TPR Onboarding Process

Microsoft Refurbisher product may only be acquired in the MAR Program, which requires a refurbisher to sign an agreement with a Microsoft Authorized Refurbisher partner and onboard as a Third Party Refurbisher.

MICROSOFT CONFIDENTIAL – SHARED UNDER NDA ONLY

Third Party Refurbisher (TPR)

Third Party Refurbisher license terms for Windows Products includes the following.

- ❑ TPR may refurbish Windows devices that meet the following criteria:
  - ✓ Devices must be used and previously had a genuine Windows product installed,
  - ✓ Devices must have been in distribution at least 6 months,
  - ✓ Device hard drive must be data wiped, and
  - ✓ Devices must be appropriately refurbished and tested.
- ❑ Pre-install genuine Windows software on Refurbished devices;
- ❑ TPRs may **not** distribute Microsoft Product standalone – Product may **only** be distributed pre-installed on eligible devices**.**
- ❑ TPR's must adhere to terms and conditions of the MAR Program as per the agreement with the MAR. Terms of the MAR Program are provided by the MAR with whom you choose to do business. The MAR is responsible for managing TPRs, onboarding, licensing, imaging, operations, etc.
- ❑ TPRs must provide reporting required by Microsoft, through their MAR, and has a continued relationship with Microsoft, which will be a third party beneficiary of the TPR / MAR license terms.
- ❑ A TPR may have agreements with more than one MAR.

MICROSOFT CONFIDENTIAL – SHARED UNDER NDA ONLY

TPR Onboarding Fundamentals

MAR partners purchase keys and assign to TPR → TPR receive keys from upper level (MAR Partner) → TPR receive keys at the factory → To proceed with manufacturing

Two main actions needed for TPR to complete onboarding

What do I need to receive keys

- You need to have an account called DOC (Digital Operations Center) under OA centralized IDH access.
- DOC is a cloud platform where you can access anywhere with network and browser.

How do I obtain DOC account?

- Your Upper Level (MAR Partner) will submit request to appoint you as their TPR under OA Centralized model .
- Once the request is approved, you will receive activation emails that contain instructions to activate your DOC
- AAD is required as your DOC login email (refer Slide 6 ~ 19)

Why do I need DOC account?

- Your DOC will act as a cloud platform to receive keys assigned by your MAR partners, and you to assign to MDOS Smart Client on the factory floor, so that you can configure and inject them

Where can I learn how to setup my DOC after I activate it

- Refer to Slide 20 ~ 24 for completing business setup so that you can start to receive keys
- Refer to Slide 25 ~ 27 for creating a FFKI in order to assign key to your factory

What do I need to receive keys

- You will need to install MDOS Smart Client (MSC) on the factory floor in order to receive keys assigned from your DOC.

How do I obtain MDOS Smart Client installation link?

- You will create an OA FFKI Contact Type in DOC
- After the creation, the FFKI email you populate will receive emails that contains MDOS Smart Client Installation link
- AAD is required as your FFKI email (refer Slide 6 ~ 19 for details)

Why do I need to install MSC?

- To receive keys assigned by your DOC. Our MSC acts as a receiver center from your DOC to factory

Where can I learn how to install MSC

- Refer to Slide 28 ~ 29

TPR Onboarding Steps

Stage	Action from MAR	Action for TPR
Account activation	MAR creates OA Centralized contact for TPR	TPR will receives activation link and PIN where activation needs to be completed before you can login using the default link of DOC. *For TPR that uses Free AAD please refer to Slide 5 for further action needed.
	NA	TPR logs into DOC, accept MAR's business relationship in MDOS
	NA	TPRs create a down level site to connect to factory
Factory Onboarding	NA	TPR down level receive MDOS Smart Client (MSC) emails containing installation package
	NA	TPR prepare a server to install MSC. Complete MSC installation and login to MSC.
Keys Assignment	MAR place order and assign key to TPR's DOC	TPR assign keys from DOC and to MSC The keys that MAR assigned will flow automatically into TPR's DOC.
Factory Floor process	NA	TPR to complete the factory manufacturing phase
GML	NA	TPR to adhere Microsoft Genuine Refurbisher Label
CBR Reporting	NA	Submit CBR from MSC to TPR's DOC
	NA	Submit CBR from TPR's DOC to MAR's DOC
	MAR submit CBR from DOC to Microsoft	NA

TPR Onboarding Checklist

Stage	Owner	Action for TPR	Completed (Y / N)	Details
Account activation	TPR	TPR receives activation emails DOC containing activation link and PIN. TPR needs to complete the activation process.		TPR needs to share an AAD email for MAR partner to complete the OA centralized request. If you do not have an AAD email, you can create a Free AAD. Please refer to Slide 6 ~ 19. For TPRs that uses Free AAD email that does not have inbox capability, please contact your MAR partners to reach out to msoemops and obtain the activation link + PIN. After that please request your MAR partner to share to you in order to complete the account activation.
	TPR	TPR logs into DOC, accept MAR's business relationship in MDOS		Please refer to Slide 20 ~ 24 for step-by-step guidance.
	TPR	TPR creates a down level site to connect to factory		Please refer to Slide 25 ~ 27 for step-by-step guidance.
Factory Onboarding	TPR	TPR down level receives MDOS Smart Client (MSC) emails containing installation package		Please refer to Slide 28 for step-by-step guidance.
	TPR	TPR prepares a server to install MSC. Complete MSC installation and login to MSC.		Please refer to Slide 29 for step-by-step guidance.
Keys Assignment	TPR	TPR assigns keys from DOC and to MSC *The keys that MAR partners assigned from their DOC will flows automatically into TPR's DOC.		Please refer to Slide 30 ~ 31 for step-by-step guidance.
Factory Floor process	TPR	TPR to complete the factory manufacturing phase		Please refer to Slide 32 ~ 37 for step-by-step guidance
GML	TPR	TPR to adhere Microsoft Genuine Refurbisher Label		Please refer to Slide 38 for GMRL Overview
CBR Reporting	TPR	TPR submit CBR from MSC to TPR's DOC		Please refer to Slide 39 ~ 41 for step-by-step guidance.
	TPR	Submit CBR from TPR's DOC to MAR's DOC		Please refer to Slide 42 ~ 52 for step-by-step guidance.

Azure Active Directory

Users are required to login to OEM applications using an Azure Active Directory (AAD) login.

This is normally your work email address e.g. kelly@contoso.com If you are not sure then there are a few things you should check before proceeding:

1. Does your company have an AAD Tenant?
   - Your local IT Department will confirm this for you
   - If you do have an AAD Tenant, then you will need to contact the AAD Global Administrator:
     - To find out what your AAD Email Address is
     - To ensure that your AAD email address is included in your companies Azure Active Directory
     - To find out what your AAD Password is

   - If you are not sure who your AAD Global Admin is the steps to find that person are included in the appendix

   - If your company does not have an AAD Tenant then they will need to create one, information on how to do this is available on the Azure Portal https://azure.microsoft.com/en-us/overview/
   - Further documentation can be assessed here https://docs.microsoft.com/en-us/azure/active-directory/

Note: You can select either Work email AAD or Free AAD as your account's login.
To use your Work email , please check with local IT Department and ensure your email is an AAD.
To create a Free AAD, please refer to slide 7 ~ 17

AAD Options - Detailed

There are 4 different AAD options which are detailed below

	FREE	OFFICE 365 APPS	PREMIUM P1	PREMIUM P2
Core Identity and Access Management				
Directory Objects	500,000 Object Limit	No Object Limit	No Object Limit	No Object Limit
Single Sign-On (SSO)	up to 10 apps	up to 10 apps	unlimited	unlimited
User provisioning	✓	✓	✓	✓
Federated Authentication (ADFS or 3rd party IDP)	✓	✓	✓	✓
User and group management (add/update/delete)	✓	✓	✓	✓
Device registration	✓	✓	✓	✓
Cloud Authentication (Pass-Through Auth, Password Hash sync, Seamless SSO)	✓	✓	✓	✓
Azure AD Connect sync (extend on-premises directories to Azure AD)	✓	✓	✓	✓
Self-Service Password Change for cloud users	✓	✓	✓	✓
Azure AD Join: desktop SSO & administrator bitlocker recovery	✓	✓	✓	✓
Password Protection (global banned password)	✓	✓	✓	✓
Multi-Factor Authentication	✓	✓	✓	✓
Basic security and usage reports	✓	✓	✓	✓

	FREE	OFFICE 365 APPS	PREMIUM P1	PREMIUM P2
Business to Business Collaboration				
Azure AD features for guest users	✓	✓	✓	✓
Identity & Access Management for Office 365 apps				
Company branding (customization of logon & logout pages, access panel)		✓	✓	✓
Self-service password reset for cloud users		✓	✓	✓
Service Level Agreement (SLA)		✓	✓	✓
Device write-back (device objects two-way synchronization between on-premises directories and Azure)		✓	✓	✓

Visit this page for more details on Premium AAD editions

AAD Support

1. Raise a ticket on the Azure Portal https://portal.azure.com/#blade/Microsoft_Azure_Support/HelpAndSupportBlade/newsupportrequest

2. Telephone Support: https://support.microsoft.com/en-us/help/4051701/global-customer-service-phone-numbers?ocid=IA-4027136-AdminCU

3. Live chat: https://support.microsoft.com/en-us/contactus/?ocid=IA-4027136-CU

4. The M365 Data Protection team can help admins who need support with password reset. Call (800) 865-9408 (toll-free, US only). If you're outside the United States, see the Global Support Phone Numbers.

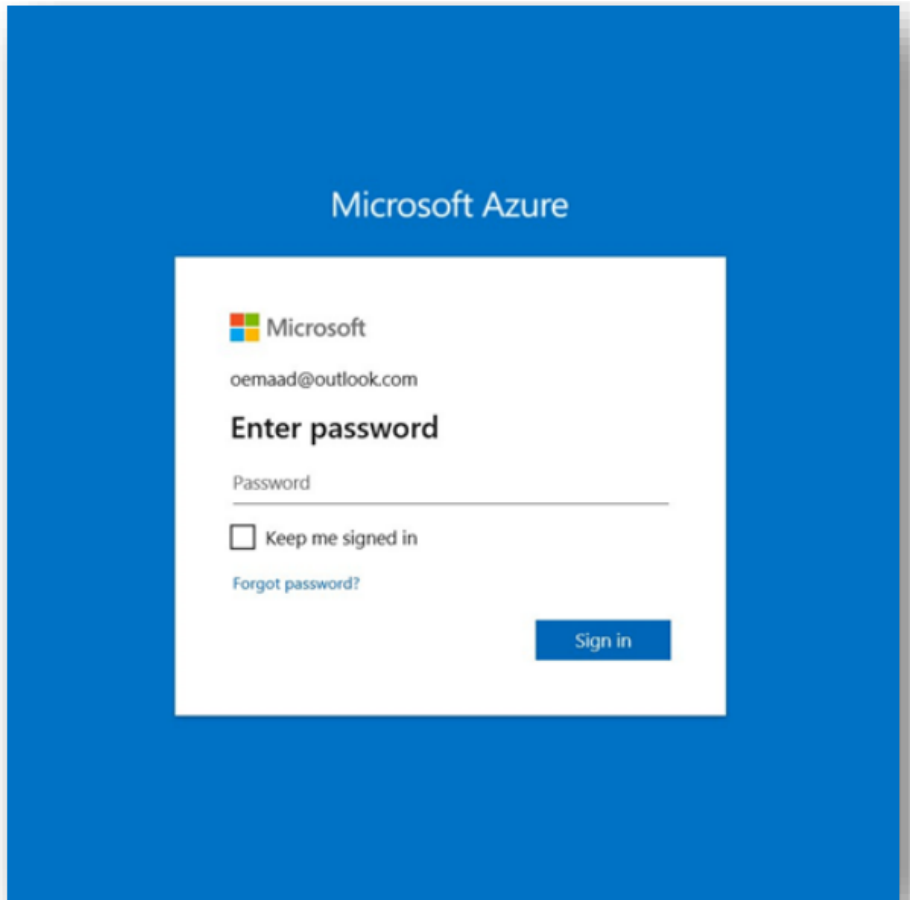
Microsoft

How to Create a Free AAD

Create the Tenant – Step 1

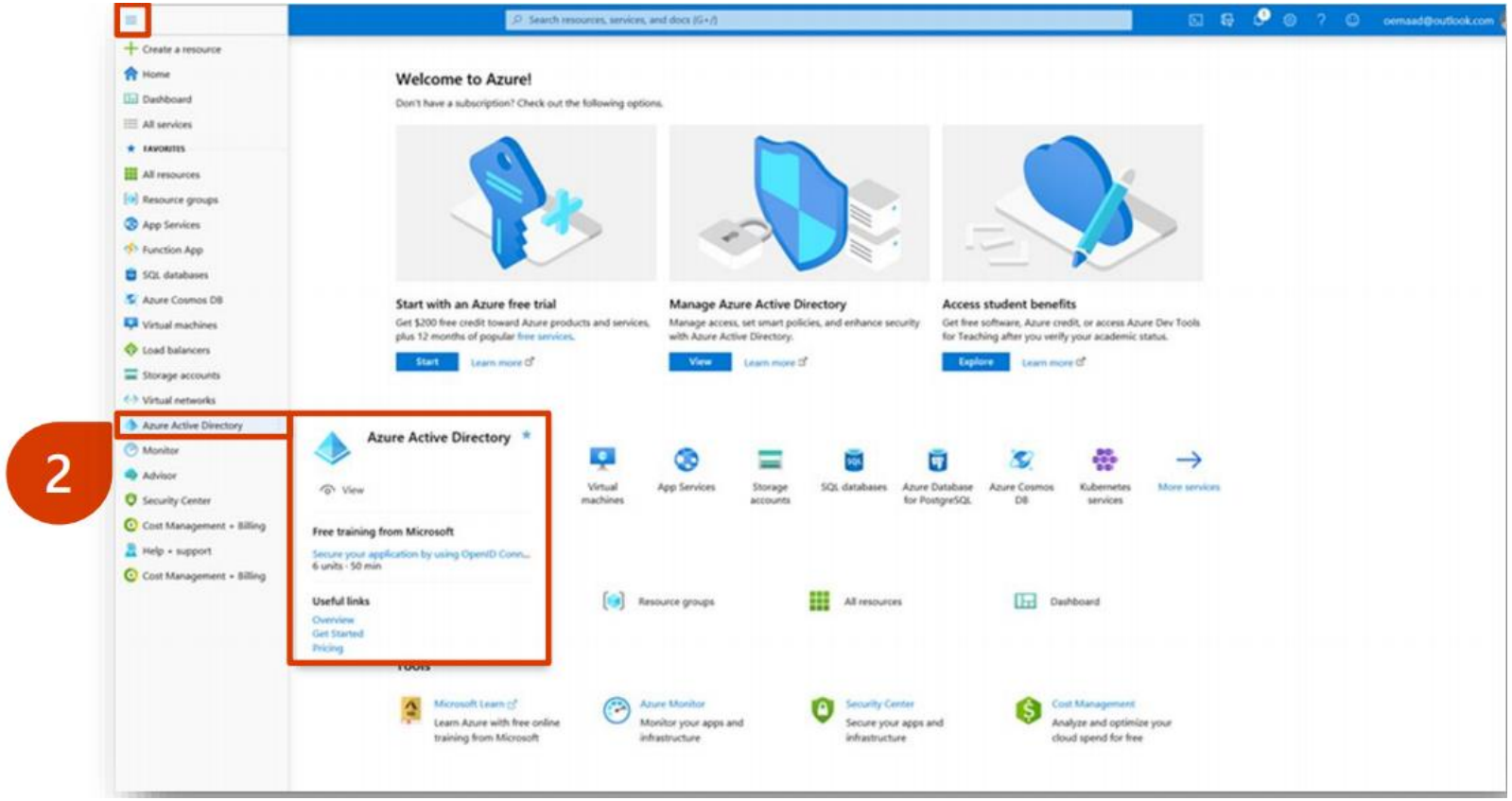
To create a Free AAD email, there are two steps involved: Create a Tenant and Create a User

1. Sign into the Azure portal



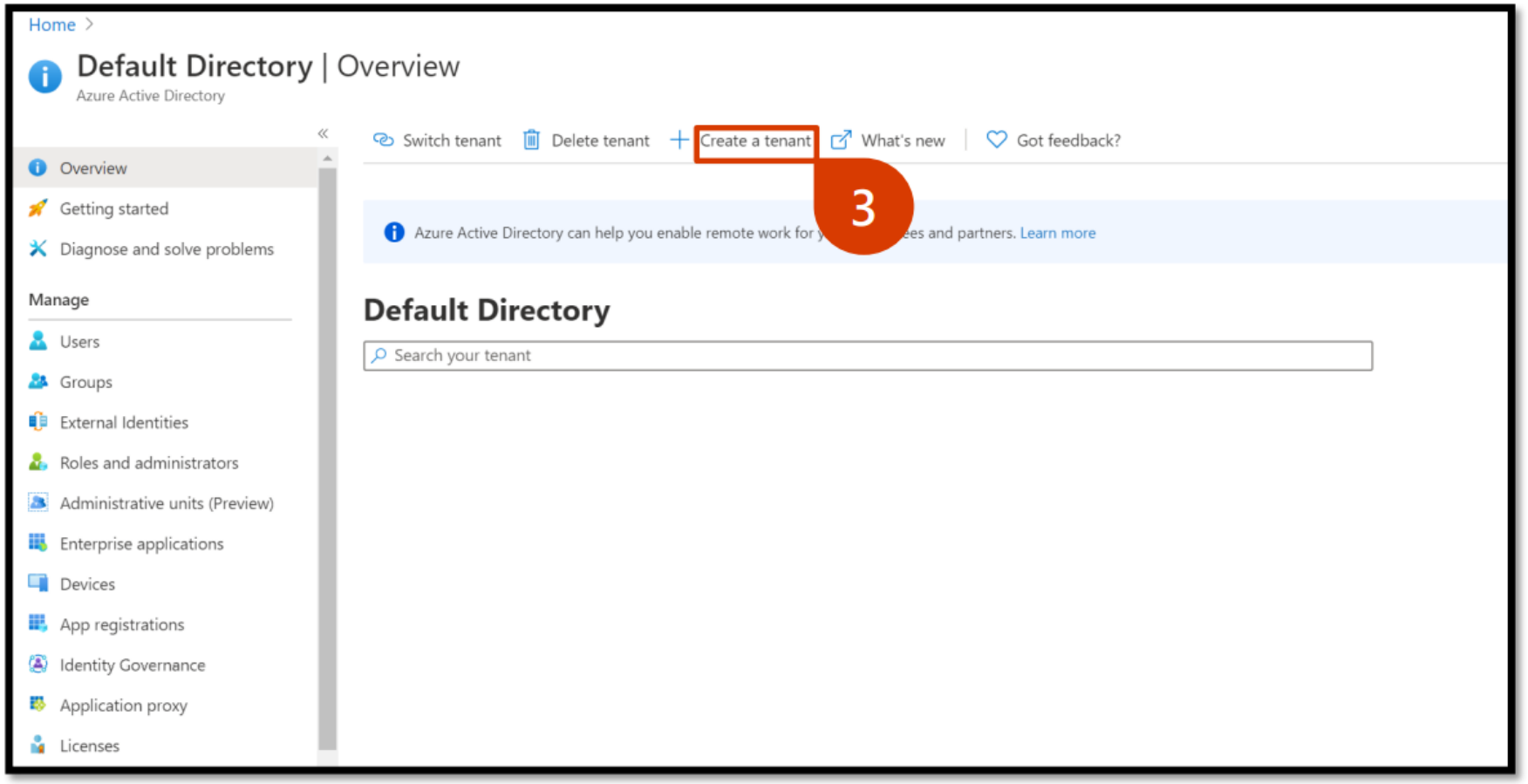
Create a Tenant – Step 1

2. Select Azure Active Directory on the home page



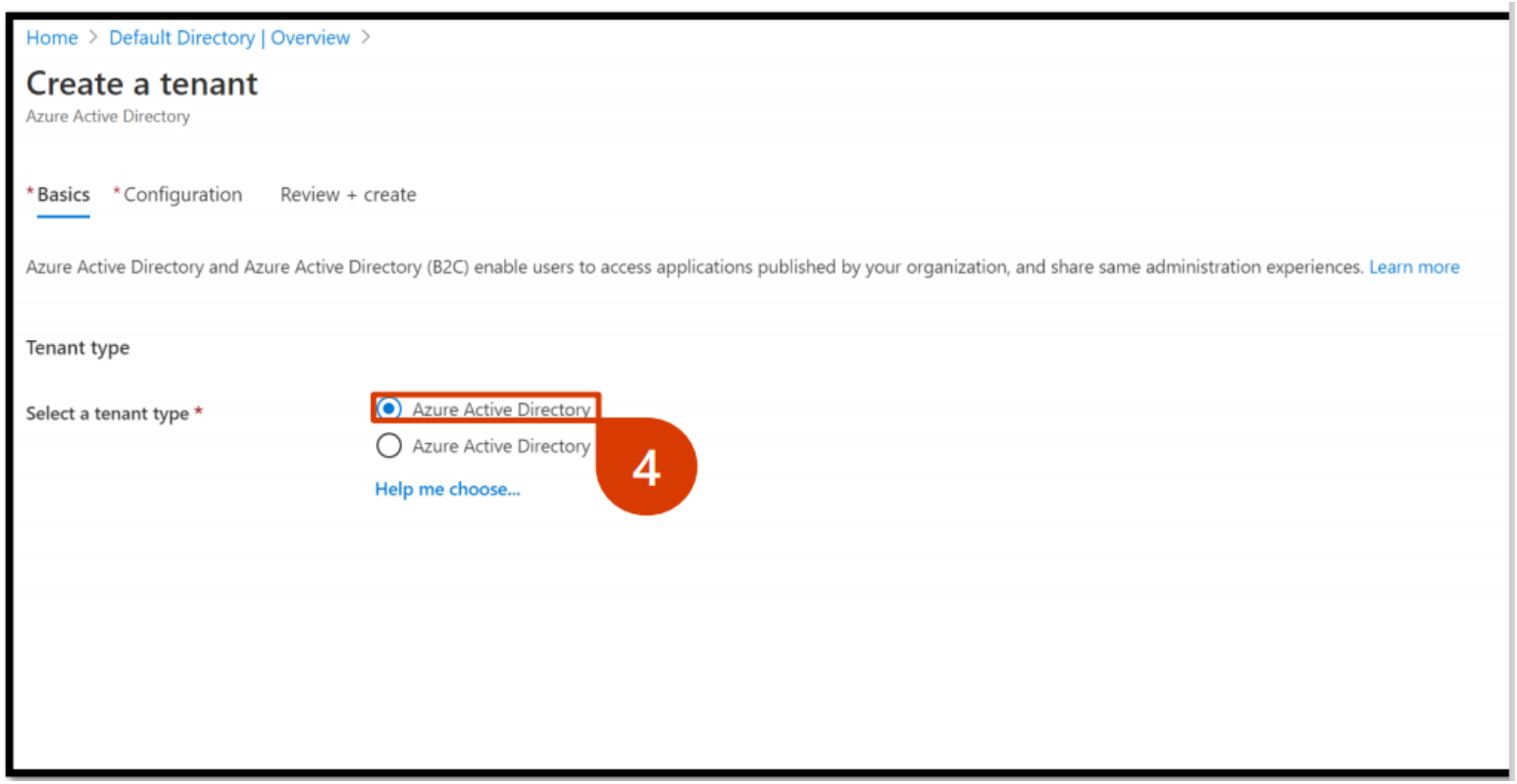
Create a Tenant – Step 1

3. Select Create a tenant



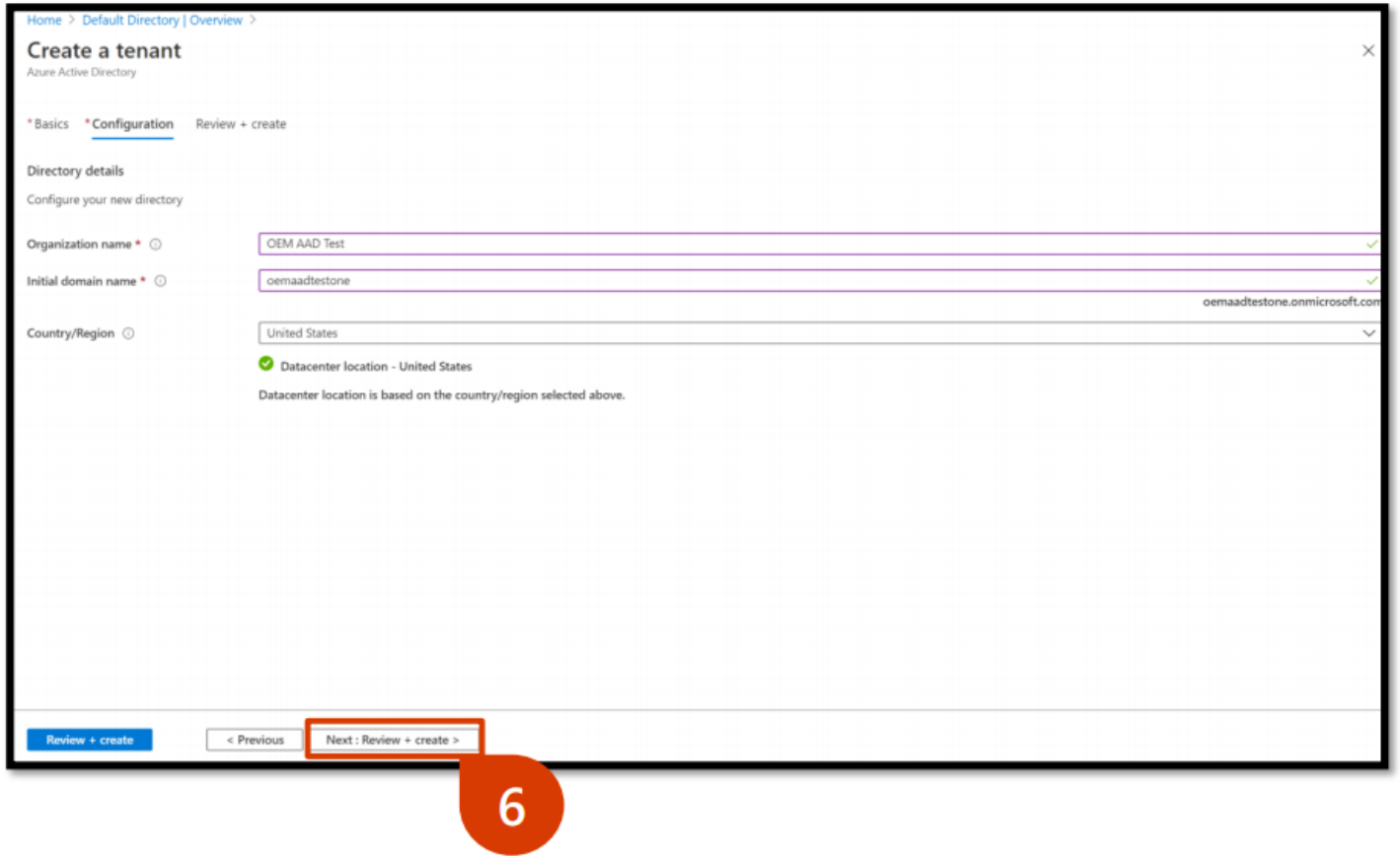
Create a Tenant – Step 1

4. Net to Select a tenant type, select the radio button for Azure Active Directory. (No subscription is required for this option)



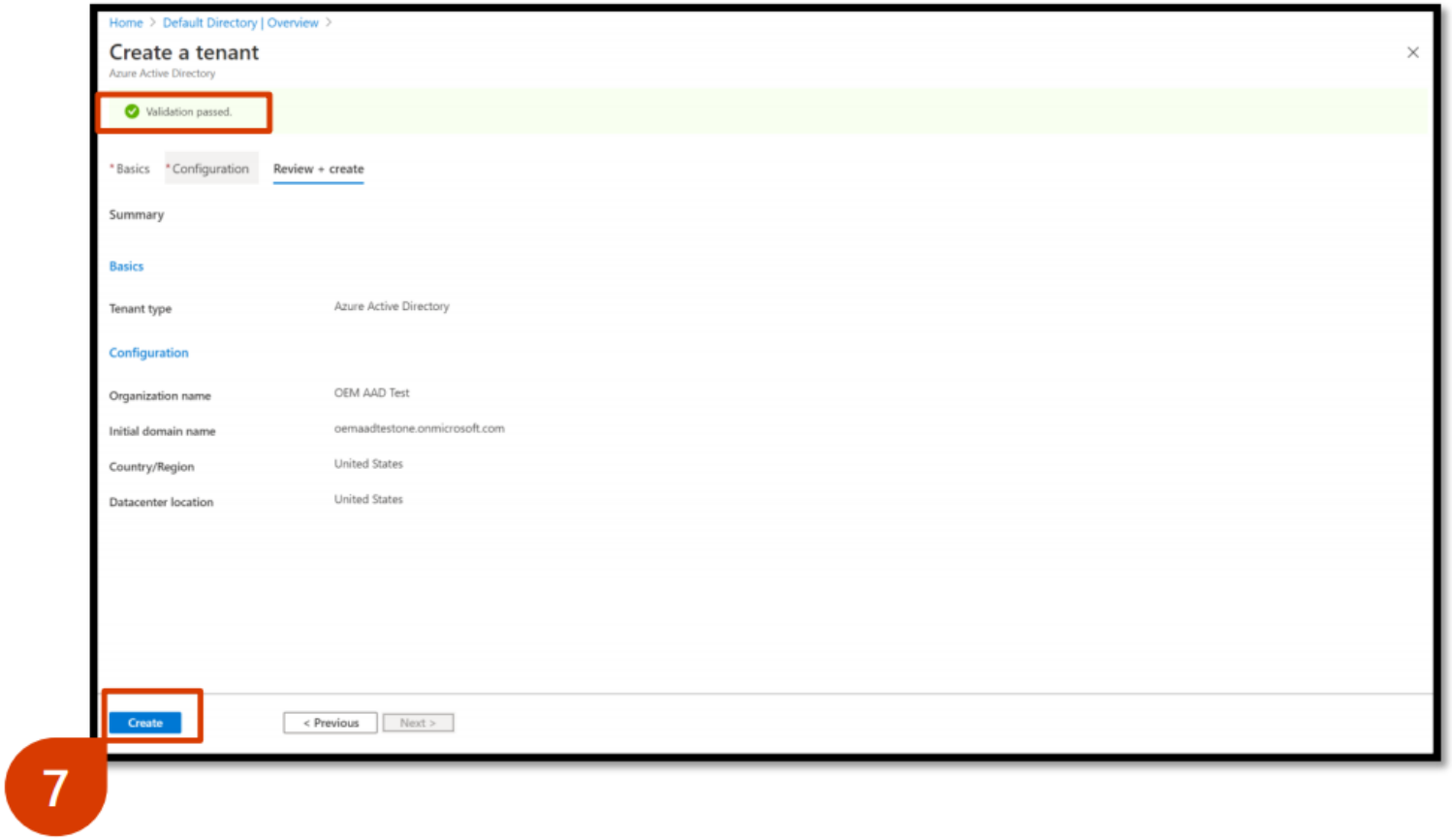
Create a Tenant – Step 1

5. Enter your Organization name, Initial Domain name, and country of incorporation.
6. Select Next: Review + Create >. The initial domain will be set up as domainname.onmicrosoft.com



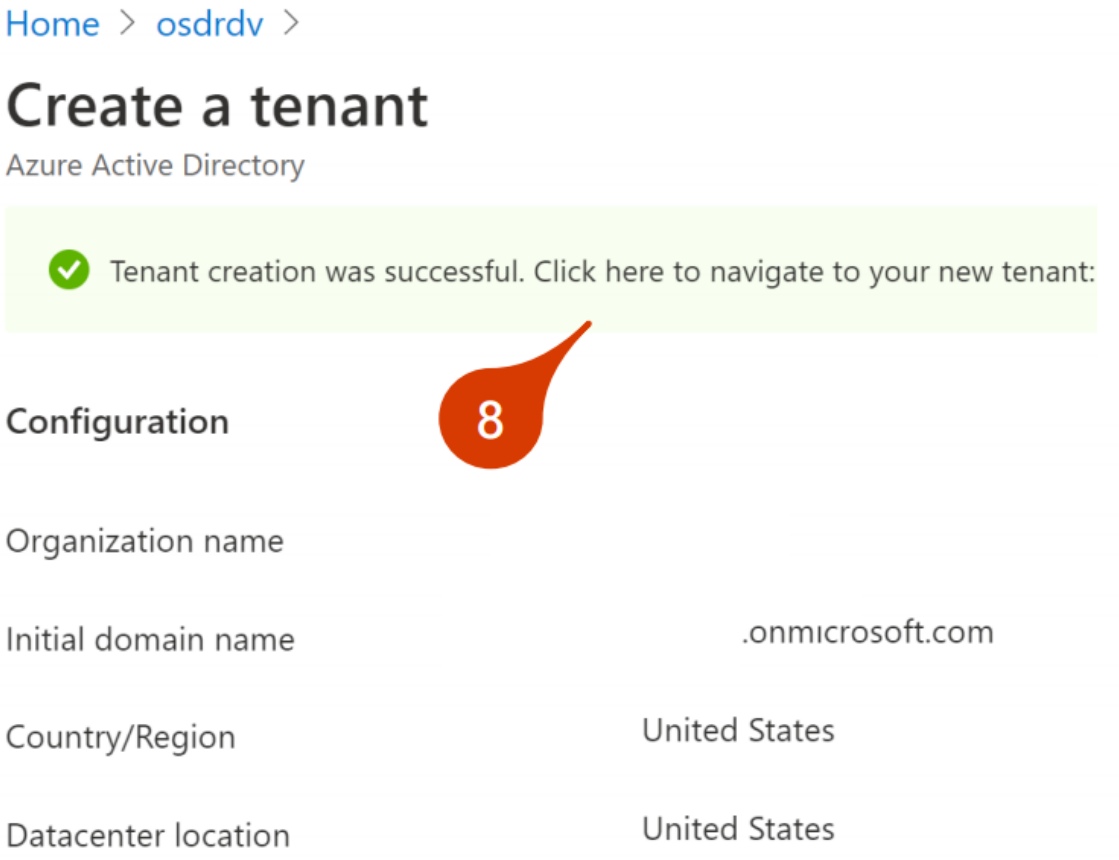
Create a Tenant – Step 1

7. A message stating Validation passed message will be displayed. Select Create.



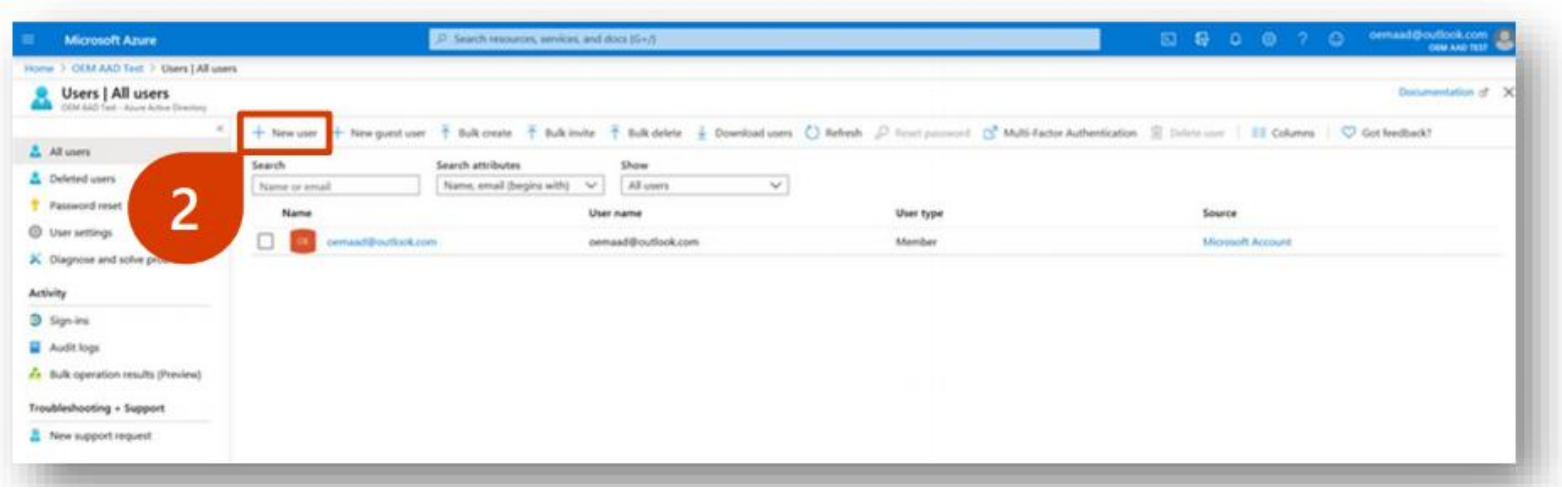
Create a Tenant – Step 1

8. Wait for 5~10 minutes and your tenant is created.
9. Click on the link to go to the homepage where you can add users



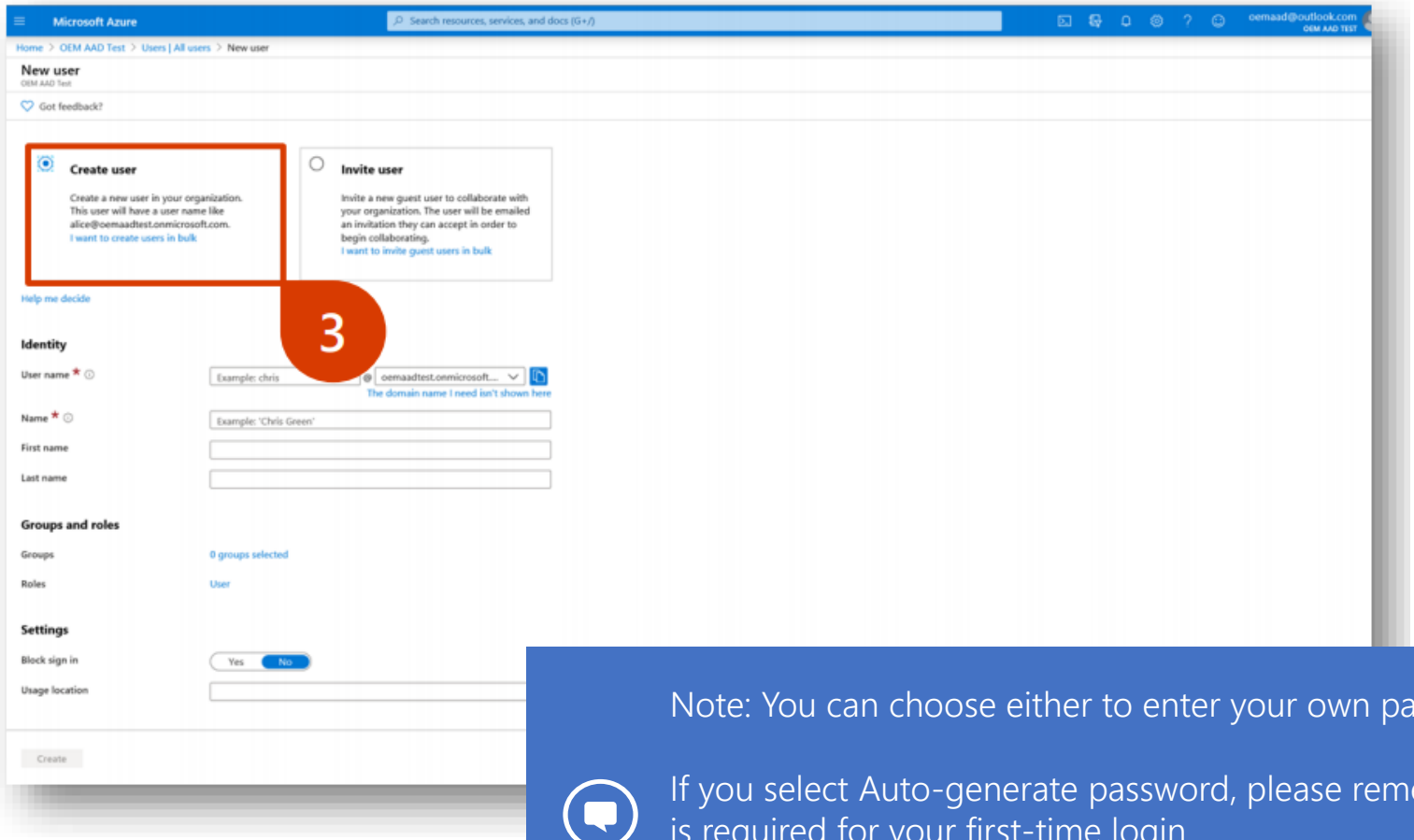
Create a User – Step 2

1. On the Azure Active Directory page, select All Users to view all the users in the directory
2. Select + New User to create a new user account.



Create a User – Step 2

3. Select the Create User option.
4. Fill in the details for the new user.



Note: You can choose either to enter your own password, or Auto-generate.

If you select Auto-generate password, please remember the password as it is required for your first-time login.
And you will be prompted to update a new set of password upon first time login.

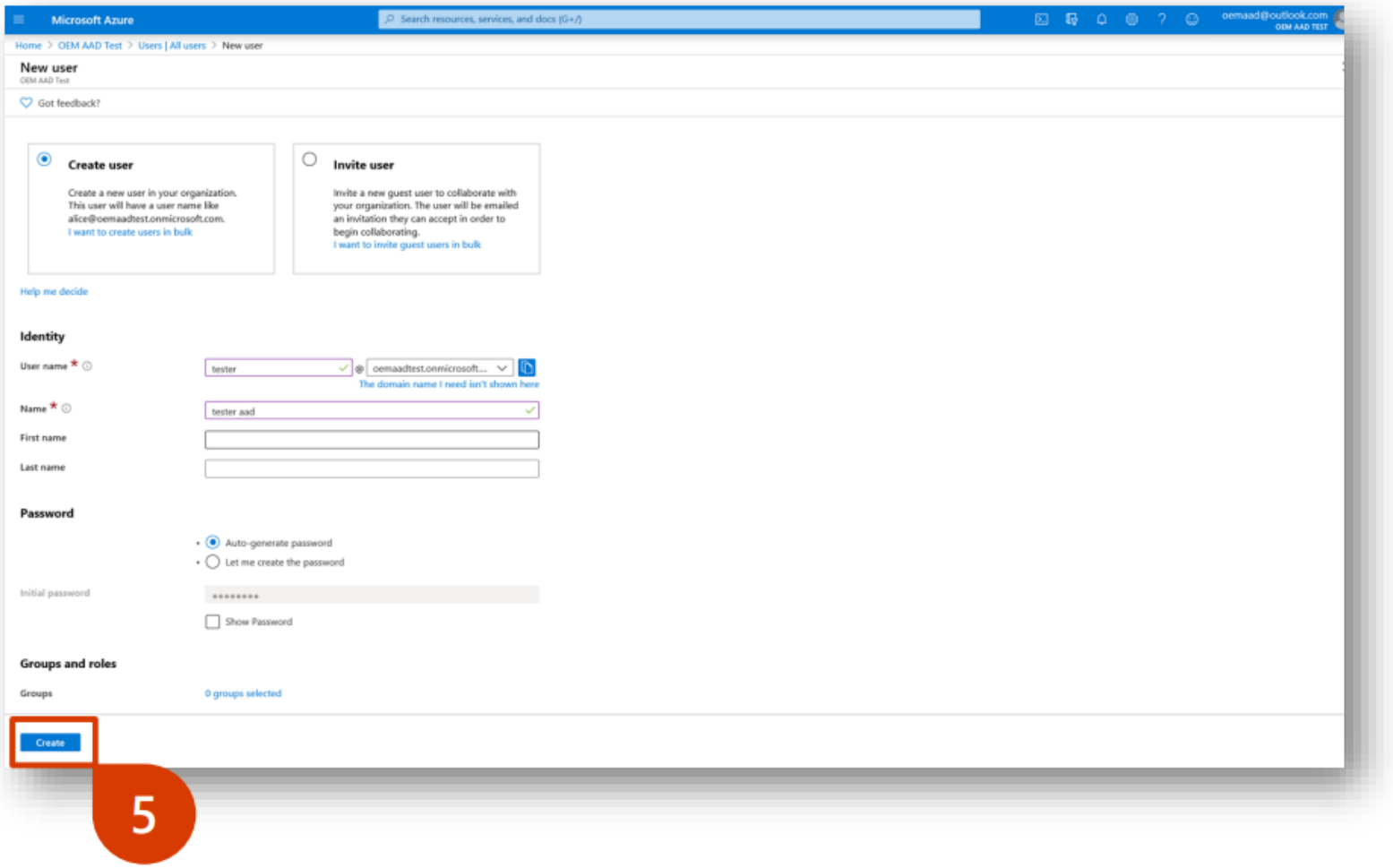
Create a User – Step 2

5. Select Create.

Note: For Free versions of AAD, the user account will be set up as username@domain.onmicrosoft.com

Now, the user can provide this login to their MAR partner for TPR set up.

As the Free AAD subscription does not provide an inbox to the user the TPR should also provide an alternative company email to their MAR to ensure critical onboarding activation links and ongoing information is received.



Microsoft

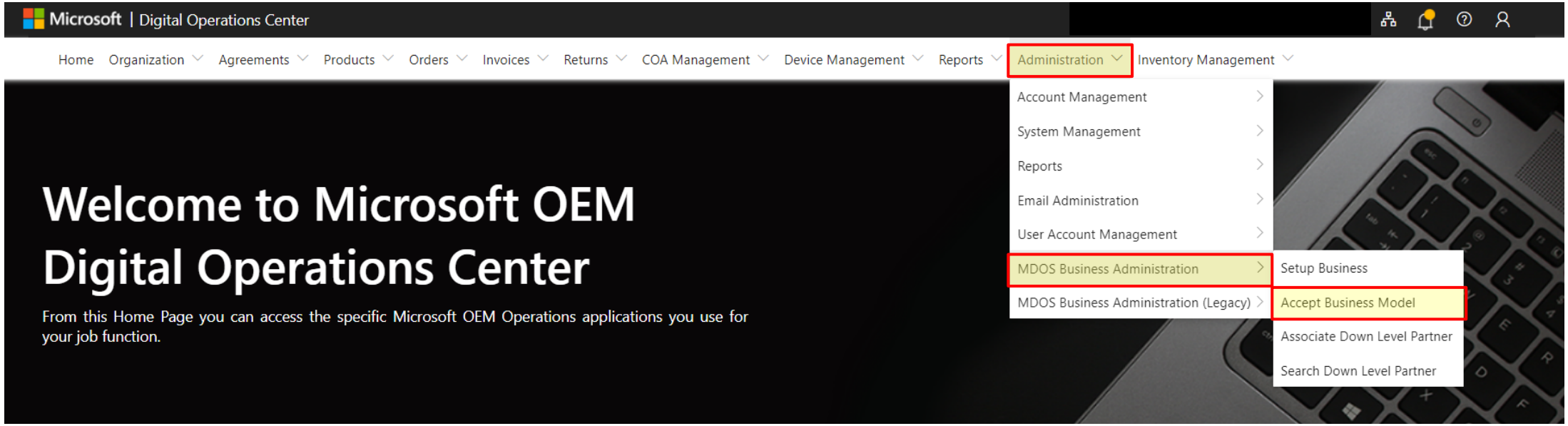
TPR Onboarding Technical overview

Accepting a Business Model

MDOS on DOC Business Administration

Accepting a Business Model

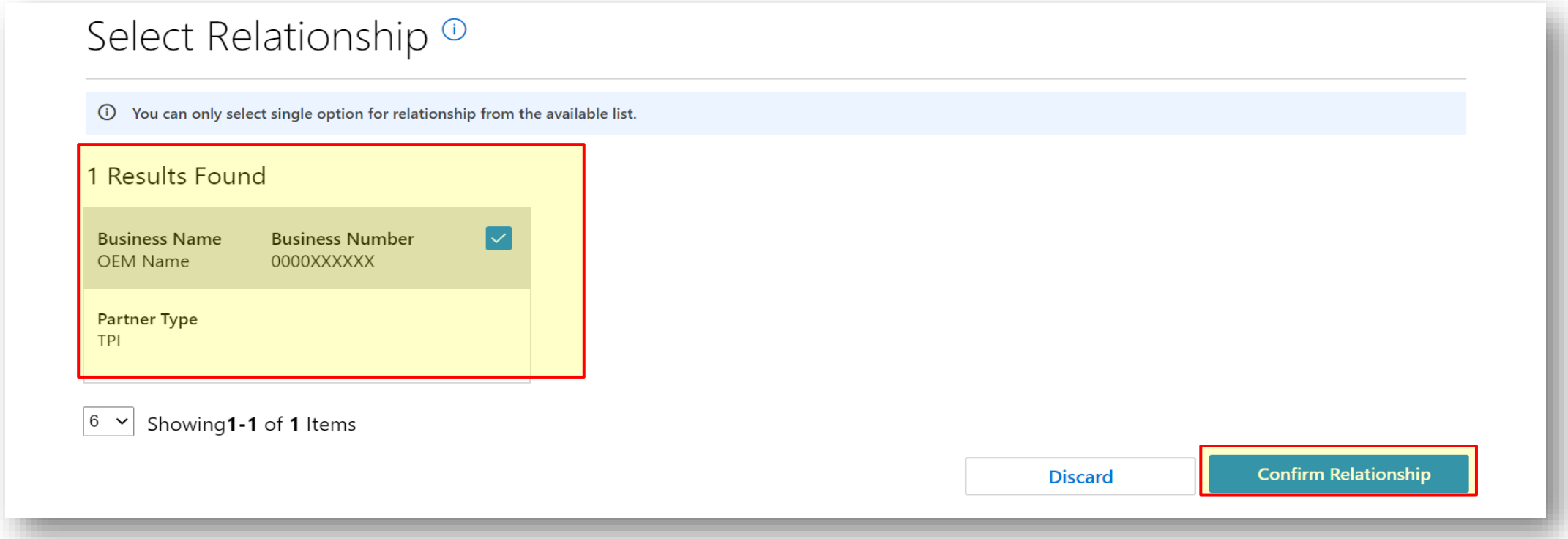
- Log into DOC at www.microsoftoem.com
- Select Administration > MDOS Business Administration > Accept Business Model



Note: This action is to accept invitation from upper level, which is your MAR partner in order to complete the connection between both parties.
Once this action is completed, you can start to receive keys assigned by your upper level (MAR partner)

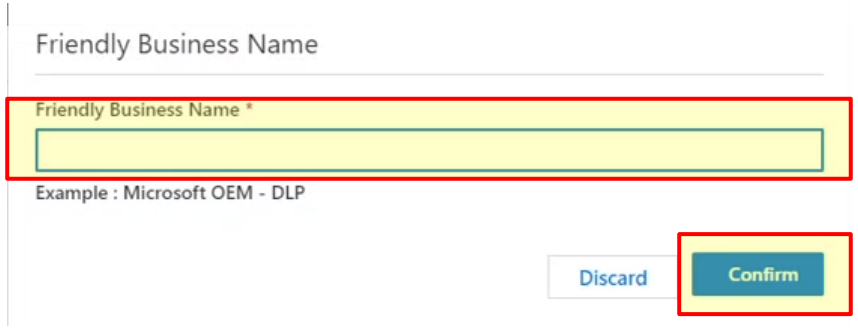
Accepting a Business Model

- Available pending relations will be displayed
- Select the relationship card and click Confirm Relationship to proceed.

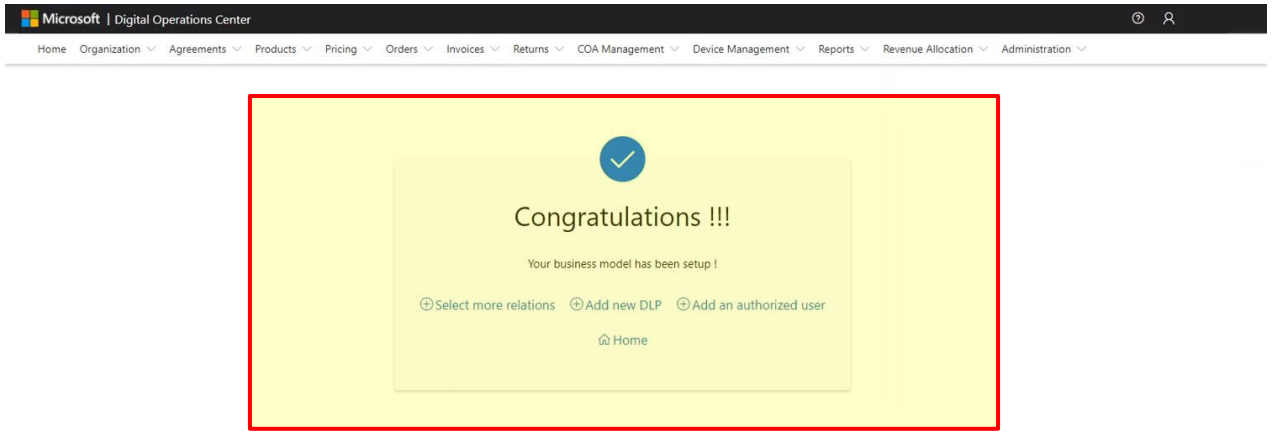


Accepting a Business Model

- Upon the first-time login, the Subcontractor/ Down level Partner can provide a ‘friendly name’ for the business model and select confirm.

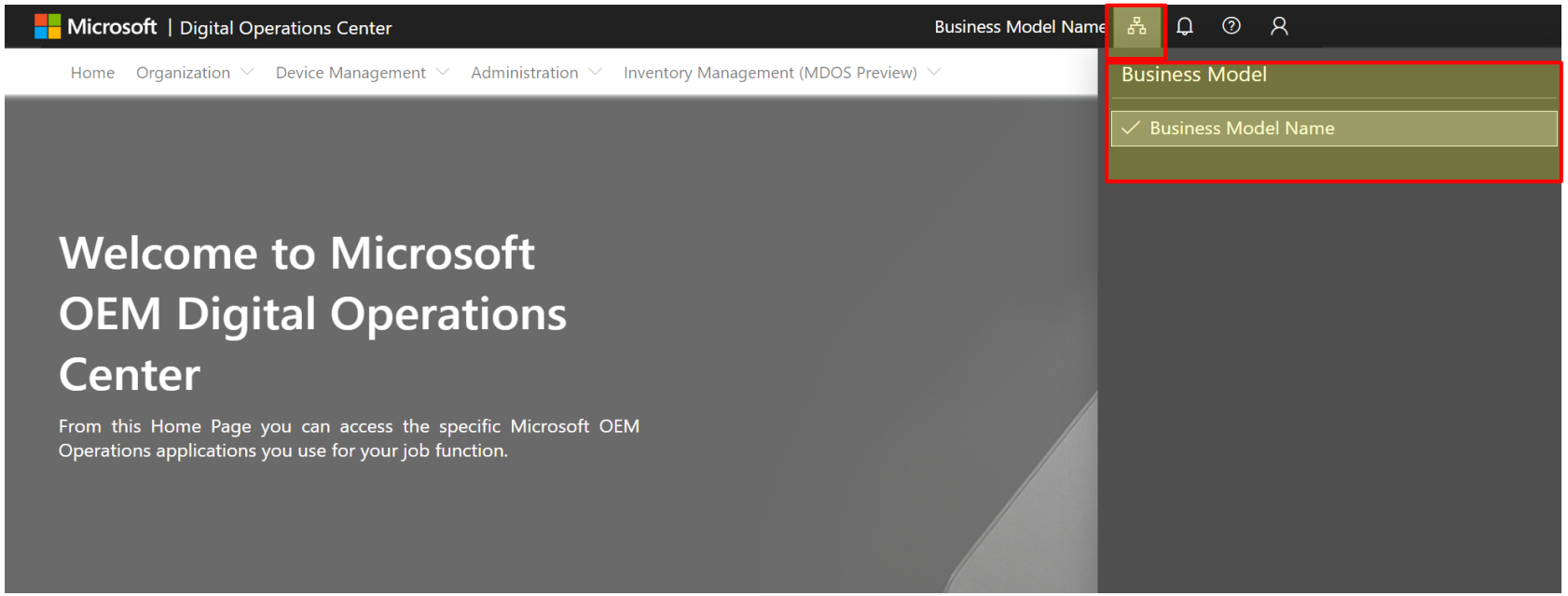


- A success message will confirm the process has been completed.



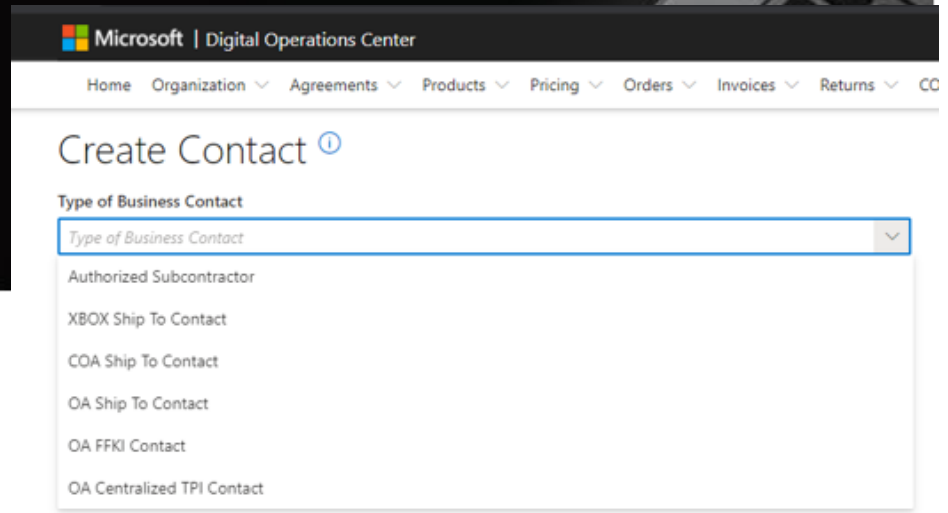
Accepting a Business Model

- This new Business Model will be visible from under the Business Model icon



Create an FFKI Contact

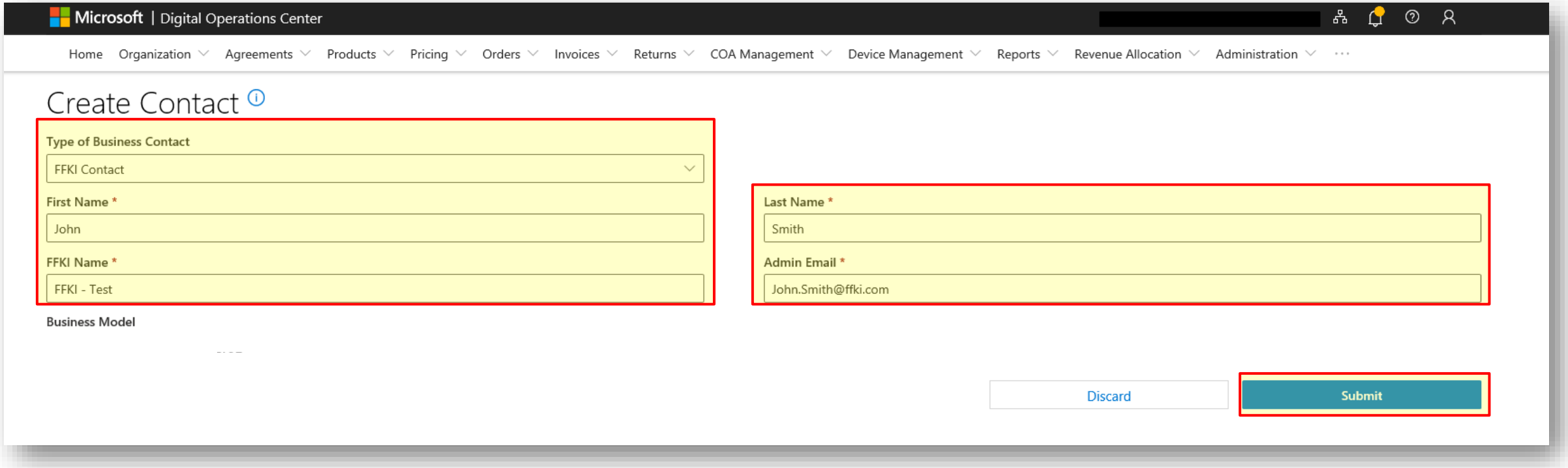
- Log into DOC at www.microsoftoem.com
- Select Organization > Business Management > Create Contact



- Select OA FFKI Contact from the menu

Create an FFKI Contact

Populate the mandatory field* details for the FFKI contact and select Submit

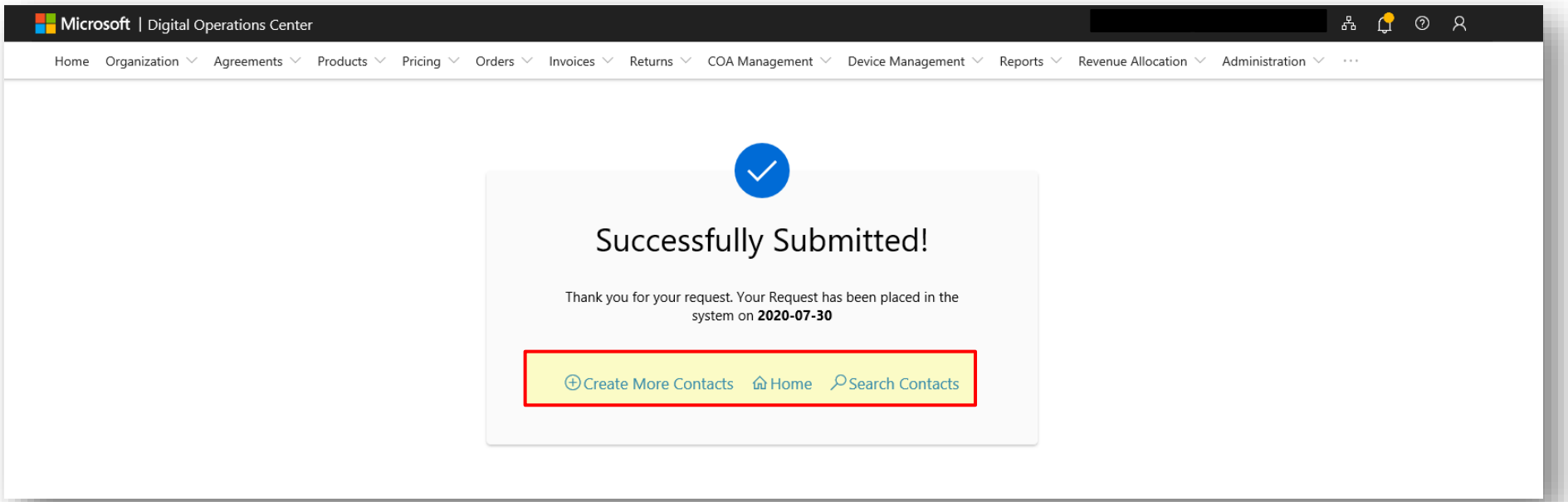


Note: An AAD email is required under Admin Email.

Create an FFKI Contact

A pop-up message will confirm that the FFKI was submitted successfully displaying shortcut links to:

⊕Create More Contacts, navigate to Home page or Search Contacts



Install MDOS SC

- Invitation email with the link to install MDOS SC.
- Download MDOSSC.exe setup package -> Run as administrator' -> complete installation
- Email ID and password of the FFKI added in DOC as LOGIN details
- Email address must be AAD enabled.

Microsoft

Hello **MDOS Iris email test**,

Welcome to the MDOS Smart Client (MSC). MStest has added you as a FFKI Down Level Partner (DLP) in MDOS. Please go through the steps below to complete installation and setup of the MSC:

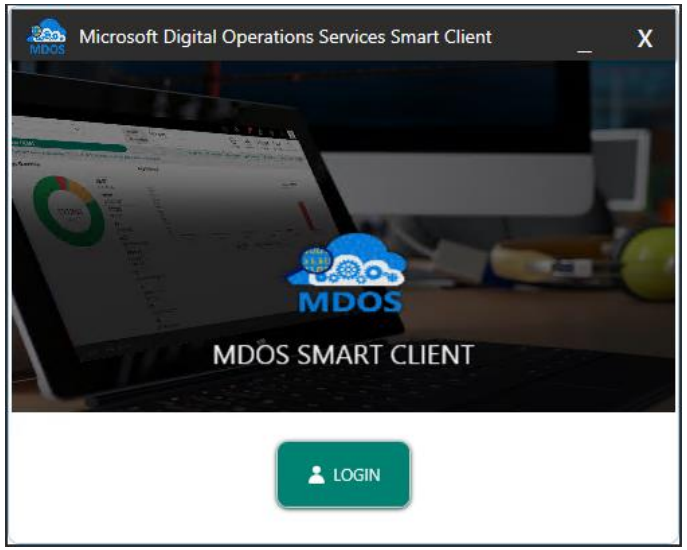
I. **DOWNLOAD MDOS SC**
   - Please click here to download MDOS Smart Client

II. **READINESS MATERIALS (USER MANUAL)**
   - To get detailed instructions on how to complete installations, set up and key operations please refer to user manual URL

III. **READINESS MATERIALS (DEMO VIDEOS)**
   - To get detailed instructions on how to complete installations, set up and key operations please refer to demo video manual URL

IV. **TECHNICAL SUPPORT**
   - In case of questions/errors related to the above steps not answered by descriptions provided in the user-manual or videos; please send a mail to MSOEMOPS@microsoft.com

This is a system generated mail, please do not respond to this email Id.



Note: You can obtain our MSC user manual through the below :

1. Download MSC User Manual from the emails that was sent to you (example screenshot on top right at point II).
2. By clicking the ? icon in DOC, it will open the Help & Support Menu, where you will find the MSC User Manual.
3. Here

MDOS Smart Client System requirements

Hardware

The following are the minimum hardware system requirements for MDOS SC,

- • 64-bit infrastructure processor
- • 8GB RAM minimum
- • 250GB Hard Disk minimum
- • Screen Resolution: 1024*768 minimum

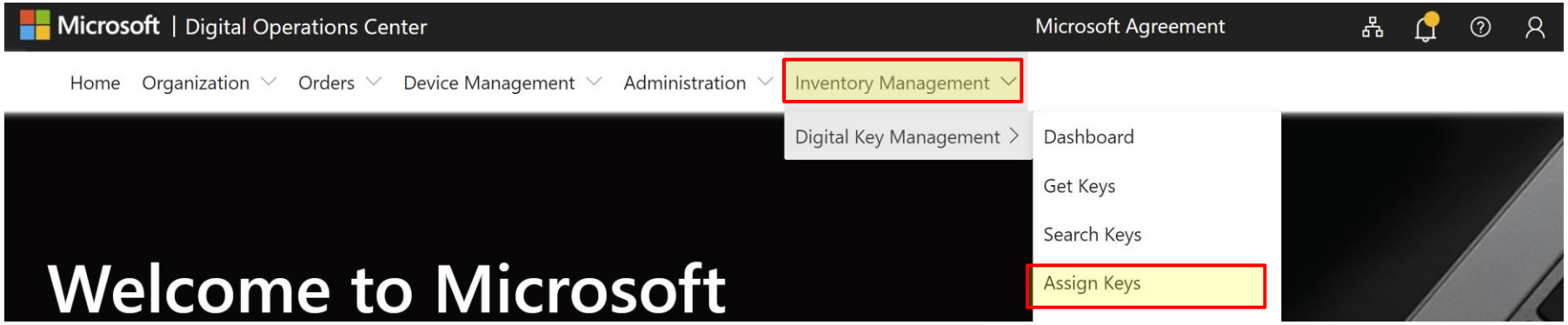
Software

MDOS SC will be supported in any of the below application servers,

- • Windows 10 Home editions (64-bit)
- • Windows 10 Pro editions (64-bit)
- • Windows Server 2012 Enterprise Edition (64-bit)
- • Windows Server 2012 R2 Enterprise Edition (64-bit)
- • Windows Server 2016 Enterprise Edition

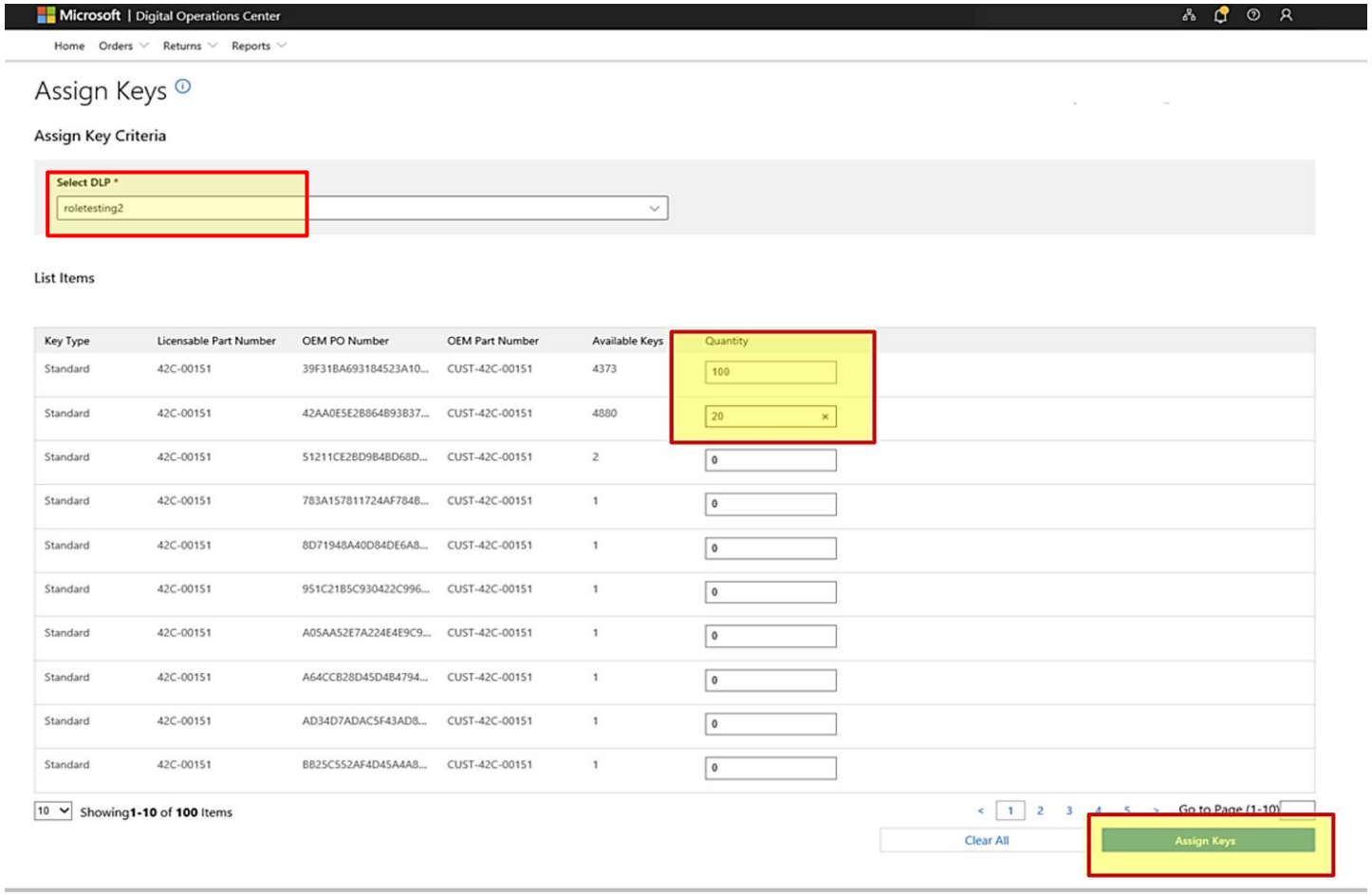
Assigning keys to MSC

- Log into DOC at www.microsoftoem.com
- Select Inventory Management > Digital Key Management > Assign keys

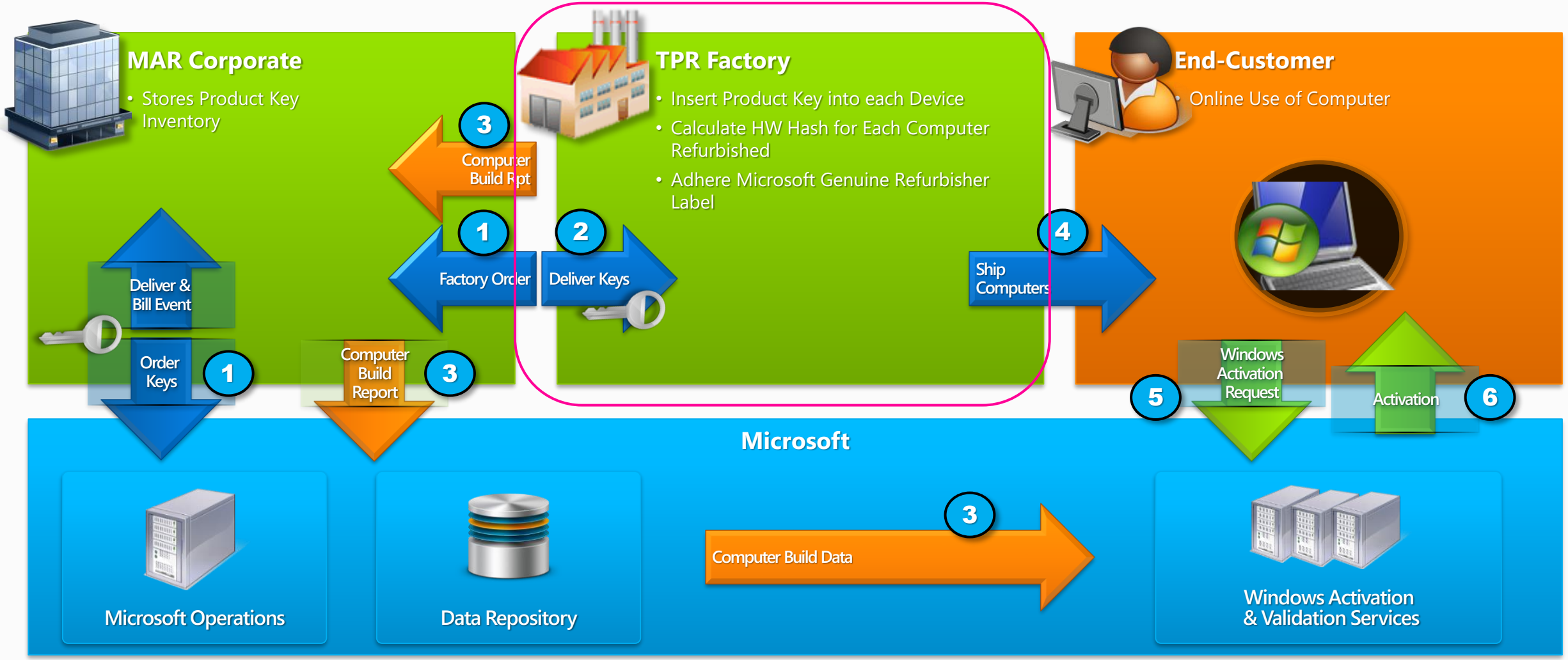


Assigning keys to MSC

- Select your DLP, fill in the quantity for the keys that you wish to assign, and click Assign Keys



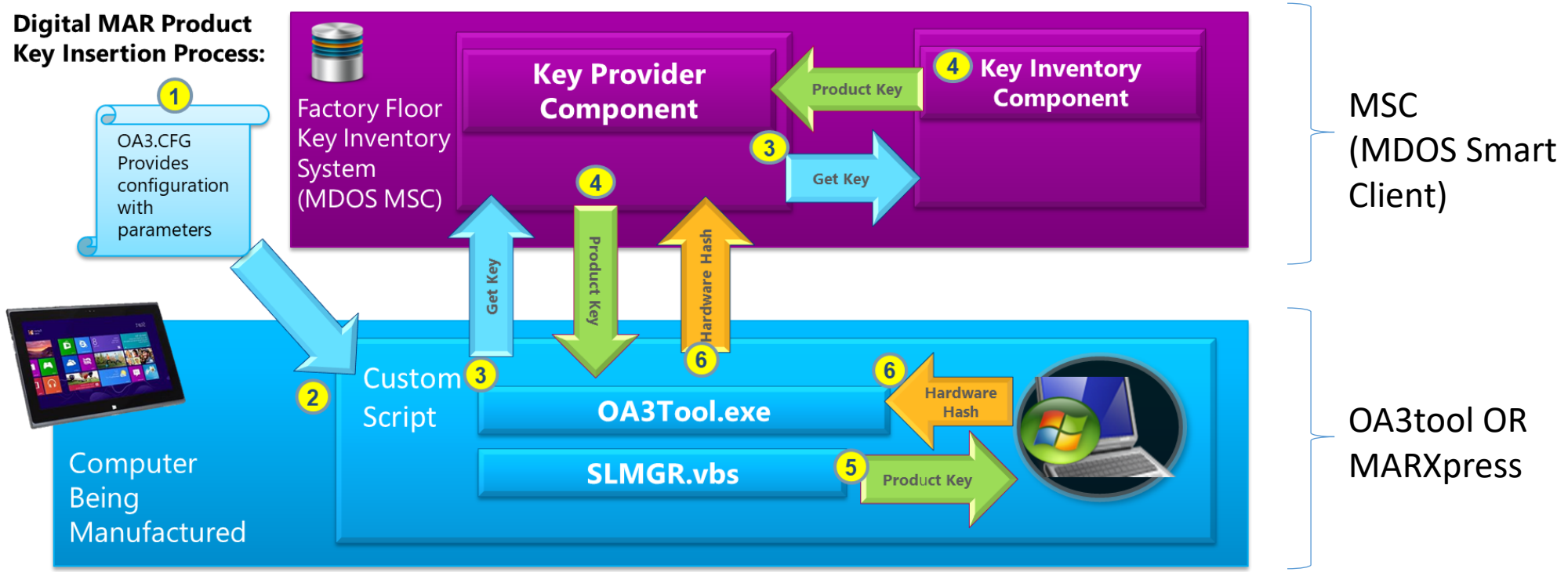
Digital MAR: Illustrative Model



MICROSOFT CONFIDENTIAL - Provided Under NDA and Subject to Change

Digital MAR Factory Floor Mfg. Process

The overall concept to insert DPK (Digital product key) into Refurbish Device at the manufactory:



Create Config file	Assemble Key	Write key	Report Key
1. MAR Partner creates custom script and configuration file with location, parameters and action for OA3 tool. This is saved to a USB drive for use on the factory floor.	**2.** On the factory floor, the USB drive is inserted into the device being refurbished. The operator runs the custom script which in turn calls OA3Tool.exe with location of key provider and parameters specifying the action **3.** OA 3.0 Tool calls Key Provider component with information to get the next key **4.** A product key is pulled from inventory and written to *.xml file	**5.** Custom script reads the product key from *.bin file and inserts it into the device using the slmgr /ipk command.	**6.** The custom script next calls the OA3Tool.exe to calculate the Hardware Hash of the device. After this, the custom script updates the hardware hash output file to insert the new product key ID and saves the file to the USB drive for reporting back to Microsoft.

Before Starting

What you need to know:

There are 4 solutions available for partner to choose. Partner needs to decide which solution should be applied to the manufactory:

- Server base OA3tool + /slmgr (online mode)
- File base OA3tool + /slmgr (offline mode)
- Server base MARXpress (online mode)
- File base MARXpress (Offline mode)

What you need to be ready:

Please ensure following requirements are ready before executing.

1. Device & System
    1. MDOS SC (MDOS Smart Client)
    2. Target Device (Refurbish device)
2. APP
    1. Server base MARXpress (Contact your MAR partner to get the download link for MARXpress tool), or
    2. OA3tool
3. Other requirements
    1. Read *“MAR Digital License Manufacturing Reference Guide” and “OA3 Manufactory Step-by-Step guide for MAR process”*
    2. MSC and Target test device must be running on same network (ensure both MSC and target device can ping to each other)
    3. Make sure there are DPKs (Digital Product keys) available in MSC, and the DPKs are in “fulfilled” key state.
    4. Port 9011 is not blocked by router.
    5. USB drive

Manufacturing Tools

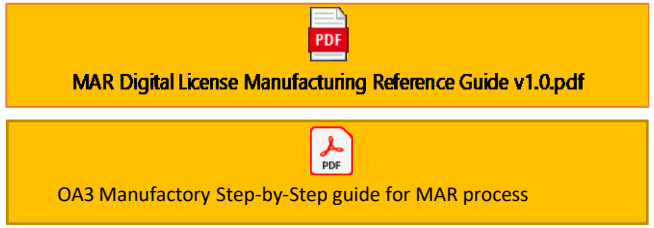
OA3 Tool – Available in Windows 10 ADK

- Command-line tool that supports assembling, reporting, and returning a non-unique identifier for the activation of computers on the factory floor
- Relies on configuration file (described in general as OA3.cfg) to find the factory floor key inventory (MDOS/MSC)
- Runs in Audit Mode without impacting the end user activation experience during OOBE
- Windows ADK download link here

MAR Xpress (Sample Tool)

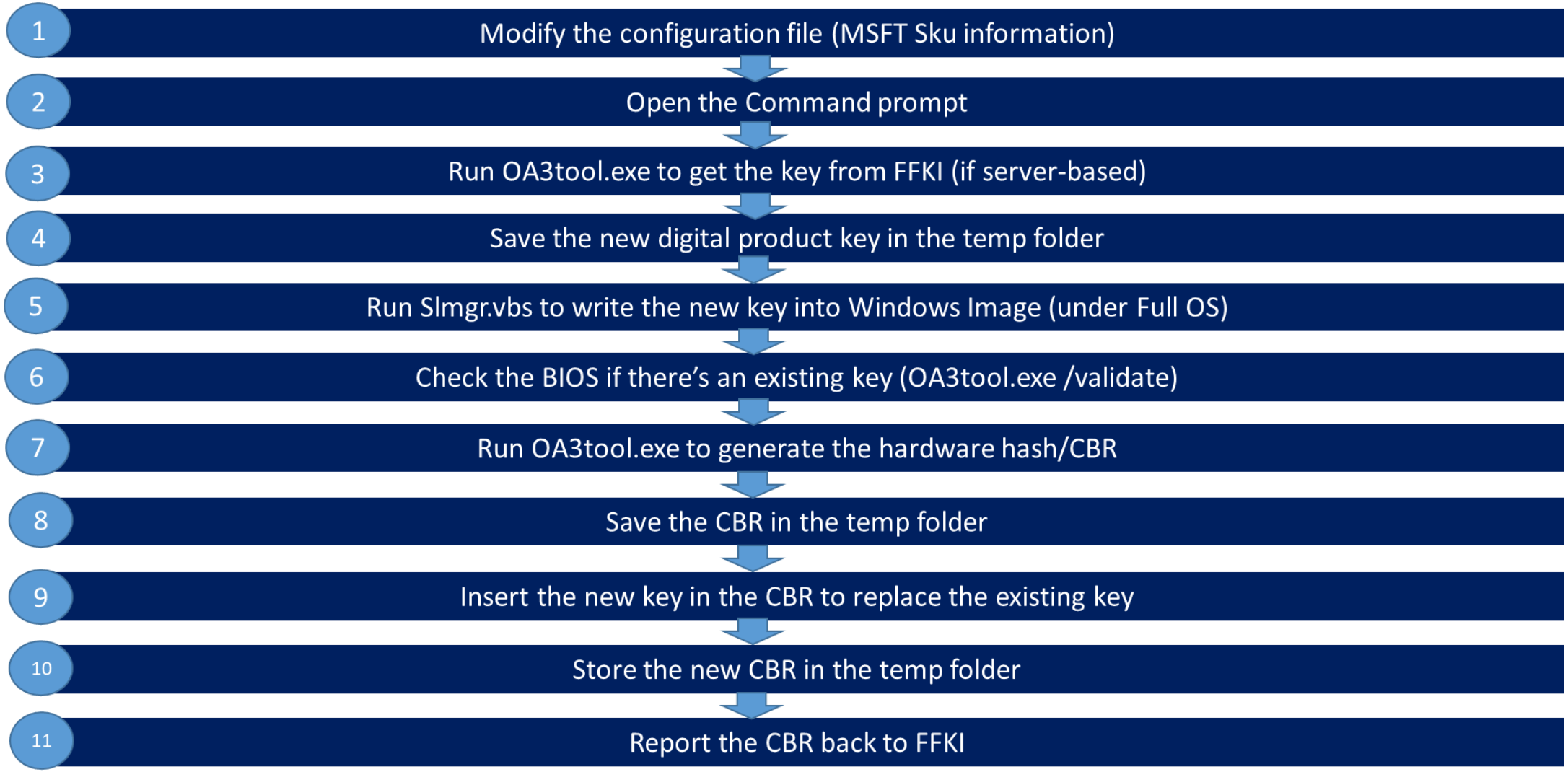
- Powershell script to automate the digital key insertion process and CBR report generation.
- Sample script available from Microsoft for use.
- MAR Xpress is as-is tools and are offered without warrantee either express or implied.
- Please download MARXpress Sample Tool here

For more information on how to use MARXpress and OA3tool to complete writing DPK into device, please refer to “MAR Digital License Manufacturing Reference Guide” and “OA3 Manufactory Step-by-Step guide for MAR process”



Manual Processes (OA3tool) – From Key insertion to CBR

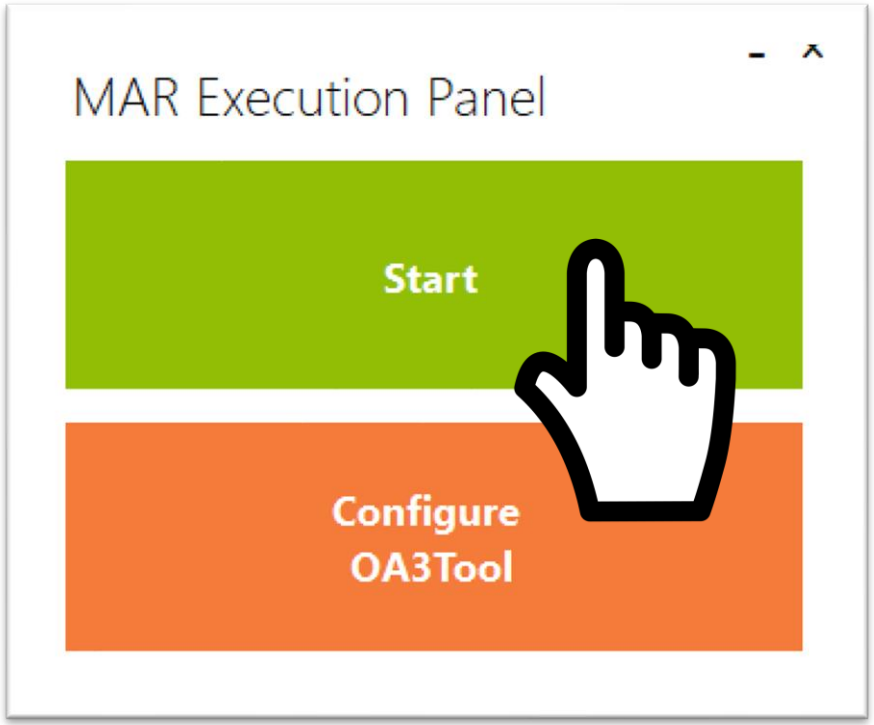
Example of using **OA3tool + /slmgr command (Server base solution)** to complete DPK insertion process at the production line (including report CBR back to MSC):



MARXpress Process – From Key insertion to CBR

1. Modify the configuration file (MSFT Sku information)
2. Open the Command prompt
3. Run OA3tool.exe to get the key from FFKI
4. Save the new digital product key in the temp folder
5. Run Slmgr.vbs to write the new key into Windows Image
6. Check the BIOS if there's an existing key
7. Run OA3tool.exe to generate the hardware hash/CBR
8. Save the CBR in the temp folder
9. Insert the new key in the CBR to replace the existing key
10. Store the new CBR in the temp folder
11. Report the CBR back to FFKI

Example of using **MARXpress tool (Server base solution)** to complete DPK insertion process at the production line (including report CBR back to MSC):



MARXpress Sample Script can be a reference for you to develop your own solution to integration from #3 to #10 into a single click.

Please download MARXpress Sample Tool here

New Genuine Microsoft Refurbisher Label (GMRL) in MAR FY21

GMRL is a holographic label with latest security features . This is assurance for end-users that Device is preinstalled with a genuine Microsoft operating system license, sourced from a quality driven and legitimate supplier.

GMRL details:

- Holographic label with latest security features
- Dimensions 22x22mm
- Trackable - UV printed unique serial #
- Order Code R20-30001
- Orders from Authorized Replicators
- Only MARs can order GMRL
- MARs can sub-distribute GMRL to TPRs with DPKs capability
- GMRL must be applied to Devices with DPKs ONLY. This is not applicable for COA Devices

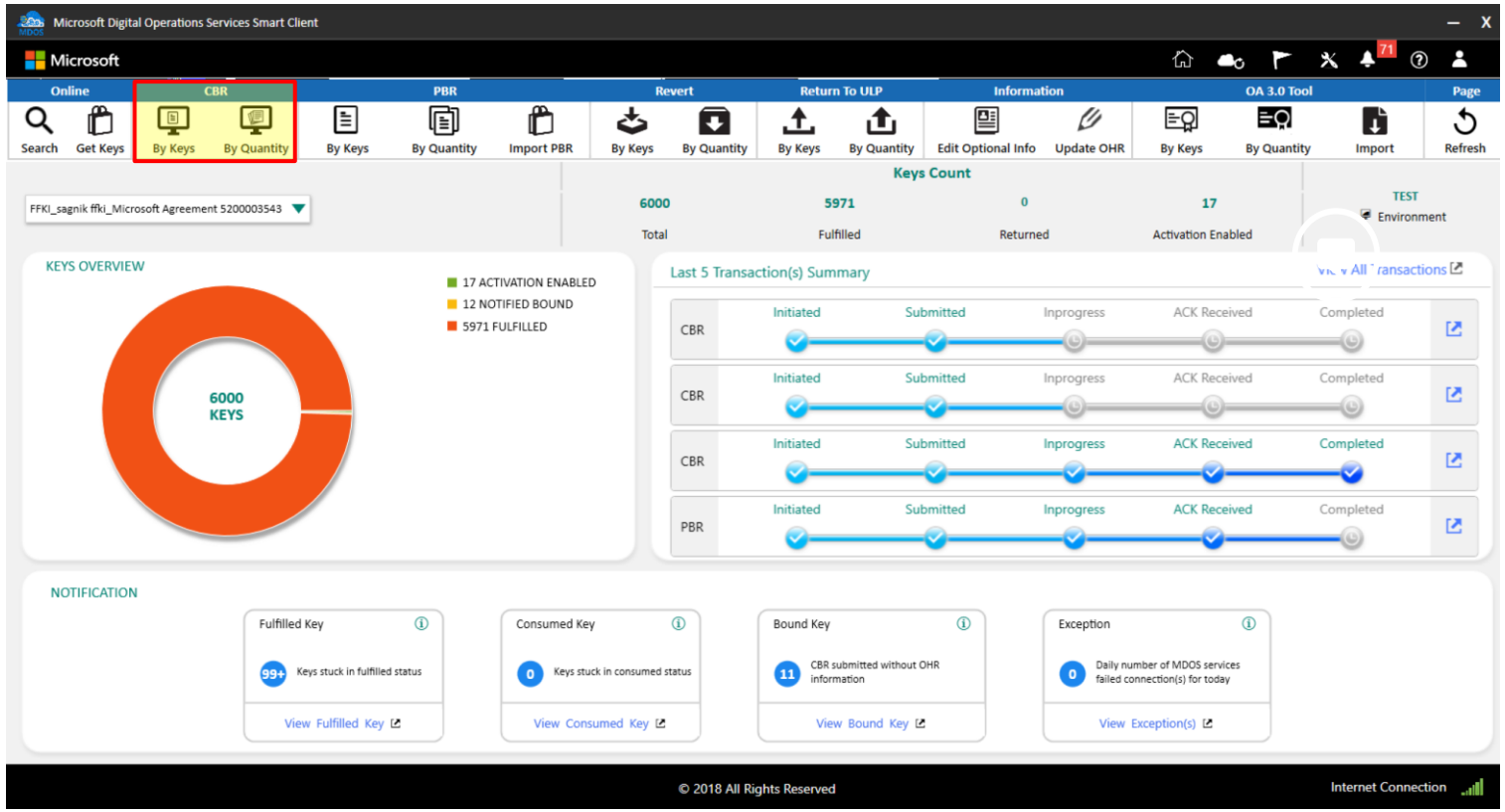
GMRL benefits:

- Differentiation from PCs with non genuine Windows
- Elevate MAR PCs status vs others
- Assurance for end-users that PC is preinstalled with a genuine operating system license, sourced from a quality driven and legitimate supplier
- Helps build a strong MAR program brand

MICROSOFT CONFIDENTIAL – SHARED UNDER NDA ONLY

How to submit a CBR from MSC to DOC

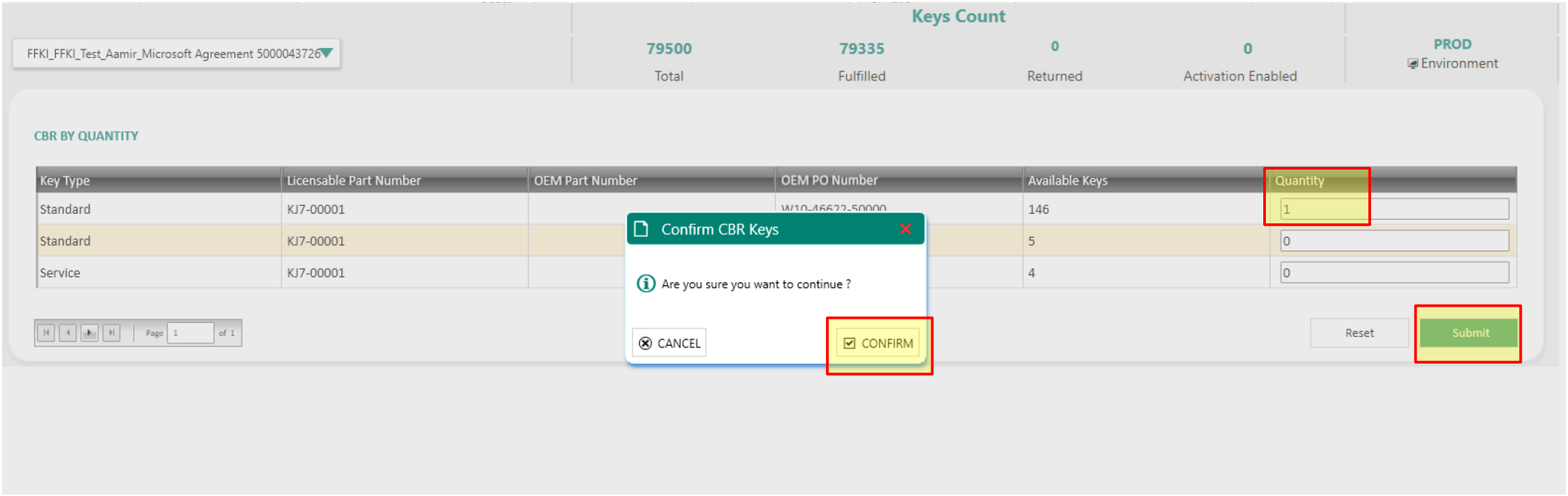
- Log into Smart Client using FFKI partner account credentials.
- Click on the button CBR by Quantity / Key as shown in below screen



This menu allows the user to report bound keys to DOC by quantity. Keys must be in **Bound** status in order to be reported in the CBR.

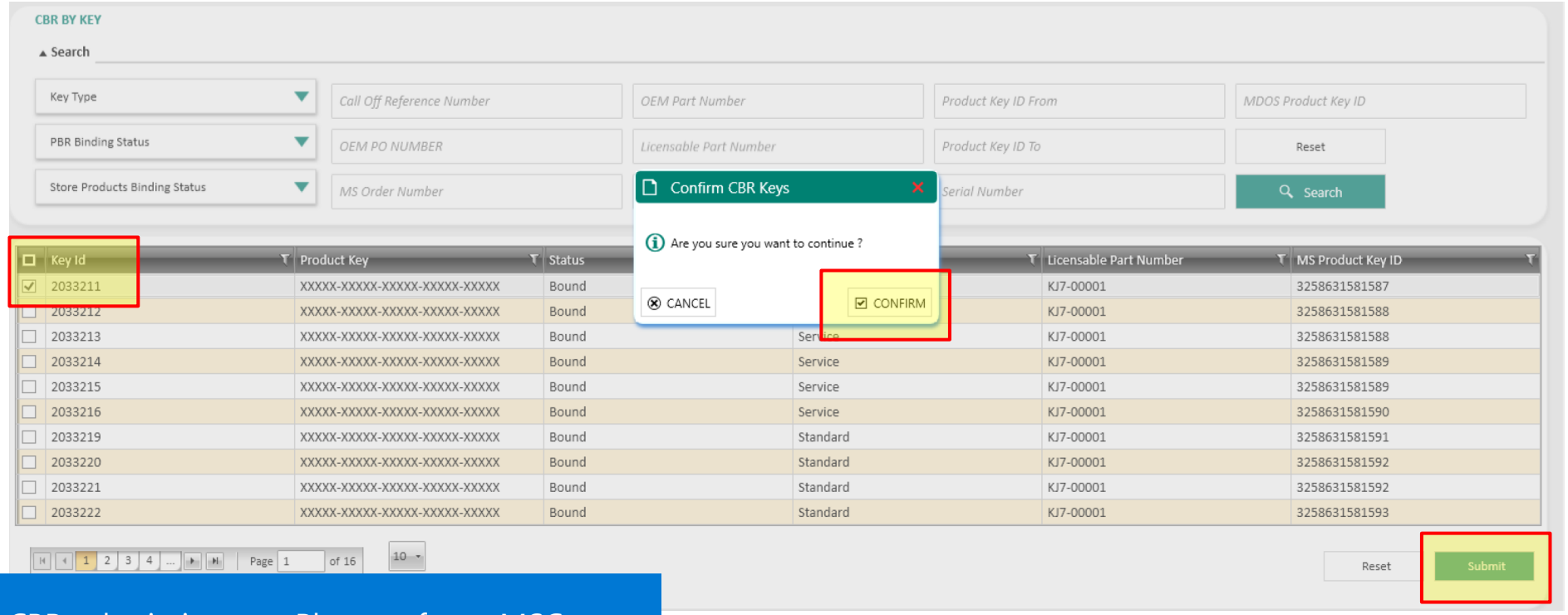
How to submit a CBR by quantity

- Enter the quantity of keys to be Reported.
- Once the FFKI partner clicks on the Submit button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.
- Once the CBR has been submitted, a “Key Submitted Successfully” message will briefly pop up in the green highlighted banner.



How to submit a CBR by Key

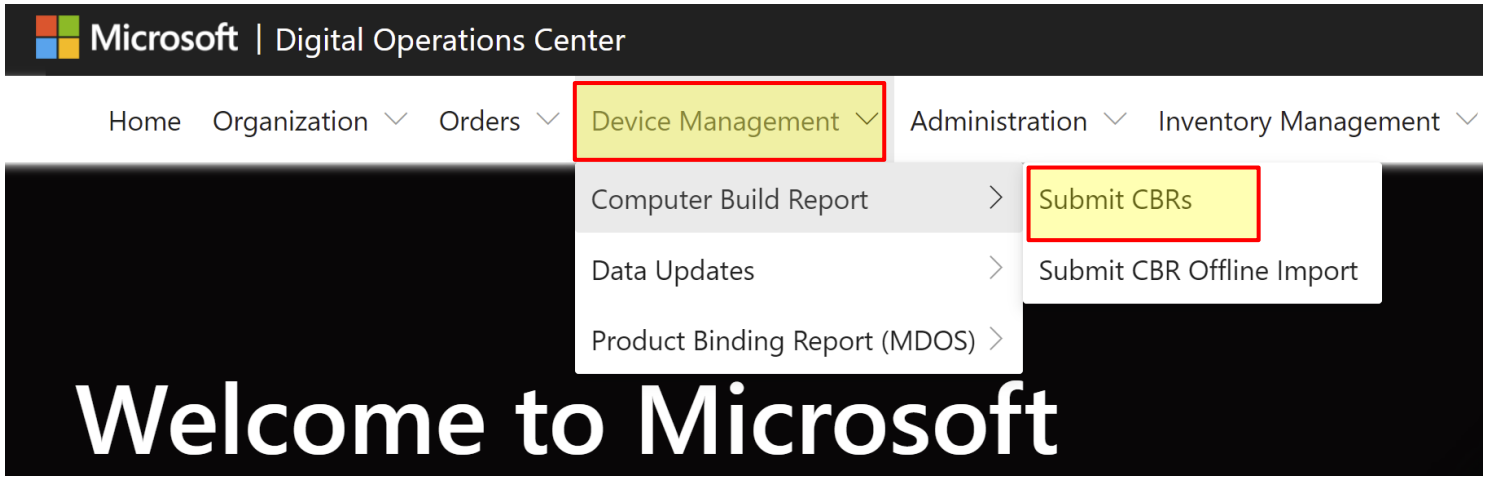
- Select the keys you want to submit the CBR to MS for. Click Submit to report.
- Once the FFKI partner clicks on the Submit button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.
- Once the CBR has been submitted, a “Key Submitted Successfully” message will briefly pop up in the green highlighted banner.



You can automate the CBR submission too. Please refer to MSC User Manual > System Setting for more details.

How to submit a CBR from TPR's DOC to MAR's DOC

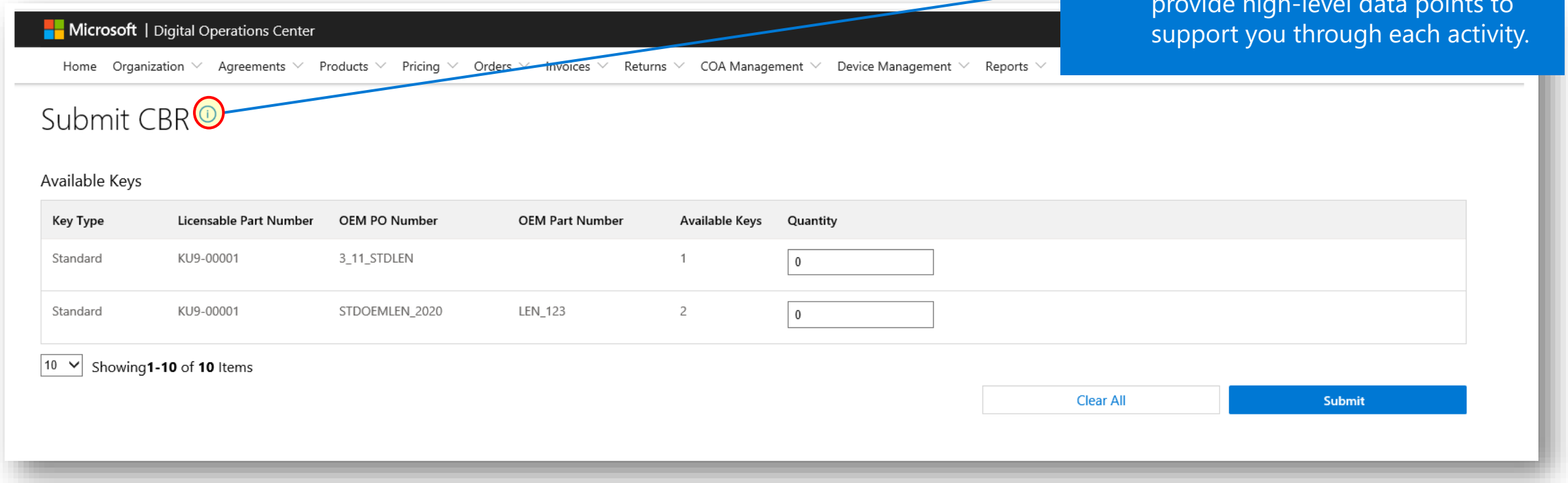
- Sign into DOC at www.microsoftoem.com
- Go to Device Management-> Computer Build Report -> Submit CBRs



This menu allows the user to report bound keys to Microsoft by quantity.
Keys must be in **Bound** status in order to be reported in the CBR. Once validated, the keys will be activated for use by an end user.

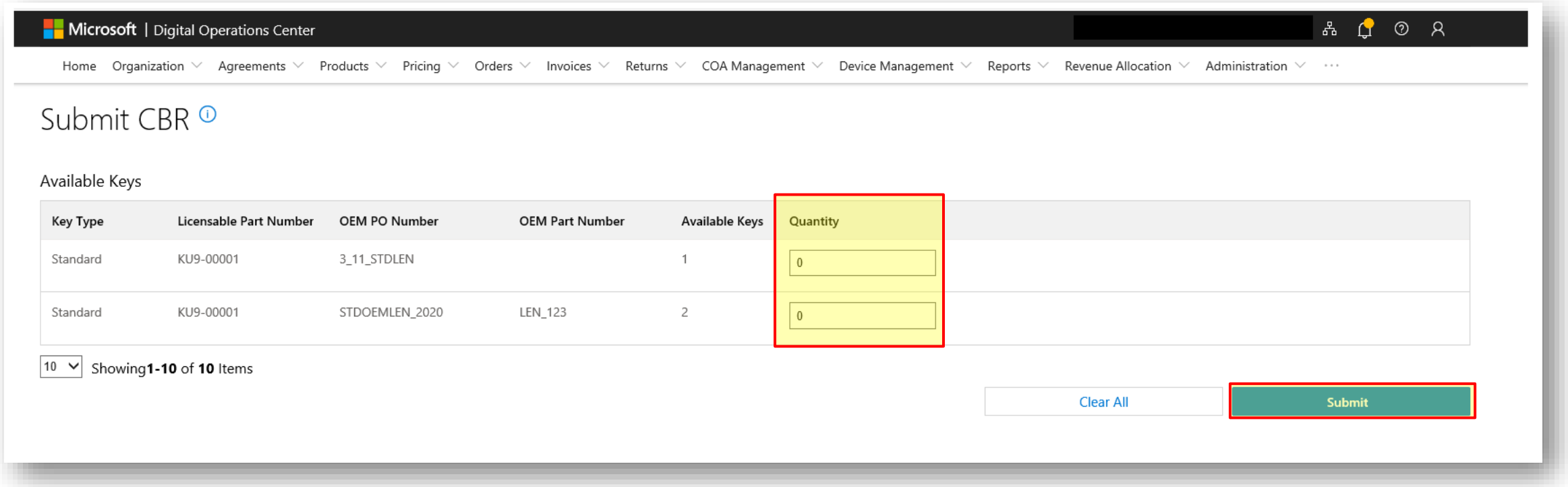
How to submit a CBR by quantity

New: Quick support is available by hovering over the "i" icon. Callouts provide high-level data points to support you through each activity.



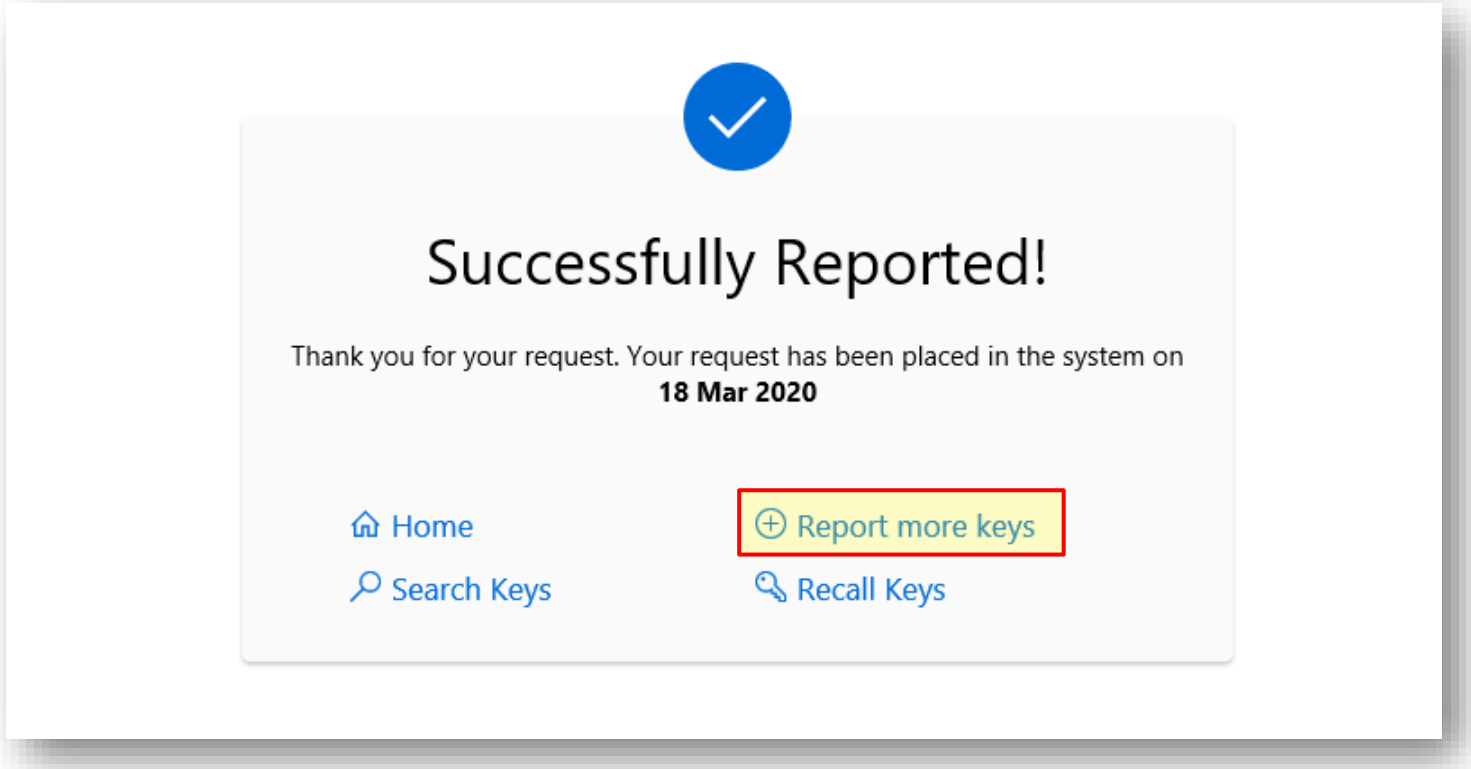
How to submit a CBR by quantity

- Enter the quantity of keys to report, then select Submit.



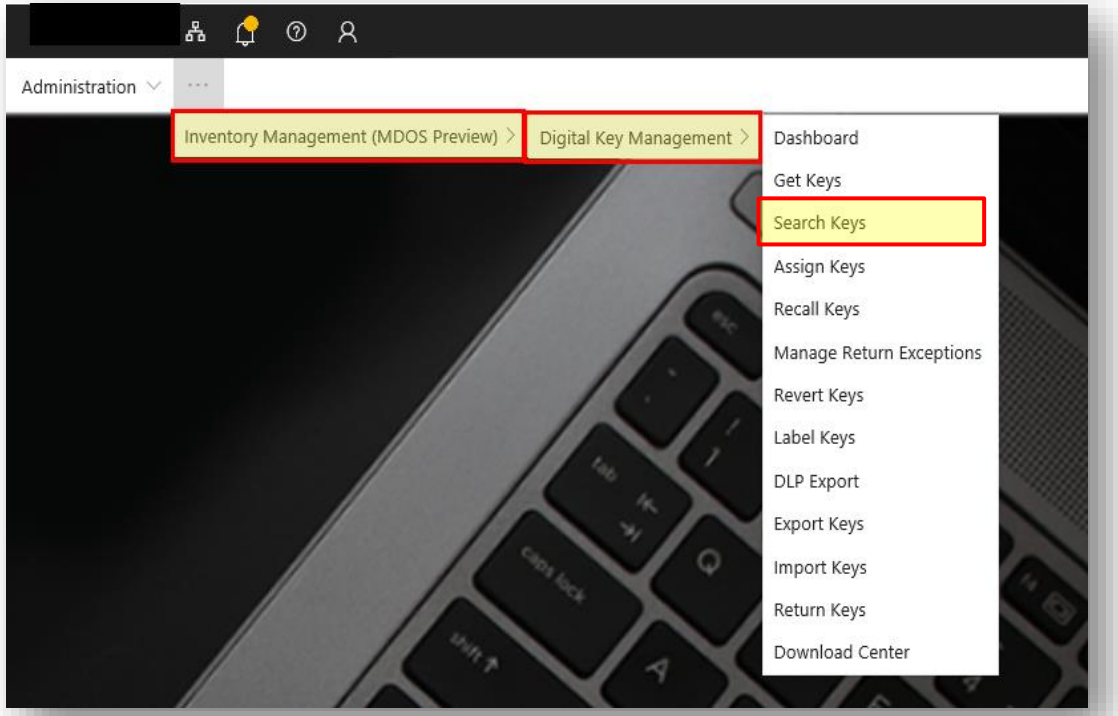
How to submit a CBR by quantity

- A success message will confirm that the keys have been reported successfully..
- The key status will change from Bound to Reported Bound.
- To submit more CBRs, select Report more keys.



How to submit a CBR using the Search Keys menu

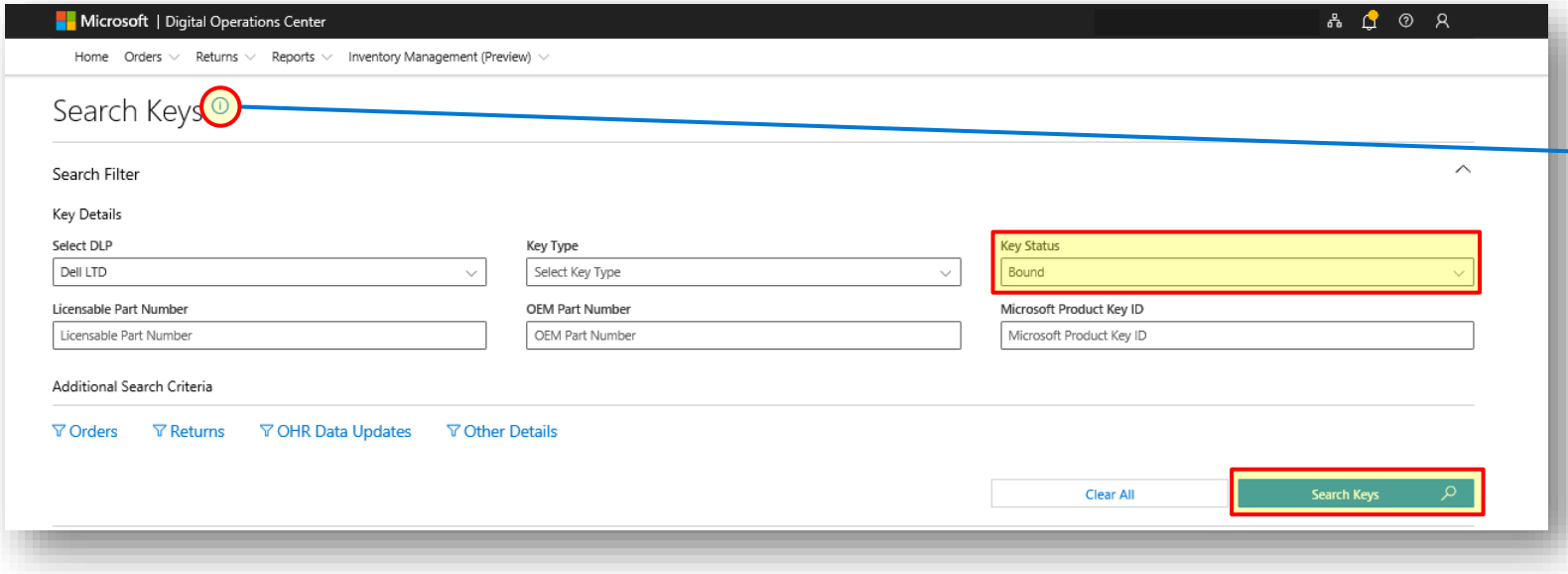
- Sign into DOC at www.microsoftoem.com.
- Go to Inventory Key Management (MDOS Preview) -> Digital Key Management -> Search Keys.



This menu allows the user to report bound keys to Microsoft by quantity. Keys must be in **Bound** status in order to be reported in the CBR. Once validated, the keys will be activated for use.

How to submit a CBR using the Search Keys menu

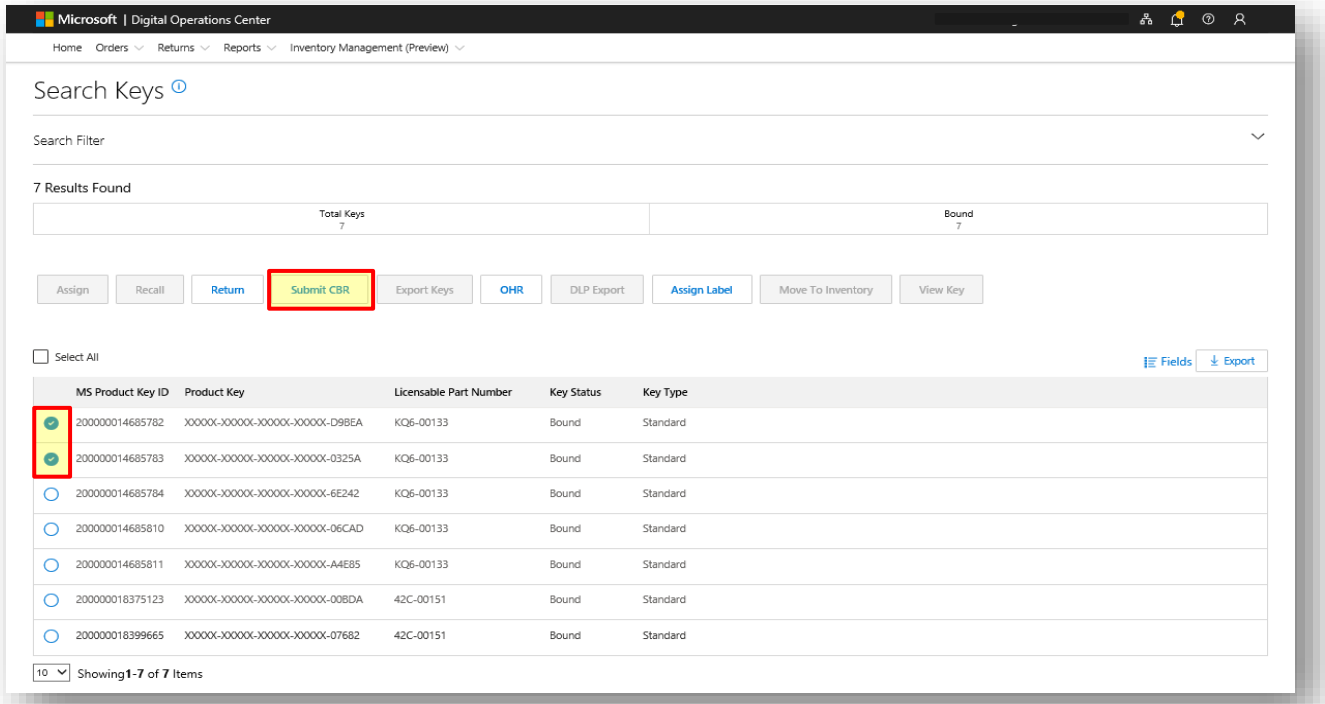
- Select Bound from the Key Status drop-down menu.
- Select Search Keys.

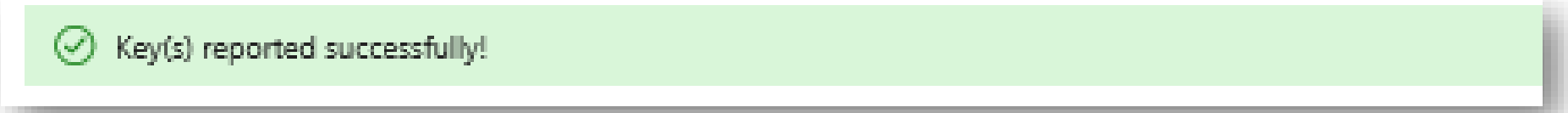


New: Quick support is available by hovering over the ''i" icon. Callouts provide high-level data points to support you through each activity.

How to submit a CBR using the Search Keys menu

- Select the relevant keys, then select Submit CBR.
- Once the CBR has been submitted, a message saying “Key(s) reported successfully” will briefly pop up in the green-highlighted banner.





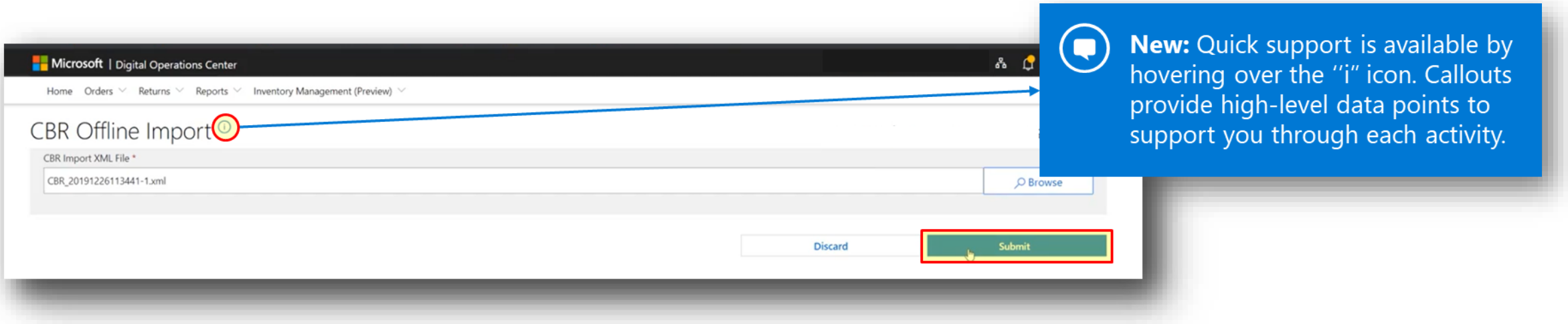
How to submit a CBR using the offline import functionality

- Sign into DOC at www.microsoftoem.com
- Go to Device Management-> Computer Build Report -> Submit CBRs Offline Import

This menu allows the user to report bound keys to Microsoft by quantity.
Keys must be in **Bound** status in order to be reported in the CBR. Once validated, the keys will be activated for use by an end user.

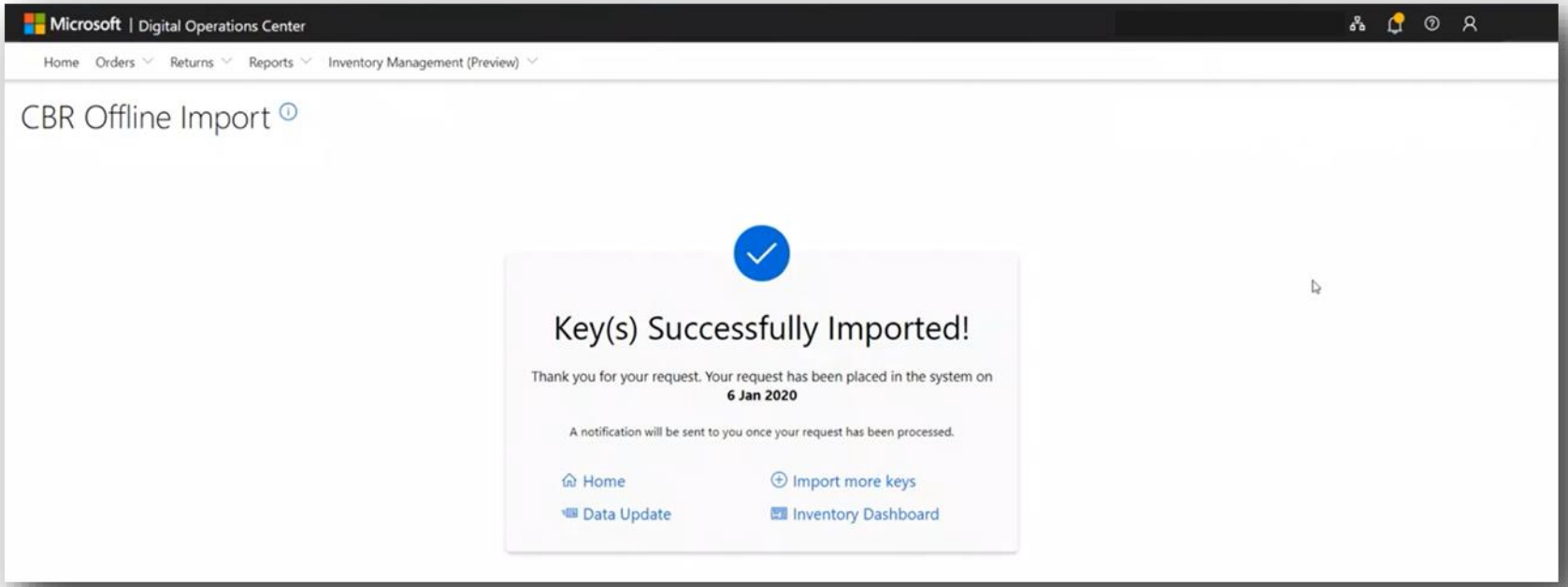
How to submit a CBR using the offline import functionality

- Browse for the XML file to upload, then select Submit.



How to submit a CBR using the offline import functionality

- A message will pop up, confirming that the CBR has been successfully imported.



Understanding CBR results

- After successful submission of a CBR, validation results will be available from Microsoft for each digital product key (DPK).
- At this point, the Key State changes from Reported Bound to Activation Enabled or Activation Denied.
- End user activation is not possible until the DPK status is updated to Activation Enabled, therefore we recommend that your organization does not ship PCs until the Activation Enabled state is confirmed.
- OA 3.0 DPKs which are flagged as Activation Denied should be investigated further and the errors addressed before resubmitting to Microsoft. Common causes of OA 3.0 DPK CBR validation failure include:
  - OA 3.0 DPKs were not originally fulfilled to the OEM\TPI from whom the CBR was received.
  - OA 3.0 DPKs were in a previously submitted CBR.
  - OA 3.0 DPKs have been returned to Microsoft.

You can find the full details of CBR validation failures in the OEM Activation Web Services Guide in the OA3.0 Implementation Kit on DPC.

Thank you!