



Partner Spotlight

UMB Leverages Red Hat OpenShift to Help Swiss Enterprises Modernize Legacy IT and Transition to Cloud, PaaS, and Containers

Sponsored by: Red Hat

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IDC OPINION

In the race to digital transformation, companies worldwide are focused on making their IT infrastructure a business enabler. They see cloud adoption as fundamental to this, but realization is dawning that there is no one-size-fits-all cloud. Security, data governance, resilience, and IT control are as important as agility and scalability. This is making hybrid cloud a natural evolution for most European companies.

In fact, IDC predicts that by 2018, 80% of enterprise IT organizations will be committed to bringing together the best capabilities from multiple platforms – traditional IT, private cloud, and public cloud solutions.

An effective hybrid cloud is a foundation for platform as a service (PaaS), which is where new business applications and services are designed for business transformation. Faster application development and practicing new processes such as DevOps can bring business agility and continuous innovation, and improve time to market for enterprises.

European enterprises seeking solution providers to modernize their IT to hybrid cloud and also for a modern PaaS strategy need to evaluate those with European experience that understand local IT needs (data sovereignty, GDPR, Brexit). European service providers with solutions built on open, modern, and vendor-agnostic technologies are well positioned to help local companies make business transformation successful.

IN THIS PARTNER SPOTLIGHT

This IDC Partner Spotlight discusses how Swiss IT solutions provider UMB is helping local businesses transform their IT – from infrastructure and middleware layer through to application development, integration, and process management. It also discusses UMB's partnership with Red Hat and how it uses Red Hat OpenShift to offer container PaaS and bring Swiss heritage brands to the new digital world.

SITUATION OVERVIEW

IDC's research shows that almost 89% of FT500 CEOs have digital transformation at the heart of their business strategies.

Enterprises are keen to scale their small, individual digital transformation projects (islands of innovation) into enterprisewide business transformation. To this effect, they consider the adoption of cloud, mobility, social business, and Big Data and analytics combined with next-generation

security as fundamental for success. Of these, cloud adoption is the most advanced. IDC's Infrastructure Spend Tracker reveals that EMEA cloud infrastructure spend will reach \$11 billion in 2020 from \$5 billion in 2015, with growth across public cloud, on-premise private cloud, and hosted private cloud.

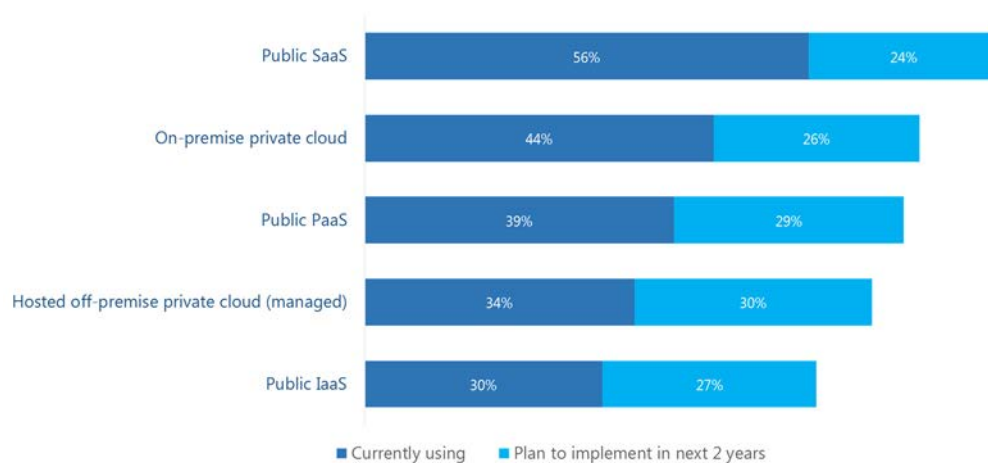
Cloud 2.0: Hybrid Cloud and Multicloud as Emerging Frontiers

Early cloud adopters are realizing that public cloud scale and economics are beneficial for some workloads. Tougher regulatory compliance, changing security risks, and the need for IT control and continuous availability are making businesses naturally gravitate to hybrid cloud.

As shown in Figure 1, based on IDC's 2017 end-user survey on cloud adoption, most enterprises' IT environment has already evolved into a hybrid cloud setup.

FIGURE 1

Hybrid Cloud Is a Reality, Multicloud Is the Next Frontier



Source: IDC European CloudView Survey, 2016

Hybrid Cloud and Container PaaS – Building Blocks for Digital Transformation

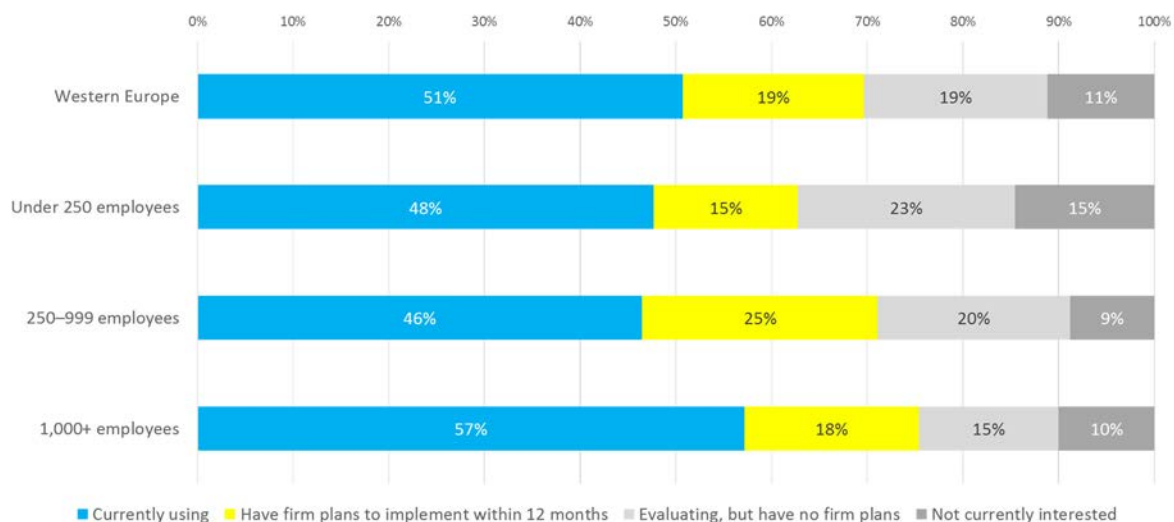
Cloud infrastructures are one building block for digital transformation. Enterprises also need next-generation application platforms or PaaS to gain competitive advantage.

Within the megatrend of cloud, PaaS is becoming key. We expect the Western European PaaS market to grow at a CAGR of 33.1% by 2020 as more companies adopt it and rewrite applications for better user engagement. IDC sees PaaS as key to driving speed, consistency, and quality as well as unlocking new, innovative capabilities. It also helps improve customer experiences with non-disruptive upgrades and zero downtime for applications.

As seen in Figure 2, PaaS is rapidly becoming a key element in the public cloud strategies of organizations across Western Europe. Only 1 in 10 respondents is not currently interested in public PaaS. Around one in two end users in Western Europe is already using public PaaS to some extent, with the ratio even higher in enterprises with more than 1,000 employees.

FIGURE 2

PaaS Adoption in Western Europe



Source: IDC European CloudView Survey, 2016

Open source technologies such as containers are the key building blocks of PaaS, bringing efficiency, interoperability, and openness to enterprise IT.

There is growing interest in PaaS and containers for application and software development, as new applications and software are key to improving customer experiences. IDC estimates that the worldwide container host installed base (excluding web and SaaS provider infrastructures) will grow from 300,000 physical and logical hosts in 2015 to 26.2 million total physical and logical hosts by 2020, representing a CAGR of 144.4%. This presents huge opportunities to those PaaS and container and container management vendors and solution providers that build IT services around containers and help customers overcome container adoption challenges.

Containers were initially aimed primarily for cloud-native applications developed with agile methodologies, tied to initiatives such as microservices and DevOps (continuous integration/deployment). But they can also be useful to lift and shift existing applications as container functionalities in this area improve. IDC believes that solution providers that offer container PaaS and manage and support it for customers can benefit by turning customer interest into real projects.

European businesses are evaluating container PaaS as it has the potential to meet key software development needs such as:

- Faster and agile software development
- Designing and testing applications with cloud-native principles
- Scaling applications dynamically to meet increasing demands
- Making more efficient use of computing resources and saving on licensing costs
- Developing highly portable units of compute so it is fit for hybrid cloud architectures
- Improving abstraction from underlying operating systems and other infrastructure software
- Upgrading applications continuously without disruption

Although the container infrastructure market in Europe is at the early stages of development, the future looks promising. But companies are favoring solution providers that are further ahead in the curve, can bring containers to brownfield environments, have the skills and ecosystem solutions around containers, provide support and managed services, and can demonstrate with robust custom PoCs what it can bring to their individual business.

SWISS IT SERVICE PROVIDER – UMB

Switzerland-based IT service provider UMB offers IT transformation and cloud transition services, consulting services and solutions for middleware integrations, process optimization, application integrations, and cognitive solutions to large Swiss enterprises as well as medium and small businesses. Within its cloud offerings, UMB provides ITaaS, PaaS, SAP as a service, and backup and DR as services. It serves more than 3,500 Swiss enterprises' IT needs.

What differentiates UMB is its specialized focus and deep local market knowledge in Switzerland, including regulatory requirements and local business needs. As a resident player, it is well aware of the speed of IT transformation and cloud adoption in the region and is positioned to meet customers' needs around modernization from legacy to hybrid cloud and container-based PaaS.

UMB's key customers include Swiss financial services enterprises (Swiss Re, UBS), retail companies (Dufry, Jumbo Markt AG), and smaller and midsize businesses. Its customers have varying requirements such as migration to public cloud (mostly for smaller businesses) and more complex hybrid cloud architectures for large global enterprise customers.

As many of its customers seek sophisticated hybrid cloud architectures and explore application development platforms and containers, UMB's key focus is aligned with these needs, focusing on hybrid cloud transitions, PaaS and containers, and DevOps and microservices.

Technology Partnerships and Collaboration With Red Hat

Over the years, UMB has partnered with a number of technology vendors, including Red Hat. UMB is a Red Hat Advanced Business Partner and uses its technologies, including Red Hat middleware technologies and Red Hat Enterprise Linux, to offer hybrid open source and cloud solutions. More recently, sensing interest in PaaS and containers from its large customers, UMB began assessing container platforms to include PaaS in its services strategies.

There are many vendors offering container platforms: Red Hat (OpenShift), Microsoft (Windows Server Containers and Azure Container Service for the cloud), Google (Container Engine for Docker containers), IBM (Bluemix), Amazon, and VMware. UMB offers Red Hat OpenShift PaaS on UMB cloud used by its enterprise customers and as a PaaS service on customers' private cloud.

Why Red Hat OpenShift?

UMB chose to build its PaaS using Red Hat OpenShift as the underpinning technology because of the container platform's maturity and its standardization on Kubernetes (container management platform).

It also found that many customers that were early adopters of containers showed interest in OpenShift. Customer awareness and the differentiating features in OpenShift from other container platforms also appealed to UMB. For instance, the container images that OpenShift provides come with middleware insights (such as EAP, MQ, and Kafka) that are useful in application development. The team found when it assessed the platform two years ago that a key differentiator is how

OpenShift helps the whole process of bringing images from development to test to production easily.

IDC notes that Kubernetes is fast becoming the de facto industry standard for container orchestration because of its maturity (Kubernetes enables new workloads and addresses enterprise requirements around manageability). So, PaaS offerings built on Kubernetes such as Red Hat OpenShift are likely to gain more traction in Europe because users want to leverage mature containers and container management tools.

Red Hat OpenShift Container Platform

IDC sees OpenShift as the cornerstone of Red Hat's cloud and container-optimized solutions including Red Hat JBoss Middleware and application services, Red Hat Gluster container storage, and Red Hat CloudForms and Ansible for management and integration. Red Hat's primary goal with OpenShift is to accelerate application delivery to support the business. It also incorporates Docker container support along with the Kubernetes orchestration engine.

At a time when containers were still nascent (late 2013), Red Hat evaluated many container orchestration engines and considered building its own container orchestration service before deciding to standardize on Kubernetes. IDC believes this was the right move because apart from Kubernetes' advanced features around networking and simplified orchestration of storage resources, it is essentially an architecture built with an understanding that the needs of developers and operators are different, so it took both of those requirements into consideration. By embracing Kubernetes, OpenShift can offer a flexible platform that doesn't mandate upgrade cycles and doesn't impose restrictions on container configuration – naturally making it fit for DevOps.

For Red Hat, OpenShift is a flagship offering and much of the development is focused on the container platform. It is adding more functionalities, such as multistage app deployment, stronger integration for hybrid cloud, and a service broker capability to deploy native AWS as a service directly from within OpenShift, and even a community edition with enterprise-grade features. This transforms it into a single environment that software developers can use for all their needs.

Built on Red Hat Enterprise Linux, it is an open source code PaaS base and uses GitHub as its code repository. In the past six years, OpenShift has had multiple major architecture changes and the latest version has been reengineered to use Docker-compliant containers natively.

It provides a set of container-based open source tools enabling digital transformation, which accelerates application development while making optimal use of infrastructure. Professional developers utilize fine-grained control of all aspects of the application stack, with application configurations enabling rapid response to unforeseen events.

OpenShift adds developer and operational-centric tools to enable rapid application development, easy deployment and scaling, and long-term life-cycle maintenance for teams and applications.

The availability of multiple consumption options with OpenShift, such as OpenShift Online and OpenShift Dedicated offerings, gives customers greater choice when using PaaS.

How UMB Adopts OpenShift and Offers it as Managed PaaS on Cloud Infrastructure

UMB's OpenShift-based solutions come at a time when container adoption is nascent but growing. Many enterprises have heard about the future of application development using container platforms. These enterprises, in their digital transformation journeys, have a strong need to improve the development life cycle, want faster product release life cycles, and want 100% availability of all services and assets. They believe containers are a solution but they are not that

experienced in using them and are not that aware of how to design the container management services to meet their requirements.

UMB platform services combine Red Hat's OpenShift and virtualization solutions to provide process optimization services, such as MQ and BPM. UMB's approach is to start with understanding customers' requirements and build custom PoCs so customers can see how containers work and what they bring to the table. PoCs often come up with surprising results because customers have some misconceptions about containers based on their notion of container deployment in greenfield environments which do not hold true within their legacy IT-heavy organizations. PoCs help them bust some myths and retune the architecture to get the most from their container PaaS strategies. IDC believes that UMB's approach in demystifying container technology and building realistic expectations for its customers can help it improve customer confidence. Its strategy to develop services aimed at bringing legacy environments (a mix of mainframes, client servers, virtualization, etc.) to the container world is sound because the majority of its customers are well established old brands looking to modernize legacy infrastructures.

UMB's PaaS attributes include integration of applications and microservices into its cloud platform, linked to public cloud services. It gives enterprises the flexibility to move workloads easily between multicloud environments while meeting compliance, cost, and security requirements. It also enables automatic deployment processes across all platforms, from test to development and production, and integrates into the cloud services.

We believe its bet on containers and PaaS comes at the right time given the European market dynamics. Many of its customers that developed legacy software in Swiss banking enterprises and other industries are nearing retirement and these enterprises need to urgently bring their software and applications to the new world and are planning to modernize their legacy environment using container platforms. PaaS solutions that can help IT modernization will appeal to these Swiss enterprises.

UMB designs a solution that can work with the customer's legacy environment. In IDC's opinion, connecting a new generation of technologies such as container platforms into legacy IT and building a seamless architecture of security, access, authorization, and networks, especially in banking environments, can be challenging. This is where UMB's expertise comes in.

The service provider's deep knowledge of OpenShift and Kubernetes and its long-term collaboration with Red Hat will remain its key differentiators when software developers favor OpenShift's developer-friendly features to push code updates seamlessly and even roll back application features without disruption.

UMB's broad PaaS services – from building a container platform to maintaining and managing it for customers – will appeal to Swiss customers new to the container world. IDC's research shows that deploying containers and managing them consistently to get the most from them is not easy without the right skills and talent. IT staff will not just need to know PaaS but will also need to have expertise on everything in the datacenter to orchestrate them all together. UMB offers the platform and integrates it within enterprise IT to make it operational and efficient.

Case Study: Swiss Automotive Group AG Improves Speed and Agility With OpenShift PaaS in the UMB Cloud

SAG's existing development environment based on virtual machines no longer met business requirements. Additional development speed and agility were needed for a continuous deployment process and to launch the new core application, Microsoft Dynamics 365.

With the objective of standardizing its development environment and improving the speed of the business, SAG's IT team decided to adopt Red Hat OpenShift PaaS on UMB Cloud.

UMB's PaaS environment offers SAG high standardization for application development. The technology also facilitates simple further development of applications and their speedy transition into productive software. SAG is now able to offer its developers a fast and dynamic development environment and at the same time a highly scalable productive environment in the spirit of DevOps. Its developers can implement SAG's business requirements much more dynamically and the new development environment offers a critical competitive edge through speedy implementation of operational demands.

How Strategic is Open Source for UMB?

The influence of open source has grown significantly in the past three or four years, to the extent that some of the innovation is led by open source communities – containers (Docker), automation/hybrid IT management tools (Chef, Puppet, Ansible, Rudder, CFEngine, Salt), analytics platforms (Hadoop). The newer methodologies such as DevOps, open APIs, and microservices architectures are facilitated by these automation and management tools and infrastructure components (containers).

We estimate that by 2020, digital transformation teams will source more than 80% of their solution components from open source communities. Open source is becoming a hotbed of innovation due to its importance in modern application development.

In conversations with IDC, UMB has discussed its commitment to open source and how important it is for its solutions portfolio. This mainly stems from customers' changing perception of open source in the digital era. Many of UMB's Swiss customers are interested in transitioning to open source because they see it as the integrated part of the software and middleware layer enabling interoperability. From UMB's interactions with customers it is also emerging that open source is especially helpful in analyzing codes in the banking environment, a key industry vertical for UMB. Many of its customers are shifting away from acquiring higher-cost proprietary software to investing in innovation and new products or services. But one key challenge is that Swiss enterprises have limited skills and expertise in deploying and managing open source technologies. IDC believes these companies need professional support and managed services from service providers that can meet their requirements.

In our opinion, UMB's investment in open source, containers, and middleware tools makes it a good fit for Swiss enterprises modernizing their IT for digital transformation.

Many large companies are looking at how cloud providers build their highly scalable, future-ready environments using mainly open source tools, and look to replicate that model so they too can benefit from the faster innovation led by thriving and mature open source communities.

"We see microservices and PaaS as critical for today's applications as they allow rapid changes and non-disruptive upgrades, which is key to speed up time to market and have an always-on enterprise."

Marco Reichmuth, Head of Enterprise Services, UMB

In this container era, it is a challenge to make licensing models that appeal to enterprises, making vendors such as Microsoft acknowledge the growing importance of open source, especially Linux. In order to provide customers with choice and flexibility, vendors such as Microsoft are partnering with open source vendor Red Hat. As UMB uses Azure as its primary cloud provider to offer its UMB cloud solutions, it is likely to benefit from the strong alliances between Azure and Red Hat in offering PaaS and hybrid cloud solutions to its customers.

Challenges and Industry Dynamics

IDC lauds UMB's vision around open source, hybrid cloud, PaaS, and containers, and building services to help modernize legacy environments. But there are some challenges. For instance, customer expectations with containers are slightly misplaced as they don't consider the challenges of effectively integrating them in brownfield environments. UMB should continue investing in custom PoCs to help customers understand what containers can bring to them. Another challenge is around the skills gap in containers and microservices. Vendors, service providers, and customers are scrambling for skills and talent to take advantage of these new technologies. By investing in its talent pool, UMB can remain one step ahead of its customers and can win their confidence as they execute their PaaS strategies. It will also need to work with Red Hat to come up with best practices around container platforms for customers and collaborate with Red Hat developers to influence core technology development based on Swiss customer feedback.

Lastly, it must keep a close watch on PaaS market dynamics and keep evolving its solutions and services. It should also note that many solution providers in Europe are reinventing themselves and developing similar container PaaS strategies or hybrid cloud offerings to stay relevant, while competition in the area is likely to intensify. As this happens, UMB can leverage its early mover advantage and mature services in the area to differentiate itself from the rest.

RED HAT PARTNERSHIP EVOLUTION

A key focus area for UMB will be PaaS and DevOps, where OpenShift is a major player, and this is already taking the partnership to a more strategic level. While UMB has assessed container platforms from other vendors, it has not shifted its core PaaS offering from OpenShift because of the continuous improvements and new features in OpenShift. It is a two-way relationship. For Red Hat, UMB's PaaS solutions are a gateway to customers. UMB is one of Red Hat's strongest infrastructure and platform providers in Switzerland, serving over 3,500 Swiss enterprises and offering a huge opportunity for Red Hat.

CONCLUSIONS AND FUTURE OUTLOOK

Swiss enterprises transforming their IT seek solution providers that offer modern technologies. Consequently, solution providers that make it easy for enterprises to adopt these next-gen technologies will appeal to customers. UMB's hybrid cloud and container PaaS solutions built on Red Hat technologies are focused on modern application development and digital transformation. It has the potential to be a strategic PaaS provider, and this in turn also helps Red Hat take its technologies to large Swiss companies. IDC also sees a connection between modern PaaS on cloud and organizations' digital transformation journeys. Container platforms are considered important by organizations experimenting with "innovation accelerators" such as IoT and cognitive intelligence. There is a strong focus emerging on IoT in manufacturing, retail, and financial services, especially around predictive maintenance. Much of the IoT ecosystem is being built on open source, especially Linux environments. UMB can use its open PaaS offerings as springboard to grow its IoT-related business opportunities.

Most of all, however, UMB has strong knowledge in all aspects of IT, ranging from mainframes to hypervisors, from x86 and power servers to storage and network, from legacy IT to containers, DevOps, and microservices. This expertise, plus open source knowledge and experience in the transition to hybrid cloud and application platforms, is attractive for Swiss enterprises. It doesn't just help them modernize legacy infrastructure – it also helps them to integrate enterprise-grade container PaaS to build new applications and software, ultimately improving customer experiences and upholding the heritage of world-class Swiss brands.

About IDC

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