Migrating Mailbox from Exchange On-Premises to Microsoft 365 Exchange Online

In this post, I will show you the steps involved towards migrating mailbox from on-premises Exchange Server 2019 to Microsoft 365. In order to test this, we have to obtain Microsoft 365 license. I did sign up for 1 month free trial Microsoft 365 Business Standard license. It will cost $18 per month based on annual subscription.

Microsoft

Invoice

July 2020
Invoice Date: 2020/07/31
Invoice Number: E0500BT0BD
Due Date: 2020/08/30

36.16 CAD

Order Details		Billing Summary	
Product:	Online Services	Charges:	32.00
Customer PO Number:		Discounts:	0.00
Order Number:	1756bc51-f9fd-472e-83da-6599e0dd76d3	Credits:	0.00
Billing Period:	2020/07/30 - 2020/07/30	GST/HST:	4.16
Payment Terms:	Net 30	QST/PST:	0.00
Due Date:	2020/08/30	**Total:**	**36.16**
Payment Instructions	Please DO NOT PAY. You will be charged the amount due through your selected method of payment.		

Within on-premises Exchange Sever 2019, I have one user account already created before. I will use this mailbox for migration.
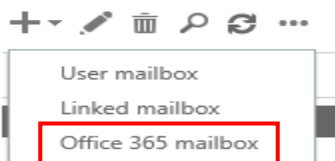
mailboxes groups resources contacts shared migration

DISPLAY NAME ▲	MAILBOX TYPE	EMAIL ADDRESS
Noor	User	noor@ramlan.ca

Now, I will create Microsoft 365 Mailbox for another user, so we can test later.

mailboxes groups

+ ▾ ✏ 🗑 🔍 ⟳ ⋯

> User mailbox
> Linked mailbox
> Office 365 mailbox

new Office 365 mailbox

Lan

Initials:

Last name:

Ram

Organizational unit:

[   ] [Browse...]

*Name:

Lan Ram

*User logon name:

lanram   @ RAMLAN.CA ▾

*Mailbox type:

User mailbox ▾

*New password:

••••••••

*Confirm password:

••••••••

☐ Require password change on next logon

☐ Create an archive mailbox

> Choose a domain suffix. Users will sign in to their Exchange Online mailbox using their complete user logon name, for example, annb@contoso.com.

[Save]   [Cancel]

mailboxes groups resources contacts shared migration

+ ▾ ✏ 🗑 🔍 ⟳ ⋯

DISPLAY NAME	MAILBOX TYPE	EMAIL ADDRESS
Lan Ram	Office 365	lanram@ramlan.ca

Directory synchronization of the new user needs to occur, and an Office 365 license needs to be assigned. We can wait for the next directory synchronization cycle to occur, or force a synchronization immediately to speed things up. I prefer to wait, because it allows me to verify that directory synchronization is working fine on its own. When directory synchronization has occurred, the new user will be visible in the Office 365 admin center, and can be assigned a license there.
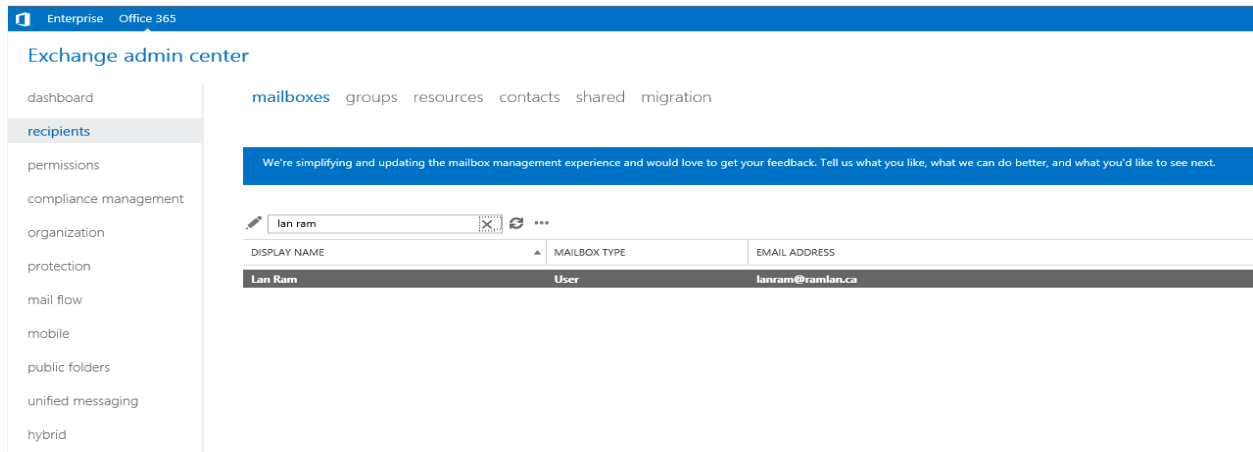
We can select the user and assign Microsoft 365 license. Here it is..
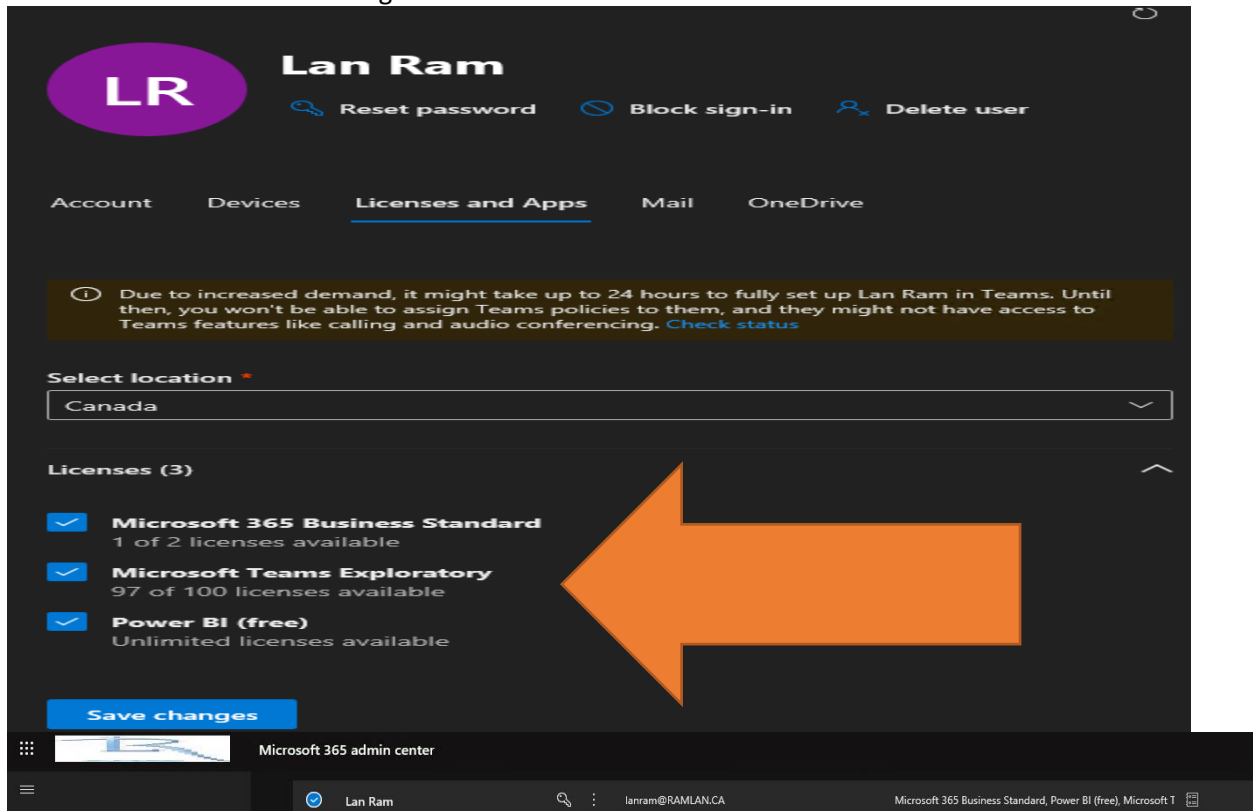
You can assign license using these PowerShell Commands

Connect-MsolService
Get-MsolAccountSku
Set-MsolUser -UserPrincipalName lanram@ramlan.ca -UsageLocation "Lab"
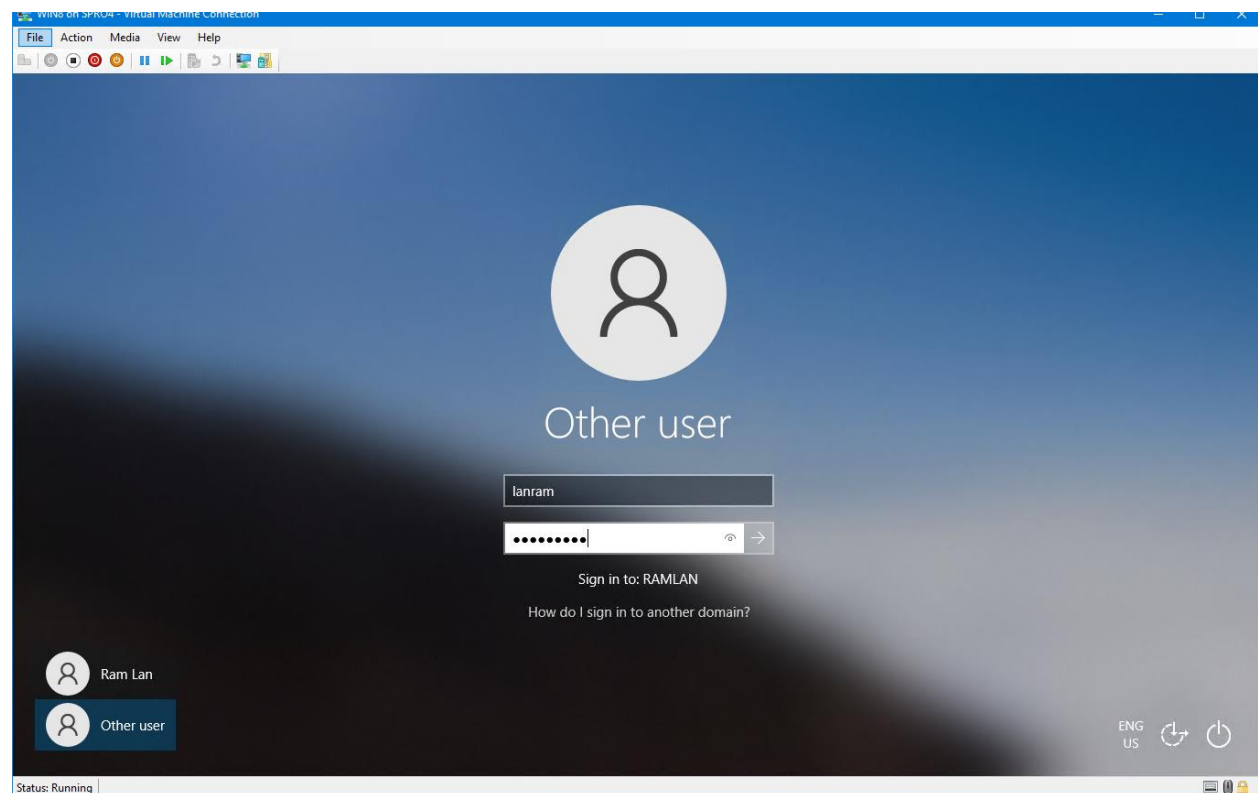Set-MsolUserLicense -UserPrincipalName lanram@ramlan.ca -AddLicenses
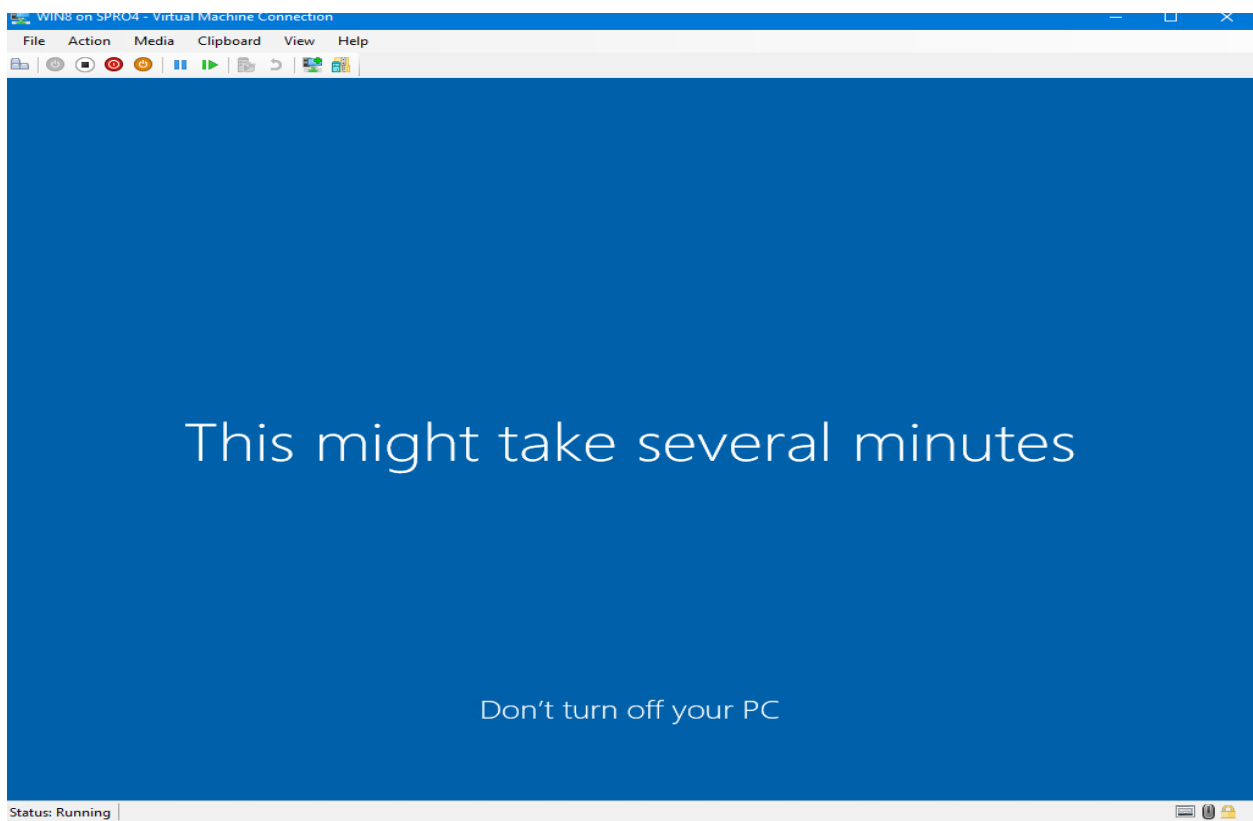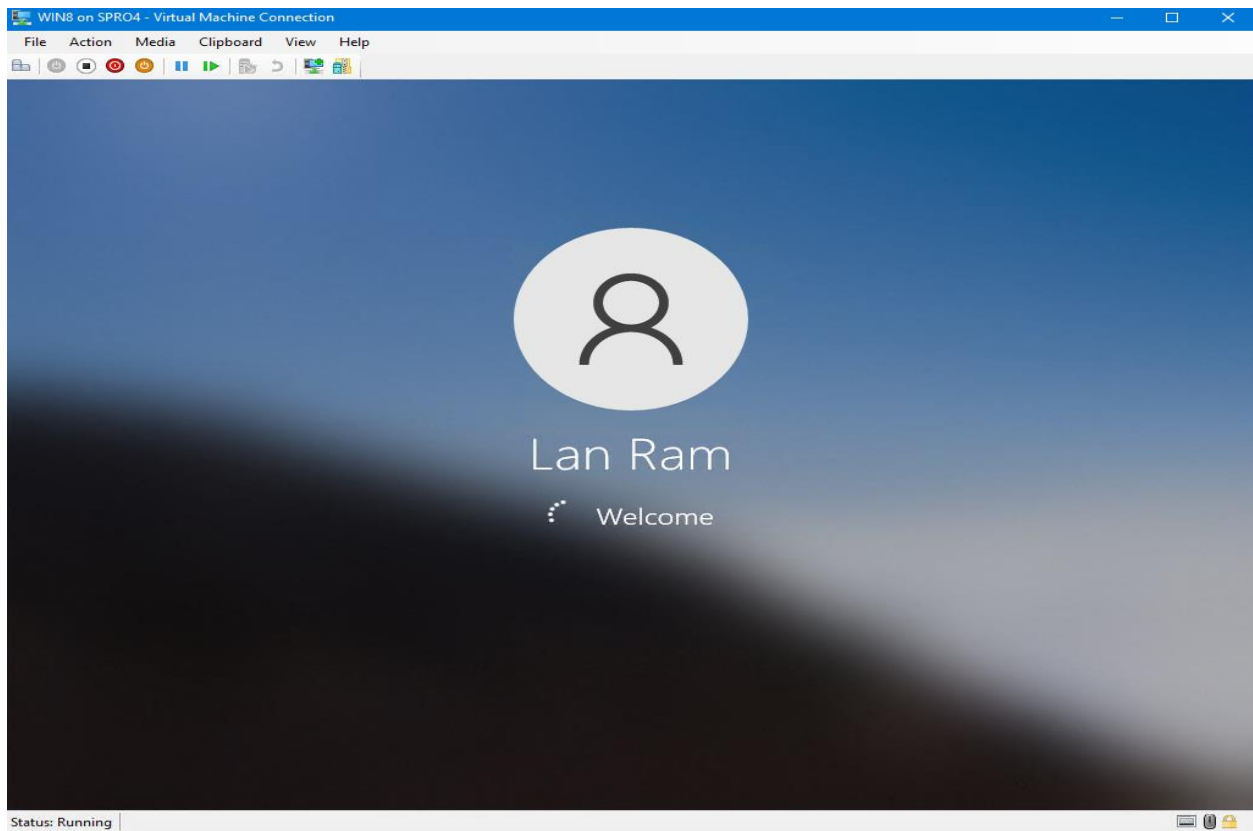"ramlan:O365_BUSINESS_PREMIUM"

Now we will login as user on Windows 10 machine and see, if Autodiscover still works.

WIN8 on SPRO4 - Virtual Machine Connection

File   Action   Media   Clipboard   View   Help

Lan Ram

Welcome

Status: Running

WIN8 on SPRO4 - Virtual Machine Connection

File   Action   Media   Clipboard   View   Help

This might take several minutes

Don't turn off your PC

Status: Running

Launch Outlook

You can select Office 365

Outlook

Account successfully added

Office 365
lanram@ramlan.ca

Add another email address

lanram@ramlan.ca

Next

Advanced options ⌄

Done

☐ Set up Outlook Mobile on my phone, too

WIN8 on SPRO4 - Virtual Machine Connection

File   Action   Media   Clipboard   View   Help

Inbox - lanram@ramlan.ca - Outlook

File   Home   Send / Receive   Folder   View   Help

New Email | New Items | Delete | Archive | Reply | Reply All | Forward | Move to: ? | To Manager | Team Email | Move | Rules | OneNote | Tags | New Group | Browse Groups | Search People | Address Book | Filter Email | Speech

New | Delete | Respond | Quick Steps | Move | Groups | Find

◢ Favorites
  Inbox
  Sent Items
  Deleted Items

◢ lanram@ramlan.ca
  Inbox
  Drafts
  Sent Items
  Deleted Items
  Archive
  ▷ Conversation History
  Junk Email
  Outbox
  RSS Feeds
  Search Folders

▷ Groups

All   Unread   By Date ▾   Newest ↓
We didn't find anything to show here.

Items: 0   Adding your categories to the master list...   All folders are up to date.   Connected to: Microsoft Exchange   10%
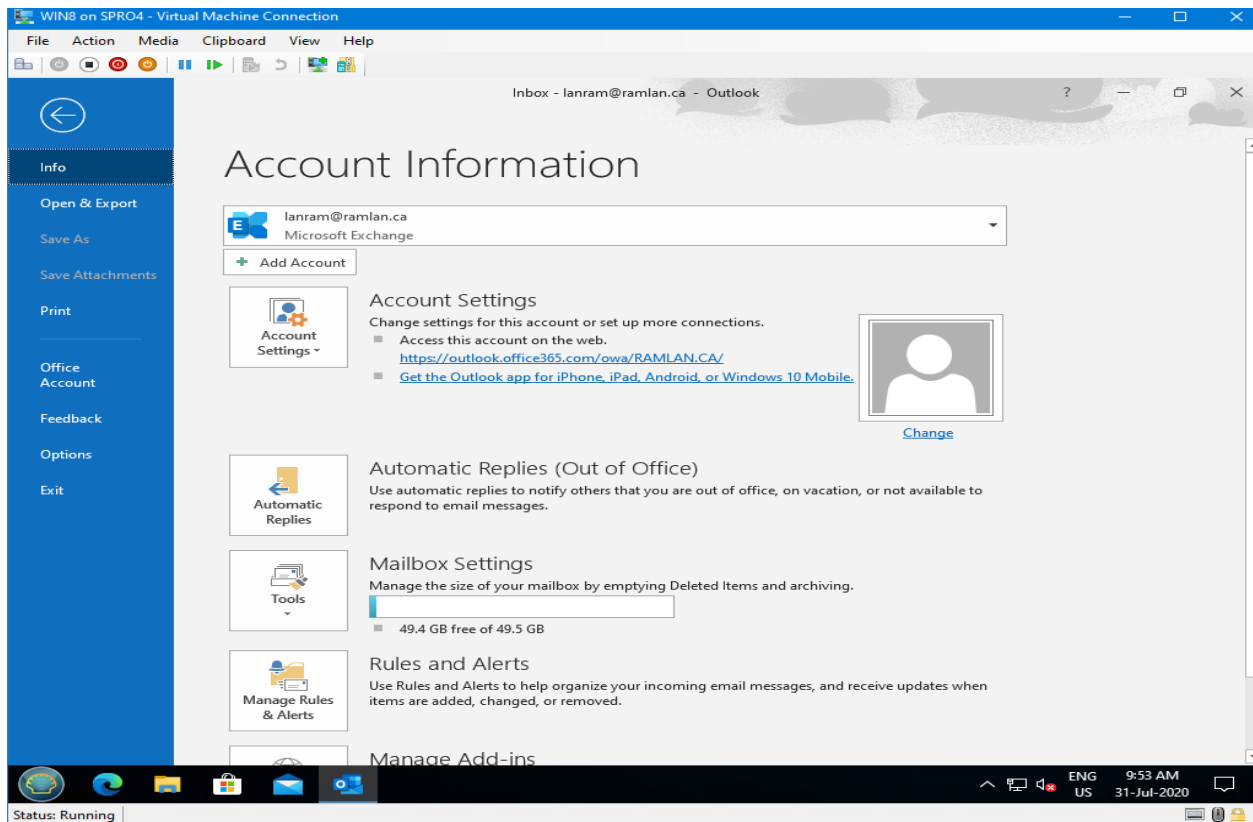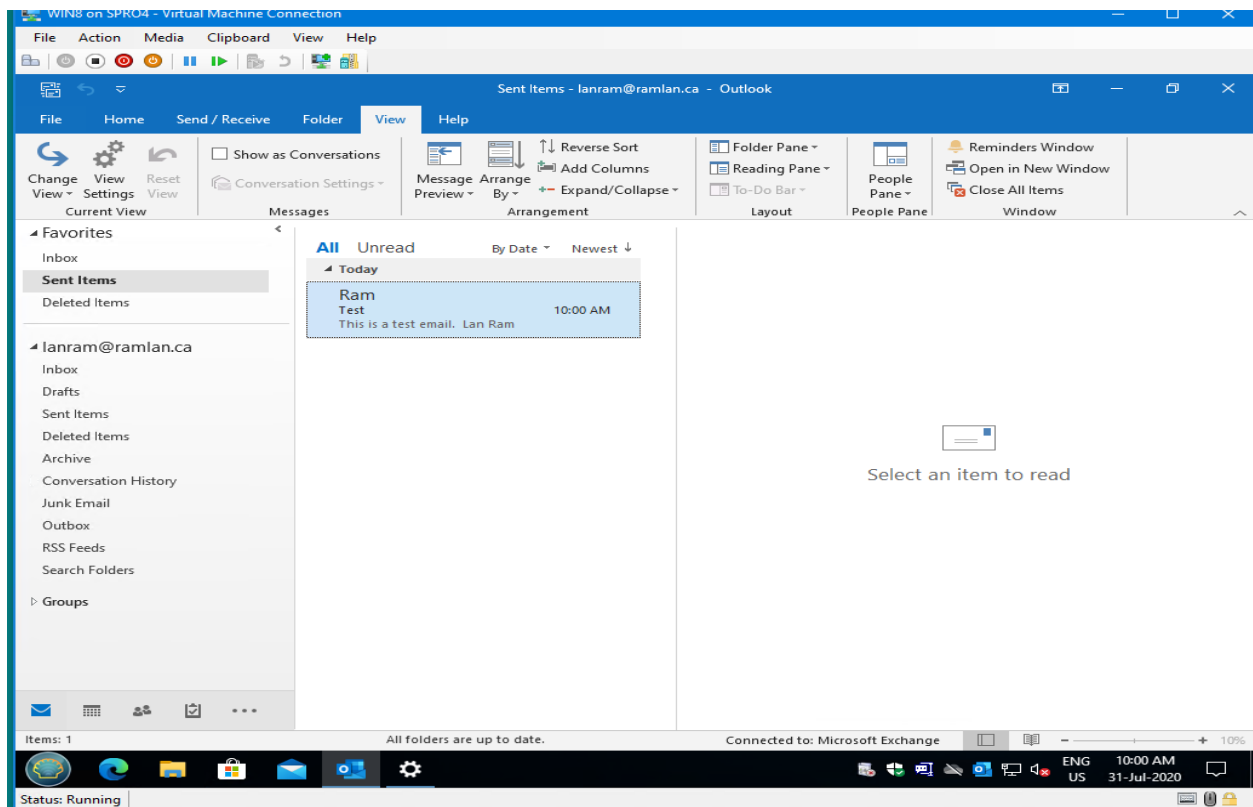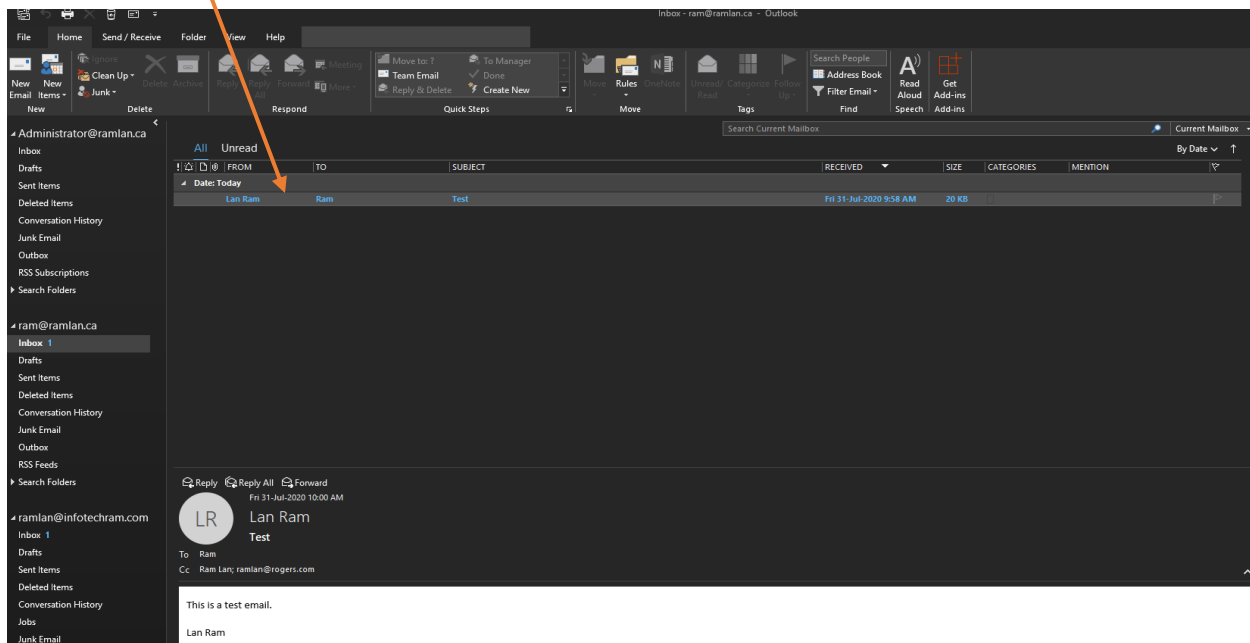
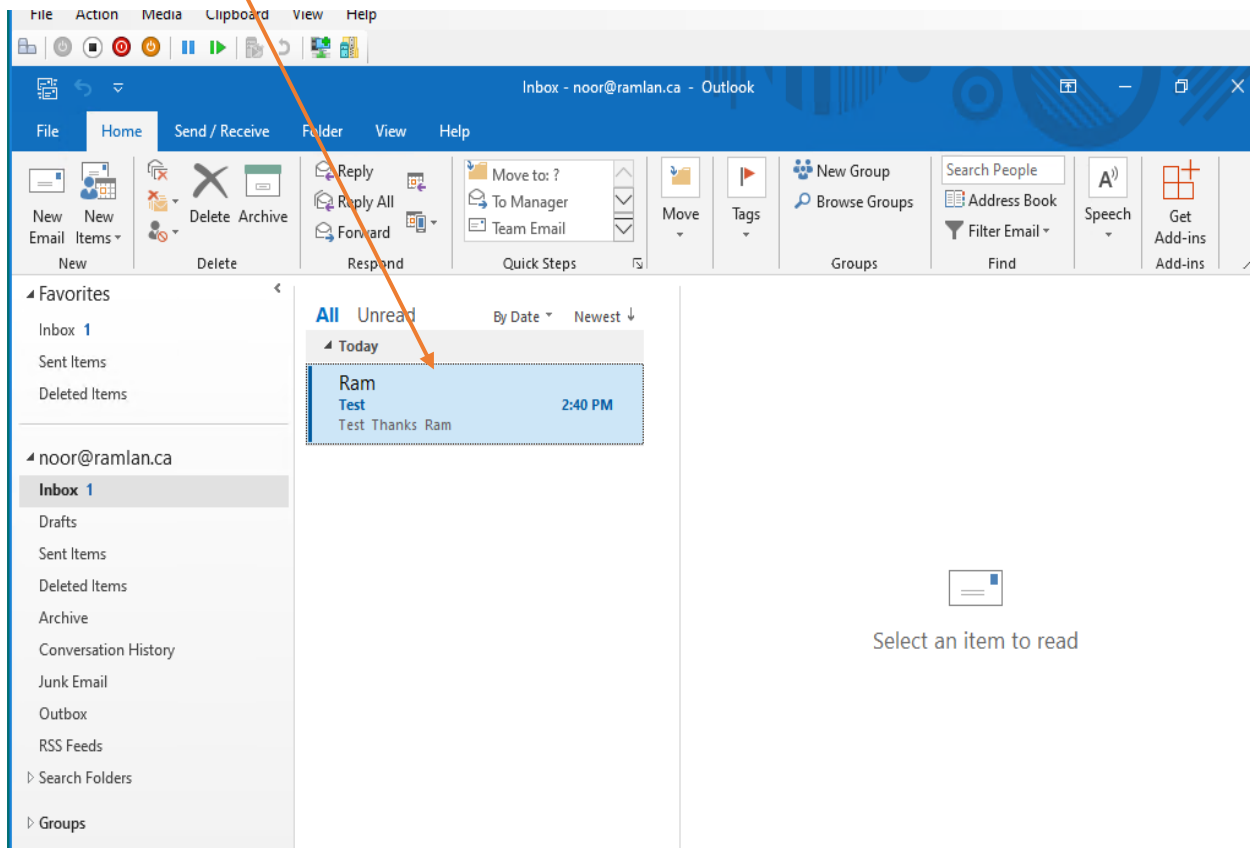ENG US   9:52 AM   31-Jul-2020

Status: Running

We will perform test emails from Office 365.

Test email received from Office 365 user. I will reply back to make sure Office 365 user can receive.

Test email received by Office 365 user. No mail flow issue after Hybrid Exchange Server 2019 configuration.

Now we will migrate on-premises user mailbox to Exchange Online (EAO) and test mail flow.

Enterprise   Office 365

Exchange admin center

dashboard	mailboxes groups resources contacts shared **migration**
recipients	
permissions	We have a simple wizard-based migration experience in the new Exchange admin portal. You can try to preview the experience for G-Suite migration.
compliance management	
organization	Click to view the status for all current migration batches. Status for all batches
protection	
mail flow	
mobile	
public folders	
unified messaging	
hybrid	

NAME	▲	STATUS	TOTAL	SYNCED	FINALIZED	FAILED
		There are no items to show in this view.				

Click to view the status for all current migration batches. Status for all batches

Migrate to Exchange Online	▲	STATUS	TOTAL	SYNCED	FINALIZED
Migrate from Exchange Online					
		There are no items to show in this view.			

New Migration Batch - Internet Explorer

https://outlook.**office365.com**/ecp/Migration/NewMigrationBatch.aspx?ActivityCorrelationID=18cc9f5c-75d8-6a08-dc69-ceed86203b4

new migration batch
Select a migration type

The migration type to use depends on your existing email system, how many mailboxes you want to migrate, and whether you plan to maintain some mailboxes in your on-premises organization or migrate them all to the cloud. You'll also want to consider how long the migration will take and whether user identity will be managed in your on-premises organization or in Office 365.

Learn more

◉ Remote move migration (supported by Exchange Server 2010 and later versions)
○ Staged migration (supported by Exchange Server 2003 and Exchange Server 2007 only)
○ Cutover migration (supported by Exchange Server 2003 and later versions)
○ IMAP migration (supported by Exchange and other email systems)
○ G Suite (Gmail) migration

Select this if you're planning an Exchange hybrid deployment with mailboxes both on-premises and in Exchange Online. If you plan to migrate all mailboxes to Exchange Online over a long period of time, this migration type lets you use hybrid deployment features during migration. After the migration, user identity will still be managed in your on-premises organization. You have to use this type of migration to migrate more than 2,000 Exchange 2010 or Exchange 2013 mailboxes.

Learn more

Next   Cancel

New Migration Batch - Internet Explorer

https://outlook.office365.com/ecp/Migration/NewMigrationBatch.aspx?ActivityCorrelationID=18cc9f5c-75d8-6a08-dc69-ceed86203b4

new migration batch

Select the users

You can either use a CSV file to specify the users you'd like to move, or you can select mailboxes
individually. Learn more

◉ Select the users that you want to move

+ —

DISPLAY NAME ▲	EMAIL ADDRESS

○ Specify the users with a CSV file

☐ Allow unknown columns in the CSV file

Browse...

0 mailboxes to migrate

Back   Next   Cancel

new mig   Select Mail User - Internet Explorer   — □ ×

Select the   https://outlook.office365.com/ecp//Pickers/MailUserPicker.aspx?ActivityCorrelationID=18cc9f5c-75d8-6a

You can eithe
individually. L

◉ Select the

+ —

DISPLAY N.	DISPLAY NAME ▲	EMAIL ADDRESS
	HealthMailbox-EX2019-005	HealthMailbox4e609791b3ff4f309c43148699ed8ec8@raml...
	HealthMailbox-EX2019-006	HealthMailbox659d011f15934de3bad22d3d39036df1@ra...
	HealthMailbox-EX2019-007	HealthMailbox92973a16b1274a63b546c632e9a68972@ra...
	HealthMailbox-EX2019-008	HealthMailbox6526cc99caf24a4a8dc254f38f4afb0b@ramla...
	HealthMailbox-EX2019-009	HealthMailboxe343172b0382490f87eb6fc706e4fe10@raml...
	HealthMailbox-EX2019-010	HealthMailbox9537ef96bc7142b89a521cdb99777a28@ra...
	HealthMailbox-EX2019-DB01	HealthMailbox185a0b40f67f4dc6b61311c7184ad9d9@ram...
	HealthMailbox-EX2019-Mailbox-Data...	HealthMailbox5cf9b7ca9a1a473db629d5e10f542f9a@raml...
	Noor	noor@ramlan.ca
	ParAdmin	Par@ramlan.ca
	Ram	ram@ramlan.ca
	Ram Lan	ramlan@infotechram.com

○ Specify th

☐ Allow u

1 selected of 21 total

0 mailboxes

add ->

OK   Cancel

new migration batch
Select the users

You can either use a CSV file to specify the users you'd like to move, or you can select mailboxes individually. Learn more

◉ Select the users that you want to move

➕ ➖

DISPLAY NAME ▲	EMAIL ADDRESS
Noor	noor@ramlan.ca

The selected users that you want to move.

○ Specify the users with a CSV file

☐ Allow unknown columns in the CSV file

Browse...

1 mailboxes to migrate

Back   Next   Cancel

---

new migration batch
Confirm the migration endpoint

The connection settings for this migration batch have been automatically selected based on the migration endpoints created in your organization. Learn more

Remote MRS proxy server:
The FQDN of the Exchange server that the Mailbox Replication Service (MRS) Proxy is on.

678ee8cd-abd4-4ffc-82d1-3cbd089a3d3a.resource.mailboxmigration.his.msappproxy.net

Back   Next   Cancel

https://outlook.office365.com/ecp/Migration/NewMigrationBatch.aspx?ActivityCorrelationID=18cc9f5c-75d8-6a08-dc69-ceed86203b4

new migration batch
Move configuration

These configuration settings will be applied to the new batch. Learn more

*New migration batch name:

Test Migration OnPremises

*Target delivery domain:

ramlan.mail.onmicrosoft.com

> The target delivery domain to use for mail routing at the end of the migration.

Archive:

◉ Move the primary mailbox and the archive mailbox if one exists

○ Move archive mailbox only, without moving primary mailbox
  This option is only valid for mailboxes on Exchange 2010 and above.

Entering bad/large item limits will prevent the batch from using DataConsistencyScore semantics. Leave these values blank to use the new default behavior. Learn more

Bad item limit:

Large item limit:

[Back] [Next] [Cancel]

---

https://outlook.office365.com/ecp/Migration/NewMigrationBatch.aspx?ActivityCorrelationID=18cc9f5c-75d8-6a08-dc69-ceed86203b4

new migration batch
Start the batch

A new migration batch will be created after you click new. The batch will be queued and processed within a few hours. Learn more

*After the batch is complete, a report will be sent to the following recipients. You must select at least one recipient to receive this report.

Ram   [×]   [Browse...]

Please select the preferred option to start the batch:
○ Manually start the batch later (by selecting it in the migration dashboard and then clicking Start)
◉ Automatically start the batch
○ Start the batch automatically after time:
   Sun 2020-08-02   7:30 AM

Please select the preferred option to complete the batch:
○ Manually complete the batch (by clicking the "Complete this migration batch" link on the right pane after the link becomes active)
◉ Automatically complete the migration batch
○ Complete the batch automatically after time:
   Sun 2020-08-02   7:30 AM

> Complete the batch as soon as it is ready.

[Back] [new] [Cancel]

information

Saving completed successfully.

OK

mailboxes   groups   resources   contacts   shared   **migration**

We have a simple wizard-based migration experience in the new Exchange admin portal. You can try to preview the experience for G-Suite migration. | Try it now |

Click to view the status for all current migration batches. Status for all batches

+ ▾ 🖊 🗑 ■ ↻ ⋯

NAME	STATUS	TOTAL	SYNCED	FINALIZED	FAILED
Test Migration OnPremises	Syncing	1	0	0	0

Test Migration OnPremises

Type: Exchange remote move
Direction: Onboarding
Status: Syncing

Mailbox status
Synced mailboxes: 0 of 1
Finalized mailboxes: 0 of 1
Failed mailboxes: 0
View details

Statistics
Created by:
Create time: 2020-08-02 11:42:52 AM
Start time: 2020-08-02 11:42:51 AM
Last synced time:

Associated endpoint
Hybrid Migration Endpoint - EWS (Default Web Site) | View details

If you want to change # of migration – here it is

🅔 Edit Migration Endpoint - Internet Explorer   —   □   ✕

https://outlook.office365.com/ecp/Migration/EditMigrationEndpoint.aspx?ActivityCorrelationID=241237cf-152a-(🔒

Hybrid Migration Endpoint - EWS (Default Web Site)

Migration endpoint:
Hybrid Migration Endpoint - EWS (Default Web Site)
*Associated administrator: Update
RAMLAN\Administrator
*Maximum concurrent migrations:
20   ✕

The maximum number of mailboxes that will have their data migrated at the same time.

*Maximum concurrent incremental syncs:
10

Save   Cancel

Final confirmation the mailbox is in Office 365 now

mailboxes   groups   resources   contacts   shared   **migration**

We have a simple wizard-based migration experience in the new Exchange admin portal. You can try to preview the experience for G-Suite migration. | Try it now |

Click to view the status for all current migration batches. **Status for all batches**

➕ ✏️ 🗑 ■ 🔄 ⋯

NAME	▲	STATUS	TOTAL	SYNCED	FINALIZED	FAILED	
Test Migration OnPremises		**Syncing**	**1**	**0**	**1**	**0**	

Test Migration OnPremises

Type: Exchange remote move
Direction: Onboarding
Status: Syncing
Data consistency score: Perfect

Mailbox status
Synced mailboxes: 0 of 1
Finalized mailboxes: 1 of 1
Failed mailboxes: 0
View details

Statistics
Created by:
Create time: 2020-08-02 11:42:52 AM
Start time: 2020-08-02 11:42:51 AM
Last synced time: 2020-08-02 11:44:49 AM

▣ Enterprise   **Office 365**

Exchange admin center

dashboard
recipients
permissions
compliance management
organization
protection
mail flow
mobile
public folders
unified messaging
hybrid

mailboxes   groups   resources   contacts   shared   migration

We're simplifying and updating the mailbox management experience and would love to get your feedback. Tell us what you like, what we can do better, and what you'd like to see next.

✏️ 🔍 🔄 ⋯

DISPLAY NAME	MAILBOX TYPE	EMAIL ADDRESS	▲
Lan Ram	User	lanram@ramlan.mail.onmicrosoft.com	
Noor	**User**	**noor@ramlan.ca**	

▣ **Enterprise**   Office 365

Exchange admin center

recipients
permissions
compliance management
organization
protection
mail flow
mobile
public folders
servers
hybrid

mailboxes   groups   resources   contacts   shared   migration

➕ ✏️ 🗑 🔍 🔄 ⋯

DISPLAY NAME	▲	MAILBOX TYPE	EMAIL ADDRESS
Administrator		User	Administrator@ramlan.ca
agpmsvc		User	agpmsvc@ramlan.ca
Allan		User	allan@ramlan.ca
Devon		User	devon@ramlan.ca
Ex Admin		User	exadmin@ramlan.ca
Lan Ram		Office 365	lanram@ramlan.mail.onmicrosoft.com
Noor		**Office 365**	**noor@ramlan.ca**
ParAdmin		User	Par@ramlan.ca
Ram		User	ram@ramlan.ca
Ram Lan		User	ramlan@infotechram.com

Let me assign Microsoft 365 license for this user

Microsoft 365 admin center   🔔 ⚙️ ? Ram Lan RL

☰

🏠 Home

👤 Users   ⌄

	Lan Ram	⋮	lanram@RAMLAN.CA	Microsoft 365 Business Standard, Power BI (free), Microsof	🗐
✓	Noor	🔍 ⋮	noor@RAMLAN.CA	Unlicensed	🗐
	OMAA	⋮	OMAA@RAMLAN.CA	Unlicensed	🗐

↻   ✕

Noor

NO

🔑 Reset password   ⊘ Block sign-in   👤ₓ Delete user

Account   Devices   Licenses and Apps   Mail   OneDrive

Username
noor@RAMLAN.CA
Manage username

Last sign-in
Failure
July 30, 2020 10:28 AM
View last sign-in

Sign-out ⓘ

Sign-out of all Office 365 sessions.
Initiate sign-out

Groups
DSSSupport
RAMLAN INC

Manage groups

Roles
Exchange admin
Manage roles

Contact information
Display Name
Noor

First Name
Noor

Phone number
Manage contact information

Last Name

NO Noor

Reset password Block sign-in Delete user

Account   Devices   **Licenses and Apps**   Mail   OneDrive

ⓘ Due to increased demand, it might take up to 24 hours to fully set up Noor in Teams. Until then, you won't be able to assign Teams policies to them, and they might not have access to Teams features like calling and audio conferencing. Check status

Select location *

Canada

Licenses (3)

☑ **Microsoft 365 Business Standard**
0 of 2 licenses available

☑ **Microsoft Teams Exploratory**
96 of 100 licenses available

☑ **Power BI (free)**
Unlimited licenses available

Save changes

⊞ Microsoft 365 admin center

≡

⌂ Home

👤 Users   ⌄

   Active users

   Contacts

HealthMailbox-EX2019-DB01	⋮	HealthMailbox185a0b40f67f4dc6b61311c7184ad9d9@RAI	Unlicensed	
HealthMailbox-EX2019-Mailbox-Da...	⋮	HealthMailbox5cf9b7ca9a1a473db629d5e10f542f9a@RAN	Unlicensed	
Lan Ram	⋮	lanram@RAMLAN.CA	Microsoft 365 Business Standard, Power BI (free), Microsoft	
Noor	🔍 ⋮	noor@RAMLAN.CA	Microsoft 365 Business Standard, Power BI (free), Microsoft	
OMAA	⋮	OMAA@RAMLAN.CA	Unlicensed	

NO Noor

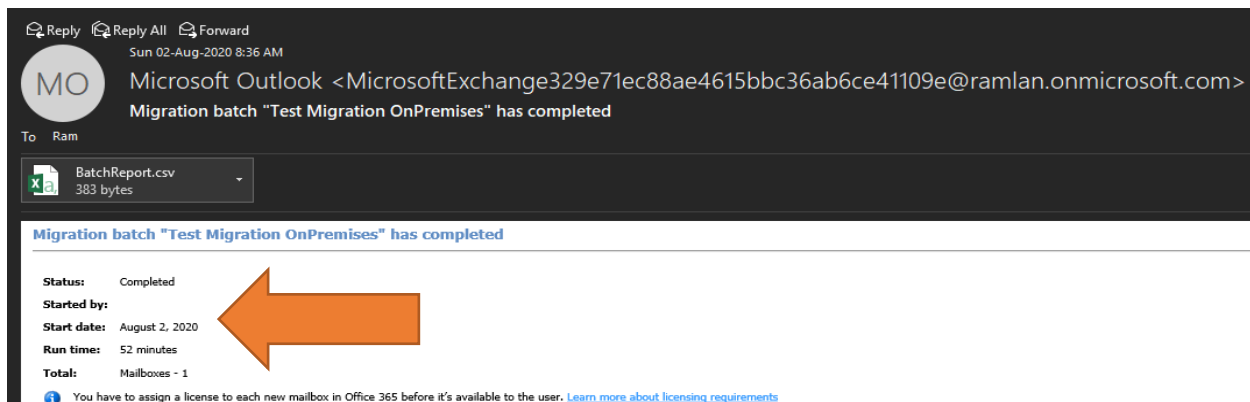Reset password Block sign-in Delete user
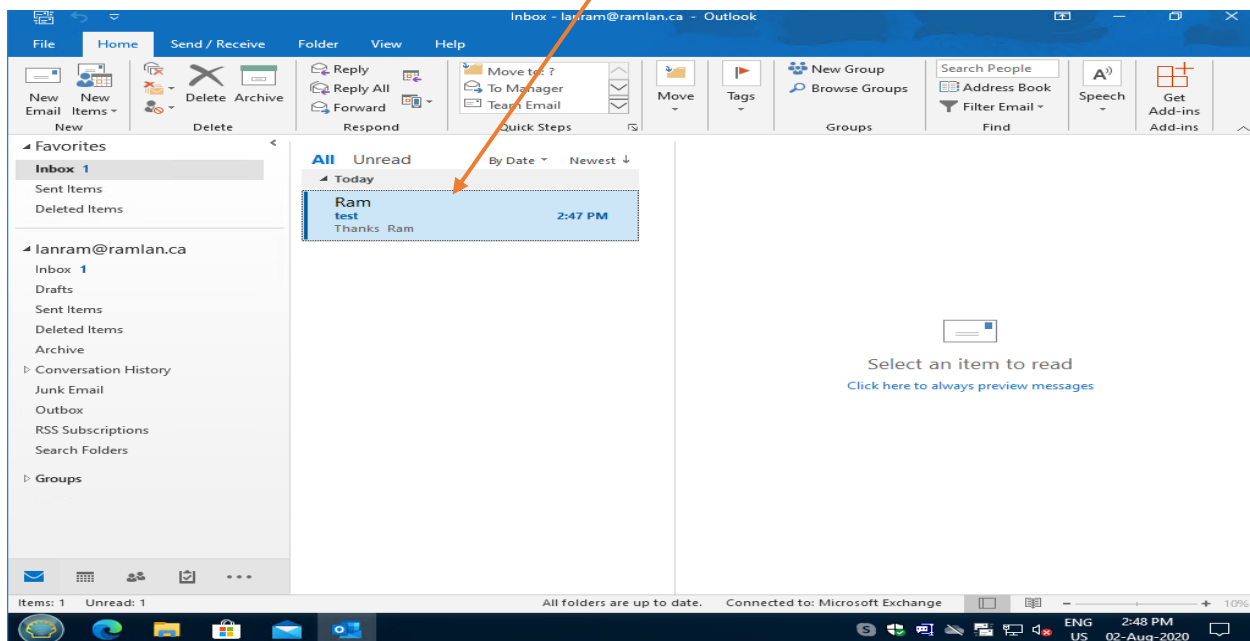
Account   Devices   Licenses and Apps   **Mail**   OneDrive

ⓘ We are preparing a mailbox for the user.
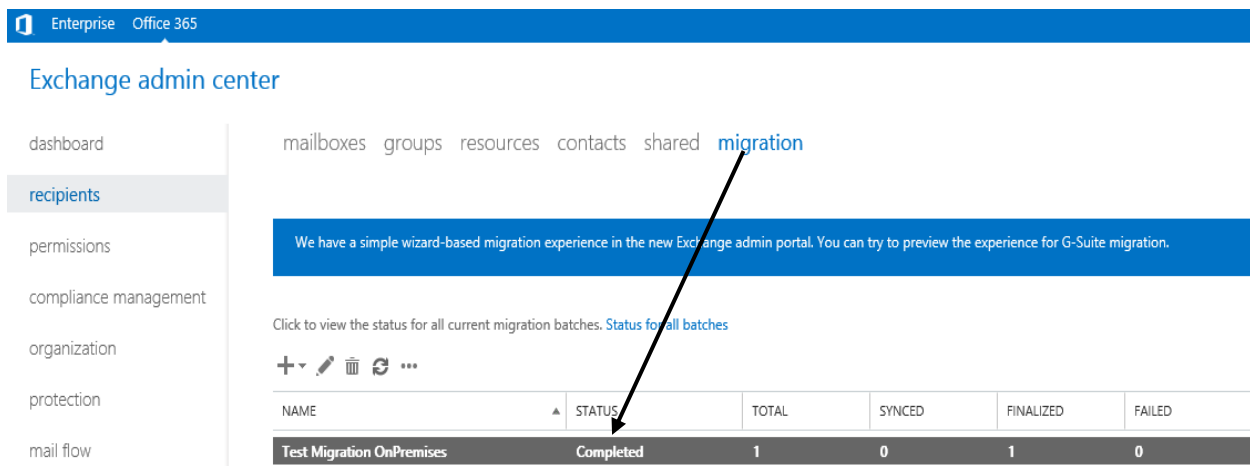
Test email sent from Ram (On-Premises) to Lan Ram (Office 365 user) received.

I am not having any issue with mail flow from On-Premises to Office 365 and from Office 365 to On-Premises. This concludes Hybrid setup.

Now, I will run through few things you can do on Hybrid setup. The message trace is a good one to troubleshoot when there is issue send or receiving emails within Office 365.

As an administrator, you can find out what happened to an email message by running a message trace in the Exchange admin center (EAC). After running the message trace, you can view the results in a list, and then view the details about a specific message. Message trace data is available for the past 90 days.

Fill in the details and you can get the report.

This concludes Exchange Server 2019 Hybrid Configuration Wizard (HCW) with Microsoft 365 (O365) Exchange Online (EAO).

Thanks

Ram Lan
2nd August 2020