



Recommendation 6:

Cloud computing

Faster and transparent access to public sector services

Using 'cloud computing' to meet the societal need 'Faster and transparent access to public sector services'

Actual solutions and services:

There are already many cloud providers available, like e.g.

- Public clouds (e.g. Google docs, Microsoft Office 365, SAP Business by Design)
- Private Clouds
- Hybrid Clouds (have elements of private and public cloud)
- Infrastructure as a service (IaaS) (e.g. Amazon Web Services, Google Compute Engine, Windows Azure)
- Platform as a service (PaaS) (e.g. Google App Engine, Amazon Elastic Beanstalk)
- Software-as-a-Service (SaaS) (e.g. from Microsoft, Google, Salesforce.com, Cisco, Intuit)

SWOT Analysis

Strengths

- **High computing power and performance**
- **Agility and flexibility**
- **Scalability and elasticity**
- **Productivity (capability of users simultaneous work on the same data)**
- **Device and location independence**
- **Portability across devices**
- **Cost reductions (operational expenditure instead of capital expenditure, lower needs for in-house IT skills, lower maintenance costs)**
- **Improved security (at central level)**

Weaknesses

- Absence of legislative framework about cloud services
- Loss of control over sensitive data
- Non strict SLAs

Opportunities

- **Low infrastructure Costs**
- **Ability to open up services and data**
- **Data Resilience and Sharing**
- **Big data analytics enablement**
- **Low Cost for testing and development environments**
- **Vendor independence**

Threats

- Insecure Interfaces and API's
- Data Loss & Leakage
- Risk of vendor lock-in in certain cases
- Vagueness around legal ownership of the data
- DevOps roles necessary
- Unexpectedly high charges (e.g. ingress of data might be free, but extracting it can be costly)

Faster and transparent access to public sector services:

The societal demand for a trustworthy public sector resonates until today. This need also includes issues such as better quality public services – fairness and customer service standards in public service provision . Informants mentioned establishing trust in governance, voicing their opinions, accessing timely and accurate information, unlinking public sector and politics as some of the key needs under this header. One informant expressed his opinion as: "A clear point of authority to be established (often have to roam offices because it is not clear the authority for a particular task)."

Cloud computing:

Cloud Computing is a style of computing in which scalable and elastic IT-enabled capabilities are delivered as a service using Internet technologies . It refers to the practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer. It is a type of internet-based computing and a model for enabling ubiquitous, on-demand access to a shared pool of configurable computing resources (e.g., computer networks, servers, storage, applications and services) which can be rapidly provisioned and released with minimal management effort.

*Cloud computing relies on sharing of resources to achieve coherence and economy of scale, similar to a utility (like the electricity grid) over an electricity network. It provides users with access to an integrated set of IT solutions, including the Applications (SaaS), Platform (PaaS), and Infrastructure (IaaS) layers .**

*Gartner IT Glossary – Cloud Computing, <http://www.gartner.com/it-glossary/cloud-computing/>
Wikipedia – Cloud Computing, https://en.wikipedia.org/wiki/Cloud_computing
Gartner, Gartner Identifies the Top 10 Strategic Technology Trends for 2015 (Press Release), <http://www.gartner.com/newsroom/id/2867917>