SaaS and cloud computing are not yet the pinnacle of ICT services

The future is dynamic

ICT resources are often stretched if a company suddenly needs to quickly expand its business due to high demand. The infrastructure cannot cope with an unexpected rush and additional resources cannot simply be plucked out of thin air without high costs. What is missing are flexible solutions which grow or shrink synchronously with the business process flow right from the start and prize open the narrow physical limits of in-house capacities.

One way out of the dilemma of “being and having” is provided by cloud computing: According to a definition by Forrester Research, this is a “pool of abstract, highly scalable and managed IT infrastructure which holds customer applications and is billed according to use” (quoted/translated from “Computer-woche” magazine of April 11, 2008). This means that the customer places his applications in a provider’s data center, rents its ICT infrastructure and network bandwidths, computer and storage resources and uses them as required. The rental price is geared towards capacities which are actually used.

Standard software as required
In addition, companies can also rent standard applications via the provider’s network and share the same software cost-effectively with other customers of the service provider. They also use the application as required but must therefore forgo any individual adaptations. Finally, the provider can only achieve price benefits through economies of scale if he offers a large number of customers one and the same software. Generally this is already tailored to network demand and is a lite version of a larger, customized application.

This SaaS (Software as a Service) model is different from conventional Application Service Providing (ASP) in that customers of the latter source their own applications via the Internet. Updates are also carried out individually. Since, in contrast, SaaS is geared towards several clients,

and does not include any dedicated services, the installation, maintenance and license costs are reduced overall. This solution provides for data security since the information of every customer is stored separately via security and authorization functions, despite the standardized software.

Better with dynamics

With its Dynamic Services offer, T-Systems is going one step further than cloud computing and SaaS. Here customers can rent more than just infrastructure or standard software. They continue to share, as required, the scalable resources in the T-Systems' data center, but each customer sources a software environment, which is individually adapted to a certain extent, via the Internet, MPLS (Multi-Protocol Label Switching) or a direct connection. The applications therefore essentially remain highly standardized so that T-Systems can continue to operate, maintain and update them in a standardized manner in order to achieve the desired price benefits and synergy effects for customers.

As far as the software is concerned, depending on the intended use, customers can choose between solutions for ERP (Enterprise Resource Planning), CRM (Customer Relationship Management), communication & collaboration and archiving and e-commerce. They then source the application in the data center via fixed IP addresses entirely as required. If a company needs more ICT resources, at the end of the financial year or over the Christmas period for example, it can add these on flexibly. All the services requested can then be shut down again just as quickly. Just one day later the desired service will be available.

In addition to a basic flat rate, users pay for all the services they use as commissioned. Thus the invoice in the mainframe area contains the exact number of MIPS (Million Instructions per Second) requested. If archiving is involved, the price is orientated towards the number of documents, for example. The users of Dynamic Services do not therefore need to save expensive reserves for peak loads and thus convert high fixed costs into calculable variable expenses.

Comprehensive service package

Furthermore, Dynamic Services always includes a comprehensive service package. T-Systems therefore agrees service level agreements (SLAs) with customers on request which cover service right up to individual workstations. Thus the ICT service provider's responsibility does not stop at the network connection in the company's basement, but instead at each individual computer of the customer.

Analysts at McKinsey consider there to be a high demand in this area: CIOs want continuous end-to-end services for IT and telecommunications. They are concerned not so much about technology than about a solution for their challenges. Furthermore, a clear trend towards virtualization and flexible price models can be seen. According to a survey carried out by market analysis and consultancy firm Pierre Audoin Consultants (PAC), 87 per cent of all European IT managers questioned currently already use virtualization concepts and over half are planning relevant measures over the next few months. There is good reason for this: Through virtualization, resources can be sourced dynamically and up to 30 per cent of total IT operating costs can be saved. Here significant cost savings can be made in the operational concept, standardization and automation.

When virtualized, applications whereby the customer's system environments are fully separated from one another can be automatically optimally distributed to existing computers. Thus several applications can run on one computer, depending on utilization. As a result, in contrast to classic, dedicated server models, T-Systems is able to support the same results on fewer computers. Finally, the reduced power consumption has a positive impact on the climate.

Dynamic ICT

Overall, Dynamic Services almost cover the complete ICT portfolio of T-Systems. They can rarely be considered in isolation since the type of associated services depends largely on the customer's targets and requirements. Thus T-Systems also offers price and scan services for archiving.

The incoming invoices are recorded electronically, saved in the archive system and also moved into the SAP system so that the customer can immediately further process the invoice electronically. New invoices, on the other hand, are printed at the push of a button and are sent automatically.

One of the world's largest SAP installations

When companies source business critical applications such as SAP dynamically from a failsafe data center, the resources are available at all times in sufficient quantities. The Dynamic Services for SAP® solution for Deutsche Telekom's receivables management, with eight terabytes of storage space, is, for example, one of the world's most powerful SAP installations. The database is thus able to reliably store around two billion written DIN A4 pages – corresponding to a paper mountain 200 kilometers high.

Solutions for customers in over 20 countries

T-Systems brings with it everything required for dynamic services: Thousands of servers in 11 data centers across the world, the Deutsche Telekom network with around 1.5 million kilometers of copper cable and 230,000 kilometers of optic fiber cable around the globe and long-standing business relationships with software manufacturers for enterprise resource planning, office applications, customer relationship management and many other applications. The company bundles experiences of 1.5 million supported workstations and solutions for customers in over 20 countries. With data centers distributed worldwide, the Deutsche Telekom subsidiary can implement Dynamic Services across the globe and independent of time zones.

In brief

Cloud Computing: Rental of ICT infrastructure as required

Software as a Service (SaaS): Rental of standard software as required

Dynamic Services: Cloud computing plus rental of adapted applications as required plus service package

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