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Analytics-as-a-Service Firm Chooses Cisco Hyperconverged Infrastructure as a More Cost-Effective Agile Development Platform Compared with Public Cloud

Sponsored by: Cisco

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Overview

Founded in Paris, France, in 2015, ForePaaS offers its customers an automated, multicloud platform as a service for fast and secure scaling of their data analytics applications. Designed for enterprise use, the ForePaaS platform integrates and automates data management operations and application management so that new services can be made available quickly and easily. By automating tasks and processes and simplifying the underlying technology, ForePaaS allows enterprises to shorten development cycles, reducing the time to deploy data projects. Additionally, the robustness of the platform allows companies to deploy their projects across all or part of their organization at a pace of their choosing.

As ForePaaS grew quickly, the company required a development environment that could support its expanding business cost effectively and with agility and offer its customers new deployment options. To meet this business need, ForePaaS deployed the Cisco HyperFlex platform in November 2016. The platform uses Cisco HyperFlex technology, which integrates compute, storage, networking, and virtualization resources into a single hyperconverged system.

Paul Sinaï, Founder, CEO, and CTO of ForePaaS, explained that Cisco HyperFlex has proven to be a cost-effective development platform for his company while also enabling more efficient development activities. By standardizing on the Cisco HyperFlex platform for application testing, development, and production, ForePaaS has made development more agile by reducing friction associated with the delivery of compute and other IT resources. At the same time, the platform has allowed the company to address business opportunities with customers that are reluctant to use its services through the public cloud – especially in the financial services and insurance sectors – helping ForePaaS begin to make inroads in new vertical market segments.

Business Value Highlights

Organization: ForePaaS

Location: Paris, France

Challenge: Provide cost-effective and agile development environment and develop hybrid cloud offering of its analytics platform for customers

Solution: Cisco HyperFlex

Three-Year Cumulative Benefits:

- 51% lower cost over three years compared with public cloud
- 51% lower monthly cost for compute than public cloud

Other Benefits:

- 68% lower bandwidth costs
- 38% less staff time managing virtualization environment than with on-premise
- Begin to offer hybrid cloud version of data analytics solution to customers

ForePaaS plans to double its workforce in 2018 to support its rapidly growing business. This growth – in terms of both customer base and internal operations – makes the cost advantage of Cisco HyperFlex all the more important to ForePaaS as it must scale its business.

To quantify the value for ForePaaS of deploying the Cisco HyperFlex platform, IDC conducted several interviews with Sinaï. The discussion focused on the relative benefits for ForePaaS of supporting development activities with Cisco HyperFlex rather than using a public cloud platform. IDC found that for these development activities, public cloud fees for three years would be more than double the cost of deploying and running Cisco HyperFlex, with additional savings in terms of networking and IT staff time costs. IDC estimates that overall the Cisco HyperFlex platform will reduce ForePaaS' total operating costs by 51% over three years compared with using a public cloud solution for these activities. Additionally, as noted, having the Cisco HyperFlex platform is helping ForePaaS address new business opportunities, although the impact of this business enablement was not quantified for the purposes of this study.

Implementation

Before founding ForePaaS, Sinaï worked on several projects for managing data within and outside of the enterprise, including the creation of a proof-of-concept platform for a fully integrated environment to build and host applications and store and analyze data. The ForePaaS platform uses multiple cloud providers to provide flexibility in developing, deploying, and scaling applications and services.

Sinaï explained that several years ago, ForePaaS realized that it needed to offer customers new deployment options for its data analytics platform. This was especially the case for organizations in the banking and insurance verticals that face more stringent rules regarding data use and storage.

To address this opportunity, ForePaaS began working to offer a cloud-like experience with its data analytics platform that these customers could host on-premise.

In this context, ForePaaS selected Cisco HyperFlex as its hyperconverged infrastructure platform of choice.

Sinaï explained: "We were looking for a solution that could offer a cloud experience on-premise, and we decided to go with hyperconverged systems with Cisco HyperFlex to offer our customers this kind of experience via a hybrid cloud solution."

ForePaaS also knew that as its business grew, its prospects would hinge on its ability to develop and deliver new services, features, and functionality for its customers in a cost-effective manner. Although ForePaaS relies significantly on public cloud resources, it was intrigued by the possibilities Cisco HyperFlex could offer its development operations. Testing of Cisco HyperFlex compared with public cloud offerings demonstrated its potential value in a development setting: "When we ran tests with Cisco HyperFlex in which we would spin up 2, 3, or 10 VMs at the same time, we found significant performance improvements compared with using a cloud service."

ForePaaS also concluded that for these development activities, the cost of deploying Cisco HyperFlex would be less than the cost of using a public cloud alternative.

Based on these results, ForePaaS also chose to deploy Cisco HyperFlex as the infrastructure platform supporting its development activities. Sinaï commented on the rationale for choosing Cisco HyperFlex: "We were looking for a solution that would be good for our customers and also good for us, which would allow us to converge compute and storage and have a truly scalable solution."

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Deployment of the Cisco HyperFlex platform began in the summer of 2016 and was completed in six weeks, and it required minimal amounts of internal staff time. Sinaï explained that the Cisco HyperFlex platform began as one part of the company's development environment, but it is now used by the firm's application developers for 80% of their development work.

On the customer side, ForePaaS has offered hybrid cloud services running on Cisco HyperFlex since January 2017. "One of our aims was the ability to deploy a new cluster with more than 30 microservices, including various integration and development tools, security, and networking, in less than two minutes," Sinaï said. "We clearly needed a very fast solution, and Cisco HyperFlex has allowed us to meet this performance objective."

Benefits

Sinaï explained that while ForePaaS makes significant use of public cloud services, its deployment of the Cisco HyperFlex platform has helped it create a more cost-effective and agile development environment while also enabling it to tailor services to customers that cannot use public cloud-based solutions. For ForePaaS, the result has been both lower costs and perceptible inroads in terms of winning business in verticals in which it previously could not fully compete. With the company having recently raised funds to support its quick business growth, having a cost-effective and scalable infrastructure platform for development and customer-facing services is even more vital.

Cost Efficiencies

Sinaï explained that his company uses public cloud compute and other services across its operations when cost effective and efficient. However, it concluded that deploying a hyperconverged infrastructure solution with Cisco HyperFlex for its application development environment would cost substantially less than buying equivalent compute resources through the public cloud.

The basis for this cost advantage is the ability of ForePaaS to make more efficient use of compute resources with Cisco HyperFlex than it could with a public cloud environment. This is especially the case in development, where teams are constantly spinning up new VMs and creating new testing environments. Per Sinaï, ForePaaS calculated that using public cloud to provide the same levels of performance and agility as Cisco HyperFlex would cost more than 2.5 times as much.

Running most of its development on the Cisco HyperFlex platform has also made budgeting easier. "With public cloud, it's often difficult to know ahead of time how much development will cost," Sinaï said. "With Cisco HyperFlex, our developers know from the beginning the resources they have to work with and can keep costs within budget."

In addition, by using Cisco HyperFlex for development activities, ForePaaS is avoiding needing to make a significant investment in increasing its bandwidth; such an investment would be necessary if it were using public cloud. "With large amounts of data being consumed and moving around, it can be time consuming and costly to upload everything into the public cloud," Sinaï explained. With Cisco HyperFlex, ForePaaS spends 68% less on bandwidth than it would need to with public cloud.

The Cisco HyperFlex platform is also easy to manage, requiring only a fraction of one person's time each week. Per Sinaï, this was a driver of choosing hyperconverged with Cisco HyperFlex rather than

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even considering an alternative on-premise three-tiered solution: "We cannot afford to have dedicated teams for compute, storage, and networking. For us, it was very important to simplify the management of infrastructure supporting our development."

Enabling Development

Cisco HyperFlex has met the need of a rapidly growing greenfield company for a development platform that is easy to deploy, manage, and scale. According to Sinaï, "Cisco HyperFlex has been a good choice because deployment of resources is fully automated and our development team can begin their work without having to deal with complicated infrastructure configurations." This means that developers can access compute resources as needed rather than wait for deployment. The result is development with fewer interruptions or lulls; Sinaï estimated that each developer saves more than one hour per month from not needing to wait for VMs to be spun up for his/her work.

Additionally, with the Cisco HyperFlex platform, developers are using familiar tools so their productivity is higher and maintenance is simpler and cheaper. "Public cloud services often add new features that require special training to use," Sinaï explained. "Our staff required no training with Cisco HyperFlex." Cisco HyperFlex allows developers to integrate containers, VMs, and storage and to virtualize applications that traditional VMs can't handle. "Also, with public cloud services, a configuration mistake can cause a developer to lose access to the VM, so our developers are much happier using Cisco HyperFlex," Sinaï said.

Further, Sinaï stressed the importance for his company of having developers work on a platform that its customers may use. "We need to know what the impact is of our software on hardware. That's one reason we have our own servers, not for production, but for development. This way we can test and learn how the development of our software interacts with the hardware."

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Addressing Latent Business Opportunities

Even as business grew in ForePaaS' first year of operations, the company knew that it needed to evolve its offering to address all potential customers. In particular, ForePaaS needed to be able to offer a variant of its data analytics platform that could be hosted on-premise at a customer's site. Not having this offering was limiting the company's ability to sell to certain verticals: "Some of our customers prefer not to be fully in a public cloud because of security and privacy concerns," said Sinaï. "We have a great deal of demand for our hybrid cloud services from banking, insurance, and similar customers, especially since the European Union announced new rules on data privacy for its citizens."

As noted previously, ForePaaS chose Cisco HyperFlex in large part to build out its customer-facing hybrid cloud offerings. Sinaï described these customer-facing services: "We offer our customers the ability to manage their ForePaaS environment on top of HyperFlex. Basically, they put in the servers, and it is plug and play, and they can deploy and connect to our cloud-based management platform. So all of their data is directly on-premise, but the complexity of updating processes and carrying out deployments is managed from our cloud-based management platform."

Because ForePaaS began offering this hybrid cloud model of delivery of its data analytics platform only in the past year, it is too soon to fully evaluate Cisco HyperFlex's impact on ForePaaS' business for the

purposes of this study. However, Sinai expressed confidence that having this hybrid cloud offering built on Cisco HyperFlex will help ForePaaS compete for business with companies for which data privacy looms large as a decisive factor in choosing the technologies they employ to support their businesses.

Quantifying the Benefits

To quantify the impact of these benefits on ForePaaS' operations, IDC interviewed Sinai and asked questions about the costs and performance of Cisco HyperFlex, in particular in comparison with using a public cloud solution. IDC found that ForePaaS is realizing significant cost savings for its development operations from its decision to invest in and deploy Cisco HyperFlex. Based on discussions with Sinai, IDC projects that the three-year cost to run Cisco HyperFlex for development activities will be 51% less than that of a comparable public cloud deployment.

In particular, ForePaaS will realize cost savings in three areas related to running its development environments:

- **Compute:** ForePaaS can deploy and run Cisco HyperFlex at a significantly lower cost for development activities than it could provision equivalent resources in the public cloud by optimizing its use of the hyperconverged environment. Even accounting for costs associated with running Cisco HyperFlex, including warranty, power, and floor space, IDC calculates that ForePaaS will save 51% over three years compared with public cloud.
- **Bandwidth:** ForePaaS has avoided the need to upgrade its networking capabilities by using Cisco HyperFlex. With public cloud, it would require significantly more bandwidth to ensure performance. IDC projects that ForePaaS will spend 68% less on bandwidth over three years than it would using public cloud for its development environment.
- **IT staff time to manage virtualization software:** Maintaining a streamlined VM environment with tools that its team is accustomed to using saves ForePaaS staff time related to managing its virtualization efforts to support development activities. IDC estimates that ForePaaS will require 38% less staff time than a standard on-premise solution, although no savings were included in the public cloud versus Cisco HyperFlex cost analysis.

Methodology

IDC conducted several interviews with Sinai to understand ForePaaS' investment in and use of Cisco HyperFlex. IDC used these interviews to gather the information needed to quantify the benefits and investment associated with the use of Cisco HyperFlex for ForePaaS' development environment and created a financial cost of operations analysis from the results. IDC included the following in the cost analysis for:

- **Public cloud:** Cost of public cloud services, cost of bandwidth required to operate public cloud, cost of IT staff time to deploy public cloud, cost of IT staff time for managing virtualization software
- **Cisco HyperFlex:** Cost of acquiring Cisco HyperFlex hardware, cost of warranty for Cisco HyperFlex, cost of bandwidth required to use Cisco HyperFlex, cost of power and floor space, cost of IT staff time to deploy Cisco HyperFlex, cost of IT staff time for managing virtualization software, cost of IT staff time for managing Cisco HyperFlex

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