

Case Studies of IT Transformations

* Deepak Jain

Abstract

This paper presents case studies on IT transformations carried out to reduce OPEX, increase availability, and scalability of a not for profit organization. The first case is that of a US based non profit company facing daily challenges with their communication infrastructure. The paper describes the challenges, assessments phase, migration phase, and the benefits the customer received.

I. INTRODUCTION

Subtlelabs Software Solutions Private Limited specializes in Software Outsourcing & Offshore Product Development to clients globally. Its expertise lies in complete transformation of its customers' IT portfolio by reducing costs, bringing innovation, and enhancing productivity. By improving reliability, speed and agility, it enables its customers to achieve sustainable differential advantage over their competitors.

Its business focus is on:

- ♦ IT Strategy
- ♦ Enterprise & Product Development
- ♦ Cloud Services
- ♦ Application Management Services
- ♦ Automation & Performance Testing
- ♦ Mobility

This paper presents some case studies on how it empowered the businesses of its clients.

II. CASES

A. Email & Skype for Business to Office365

The customer is a US based non profit company facing daily challenges with its communication infrastructure. Email and communication is highly critical for its business. Its issues were:

1) Challenges

- ♦ Daily issues with Exchange 2007 & Exchange 2010 downtime.
- ♦ Exchange databases were full and there was no scope

of increasing the disk space on the DB servers.

- ♦ Databases dismounted on daily basis and there was no flexibility for further scaling.
- ♦ No good experience with previous tries with other vendors.
- ♦ They wanted to move their entire infrastructure (Active directory, File Server, Applications, SharePoint etc. on Cloud due to high operational cost and less flexibility to scale further.

The scope of the project was as follows:

- ♦ Phase 1: Active Directory Sync, Database Server Relief, Exchange Servers, Skype for Business
- ♦ Phase 2: SharePoint, & OneDrive migration, file servers
- ♦ Phase 3: Archival of all disabled users

2) Assessment Phase

- ♦ Exchange Servers: 1300 active accounts & 3700 inactive accounts equally distributed on Exchange 2007 and Exchange 2010 servers
- ♦ Database: Four database all of them 250+ GB in size.
- ♦ OWA: OWA activated only on Exchange 2007
- ♦ Only one Global Catalog server is defined in exchange server
- ♦ Email routing is configured from DNS Servers
- ♦ Barracuda is working as Smart Host

3) Migration Phase

The migration phase involved the following:

Manuscript received June 10, 2019; revised July 2, 2019; accepted July 5, 2019. Date of publication August 5, 2019.

*D. Jain, CEO, Subtlelabs Solutions Pvt. Ltd., G-65, Sector 63, Noida, Uttar Pradesh, India – 201 301. (email: deepak.jain@subtlelabs.com)

DOI: 10.17010/ijcs/2019/v4/i4/147300

- ◆ Configured and setup ADFS and DirSync Servers and synched AD Users
- ◆ Established OnPrem to O365 Connector and created batches
- ◆ Performed staged migration of users from all groups.
- ◆ UAT after each group finished
- ◆ Leveraged Skype for business throughout the company
- ◆ Testing of communication and email status

Due to multiple departments in the company, customer wanted users to be moved in groups and location wise. Customer active directory was analyzed and different groups were created according to location and migration plan was prepared.

4) Benefits

The issues were resolved and the benefits that the customers received were:

- ◆ No Email and Database issues
- ◆ Completely Microsoft managed infrastructure with HA and DR
- ◆ Easy to connect and configure through Outlook
- ◆ Skype for business communication for chat, calls and business conference
- ◆ Cost comparison: OPEX for customer came down by 45% as compared to OPEX of on-premise
- ◆ Managing external user access is much easier now

- ◆ OneDrive for Business
 - ◆ New SharePoint features and updates
 - ◆ SharePoint Online anywhere
 - ◆ Easy scalability of SP farm
 - ◆ Reliability / availability with 99.9% SLA
 - ◆ Low maintenance cost & patch management
 - ◆ High availability along with disaster recovery
- Fig. 1 shows Email migration.

B. Sharepoint & OneDrive for Business (Customer challenges and benefits received)

1) Challenges

- ◆ Too many sub-sites are being created
- ◆ Standardization of sites, lists and libraries
- ◆ Regularly audit your SharePoint to stay compliant to prevent breaches
- ◆ Lack of administration control
- ◆ Patch management
- ◆ Overall cost of managing the On Premise Infrastructure

2) Assessment Phase

- ◆ Number of web applications, sites, sub-sites in the environment
- ◆ Analyzed source location, lists, lookups
- ◆ Analyzed SharePoint database size
- ◆ File Server Data, assessment of file types, size

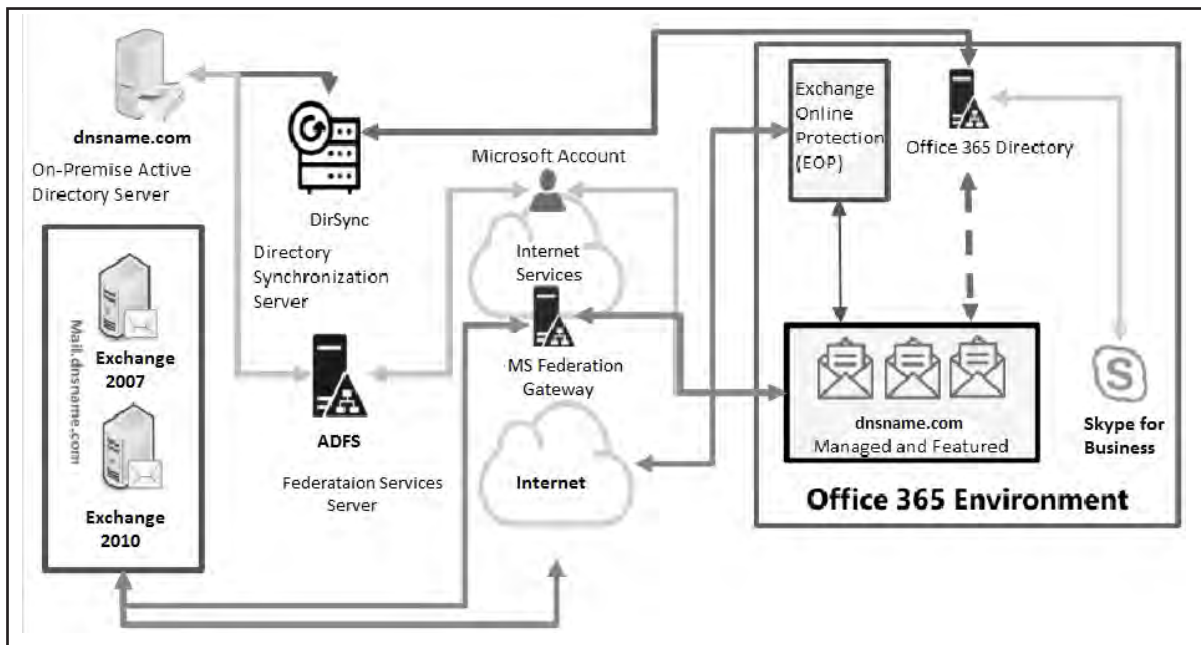


Fig. 1. Email Migration

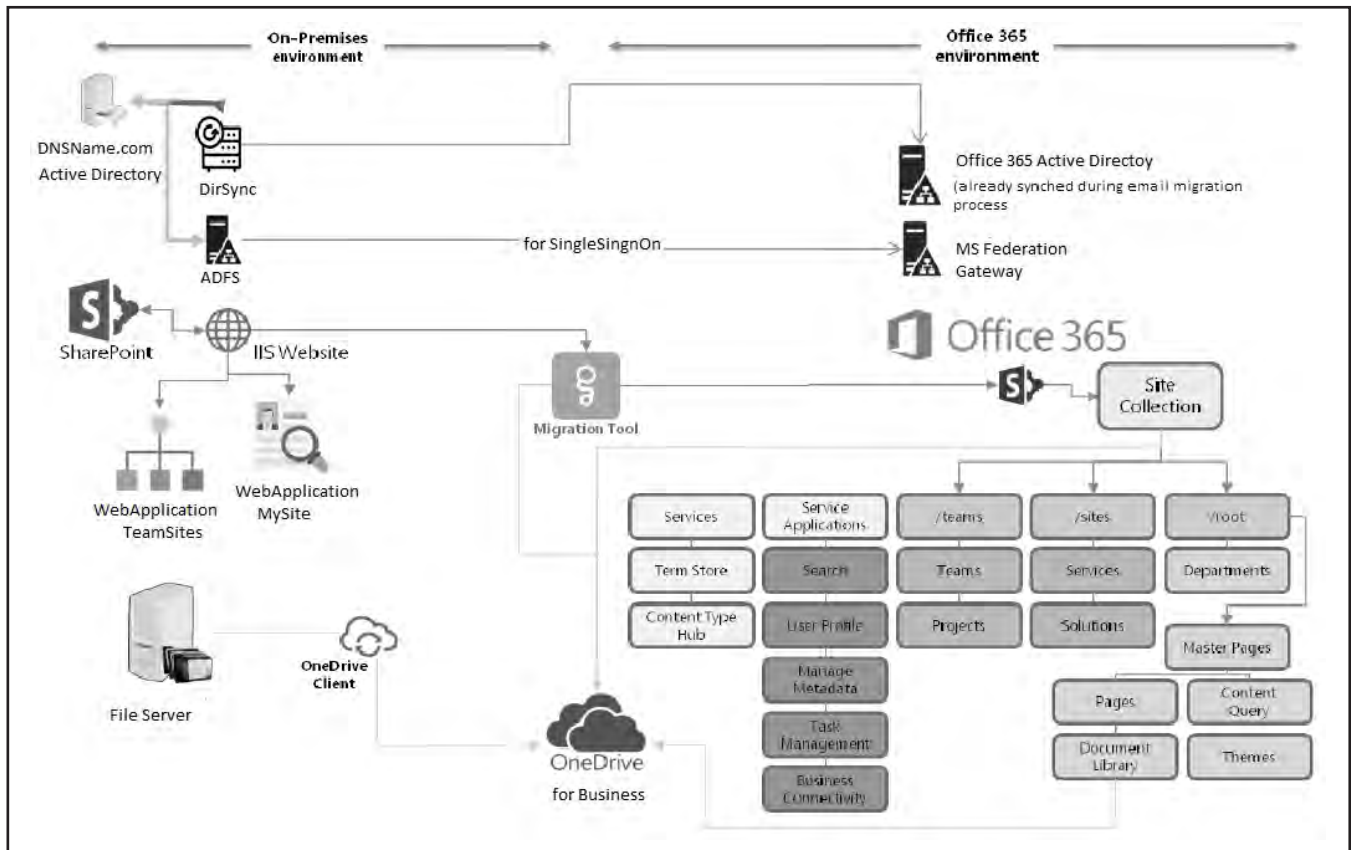


Fig. 2. Sharepoint Migration

- ◆ Analyzed folder structure & migrate the data to OneDrive

3) Migration Phase

- ◆ Sites & sub-sites migration
- ◆ Content type & site column migration
- ◆ Managed metadata migration
- ◆ Lists and libraries migration
- ◆ Groups & permission levels migration
- ◆ Workflows & data migration
- ◆ OneDrive configuration and data sync

4) Benefits

- ◆ Managing external user access is much easier now
- ◆ OneDrive for business
- ◆ New SharePoint features and updates
- ◆ SharePoint Online anywhere
- ◆ Easy scalability of SP farm
- ◆ Reliability / availability with 99.9% SLA
- ◆ Low maintenance cost & patch management
- ◆ High availability along with disaster recovery

Fig. 2 shows Sharepoint migration.

C. Archival of Disabled User Accounts

1) Challenges

- ◆ High utilization of database
- ◆ Unmanageability in email accounts
- ◆ No proper archival method

2) Assessment Phase

- ◆ Exchange Servers: There were 3700 inactive accounts distributed on Exchange 2007 and Exchange 2010 servers
- ◆ Database: No options to scale the database server disks any further

3) Migration Phase

- ◆ Created central share on file server and assign full permission
- ◆ Took full backup of the databases
- ◆ Used PST export Tool or PowerShell for exporting the mailboxes to PST and place them to the central share
- ◆ Test the exported PST by attaching to Outlook

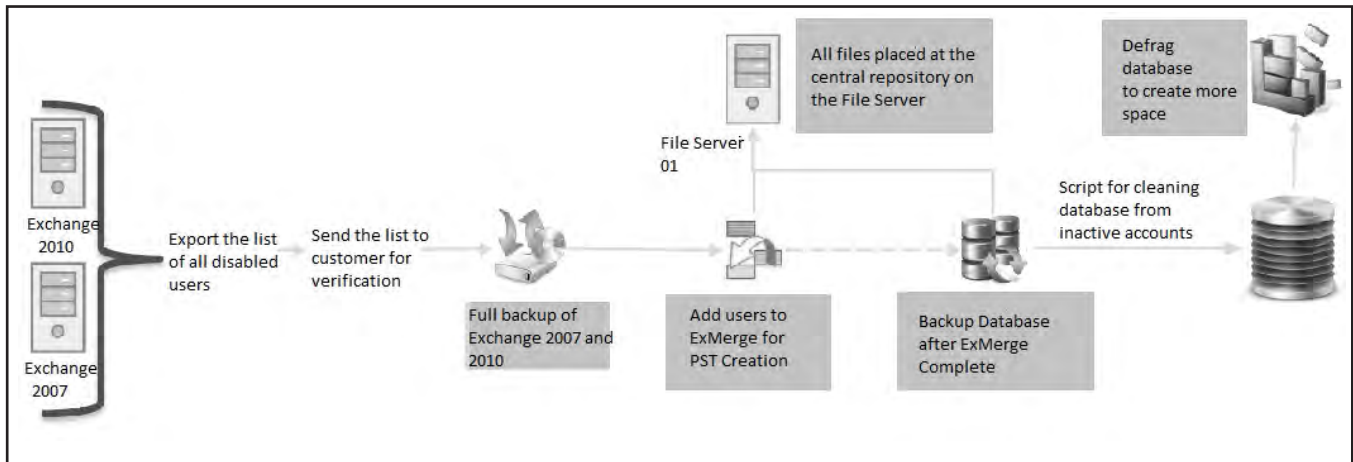


Fig. 3. Archival of Disabled Accounts

4) **Benefits**

- Anytime retrieval of mailbox from the share
- Defined access for administrators for usage of historic PST
- Searching of emails from retrieved PSTs
- Recovery of mailboxes with Tool/defined procedures
- Capacity management of database servers after archival

About the Author



Deepak Jain is an experienced engineer and product leader with a demonstrated history of working in the computer software industry solving technically challenging problems at scale. Eager to build products, solving real-time problems, Deepak founded Subtlelabs as a product engineering company that is today serving customers across the globe. He had earlier worked with global companies and architected solutions in Healthcare, Security, Fintech, Logistics, and CRM domains.