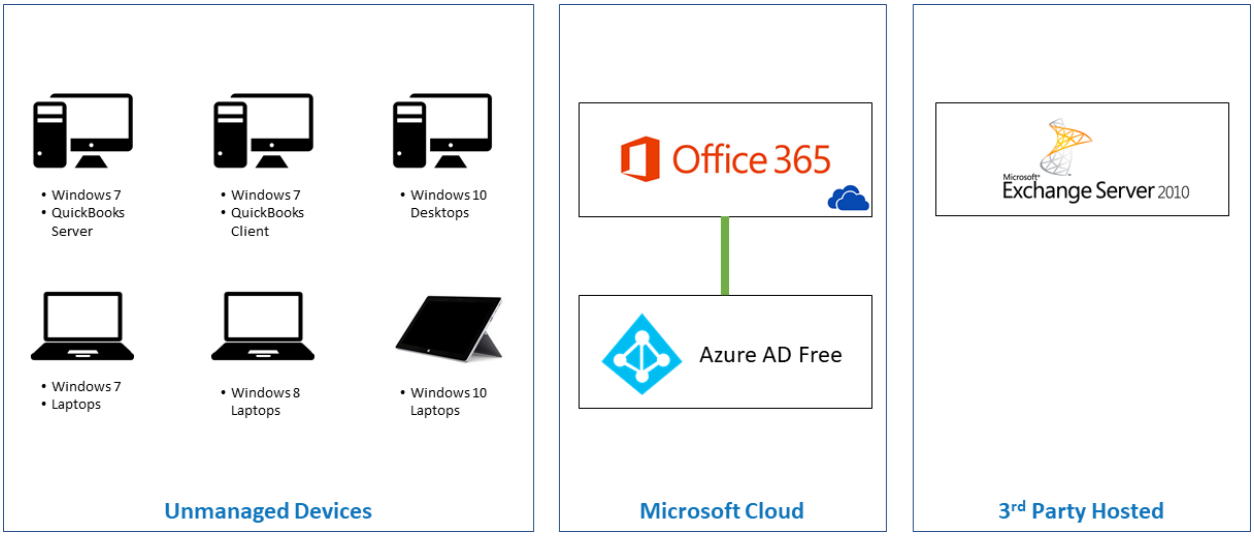
Case Study: Helping a Rapidly Growing Professional Services Company leverage Microsoft Office 365 and Azure

Problem Statement

After a pipe burst in our client's office building, our client became concerned about the business-critical data that was primarily residing on computers in their offices. Specifically, QuickBooks was their number one concern as it encompassed their complex business rules that are the backbone of their company. Working remotely was also a challenge with stop-gap solutions such as GoToMyPC being leveraged for some employees.

Furthermore, they were very frustrated with the number of different usernames and passwords that every employee had to maintain. Every desktop & laptop was purchased at a retail store and was not connected to a domain controller. Office 365 was being leveraged only for OneDrive, and their mail was hosted by a third-party Exchange provider.

The following diagram depicts their starting state:



Solution Approach

Defining Critical Success Factors

We start every project by working with our clients to define the Critical Success Factors to ensure that all objectives are fully thought through and prioritized. We then use these factors are the core of every solution component that we define. The Critical Success Factors for this project were:

1. Single Identity for each employee to access critical business systems.
2. Secure access to QuickBooks from anywhere in the country with data living offsite from the office.
3. Keeping costs to a minimum and consolidating email onto Office 365.

Analysis Phase

There are many ways for companies to implement Single Identity and Single Sign-On and often times the decisions are driven based on existing infrastructure and past investments. Given that we were starting with a green field, we explored a few options:

1. Domain Controllers on Premises
2. Domain Controllers in Azure
3. ADFS to bridge the SSO between the Domain Controllers and Office 365
4. Leverage the fairly new Azure Active Directory Domain Services (AADDS)

While all options would meet the Critical Success Factor #1, Azure AD Domain Services would be by far the most cost effective. As a reference point, the cost of Azure AD DS for this client was approximately $125 per month, whereas all other options would require at least $500/mo in IaaS VM costs.

In order to have the best experience with Azure AD DS, we had to analyze & verify that all devices were compatible with Windows 10.

Definition Phase

During the Definition Phase we performed the following:

- Defined the Backup & Disaster Recovery strategy
- Defined the Multi-Factor Authentication Policies, evaluated options, and performed a Proof-of-Concept with Windows Server 2016 IaaS and Duo for Multi-Factor Authentication.
- Defined the Windows 10 upgrade paths for all of the devices including in-place upgrades, clean formats, license upgrades, and device replacements.
- Determined the right level of licenses for Office 365 and Azure Services.
- Defined the email migration approach.

Execution Phase

We ran the execution phase in three work streams:

1. Azure Work Stream
    a. Core Platform Implementation & Configuration
    b. Deployment & Configuration of Azure AD Domain Services
    c. Creation of IaaS VMs for QuickBooks
    d. Integration with Duo for Multi-Factor Authentication
    e. Deployment of Code42 CrashPlan for QuickBooks Server backup
2. Office 365 Work Stream
    a. Mailbox migrations from the 3rd party hosted provide to Office 365
    b. Implementation of Backupify for Email, OneDrive, and SharePoint Backups
3. Windows 10 Work Stream
    a. Upgrading devices to Windows 10 Professional & Enterprise
    b. Joining the devices to the new Azure AD Domain Services Domain

End State

Through our solution approach we arrive at the following end state:

- Single Identity for each employee that encompasses their Computer Login, Exchange, OneDrive, SharePoint, and Azure IaaS VMs access.
- All devices joined to Azure AD Domain Services.
- QuickBooks Server & Client running in Azure IaaS VMs with Duo for Multi-Factor Authentication.
- Office 365 for Email, OneDrive, and SharePoint.