azure).

The hybrid cloud is where the market is heading. The hybrid approach enables enterprises to retain tight control over data, policies, security, run tasks on local infrastructure where needed, and, at the same time, farm out other tasks to the public cloud. Forthcoming technologies promise to provide the kind of service portability and mobility to unlock a greater potential in public clouds for enterprises.

The appetite among enterprises for a range of execution environments to serve the needs of different workloads reinforces our belief that successful cloud strategies will support 'best execution venue' practices supported in hybrid cloud environments. These will enable users to choose, via policy automation, different venues (public/private clouds) in which to run workloads, depending on price, latency, security, locality, eco-efficiency or other SLA requirements.

## 4.3 Applications in the cloud

Understanding which workloads are being deployed in the cloud – or those that will be migrated onto or developed specifically for clouds - is key for vendors to determine product and services development strategies to meet new market opportunities.

The most popular workload types running in clouds today – and going forward – are Web applications and test and development functions.

Workplace functionality (integrated email, messaging, portals) has been a particular hotspot for cloud adoption since mid-2009. End users find that the increased 'IP-centricity' that is implicit in cloud-based workplace services delivers rewards of improved collaboration and community to the organization that go beyond the individual services themselves.

Also, users are becoming more and more relaxed about running some kind of production workload in the cloud which shows that cloud computing is maturing quickly.

Users are increasingly using clouds for some kind of DR/failover function which serves as encouragement to cloud storage service providers who are seeking to differentiate with higher-value or application services.

A significant number of users reports using clouds for running database and CRM workloads now. The number of batch, desktop, analytics and reporting, HR and ERP workloads running in the cloud is growing too, although these remain minority areas.

## 4.4 Concerns and adoption inhibitors

While some users agree that the legal problems are overstated and on rational analysis cloud services present few legal obstacles, for most respondents, trust and control issues remain the key inhibitors to adoption. These issues include IT security, data management and SLA issues. IT security is a highly functional requirement, while data management is concerned with compliance and data protection, as well as legal jurisdiction, liability and property rights.

Some concrete examples:



A Swiss financial products provider: *“Cloud computing is restricted to applications that are not carrying client data, according to Swiss laws, unless the service provider runs all the services from Switzerland.”*

A research organization from the UK: *“We have some applications that store and process medical records. We can’t run these on public clouds.”*

A multinational financial services provider: *“External vendors may not comply with your required industry regulations. International law around data placement, privacy and access could create issues. Multi-tenant environments could intermingle our data with that of other customers. Crossing vendor boundaries might inhibit notification and investigation of incidents or eDiscovery. Regular audit activities might be restricted by vendors.”*

A European media company: *“The Data Protection Act has an impact on location and currency of sensitive personal data. There are problems with legal jurisdiction (e.g. US Patriot Act) and access to confidential or sensitive information.*

Vendor lock-in and ISV software licensing go hand-in-hand as the next set of concerns. As the number of clouds is multiplying, users would like to be able to move applications and data onto and between clouds seamlessly. There are some standards activities now up and running with deliverables (SNIA’s Cloud Data Management Interface and OGF’s Open Cloud Computing Interface, to name a couple), although more often than not, it is the broad adoption of marketplace standards that users seek in products and services (e.g. Amazon AMI or VMware vCloud).

In the meantime, we can already see the emergence of cloud ecosystems that will require greater interoperability – and vertically integrated clouds will require the same. While horizontally federated compute markets are further out, some level of interoperability and fungibility will be needed as the basis of a competitive cloud services marketplace.

Concern about inflexible and costly commercial licenses for running application code on hosted resources is not new. But the cloud’s pay-per-use operation makes conventional models, where licenses are bound to physical hardware, even more outdated. An IT organization can’t manage license use if it has no idea where those licenses are – and in the cloud, that may change every day. In the managed services sector, service providers build license management into their fees, but the cloud issue is different. Selling application licenses based on concurrent number of users is hardware-agnostic. However, enterprise software vendors aren’t yet as agile as clouds, or more importantly, the end users who need to consume the software. Evolution and innovation are required to meet the needs of the cloud.

Cultural and organizational inhibitors – including internal resistance, loss of control and uncertainty about the business model – appear more manageable than before. Nevertheless, wherever power, trust and control are at stake, there will be resistance to change.



## 5 Survey Data

### 5.1 Geographic distribution

Of the technology vendors and service providers surveyed, 50% are headquartered in Europe and 50% are based in the US. Of the end-user organizations, 80% have their head offices in Europe and 20% in the US.

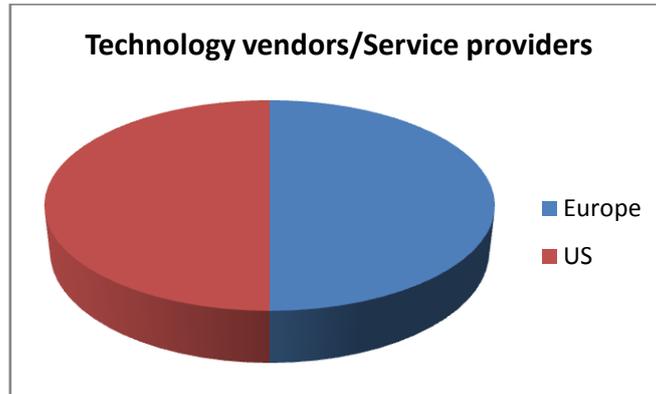


Figure 1 Geographical distribution: technology vendors/service providers

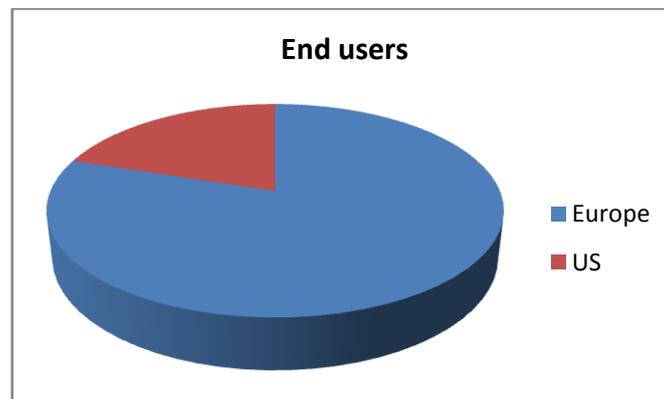


Figure 2 Geographical distribution: end users

### 5.2 Vertical markets

Looking at vertical market distribution, end users at the financial services market account for the largest group, with 60% of the survey sample. Media users represent 20% of the survey base, and research entities/academia at 20%.

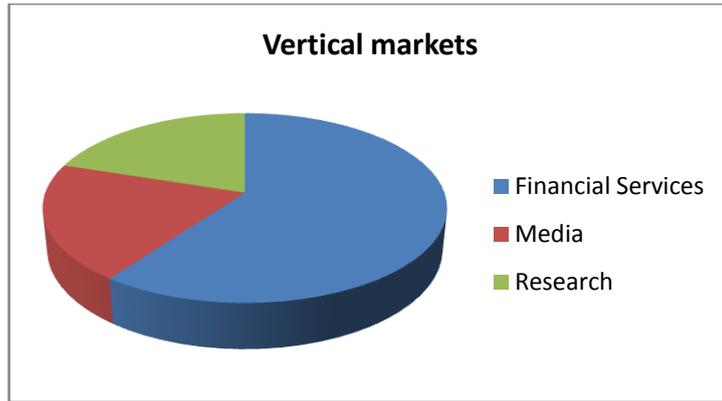


Figure 3 Vertical markets

### 5.3 Organization type and size

44% of our survey sample represent the technology vendor and service provider community and 56% are end-user organizations.

As for size, 67% of the organizations surveyed are SMBs, 22% large enterprises and 11% research organizations and/or academia.

Nearly a fourth of companies in the survey have more than 10,000 employees, while around 10% have between 5,000 and 10,000 staff; 22% have between 50 and 250; and 45% have up to 50 employees.

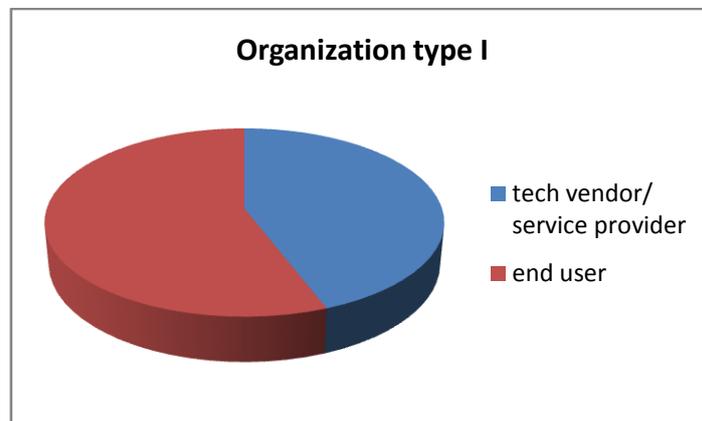


Figure 4 Organization type I

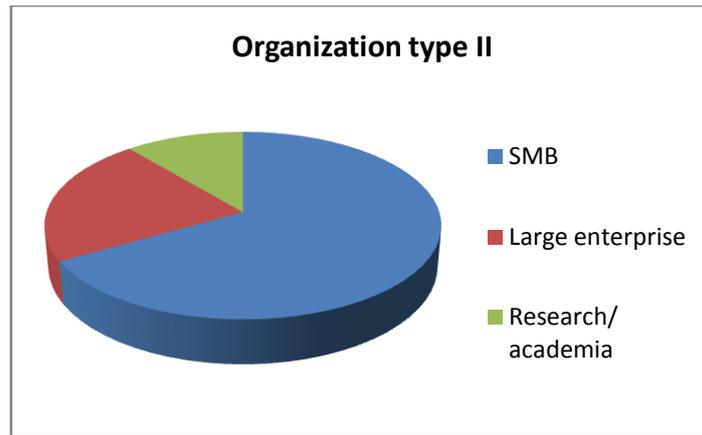


Figure 5 Organization type II

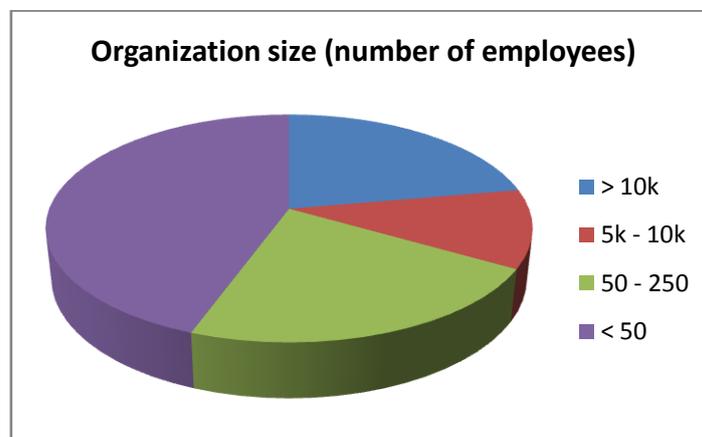


Figure 6 Organization size by number of employees

## 6 Upcoming report

In our upcoming report “*D7.1.3 The Impact of OPTIMIS on market behavior*”, we will design a viable business model for OPTIMIS and will analyze its impact on the cloud market. We will give a comprehensive answer to the question “why do we need OPTIMIS?”. This last business report will directly support the exploitation activities of the project. The report will be available in July 2011. Stay tuned!



## Annex A. Questionnaires

### A.1 Questions for technology vendors and service providers

1. Company information

<b>COMPANY NAME</b>	
<b>ACTIVITIES</b>	
<b>SIZE</b>	
<b>HEAD OFFICE</b>	

(If you'd rather stay anonymous, let us know but please fill in the 'activities' and 'size' fields)

2. Who are your most important customers? (e.g. market segment, type and size)
3. What bundles of products and services are you offering to your customers? (describe your offering)
4. What value do you deliver to your customers? What customer problems are you solving? What customer needs are you satisfying?
5. Which channels do you use to communicate with and to reach and sell to your customers? Which ones work best and why? (e.g. sales force, web sales, own stores, partner stores, etc.)
6. What type of relationships do your customers expect you to establish and maintain with them and which ones have you established? (e.g. personal assistance, self-service, automated services, communities, co-creation, etc.)
7. What are your main revenue streams? How do your customers pay? How would they prefer to pay? (e.g. transaction revenues, recurring revenues, asset sale, usage fee, subscription fee, licensing, brokerage fee, advertising, fixed pricing, dynamic pricing, etc)
8. What key resources do your value propositions/distribution channels/customer relationships/revenue streams require? (e.g. physical, intellectual, human, financial, etc.)
9. What key activities do your value propositions/distribution channels/customer relationships/revenue streams require? (e.g. production, deployment, problem solving, platform/network, tech support, etc.)
10. Who are your key partners and suppliers? (you don't need to give names, just describe the type of organizations) Which key resources are they providing you and which key activities are they performing?
11. What are the most important costs inherent in your business model? Which key resources and key activities are most expensive? (e.g. deployment costs, maintenance, costs, sales & marketing costs, etc.)
12. What legal problems and/or legislation affect your offering and business activities? (e.g. data protection, green legislation, etc.)



## A.2 Questions for cloud users

### 1. Company information

<b>COMPANY NAME</b>	
<b>ACTIVITIES</b>	
<b>SIZE</b>	
<b>HEAD OFFICE</b>	

(If you'd rather stay anonymous, let us know but please fill in the 'activities' and 'size' fields)

2. What are your company's main business drivers when it comes to the use of clouds or any IT services?
3. What's your annual budget for cloud/IT services? (ballpark figure)
4. What's your current cloud deployment and/or what cloud services are you planning to use? Why those?
5. For what activities do you need cloud services?
6. What do you expect from cloud services? (both tangible and intangible benefits)
7. What is the value that your current cloud or IT provider is delivering you? What problems are they solving? What needs are they satisfying?
8. What problems can't your current cloud/IT provider solve? What needs can't your current cloud/IT provider satisfy?
9. Which channels does your cloud/IT provider use to communicate with/reach/sell to you? Which ones work best and why? (e.g. sales force, web sales, own stores, partner stores, etc.)
10. What type of (customer) relationships do you expect your cloud/IT provider to establish and maintain with you and which ones have they established? (e.g. personal assistance, self-service, automated services, communities, co-creation, etc.)
11. How do you pay for cloud/IT services? How would you prefer to pay? (e.g. transaction revenues, recurring revenues, usage fee, subscription fee, licensing, fixed pricing, dynamic pricing, etc)
12. Are you aware of any legal problems and/or legislation that affect your current cloud deployment or are these impeding you from using cloud services? (e.g. data protection, green legislation, etc.)



## Annex B. References

- [1] Cloud Ecosystem: Taxonomy and Value Networks, D7.1.1, OPTIMIS project, Sep 2010
- [2] Alexander Osterwalder & Yves Pigneur, Business Model Generation, 2010, ISBN 978-0470-87641-1
- [3] The 451 Group, CloudScape, IT is Cloud – To Infrastructure and Beyond, June 2010
- [4] The 451 Group, Market Monitor, Cloud Computing, 'as-a-service' Market Sizing, Report II, Oct 2010