CASE STUDY

Seamless Migration of IT Infrastructure to Azure

Managed cloud transformation services for a multinational enterprise

FRENCH LEADER IN IT SERVICES

BUSINESS CHALLENGE

To consolidate fractured user and IT infrastructures in the cloud, retire an outdated data center.

SOLUTION

Built a modern hybrid Azure infrastructure, updated network infrastructure, simplified domain management. Retired one of the data centers with on-premises servers. Migrated 80+ servers to Azure and 6,000 users to Exchange Online and Office 365.

BUSINESS VALUE

Improved overall performance and efficiency, tasks automation, saved resources and efforts, cut costs.

TECHNOLOGY

- Microsoft Azure AD Connect
- Microsoft ADFS
- Dell Migration Manager
- Dell Notes Migrator for Exchange
- Azure Site Recovery
- Azure Site Recovery Configuration Server
- Hyper-V with ASR Provider
- Recovery Services vault for Azure etc.

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CLIENT BACKGROUND

A client of Infopulse is a large multi-national provider of B2B digital services with 40+ years of experience on the market. The company has operations in 20 countries and employs over 9,000 people worldwide.

BUSINESS CHALLENGE

Infopulse provides a whole package of services to the client, namely managed cloud, SAP, and CRM services, development of client's systems and applications. Our developers also help to convert .NET apps to work in Azure and develop some of the business-critical systems and applications, hosted in the cloud (PaaS). Previously, Infopulse also provided Internal IT Operations to the client.

In 2014, our client approached Infopulse with a request to migrate outdated user and IT infrastructure to the cloud, which would allow them to achieve a number of business aims:

1. **Consolidate diverse infrastructure.** Due to rapid acquisition of smaller companies, user environments and infrastructure required major rework and had to be unified. Infopulse needed to migrate users from IBM Lotus and Exchange 2010 to a modern coherent system.
2. **Cut maintenance costs.** Our client has a number of data centers in the EU. Some of them were in a rather poor state, while others had their rental term ending. Due to frequent failures of old hardware, our customer did not want to continue support of hundreds of outdated servers and needed to migrate them to cloud. This would allow cutting expenses on servers' maintenance and upgrades, and improve overall performance.
3. **Technological prestige gains.** Our client supplies state-of-the-art IT solutions to its customers and is on the forefront of technological innovations. Thus, moving to the cloud was a reasonable step to keep up with the latest trends.

SOLUTION

Since Microsoft provided most of the internal services and 95% of servers to our client, the customer wanted to stick to Microsoft's stack of technologies. Being a long-term partner of Microsoft, Infopulse closely collaborates with the Redmond Giant in many areas. During migration project, we received a solid support from Microsoft. Moreover, Infopulse's experience with Microsoft technologies has become a strong advantage in this project due to its scale and complexity.

The multi-layer cloud migration project comprised a number of stages:

Stage I. Office 365 and Exchange Online Migration (SaaS).

Infopulse implemented the federation between the local Active Directory, Azure Active Directory and Office 365 services and built a hybrid Exchange Online infrastructure. We transferred users' data (mailboxes) to Office 365 from legacy IBM Lotus and Exchange 2010 mail systems. Due to increased complexity and individual approach to each of six thousand users, the migration project took over 2 years.

Stage II. Harmonizing network infrastructure.

Before migrating servers to Azure and extending the On-Premises network to Azure, we needed to prepare network infrastructure. The project was managed by a dedicated network team, which implemented Microsoft ExpressRoute service, designed and created virtual networks in Azure.

Stage III. Datacenter Migration (IaaS).

The project of server migration required solid preparations from our side.

First, we prepared migration environment, namely, Azure Site Recovery (ASR) and a number of On-Premises servers to support ASR migration.

We needed to prepare migration documentation and describe all migration steps, sort servers based on their role and importance, and work closely with business owners of every server to make a decision for every server: which servers should be shut down, migrated to Azure or left as they are.

During the initial stage, we conducted inventory assessment and made some tests; after that, we could deal with production servers.

In general, the server migration process comprised a number of steps:

- Initial replica of the on-premises server is created in Azure;
- Active replica works On-Premises while all the changes are synchronized to the cloud;

KEY FACTS & FIGURES:

- Migrated 6,000 active users to Office 365 and consolidated them in a modern cloud platform;
- All users utilize Exchange Online as a part of daily routine;
- 500 active OneDrive users/day;
- 1,500 SharePoint Online sites, 200 Active Sites/day;
- 1,000 active Yammer users/day;
- Simplified domain management: 3 AD domains instead of 27;
- Retired old messaging systems: 10 physical Exchange 2010 servers, 4 physical and 20 virtual IBM Lotus 8.5 servers;
- Closed a legacy datacenter: 80+ servers migrated from On-Premises datacenter to Azure, while remaining 200+ were either retired or moved to another datacenter.

- At some point, we initiate failover of the replicated server, shut down the source server and activate the destination server replica in Azure.

One of the hardest challenges we encountered was an absence of proper tools for direct migration of outdated physical servers to Azure (for example, Microsoft Windows 2003 servers). Thus, we had to implement a complex multi-level migration of such physical servers:

- First, we had to convert Windows 2003 server to a VMware virtual machine using VMware tool.
- Then, we used a Microsoft tool MVMC to convert VMware virtual machine into a Microsoft Hyper-V one.
- Finally, we could migrate the Hyper-V machine to Azure.

BUSINESS VALUE

Infopulse has built a hybrid Azure infrastructure for the client, which encompasses most of the servers and services related to Active Directory, as well as hundreds of business-critical applications. Some services, such as Active Directory, Hybrid Skype for Business and Hybrid Exchange are still managed on-premises, while most of services and servers are located at Microsoft in the cloud. By means of ExpressRoute technology, the on-premises internal network is expanded to Azure virtual networks.

The IaaS datacenter migration project resulted in huge savings of resources, improved overall performance and efficiency by automating multitudes of manual tasks and allowed our customer to close one of their legacy datacenters with more than 300 servers.

From now on, most of the new servers are created and hosted in the cloud, while all remaining On-Premises servers will be retired incrementally.

Currently, Infopulse is working with our client on a new project to migrate another datacenter.

About Infopulse

Infopulse, part of Nordic IT group EVRY A/S, is an international vendor of services in the areas of Software R&D, Application Management, Cloud & IT Operations, and Cybersecurity to SMEs and Fortune 100 companies across the globe. Founded in 1991, the company has a team of over 1,900 professionals and is represented in 10 countries across Western and Eastern Europe. Infopulse is trusted by many established brands, such as BICS, Bosch, British American Tobacco, Citrix, Credit Agricole, ING Bank, Gorenje, METRO Cash & Carry, Microsoft, Mondelēz, OTP Bank, Raiffeisen Bank Aval, SAP, UkrSibbank BNP Paribas Group, VEON, Vodafone, and others. For more information, please visit www.infopulse.com.

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