EXCHANGE 2003+ TO OFFICE 365 MIGRATION PLAYBOOK

Prepared by
Nick Ross
Sales Engineer
(nross@pax8.com)

pax8

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*Planning Phase 1: Gather All the Necessary Credentials*

1. Credentials Checklist
   a. Office 365 Global Admin Credentials
   b. OWA Url and Admin Credentials
   c. BitTitan credentials
   d. DNS Login Credentials

Note BitTitan comes with a tool called Deployment Pro which reconfigures Outlook profiles after the migration. This can be pushed out either through GPO or email. If you are going to be pushing this out via GPO you will additionally need:

   e. Credentials remote into Primary DC (If applicable)
   f. Enterprise Admin Credentials for Primary DC

2. Test whether Admin can access any mailbox in OWA environment
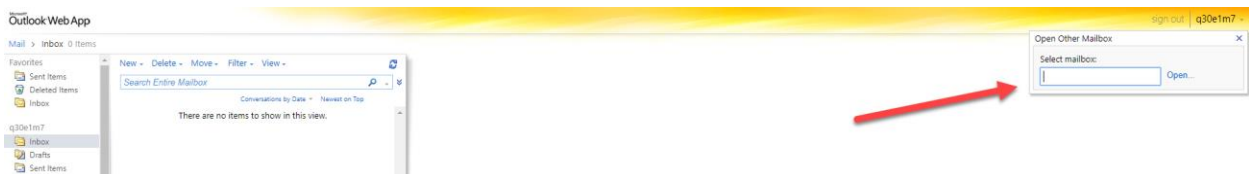
Note if you get the message below, you do not have sufficient impersonation rights:

You don't have permission to open this mailbox.

3. If you have sufficient rights, you will be able to see this person's mail. If this is the case, move on to next step. If you get the message above open the exchange shell on the exchange server and run the following cmdlets in powershell:

```
#Setting Impersonation on Exchange Server#

New-ManagementRoleAssignment -Role ApplicationImpersonation -User
<admin_user_name>
```

Planning Phase 2: Gather and Audit all Users part of the Migration

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1. Gather Users List in CSV format, Export from Exchange Server

2. If using AD Connect with password sync users will have the same password as their on-prem active directory. However, if not using AD Connect then you will need to get a list of passwords from Exchange users or notify them of what their password will be in 365

3. Gather Distribution List with members of Distribution list in CSV format

4. Verify Organizational Units in Active Directory that will be a part of the GPO/AD Sync

5. Take note of any 3rd partner connectors for email filtering: Symantec, Barracuda, etc. Look up necessary steps for creating connectors in 365

6. Provide Clear Communication Path for Each Stage of the Migration (verbal and confirmation via email)

7. Provide clear time frame for when MX records will be cutover

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Prep Work Phase 1: Prepare Office 365

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1. Create a net new office365 tenant, tenant will be spun up with the defaulted .onmicrosoft.com domain. This can be spun up direct with Microsoft or purchased through a CSP provider

2. Go to Setup>Domains>Add Domain

3. Verify Domain with TXT record provided

4. Select "I will manage DNS records myself" and checkmark the box "Skip this step" when it ask to place all the remaining DNS settings for you

5. Domain will say "possible service issues". This is ok. We will add the remaining records after we cut over MX Records

6. Add Users Manually, Bulk Upload with a Powershell Script or CSV, or with AD Connect

    a. Powershell Script

```
#Connecting to Exchange Online Account#

$credential = Get-Credential

Import-Module MsOnline
Connect-MsolService -Credential $credential

$exchangeSession = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
"https://outlook.office365.com/powershell-liveid/" -Credential $credential -Authentication
"Basic" -AllowRedirection
Import-PSSession $exchangeSession -DisableNameChecking
```

Create a CSV with the Following Headers:
- UserPrincipalName
- FirstName
- LastName
- DisplayName
- Password

```
#Bulk Import Users with Passwords#

Import-Csv -Path 'FilePath' | foreach {New-MsolUser -UserPrincipalName
$_.UserPrincipalName -FirstName $_.FirstName -LastName $_.LastName -DisplayName
$_.DisplayName -Password $_.Password -ForceChangePassword $False}
```

```
#Add Alias to Users#

$LiveCred = Get-Credential
$Session = New-PSSession -ConfigurationName Microsoft.Exchange -Connecti
dential $LiveCred -Authentication Basic -AllowRedirection
Import-PSSession $Session
$users = Get-Mailbox
foreach ($a in $users) {$a.emailaddresses.Add("$($a.alias)@domain.com")
$users | %{Set-Mailbox $_.Identity -EmailAddresses $_.EmailAddresses}
```

```
#Add Distribution Lists with Members#

Import-Csv -Path 'File Path.csv' | foreach {New-
Distributiongroup -Name $_.Name -PrimarySmtpAddress $_.Address
}

Import-Csv 'File Path.csv' | foreach {Add-
DistributionGroupMember
 -Identity $_.DL -Member $_.Alias}
```

b.AD Connect Setup: https://docs.microsoft.com/en-us/azure/active-directory/connect/active-directory-aadconnect-get-started-custom

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Prep Work Phase 2: Prepare Source/Destination for BitTitan

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1. Change Send/Receive size in office 365 to max of 150m: https://help.bittitan.com/hc/en-us/articles/115008108047

Note Make sure you are still connected to exchange online in powershell

```
#Change Send/Receive Size#

 Get-Mailbox | Set-Mailbox -MaxReceiveSize 150MB -MaxSendSize 150MB
```

2. Disable the Throttling Policy on Exchange, refer to KB article for particular environment: https://help.bittitan.com/hc/en-us/articles/115008258628

    a. This is **only relevant for Exchange 2010+**. Exchange versions 2007 and earlier do not have throttling policies.

3. Set Impersonation at Destination. This will allow you to use admin creds to impersonate all mailboxes. With this in place you will not need creds for all individual users

```
#Setting Impersonation#

Set-ExecutionPolicy Unrestricted

$LiveCred = Get-Credential

$Session = New-PSSession -ConfigurationName Microsoft.Exchange -ConnectionUri
https://ps.outlook.com/powershell/ -Credential $LiveCred -Authentication Basic -
AllowRedirection

Import-PSSession $Session

Enable-OrganizationCustomization

New-ManagementRoleAssignment -Role "ApplicationImpersonation" -User admin@domain.com
```

Prep Work Phase 3: Push out DMA agent

BitTitan comes with a deployment pro agent that automatically configures outlook profiles. This will bring over **autofill settings** and **signatures** for all users. There are two options to push this out:

        a. GPO
        b. Email

Note If we are deploying the agent via gpo, users will just receive a popup asking them to authenticate and will reopen outlook after cutover. If we are pushing the agent out via email, users will receive a message in which they will have to click on a link to install the agent on their device

1. Login to the BitTitan Portal and Click All Customers on the left-hand column

2. Click Add Customer>Fill out Customer Name and primary Domain>Click Save

Add Customer

⌄ Customers

Details

Workgroup Name
provisioning Workgroup

@ Primary Email Domain

Company Name

Primary Location (Optional)
Select Country ▼

City (Optional)

Primary Industry (Optional)
Select Industry ▼

Company Size (Optional)
Select Company Size ▼

Follow Steps **3-14** if you are choosing to deploy the agent via **GPO**

3. Remote into Primary DC

4. Open Browser and Login to BiTitan.com

5. Go to All Customers>View Users on the Customer you created

6. Click "Enable the Device Management Agent"

![pax8 logo]

Add Users to begin managing your Customers and delivering Services.

Add Users Through an Endpoint
Automatically add Users and Groups from existing cloud services.   〉

Enable the Device Management Agent
Deploy a lightweight Agent on devices to import Users.   〉

Add Users in Bulk
Import Users through a CSV file, without accessing your Customer's production environment.   〉

Add Users with Quick Add
Add a User to MSPComplete.   〉

7. Follow the steps from the following KB Article which walks you through setting up a new share, placing the exe in the share, creating the gpo, and scheduling it to run :https://help.bittitan.com/hc/en-us/articles/115008110847

Add Users with a Device Management Agent

ⓘ By using the Device Management Agent, you agree to comply with BitTitan's User Agreement.

˅ Device Management

Instructions

Installing with a Group Policy Object (GPO).

1. Save the Device Management Agent setup file (i.e., BitTitanDMASetup_60577C0A954BA572_.exe) to a network share folder.
   The folder needs to be accessible for all Users on the network.

2. Create a GPO that executes the DMA setup file on an Active Directory Organizational Unit's computers with an immediate scheduled task.

   Script Parameters: Copy to Clipboard
   \\[path-to-
   BitTitanDMASetup_60577C0A954BA572_.exe]\BitTitanDMASetup_60577C0A954BA572_.exe

8. Monitor users that successfully have the agent installed by going to Customers>Select customers>Manage>Device Management>Deployment pro

You will need to put in the destination domain and add the 365 endpoint

Once users start to login to their computers, their device will be registered and their primary upn will be listed "Primary Email Address" column

9. Users computers will be listed and will have a "heartbeat". Once a user signs into the device their email will be tied to the device in a one to one relationship.

* If a status shows a ? symbol it most likely means the computer is shut down and the tool hasn't been able to find a heartbeat in over 4 hours*

11. Once all users have populated and have the DMA agent installed, Schedule the cutover date for the agent to run on their computer. (This is after you point MX records to office365)

Schedule DeploymentPro

Schedule for Profile Cutover

This is the date and time scheduled for DeploymentPro to run on your Users' machines. The module will install on their devices at the next heartbeat, and then run silently until:

Select a date.
May 11th, 2018 11:30am

The time specified is (America/Denver).

Subscribed Users (no license required): 1

License Consumption

Users	License per User	Total Licenses Required
1	1	0

User Destination Email

The Destination email address is the email address of the new profile after it has been configured.

Source Email	Destination User Principal Name	
		@crtrans.biz

Cancel   Schedule Cutover

Note If there are multiple domains involved you will have to go to "settings" in the deployment pro page and change the domain for the users who need the separate domain

12. Once the agent is scheduled successfully, all users should change to a status of "running"

13. If the status does not say "running" but remains in "scheduled" reschedule again until it moves into a **running status**

14. If users are not being picked up with the GPO, troubleshoot with one remote end user:

- Run Gpresult on their computer to see if the GPO is running
- If the GPO is running, try running the exe manually to see if it is blocked but a firewall setting
- If it is blocked, then create an exception to the firewall to allow the exe to run.
- If it is not being blocked check to see if there are any web proxy settings that may be blocking communication back to bittitan
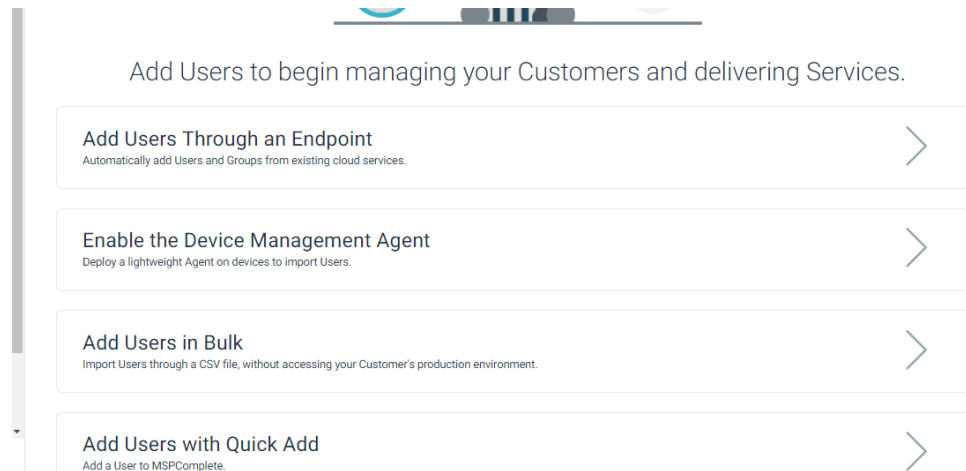
15. *This completes the steps for setting up DMA via GPO. If you have completed this successfully then move on to the next section. If you are deploying the agent via email, follow steps 16-26.*

Deploying DMA via EMAIL

16. In the BitTitan portal, go to All Customers and select the customer you created

17. Click Add Users Through an Endpoint

Add Users to begin managing your Customers and delivering Services.

Add Users Through an Endpoint
Automatically add Users and Groups from existing cloud services.

Enable the Device Management Agent
Deploy a lightweight Agent on devices to import Users.

Add Users in Bulk
Import Users through a CSV file, without accessing your Customer's production environment.

Add Users with Quick Add
Add a User to MSPComplete.

18. Click Manage Endpoint>Add Endpoint

19. Add the Exchange Server 2003+ Endpoint and Provide the Administrative Credentials

New Endpoint

Details

Endpoint Name

Exchange

Name your endpoint

Endpoint Type

Exchange Server 2003+   ▼

Outlook Web Access URL

http://mail.example.com/exchange

◉ Provide credentials
Providing credentials at the endpoint level allows you to have a centralized set of credentials that can be used across BitTitan products.

○ Do not provide credentials.
If credentials are not provided at the endpoint level, you will need to provide per-user

Close   **Add**

Note This will autodiscover users from the Exchange and populate them in the BitTitan portal

20. From here you can select users by checking the box next their name and selecting "Enable Device Management Through Email"

21.Enter a valid email in the "From" section of the template and click Send Email

Enable Device Management Through Email

Email details

To change the list of recipients, go back to the Users list and update your selection.

You can use Markdown syntax to format your email. Click here for help.

```
To
Demouser@test.com
```

```
From
From
```
Enter email address

```
Subject
Action required: Install the BitTitan Device Management Agent on your computer.
```
Enter email subject

-- Insert a placeholder -- ▼

```
Hello {user_first_name},

### Important Announcement

We are currently planning a series of updates and improvements to our IT Services.
```

Note You can white label this email specific to the content you want users to receive. This email is specific to the user and **cannot be forwarded** to another user for them to click on the link for the exe file. The User Simply clicks on a link to open a new page and clicks on one more link to download the exe file

22. Monitor users that successfully have the agent installed by going to Customers>Select customers>Manage>Device Management>Deployment pro

You will need to put in the destination domain and add the 365 endpoint

Once users start to login to their computers, their device will be registered and their primary upn will be listed "Primary Email Address" column

🏠 > Customers > Cardinal Transport > Device Management > **DeploymentPro**

DeploymentPro

Settings

Use BitTitan PowerShell to schedule DeploymentPro for a large number of mailboxes. Read more.

126	80	1999059
Total Users	Total Devices	Licenses Owned

▶ Schedule Cutover

Sort ▼

	Primary Email Address	Destination UPN	Module Status	Not Started	Scheduled	Running	Completed	Error
☐			Scheduled on Apr 9, 2018 11:30am	0	0	0	1	0
☐			Scheduled on Apr 7, 2018 12:15pm	0	0	0	1	0
☐			Scheduled on Apr 7, 2018 9:45am	0	0	0	1	0
☐			Not scheduled	5	0	0	0	0
☐			Not scheduled	1	0	0	0	0
☐			Not scheduled	1	0	0	0	0

23. Users computers will be listed and will have a "heartbeat". Once a user signs into the device their email will be tied to the device in a one to one relationship.

🏠 > Customers > Cardinal Transport > Device Management > **Computers**

Services | Computers

80 Computers

Computer Name ↓	Number of Users	Agent Status
AR-004	1	✔
ARDEB	1	✔
AS400CONSOLE-PC	1	✔
BILLINGSARAH	1	✔
BROKERAGEJD-CR	1	✔
BSCHAEFER7	1	✔

* If a status shows a ? symbol it most likely means the computer is shutdown and the tool hasn't been able to find a heartbeat in over 4 hours*

CRDTAPP	2	✔
CRDT-AR-DLS	1	❓

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24. Once all users have populated with a and have the DMA agent installed, Schedule the cutover date for the agent to run on their computer. (This is after you point MX records to office365)

Schedule DeploymentPro

Schedule for Profile Cutover

This is the date and time scheduled for DeploymentPro to run on your Users' machines. The module will install on their devices at the next heartbeat, and then run silently until:

Select a date.
May 11th, 2018 11:30am

The time specified is (America/Denver).

Subscribed Users (no license required): 1

License Consumption

Users	License per User	Total Licenses Required
1	1	0

User Destination Email

The Destination email address is the email address of the new profile after it has been configured.

Source Email	Destination User Principal Name	
		✏ @crtrans.biz

Cancel   Schedule Cutover

Note If there are multiple domains involved you will have to go to "settings" in the deployment pro page and change the domain for the users who need the separate domain

25. Once the agent is scheduled successfully, all users should change to a status of "running"

	Primary Email Address	Destination UPN	Module Status	Not Started	Scheduled	Running
			Scheduled on Apr 30, 2018 9:15am	0	0	0
			Scheduled on Apr 30, 2018 4:00pm	0	0	0
			Scheduled on Apr 30, 2018 9:15am	1	0	1
			Scheduled on Apr 30, 2018 9:15am	0	0	1

26. If the status does not say "running" but remains in "scheduled" reschedule again until it moves into a running status

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Prep Work Phase 4: Setup BitTitan Project

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1. In BitTitan Portal, Open MigrationWiz by clicking on waffle icon at top of the page>Click Mailbox Migration

2. Click Create Project>Select 'Create a Mailbox Project'

3. Name the Project and select your customer from the dropdown>Click Next Step

4. If you followed the steps for email deployment for the DMA agent you should be able to select your endpoint from the dropdown. If you did not, Select New and fill out the fields as shown below:

New Endpoint

Details

Endpoint Name

> Exchange

If you don't know your Server Type, click the button:

+ Find My Service Provider

Endpoint Type

> Exchange Server 2003+   ▾

Outlook Web Access URL

> http://mail.example.com/exchange

◉ **Provide credentials**
Providing credentials at the endpoint level allows you to have a centralized set of credentials that can be used across BitTitan products.

◯ **Do not provide credentials.**
If credentials are not provided at the endpoint level, you will need to provide per-user credentials when using the endpoint as part of your projects.

Administrator Username

| Close | Add |

5. In the Destination Settings, Click New, and add the 365 endpoint. Providing the admin credentials

6. Click "Save and Go to Summary" This tells you what is eligible to move and gives you additional KB articles you can reference. Click 'Save Project' when you are ready to proceed

PROJECT SUMMARY

SOURCE	DESTINATION
Exchange Server 2003+	Microsoft Office 365

Items Available for Migration

✔ Contacts ✔ Calendars ✔ Mail ✔ Journals ✔ Notes ✔ Tasks ✔ Rules

❓ Migration Guides

Here are relevant Migration Guides:
- Hosted Exchange to Office 365 Migration Guide
- On-Premises Exchange 2003 to Office 365 Migration Guide

❓ Need Help?

Here are some Knowledge Base articles related to your current configuration:
- How do I create an administrator account for login?
- Should I use delegation or impersonation when performing my migration?
- What credentials are needed to migrate from Hosted Exchange?
- How do I turn off Calendar Assistant in Office 365?

More Articles: Knowledge Base

✔ Save Project

7. Add items to your project. If you already added users to the MSP complete portal either through GPO or an endpoint. You can select "Add from MSP Complete". If you have not yet, then you can select Autodiscover items to import users to the portal

8. Audit User names and Domains (Make sure they match 365). Clean up user-list. Verify the Source and Destination domains are correct.

9. Select All Users>Verify Credentials

10. There are numerous errors that could appear here. Most of the steps I made for prep work will make it so that you avoid most of these errors. Refer to BitTitans KB articles for most common errors and how to troubleshoot. https://help.bittitan.com/hc/en-us/sections/115003465187-Mailbox-Error-Lookup?page=2

Unsuccessful verification will show a "Failed" Message

You can click on the Failed icon to show a detailed message of what failed

Click on "Learn More" to access BitTitan's Relevant kb articles specific to the error:

Successful Verification will show a "Completed(Verification)" message

11. After all users have successfully completed verification, Select All users>Click on the Hamburger icon at the top of the toolbar> Click Subscribe Users

12. This will bring you back to the MSP complete portal. Select all users>Click Apply User Migration Bundle

13. This takes a couple of minutes to propagate but after, in the migrationwiz portal the "User Migration Bundle" column will change from "No" to "Yes"

14. Go to Edit Project>Advanced Settings>Set Maximum # of Concurrent Migration (Guideline 3 per 1Mbps of Bandwitth)>Save
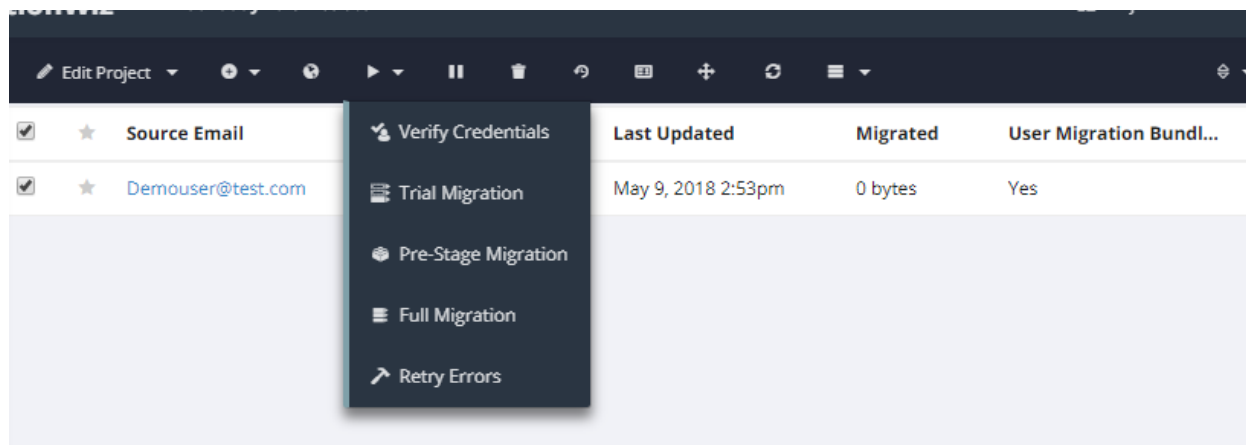

Migration Phase 1

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1. Preferably start at beginning of the week to bring over a bulk of the mail, plan for domain cutover on Friday evening
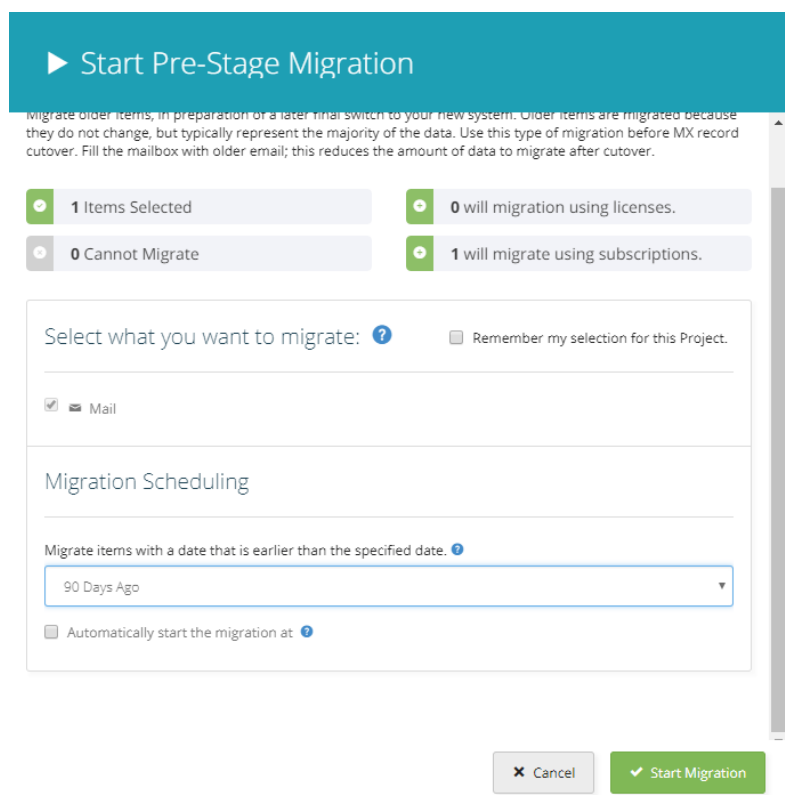
Note During a pre-stage Pass BitTitan is simply making copies of mail in 365. The user will experience no loss of data during this time*

2. Select All Users>Click on the start button>Pre-stage Migration

3. Select a time range from the dropdown of prior to 90 days>Start Migration

4. This will give you a status bar and show the amount of data moved over in the "bytes" column. If any users fail, it's usually do to server timeout. Simply rerun the pre-stage pass on these users to restart where it left off. If you click on any user's name, you can see metrics like upload speeds:

5. Once the pre-stage migration has run for all users and is in a "Completed" Status

6. Next we are going to perform a full migration to bring over copies of remaining mail plus calendars, contacts, notes, journals, rules. Select All users>Click on the start button>Full Migration

7. You can schedule this to start at a specific time if you would like:

▶ Start Full Migration

What is a Full Migration? ❓

Use this type of migration for Big Bang (Single-Pass) Migrations, or for following an earlier Pre-Stage Migration. Use this after MX record cutover to make sure you are not missing any data.

| ✓ | **1** Items Selected | ⊕ | **0** will migration using licenses. |
| ⊝ | **0** Cannot Migrate | ⊕ | **1** will migrate using subscriptions. |

Select what you want to migrate: ❓   ☐ Remember my selection for this Project.

☑ 🗐 Contacts   ☑ 📅 Calendars   ☑ ✉ Mail   ☑ 📕 Journals
☑ 📝 Notes   ☑ 📋 Tasks   ☑ 🗀 Rules

Migration Scheduling

☑ Automatically start the migration at ❓

| May ▾ | 10 ▾ | 2018 ▾ | 0 ▾ | 0 ▾ | (Local Time) |

✖ Cancel   ✔ Start Migration

8. Confirm all users go into a "Completed" Status

1. At Designated time, login to DNS provider and change you MX records to point to Office365
    a. You can find this in the 365 Admin Center by going to Setup>Domains
    b. Office365 MX record follow this format **Domain-com.mail.protection.outlook.com**

2. Run another Full Pass. This will perform a **delta sync** to pull over any residual data that may have been missed.

Migration Phase 3: Post Migration Cleanup

1. Audit Destination Environment Mailflow for Inbound/Outbound Mail

2. Login to BitTitan>Go to All customers>Select customer>Manage>Device Management>Deployment Pro

3. Make sure DMA status has moved into "Completed" status. If in "error" status it means the users failed authentication 3x. Reschedule the tool to run at the next time interval available

4. Reconfigure any mailbox permissions

5. Send out guides on reconfiguring mail on Iphone/Andriod:
    a. https://support.office.com/en-us/article/set-up-email-using-the-ios-mail-app-7e5b180f-bc8f-45cc-8da1-5cefc1e633d1
    b. https://support.office.com/en-us/article/set-up-email-in-android-email-app-71147974-7

6. Perform and account clean up that is required