



## Advisory Report

# Data Center Services Roundup: Overview of Leading Products and Vision



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### ■ Summary

Current Analysis has completed its round up on the market leaders for Data Center Services. The service providers tracked include: AT&T, BT/HP, IBM, Orange Business Services, T-Systems and Verizon Business. This advisory looks at how these providers have improved their data center services over the past six months, considers the various product roadmaps, and the general direction of the market. It also evaluates each carrier by four buying criterion: (1) Consolidation which considers what service providers are doing to enable customers to reduce their IT infrastructure, increase utilization and create a more flexible IT environment. (2) Business Continuity/Disaster Recovery which compares capabilities in ensuring maximum uptime and ways to respond in the event of an outage (e.g., human error or other). (3) Performance and Scale which considers SLAs, service level management capabilities (e.g., ITIL), online customer support as well as the geographical spread of the facilities to support global MNCs.

For detailed carrier-specific information, buying criteria definitions, and individual product metrics, please refer to the Data Center Services (Europe) Product Assessments.

### ■ Current Perspective

#### **Cloud Computing is the Next Big Thing**

Most of the providers surveyed have identified cloud computing as a major area of investment. There are several reasons behind this explanation. In the current economic times, customers are looking to move from a CAPEX-based model, to an OPEX based model. Here cloud computing, or 'infrastructure as a service,' requires no upfront CAPEX investment and the premise is that customers 'pay for what they use as they use it.' This includes server capacity, CPU, memory, storage, bandwidth, firewall, load balancing, etc. Each of these components would be charged out separately and transparently. Some of the providers introduced a new pricing model customers where customers would pay per device (e.g., firewall, server, and load balancer), capacity (e.g., storage, bandwidth, back-up, and memory). Usage

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of individual software applications are based on other metrics (time-based usage, per license, CPU).

Another compelling feature behind this platform is the level and extent some of the service providers, such as AT&T and Verizon Business have invested to provide online platform to provision services on the fly, launch trouble tickets and access billing details. Some service providers can now point to an integrated online tool which allows customers to provision virtual and physical servers (e.g., four-core, eight-core blade). While virtual servers can be provisioned almost instantly, physical servers are will be online within a few hours and both environments are backed with SLA guarantees on provisioning times. Other metrics include availability at 100% (e.g., portal, server, virtual farm) and server response times. The portals are designed to allow users to turn services 'on and off,' provide usage statistics for capacity planning and visibility into the entire environment. Most service providers believe that there is a wide target market for on-demand computing. There are some segments that have variable computing requirements (e.g., retail stores, seasonal businesses, accounting firms, etc).

Other important segments include IT and software developers and SaaS providers, for example, looking for on-demand capabilities for testing and staging new products. There are also secondary 'white label' opportunities to alternative carriers and IT Service Providers looking to address this market without having to build the infrastructure themselves. There are also MNCs from a variety of industries looking at cloud computing as a form of consolidation by deploying the latest virtualization technologies. Cost-savings is the most important driver in the current economic environment. However this is also fuelling secondary discussions around how to be more strategic with IT. Some customers are stating a desire to improve the utilization of IT (e.g., dedicated servers only use 10-15% of total capacity on average), but also are looking for more flexibility and want to move away from the current silo environment. The idea is to align IT more closely with individual business units and get to a phase where they can set up an internal billing system to each of these departments and users it serves. Other customers would be inclined to use IT resources on-demand to improve 'time to market' for new services. While some providers such as AT&T were the first to offer global on-demand utility computing, there will be other big launches within the next few months. Only one of the global operators seem surveyed to be content with its existing 'private utility' model and will not be making any investments in this area for the foreseeable future.

**Network Provider vs. IT Service Provider**

As some of the global network operators begin moving into 'cloud computing,' they will begin to compete more directly with traditional IT service providers. Owning the network and the data centers, carriers will be in a very strong position to offer dynamic services especially once these providers can develop very solid, test proven, online customer tools. As an IT Service Provider typically does not own the network, it will be very difficult to see how they would be able to compete on provisioning times, and in delivering an end-to-end service. At the same time, very few of the operators surveyed have gone very far in offering 'Software as a Service' capabilities. This is clearly in the domain of the integrators, such as T-Systems and IBM. Both of these providers surveyed have a very clear lead over the carriers in delivering these capabilities on a global basis and this is unlikely to change. IBM and T-Systems, for example, have a stronger legacy in business application environments, have all the right partnerships, and seemed to have identified the software on-demand market several years ago. The lines are continuing to blur. BT's Virtual Data Centre offer could compete with HP's software on-demand business as AT&T's Synaptic Hosting could compete with IBM. Nevertheless, carriers and ITSPs are also partnering with each other in areas such as

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data center transformation. Carriers may have a lead when it comes to the state of their online management platforms, but it is still too early to tell as several platforms have yet to be introduced, tried and tested.

**Performance and Scale**

Most of the service providers have either opened or are planning to open new facilities across Europe and worldwide as they continue to meet market demands. A lot of the focus for all new and existing data center facilities is to create a standard architecture on a global basis. One provider has gone as far as stating that the facilities in Bangalore must be completely consistent as the facilities in Toronto. In keeping with this spirit, there has been more focus in intensifying relationships with existing suppliers over attempting to find new partners. However there are also some variances between locations where the service providers plan to build and run their utility computing services. Most new offerings in the next six months will focus on the UK and German markets, other European providers are hedging their bets in the Benelux, Spain and Italy.

**Business Continuity and Disaster Recovery**

Most providers have always taken a consistent approach to addressing the issues of Business Continuity and Disaster Recovery and tend to discuss the range of services that are available almost described as a continuum. This includes, for example, multiple types of off-site storage, including tape-based, long-term storage and disk-based storage. In other cases, this could involve options such as data center mirroring (where distances permit), data replication over long distances, active facility with off-site standby, and geographical load balancing. There is one provider that has set up a global network of twin-core facilities where two or more data centers are interconnected across redundant links of fibre within a range 16 kilometers (or ten miles) of each other to provide site-to-site mirroring. Most providers have also segmented the market somewhat using certain sets of suppliers to address the mid-market and other sets for corporate MNCs, public and government accounts. Within the past few months, most of the developments have been around offering customers storage and back-up solutions as an on-demand service. Two suppliers surveyed (i.e., AT&T and Verizon Business) launched new products, together with Arsenal.

Some providers will also address business continuity and disaster recovery in terms of architecture and put a great deal of emphasis on having the facilities placed directly on top of the networks of several carriers at an exchange point to guarantee sufficient bandwidth and at least N+1 redundancy with dual and independent power suppliers. These providers tend to only seek out facilities with top tier rankings (e.g., above three) using the Uptime Institute methodology. There is another group of providers that have a lot of facilities across Europe and have all different rankings, designs and certifications. In these scenarios, a company could have a data center in one country supporting a single big customer and many facilities in other places supporting co-location, and/or legacy server housing and hosting capabilities. There appears to be some trend emerging where service providers will try to unify their estates by creating 'centers of excellence.' This includes, for example, having a global SAP practice in one country, security in another and remote application management in a third. The idea is to position this as a single operating environment. And in some cases, this will be matched with professional services to help customers design, test and run an environment to meet their requirements.

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## Recommended Actions

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- There are a number of network providers that are in the midst of joining AT&T in being able to offer a credible utility computing proposition on a global basis. Verizon Business, for one, just launched its CaaS platform in the USA. These platforms allow customers to provision resources on the fly and pay per usage with a very intuitive and advanced Web interface. Carriers and IT service providers that have chosen not to invest in such platforms may either need to reconsider their stance and/or consider white label opportunities in the short to medium-term.
- IT Service Providers should counter the threat of telecom operators by highlighting their deeper knowledge and understanding of enterprise application environments. Carriers are just entering this space and have very limited deployments of higher end ERP or CRM applications, for example. They also offer very little experience of providing custom integration or lifecycle management and often require the specialist support from third-party integrators.
- However, IT Service Providers should brace for the potential of major telecom providers opening up their network to a full range of third-party vendors offering more solutions on-demand to a large customer base. There are early signs that this is already happening and new revenue sharing models are taking shape. It is likely that the first wave of such applications will focus on UC and business process applications (e.g., payroll, accounting, etc.). If service providers can tie this back to a strong online platform that pulls together the back-end processes, carriers will enjoy a scale advantage over many of the traditional ITSPs.

**Recommended User Actions**

- Enterprise customers should embrace the concept of on-demand computing as an opportunity to align IT resources with business objectives and goals. They should also be looking at the cost-savings and ROI benefits as well. Having said that, they should also be aware of the challenges in delivering these services, such as integrating backend systems and customising applications to support company-specific needs. Equally, customers should also voice their individual concerns on the issue of security.
- Virtualization is becoming ubiquitous and research has shown that 70% of enterprises have either deployed virtualization within their IT environment or have ongoing projects. While most discussions traditionally revolved around server consolidation, enterprises are also beginning to show more interests in other areas such as virtual desktops and storage networks. In any deployment scenario, customers should be working with their suppliers in identifying the right areas with the focus on reducing costs, generating ROI and creating a flexible IT environment.