



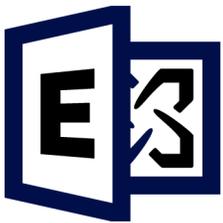
Discover Technologies



WHITE PAPER | ENABLING GROWTH AND REDUCING OVERHEAD THROUGH CLOUD MIGRATION

Business Scenario

A small but growing commercial client already had most of their infrastructure hosted by a data center provider. They had already migrated their Exchange servers to Microsoft Office 365. The email migration demonstrated the potential to reduced support costs and add functionality like Disaster Recovery for no additional cost. They wanted to enable company growth without expanding IT support and thought they could do that through further outsourcing of their IT infrastructure. Starting state specifications are identified in the table below:



Infrastructure	Support
<ul style="list-style-type: none"> • SharePoint • Team Foundation Server (TFS) • Active Directory (AD) • Microsoft Customer Relationship Management (CRM) • IIS Web servers • MS SQL servers • Physical Network Devices 	<ul style="list-style-type: none"> • Application and database server management • Backups management • Migrations • Hardware

Phase One

The focus of phase one of their cloud migration was transitioning their on-premise Hyper-V virtual machines to Azure using the “lift and shift” approach to systems migration. This presented a paradigm shift in resource management.

Its critical to have a thorough understanding of applications and environments when creating startup and shutdown procedure to avoid issues.

The clients Active Directory (AD) forest was extended into the cloud adding fault tolerance and providing local auth for servers migrated to Azure.

Azure Migration Results:

- Support costs per employee reduced by 66% excluding periodic capital expenses for equipment.
- Approximately 80% to 90% reduction in downtime.
- Eliminated need for support staff to go to data center due to server shutdowns.

- No longer purchasing equipment up front and baring full cost of each resource (CapEx to OpEx).
- Resources could more easily be right sized for current load.
- Software licensing could be adjusted to current usage and not future projected need dictated by purchased hardware.
- Ability to provision and adjust resources dynamically turning them off and on as needed generated significant savings.
- The client didn't know what the right size for each resource was at the beginning of the project. We monitored utilization for the first month and adjusted resources.
- Servers were scripted to shutdown after business hours and auto start before the work day based on resource roll (e.g. Dev, Test, Production).

Outcomes:

- Reduced network maintenance
- Better management of Infrastructure costs through server right sizing and elastic scaling



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Phase Two

The focus of phase two was transitioning Virtual Machine (IAAS) services to Software As A Service (SAAS) offerings. One advantage of utilizing services over Virtual Machines is you no longer need to monitor and manage utilization.

Team Foundation Server was transitioned to Azure DevOps (Visual Studio Team Services at the time).

The website running on IIS was migrated to a hosted WordPress service. The SharePoint instance was migrated to SharePoint Online.

The CRM instance was migrated to Dynamics 365.

Outcomes:

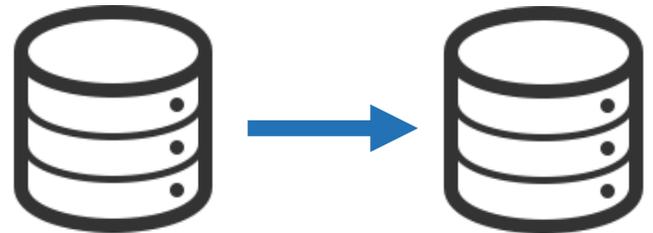
- Drastically reduced managed infrastructure (networking, patching, migrations, backup management).
- Measurable cost reductions.
- Approximately 80% to 90% reduction in downtime.
- Eliminated need for physical support staff at data center due to server shutdowns

Next Phase

Migration from IaaS services running on VMs to PaaS Services by moving AD services to Azure AD Premium and K2 servers to K2 Online. This will allow the client to retire six AD virtual machines (2 Domain Controllers, 2 ADFS server, 2 ADFS proxies). This move will further reduce support costs and offer a fully managed Disaster recovery solution.

Savings and Benefits

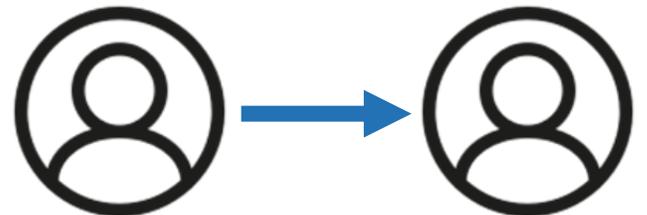
Server downtime reduced by 85%



10 Hrs downtime

1.5 Hrs Downtime

Cost per user reduced by 66%



\$7,300 per user

\$2,486 per user



Scott Dolan, Vice President | sdolan@discovertechnologies.com

O: 703-288-9696 M: 202-440-1486

