Vendor Spotlight

Orange Business Services and Huawei Team Up to Deliver Public Cloud as an Extension of Current Private Cloud Offer

Sponsored by: Orange Business Services and Huawei

Kamil Gregor
December 2017

EXECUTIVE SUMMARY

Cloud is increasingly becoming an essential bedrock of companies' digital transformation, which is reflected in rapid growth in spending across the cloud stack. This brings about several key trends:

- Multicloud is becoming the dominant cloud paradigm as companies consume more and more complex combinations of cloud deployment models.
- A critical shortage of IT necessary for building and managing clouds drives even large enterprises toward managed cloud providers.
- In cloud platforms, open source solutions are gaining traction, the most popular being OpenStack.
- The bulk of enterprise IT budgets is now spent directly by line-of-business departments, which tend to focus on business outcomes and not purely on technology. Also, developers place stronger emphasis on rapid deployment and scaling. Both trends drive enterprise appetite for professional services and managed services.

This IDC document introduces Flexible Engine, a recently launched public cloud platform from Orange Business Services (Orange Business Services), as well as a layer of managed and professional services built on top of it. Key differentiators of Flexible Engine include:

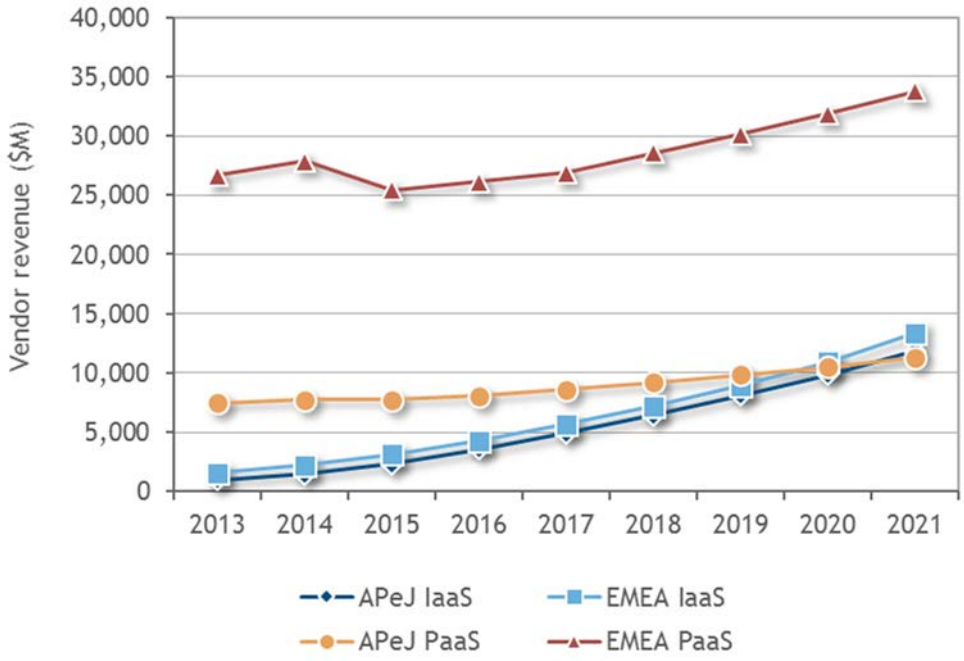
- Flexible Engine is served by Huawei's enterprise distribution of OpenStack, which brings the benefits of open source, most importantly integration via core OpenStack APIs, competitive pricing, and the elimination of vendor lock-in concerns. In 2017, Huawei became a Platinum member of the OpenStack board.
- Flexible Engine supports a range of professional and managed services built on top of it, including services centered around technologies that IDC identifies as innovation accelerators. The services range from digital transformation strategy to rollout run and encompass application migration, cloud expertise, security, and testing.
- Orange Business Services proposes new ICTs like IoT, AR/VR, Big Data, and AI hosted on the Flexible Engine platform to face new challenges around connected applications.
- Flexible Engine offers global coverage, as well as strong presence in several EMEA countries that are (or are becoming) key cloud hubs, including France and the Netherlands. The two initial locations (Paris and Singapore) are important because they include the increasingly attractive Asian market. North America will be launched at the beginning of 2018.
- Flexible Engine infrastructure is located in Equinix colocation datacenters. This allows especially large customers to consolidate their public and private clouds in the same location and to potentially harness the value of co-locating with their partners and customers encompassing network efficiency and overall performance.

CLOUD COMPUTING IS CRITICAL FOR DIGITAL TRANSFORMATION

IDC identifies cloud as one of the four technologies of the 3rd Platform of digital transformation, together with mobile, social, and Big Data analytics. In 2017, various deployment and location configurations of cloud are becoming increasingly ubiquitous and cloud is quickly becoming indispensable to other exciting and rapidly growing technologies, including augmented and virtual reality, the Internet of Things (IoT), vehicle automation, predictive maintenance, artificial intelligence, and robotics.

FIGURE 1

IaaS and PaaS Vendor Revenue in APeJ and EMEA



Note: APeJ = Asia/Pacific excluding Japan

Source: IDC Public Cloud Services Tracker, 2017

The market for cloud and cloud-dependent technologies continues to outgrow the traditional IT market, where growth has slowed or even declined. According to IDC, the share of both private and public cloud dollar spending in server, storage, and Ethernet networks increased from 20% in 2015 to 25% in 2016, and cloud spending grew by 18% in 2015-2016 to reach $8.3 billion in EMEA. In comparison, spending on the corresponding traditional datacenter infrastructure declined by 11% in the same region and during the same period.

Similar trends are observed in the software and services layers of the IT stack. Figure 1 shows that in EMEA, infrastructure-as-a-service (IaaS) dollar spending is estimated to grow by 18% in 2017-2021 to reach $13.4 billion in 2021 and platform-as-a-service (PaaS) dollar spending is estimated to grow by 5% to reach $33.8 billion in the same region and during the same period.

Cloud pervasiveness has already impacted virtually all facets of companies' business – not only their IT spending patterns, but also their company vision, business model, internal operations, customer engagement, and relations with vendors and other partners. IDC estimates that by 2018 cloud will be the preferred delivery mechanism for analytics, increasing public data consumption by 150%. By 2020,

67% of all enterprise IT infrastructure and software spending will be for cloud-based offerings and at least 50% of net-new IT spending will be cloud based, shrinking non-cloud enterprise application spending by 20%.

THE GROWING IMPORTANCE OF MULTICLOUD

Multicloud is quickly becoming the dominant cloud paradigm. The growing thickness of the cloud stack, the increasing complexity of cloud deployment and location models, and the rising importance of interoperability and integration of IT components are all indirect results of cloud's growing maturity. As the technology matures, interaction between cloud and traditional environments becomes increasingly seamless and cloud consumers are more and more often able to architect their multicloud environments to fit tightly to the needs dictated by their workloads and operations.

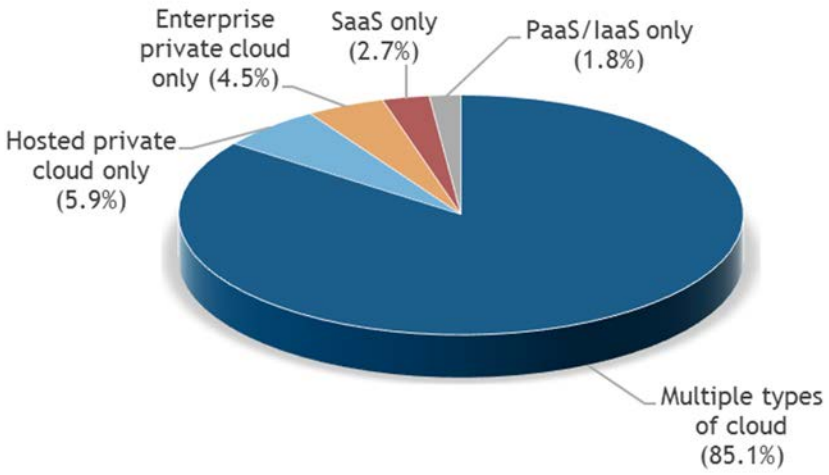
Moreover, line-of-business departments are working closer with developers. Different lines of business use different workloads and might require different cloud adoption strategies, which results in the evolution of the multicloud environment on the companywide level.

Figure 2 shows that 85.1% of respondents in IDC's *CloudView Survey* report that they already currently use or are planning to use multiple deployment options of cloud. These consumers of multiple clouds will look for ways to consolidate consumption of these solutions and to integrate them.

FIGURE 2

Predominance of Multicloud Environments Among Cloud Users

Q. Describe your plans for the following deployment options (currently using + firm plans to implement in 12 months).



Note: n = 6,084 worldwide respondents

Source: *IDC CloudView Survey*, 2017

Arguably the most important trend that multicloud brings about is the growing importance of managed services. On one hand, cloud in general and multicloud specifically are becoming increasingly necessary for successful digital transformation. But on the other hand, the faster pace of digital transformation forces companies to focus on innovating their business around their key differentiators instead of spending valuable resources on managing their own cloud environments. Partnering with

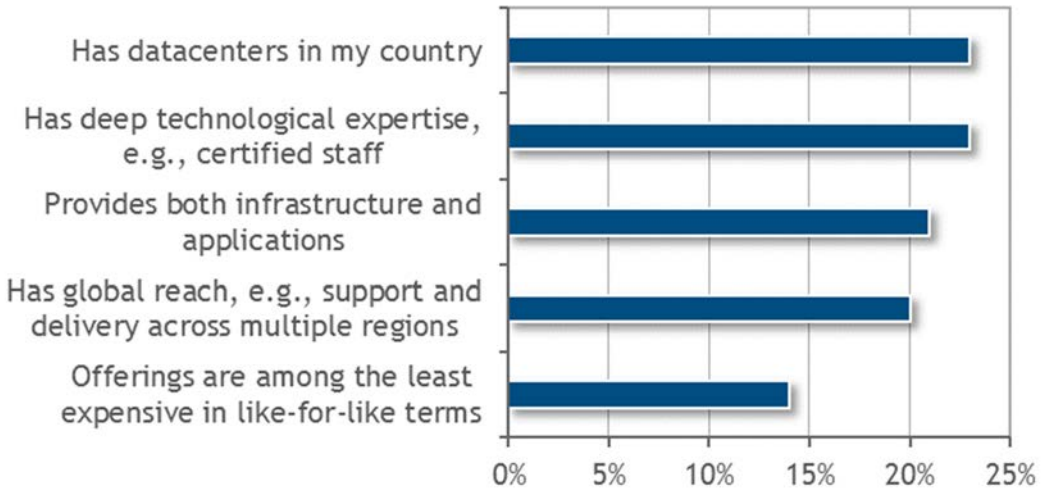
managed service providers allows cloud consumers to rapidly, conveniently, and safely shed responsibilities around cloud consumption.

The critical shortage of IT skills is a major driver of this shift to managed services. Skills shortages are continuously among the top inhibitors of both public and private cloud. For example, in the *IDC CloudView Survey* mentioned above, 22% of public cloud users and 20% of private cloud users identified a shortage of skills to implement and/or manage cloud services as a concern when considering cloud services. Figure 3 also shows that technological expertise is often cited by the survey respondents when considering a potential cloud service provider.

FIGURE 3

Attributes of Cloud Service Provider Selection

Q. Identify the most important attributes of a potential cloud service provider.



Note: n = 801 Western European respondents

Source: *IDC CloudView Survey*, 2017

Being able to successfully and effectively build a large-scale enterprise-grade multicloud is one of the scarcest skill sets in the current IT labor market. This is not limited only to technical skills, however – it also covers many related tasks such as handling compliance tools and processes. Even for large enterprises, it is becoming less and less feasible to build and manage their own cloud environments.

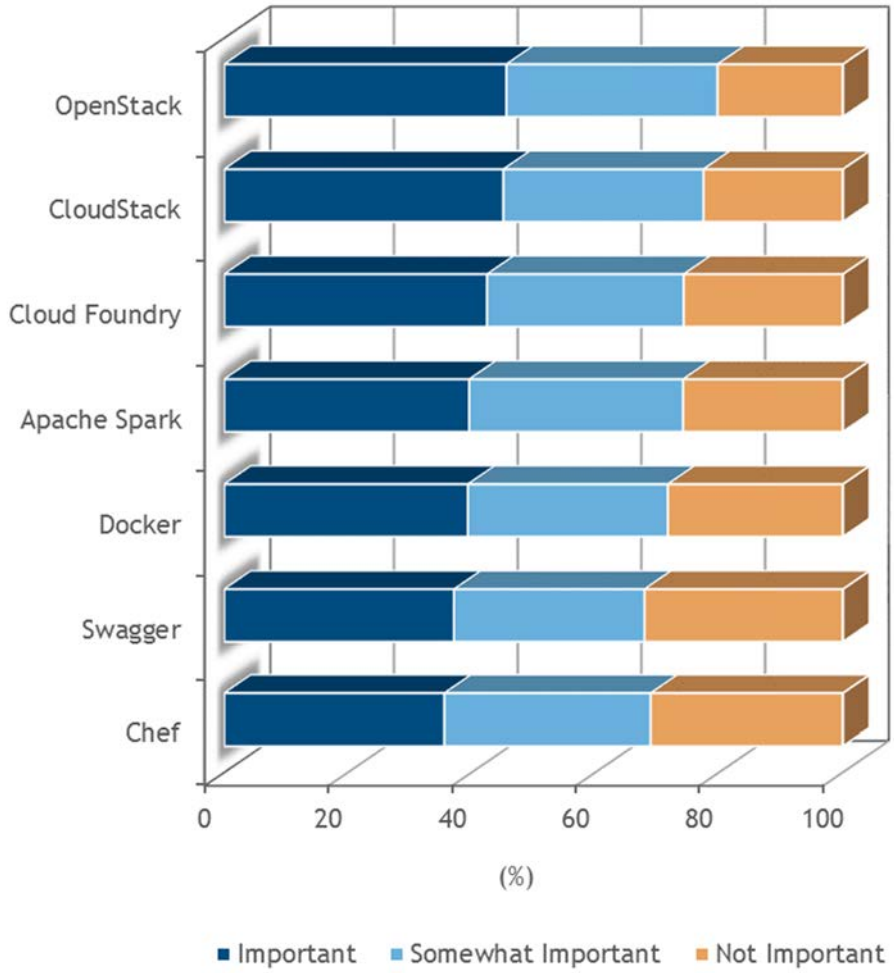
OPENSTACK AND MANAGED OPENSTACK

The shift toward managed services is coupled with the growing popularity of managed open source solutions in cloud. Open source is especially popular in public cloud, where most commercial solutions are already based on some open source technologies. As shown in Figure 4, OpenStack is the most important cloud stack technology in enterprise cloud strategies.

FIGURE 4

Importance of Selected Open Source Cloud Technologies

Q. How important are the following cloud stack technologies for your cloud strategy?



Note: n = 6,096 Western European respondents

Source: *IDC CloudView Survey*, 2017

OpenStack is an open source cloud operating system, most often deployed as an IaaS with a wide range of cloud components including bare metal, compute, block and object storage, database, container orchestration, identity, and telemetry. It was initially released in 2010 and the OpenStack Foundation has since been joined by over 500 companies including major infrastructure and software vendors, cloud service providers, and public institutions.

There are many drivers behind the growing traction of OpenStack and other open source cloud platforms. First, partnering with a cloud service provider means that a cloud consumer is at least partially relegating control over technology crucial for successful digital transformation of its business to a third party. Managed cloud providers are aware of these concerns, and building their cloud offerings on an open source substrate is a successful way of mitigating them.

Second, the growing complexity of deployment and location configurations in a multicloud environment creates even more pressure on technology, standards, and vendor agnosticism, which is something open source solutions are centered around by design. The OpenStack Survey, a non-representative

sample of the platform's users, shows that standardizing on the same open platform and a set of APIs is among the top business drivers of the solution.

And third, enterprise distribution of open source solutions delivers higher quality thanks to collaborative development and resource pooling of many vendors and other types of contributors in open source communities. The OpenStack Survey cites attracting top technical talent as one of the top drivers behind the platform's growing importance in the enterprise space.

INTRODUCING FLEXIBLE ENGINE

With a turnover of €6.4 billion and a workforce of 21,000 employees spread around the globe in 240 countries, Orange Business Services is the B2B branch of Orange, a French multinational telecommunications corporation. Orange Business Services has a strong legacy in building and managing private clouds, mainly in assisting large multinational enterprises with migration of legacy applications to cloud and in managing their cloud-native applications.

To deliver its own public cloud platform, Orange Business Services has partnered with Huawei, a global fast-growing leader in ICT and cloud platforms which has been competing to become one of the top cloud infrastructure providers worldwide. Huawei has close to half of its 180,000 employees dedicated to R&D, and its Enterprise Business Group showed aggressive revenue growth of 100% in 2016.

In 2017, it introduced Flexible Engine, its joint OpenStack-based public cloud platform. Huawei provides infrastructure, its own OpenStack distribution, and Level 3 support, while Orange Business Services operates the platform, performs the cybersecurity control of the solution, and does the go-to-market, as well as leveraging Orange's global marine network capability to offer distributed cloud service worldwide.

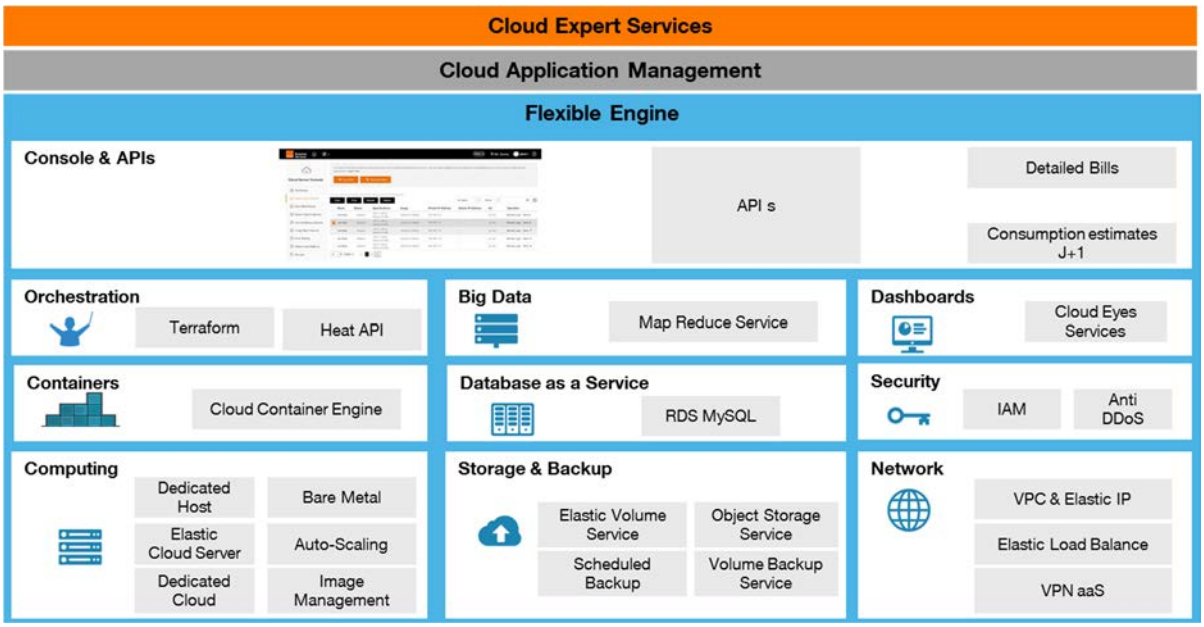
Key components of the platform include:

- Compute consisting of 8 classes and 40 flavors of auto-scaled Elastic Cloud Machine virtual servers paid per use and per hour.
- High-capacity Object Storage Service for large datasets, Elastic Cloud Services for block storage designed for fast data access, and the Volume Backup Services offering a hard-disk-based backup.
- Dedicated resources (compute or storage, or both) to provide a dedicated environment for customers not willing to rely on shared resources while benefiting from the public cloud approach. Bare metal services are also available for running applications requiring specific fully dedicated configurations (such as database licensing and high-performance).
- Virtual network as a service, including virtual private network definable via the Flexible Engine console, Elastic Load Balancer, and the Orange software-defined wide area networking (WAN) which provides MNCs with global coverage.
- Platform-independent Cloud Container Engine which uses GUI to access Docker Hub public resources to retrieve middleware, applications, and tools.
- Orange's cybersecurity capability, including configurable anti-DDoS detection and rerouting.
- Leading-edge infrastructure including HPC and GPU to handle growing demand for innovative technology services such as AI, AR, VR, IoT, media, and CAD/CAM.

On top of Flexible Engine, there is a layer of services built by Orange Business Services using specific solutions from various vendors, depending on functionality, with Orange Business Services securing a wide range of certification on management of these solutions. Solutions available on top of Flexible Engine include two distributions of an IoT platform, one developed by Huawei and one by Orange, and three distributions of Big Data analytics platforms, one of which was developed by Huawei.

FIGURE 5

Flexible Engine Features Overview



Source: Orange Business Services, 2017

Flexible Engine is available in dual-AZ mode in both Paris and Singapore and will be launched in the U.S. and the Netherlands at the beginning of 2018. Other regions such as MEA will follow later in 2018. In order to benefit from a wide range of datacenters worldwide, Orange Business Services is relying on Equinix, a global leader in interconnected datacenters, to roll out its Flexible Engine strategy. Customers can also colocate their own private infrastructure as close as possible to Flexible Engine in order to benefit from a powerful hybrid cloud hosted in state-of-the-art datacenters.

FLEXIBLE ENGINE IN THE MANAGED PUBLIC CLOUD STRATEGY

The Flexible Engine value proposition revolves around a key public cloud component in the Huawei-powered and Orange Business Services managed multicloud solution with a thick layer of managed services including several innovation accelerator technologies (IoT and Big Data analytics) with multiregional coverage but also a dedicated country focus.

IDC believes Flexible Engine has a number of differentiators:

- Orange Business Services has gained significant know-how in a range of technologies, and can now offer its own OpenStack-based public cloud solution and on top managed services, including multi-environment IT service management that spans both public and private cloud.
- Huawei's enterprise OpenStack distribution retains many of the more appealing open source aspects of the platform. Most importantly, core components of the OpenStack APIs are fulfilled, which simplifies integration of various components within the platform, as well as integration of third-party components.
- The Flexible Engine open source environment also allows Orange Business Services and Huawei to offer highly competitive pricing on both the core platform and the managed services built on top of it.
- The offering includes high-end NVIDIA GPU servers and, in the near future, FPGA servers. Flexible Engine is specifically geared toward high-end infrastructure and provides a new

offering based on the most recent available infrastructure, which makes it one of the most powerful public clouds on the market and especially attractive for high-performance computing consumers.

- Both Orange Business Services and Huawei are multinational companies with large multinational corporation customers. At the same time, Orange Business Services has had a strong presence in several EMEA countries that are (or are becoming) key cloud hubs, including France and the Netherlands. This presence includes dedicated services teams that can provide support in local languages.
- This enables Orange Business Services to tackle challenges specific to the EMEA region, something which might also benefit Huawei as the regional background player. This includes regulatory compliance issues around the General Data Protection Regulation (GDPR), which will be enforced in May 2018 and will, among other things, impose multiple demanding requirements on cloud service providers.
- Co-locating with Equinix could prove to be a key driver of Flexible Engine as well. The business model of colocation providers in general, as well as Equinix specifically, is shifting from provisioning space and security to harnessing the value of datacenter tenants co-locating in the same location, for example low latency, high security, and rapid scaling capability within a multicloud in an environment which retains governance. Orange Business Services says its existing customers already appreciate the option of having Flexible Engine and their private cloud hosted in the same location, and IDC believes that the value of this will grow in the future.

FUTURE OUTLOOK

In terms of regional coverage, Orange Business Services plans to supplement its current French and Singapore locations with a U.S., a Netherlands extra European location, and an African one in 2018. IDC believes a relatively early move into MEA would be valuable, as many public cloud providers have struggled to find an effective African strategy.

In terms of expanding the solution, Orange Business Services and Huawei are focusing on adding more XaaS solutions to enrich the cloud services portfolio. This includes additional IoT services, multinational corporation workspace services, new encryption services, blockchain, and chatbot applications. The Flexible Engine platform will be expanded by adding a cold storage infrastructure and by expanding its range of GPU-specific hardware to better serve VR/AR and AI solutions, as well as HPC (high-performance computing) complemented with InfiniBand for high-demanding throughput services. All XaaS services will come with both professional and managed services to assist customers in their transformation.

CHALLENGES

IDC believes that building a strong brand will be critical for Orange Business Services and Huawei in the multicloud market, especially when compared with the current top public cloud providers that have already built their brand. Orange Business Services and Huawei should continue to build their multicloud message, for example around industry-specific solutions such as smart cities, retail, and connected cars.

In EMEA, Orange Business Services and Huawei will also need to build success stories in core Orange Business Services countries to expand into adjacent markets. Arguably the most important EMEA geography outside Orange Business Services' core French market is the U.K. This is for at least two reasons. First, the U.K. is in the top 3 largest addressable markets in the region (together with France and Germany), and second, there is a risk that the U.K. might gradually become misaligned in regulatory terms after it leaves the EU, which is something that cloud service providers

will need to address. While a datacenter in the Netherlands would help to cover the Benelux region, it would also be interesting for Orange to set up a location in the U.K. to tackle the impact of Brexit.

A strong feature of the Flexible Engine portfolio is that it includes services centered around the technologies recognized by IDC as innovation accelerators, particularly IoT. It will be crucial for Flexible Engine's success to keep expanding the portfolio by adding services revolving around other innovation accelerator technologies, such as predictive analytics and cognitive systems.

CONCLUSION

Based on the trends covered in this document, IDC offers the following points of guidance for companies looking at the public cloud market and considering potential cloud providers:

- **Think about cloud as a business enabler.** Cloud is quickly becoming indispensable to companies' business models, internal operations, and customer and partner interactions. Companies should not lose focus on cloud as a crucial enabler of digital transformation of their business, especially when thinking about cloud development environments for innovative projects.
- **Consider consolidation of multiple cloud environments.** Most cloud consumers are already using or planning to use multiple cloud deployment models. Without a comprehensive and frequently updated cloud consumption strategy that reflects evolving needs, companies risk creating too many friction points between various solutions provided by different vendors. Cloud consumers should therefore consider streamlining their cloud consumption and reducing the number of cloud providers.
- **Plan for future growth by considering global providers.** Cloud consumers that are already multinational or plan to become multinational in particular should prioritize global coverage and dedicated local support across multiple geographies with low network latency when evaluating cloud providers. An ability to quickly move into new regions and rapidly scale them should also be prioritized.
- **Prioritize cloud service providers offering services around innovation accelerator technologies.** Services built around 3rd Platform and innovation accelerator technologies, including IoT, Big Data analytics, AR/VR and AI, are expected to differentiate cloud service providers in the future. These technologies will be increasingly important for successful digital transformation of not only large enterprises but also of companies of all tiers and industries. Picking a cloud service provider with strong initial momentum around these technologies should be a cornerstone of companies' cloud strategies.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.

Global Headquarters

5 Speen Street
Framingham, MA 01701
USA
508.872.8200
Twitter: @IDC
idc-community.com
www.idc.com

Copyright and Restrictions