KEEPING TRAVELERS ON THE MOVE WITH AMADEUS CLOUD SERVICES

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CUSTOMER
AMADEUS IT GROUP

WEB SITE
WWW.AMADEUS.COM

INDUSTRY
TRAVEL & DATA PROCESSING

LOCATION
HEADQUARTERS IN MADRID, SPAIN

KEY CHALLENGES
• Need for innovative services and high availability in the competitive travel industry
• Providing customers with high level of agility, efficiency and scalability
• Increase velocity of service and infrastructure provisioning to customers also with regards to business critical applications

SOLUTION
Amadeus is embracing private clouds with VMware Integrated OpenStack (VIO) and NSX to help speed up application deployment and streamline operations to realize and respond to new business opportunities rapidly.

BUSINESS BENEFITS
• IaaS enabling superior responsiveness and 'always on' ultra-high availability of services
• Flexibility and high availability leading to higher satisfaction rates with customers
• Re-designing of the network architecture enables provisioning of network infrastructure in minutes

Amadeus IT Group is a leading provider of advanced technology solutions for the global travel industry with over 3 billion euro in revenue. From initial search to booking a flight, from pricing and ticketing to managing reservations, from check-in to departure, booking a hotel room or a rental car, Amadeus technology keeps the travel industry moving forward. Amadeus is embracing cloud services across the company to bring new and better services to market faster than ever before. Using VMware Integrated OpenStack and NSX, it has built Amadeus Cloud Services – a platform that connects all of its customers to deliver superior responsiveness and enable 'always on' ultra-high availability of services that will shape the future of the industry.

Amadeus provides the technology which keeps the global travel industry moving - from airlines, hotels, railways and ferry operators to travel agencies and corporations. The Amadeus Data Centre in Germany is a purpose built facility which is fully owned and managed by Amadeus - its sole occupant. It is one of the largest data centres worldwide fully dedicated to travel with more than 37 Petabytes of storage. In peak times, Amadeus processes more than 39.000 end user transactions per second. www.amadeus.com

Challenge

With many different stakeholders such as airlines, airports, hotels, rail and travel agencies, Amadeus is facing a dynamic movement within their industry that requires a high level of agility, efficiency, scalability and availability while keeping costs under control. Customers are expecting ultra-high availability to their systems even whilst the transaction volume continues to increase exponentially. At the same time customers expect innovation, new business services and leading-edge applications. "Whether I'm deploying containers, whether I'm deploying VMs, whether I'm doing bare metal, whether I'm using OpenStack, it's all a means to an end," explains Wolfgang Krips, EVP Global Operations and General Manager Amadeus Data Processing. "Ultimately, what the customer is expecting is stability, agility, and continuously driving down costs. And that's what we have to provide."

In order to address customer needs, Amadeus aimed at building a more flexible, tangible cloud-based applications platform that connects all different stakeholders that can easily adapt to change and accommodate different business models to deliver applications more quickly than ever before: the Amadeus Cloud Services. "The traveler is at the center of all our efforts, but the travel experience today is still very fragmented", says Olaf Schnapauff, Chief Technology Officer and Head of Architecture, Amadeus Global Operations. "Why would we actually need to check in with an airline and a hotel separately?

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DIETMAR FAUSER
VICE PRESIDENT ARCHITECTURE, QUALITY AND GOVERNANCE
AMADEUS IT GROUP

VMWARE FOOTPRINT
- VMware SDDC including NSX
- VMware vCloud Suite Advanced
- VMware vSAN Enterprise
- VMware Integrated OpenStack (VIO)
- VMware Site Recovery Manager

APPLICATIONS VIRTUALIZED
- Flight availability and flight connections
- Ticketing and pricing applications
- Passenger luggage processing

Why can't I see the total duration of my trip, taking everything into account? So it is really all around being innovative and making the travel experiences a lot more dynamic and connected." To achieve this, Amadeus needed a flexible cloud computing platform to support agile application development.

The Solution

Amadeus is embracing cloud computing to help speed application development lifecycles to realize and respond to new business opportunities rapidly. Amadeus Cloud Services is largely based on Open Source technology. "We chose OpenStack because we wanted a cloud computing platform that was more conducive to agile development. For a company like Amadeus it is essential to be at the forefront of travel technology to keep pace and make sure we leverage all of the great ideas that are out there in the Open Source community. That is why we adopted VMware Integrated OpenStack and Kubernetes two years ago – something which is not mainstream yet, but will be", as Dietmar Fauser, Vice President Architecture, Quality and Governance at Amadeus IT Group, is convinced.

With VMware Integrated OpenStack (VIO) including NSX as the network virtualization solution, Amadeus realizes next generation platforms and supports developers: the cloud enables faster deployments whilst developers get access to OpenStack services and APIs to build new apps and services that differentiate the business. NSX additionally provides Amadeus with the ability to flexibly create networks in these platforms and remove the boundaries that the company had in previous networking solutions. Marc Diensberg, Operational Architect at Amadeus: "Stability is one important aspect here and products like VMware VIO help us to achieve the increase in stability that our customers are asking for. Amadeus Cloud Services enables us to be innovative and to really have the end-to-end responsibility for what we are doing." Operating in the cloud enables Amadeus to deliver automated recovery, to remove the micro-management of underlying infrastructure, and to make the management of applications more efficient. Crucially, it delivers superior responsiveness, driving and enabling high availability of products, services and solutions. "More dynamism, more automation in the control of the stack is important", adds Dietmar Fauser. "That's why we use this technology and why we use industry-grade partners like VMware."

Business Results and Benefits

Thanks to the adoption of cloud services, Amadeus bring new and better services to market in a more agile way. The Amadeus Cloud Services is streamlining operations and driving cost efficiencies through automation. Abstracting resource capabilities from hardware provides Amadeus with the required flexibility and less vendor dependencies. As a consequence the company can limit failure domains, provide higher availability and provide customers with the insights they need to succeed in the competitive battle for differentiation and personalization, resulting in higher satisfaction rates with their customers. "If you are embarking on the journey to move production of a very critical part of the travel ecosystem onto new technology, it's a very careful undertaking", says Olaf Schnapauff.

"To realize this successfully and to leverage the benefits for the traveller, for customers and for Amadeus as a company, we need very strong partners."

With the help of VMware experts, Amadeus has reached all planned milestones in the build of a new global reservation system for a large hotel group. The

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WOLFGANG KRIPS
EVP GLOBAL OPERATIONS AND GENERAL MANAGER
AMADEUS DATA PROCESSING

project is now in productive operations. "VMware is one of our most trusted partners for more than 15 years, and we are really excited that we are together on a journey towards the new generation of platforms and will shape the future of travel together. VMware for me today is clearly the base layer that's underlying the whole production. From my perspective VMware is what enables the separation of hardware provisioning from service provisioning and makes this whole notion of a software-defined data centre possible", says Wolfgang Krips.

Looking Ahead

Securing high availability and resiliency is on top of the agenda and will be leveraged through the close partnership with VMware. Amadeus is planning to further increase automation in order to reduce single points of failure and human errors. Besides that, development trends like containerisation are requiring the infrastructure team to be open to new technologies supporting their organisation in providing cloud ready deployments.

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