Microsoft

Microsoft OEM Activation (OA) & MDOS Onboarding Training

Global Partner Onboarding Team

September 2019

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Thank you.

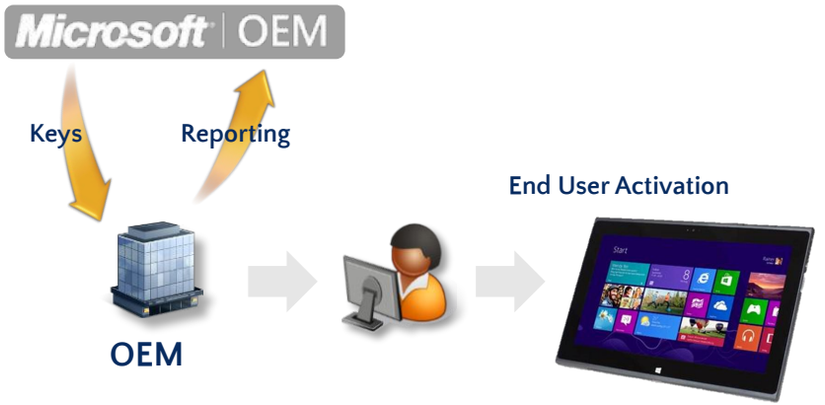
Agenda

- What is OA3.0
- OA3 Accounts and Tools
- Business Models
- Managing Business in MDOS
- Setting Up MDOS SC
- Reporting Overview
- Motherboard Replacement
- Returns
- Genuine Microsoft Label
- Testing
- Basic Flow
- Support & Resources
- Common Acronyms

OEM Activation – OA 3.0

What is OA 3.0?

OA 3.0 is the product activation standard for Microsoft. The new program enables OEMs to digitally order and receive product keys from, and report computer information to, Microsoft as well as enable activation of software on specific hardware.



	OA 3.0
Keys	Write unique product key into each PC
Product	Windows ®10
Order & Ship	• Electronic delivery of product key directly from Microsoft • Product activation rights associated with the Hardware Hash • Genuine Microsoft Label affixed to chassis
Reporting	Factory production reports to Microsoft
Returns	RMA; real-time key returns

OA3 Accounts

DOC (Digital Operations Center)

- DOC is Microsoft's "Production Environment"
- DPKs order from DOC are "with" Royalty

DOC-T (DOC Testing Portal)

- DOC-T is the "sand box" portal used during the testing stage of the OA3 implementation
- All DPKs ordered from DOC-T are royalty free

DPC (Device Partners Center)

- DPC is Microsoft portal where you find licensing, technical, sales and marketing resources

MDOS (Microsoft Digital Operations Services)

- a cloud-based digital key distribution and entitlement service for Microsoft OEM partners
- DPC registration is required for MDOS access

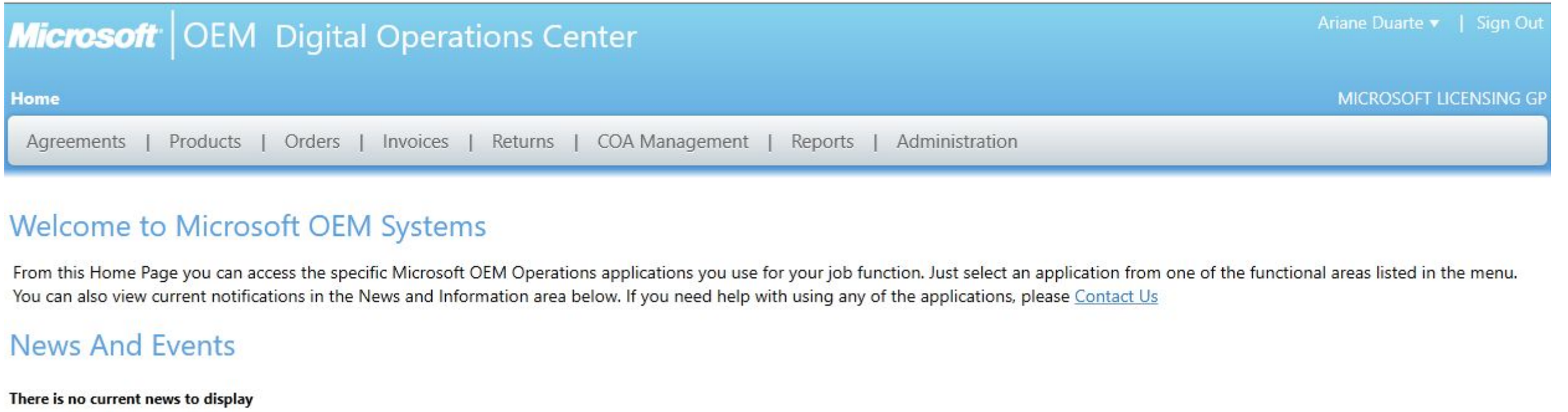
What is DOC?

The Digital Operations Center Portal (DOC) is an online portal leveraged for agreements, billing, ordering and return of OA products.

Visit https://www.microsoftoem.com/ (DOC) to access the Digital Operations Center Portal

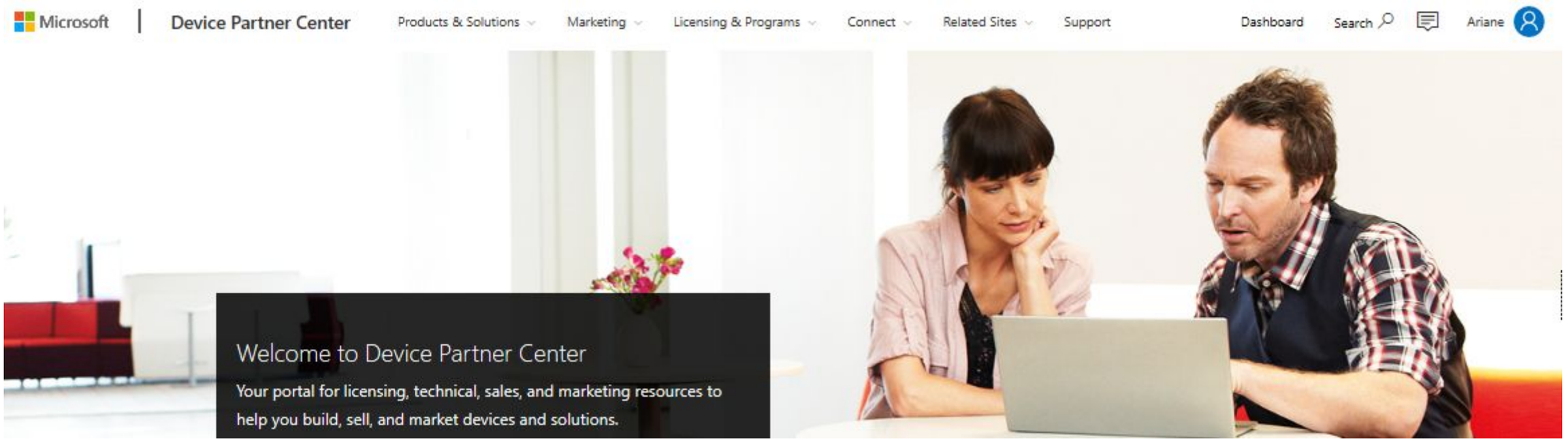
And

https://web.microsoftoem.info (DOCt) to access Digital Operations Portal Test Environment



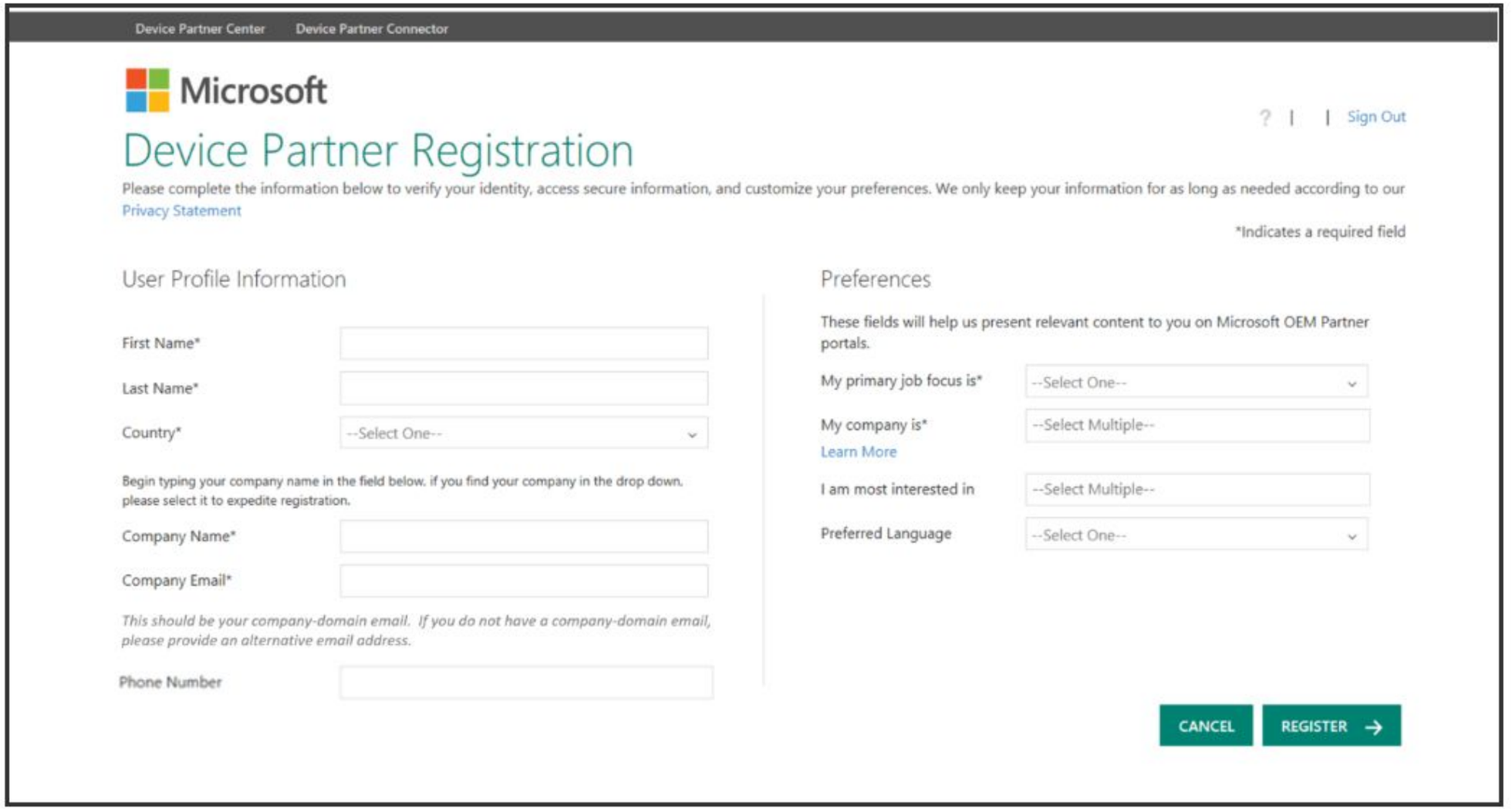
What is DPC?

The Device Partner Center (DPC) is a self-service portal designed for Microsoft device partners. It provides relevant up-to-date information to help you build, sell, and market Microsoft devices by providing licensing, technical, sales, and marketing resources, that are customized based on your registration information. Some of the resources include: Windows Server 2016 deployment tools; OEM reseller software graphics; and deployment tools for Windows 10 and Office 2016.
Visit the Device Partner Center (DPC) to access resources or learn more.



DPC Registration

DPC Registration Form



MDOS Quick Start

1. Complete DPC Registration

- Use your Microsoft account (MSA) to logon **https://dpcregistrationmain.microsoft.com**
- The web browser can be Microsoft IE, Edge, Chrome, or Firefox

2. MDOS Account Setup and Configuration

- Fill in the Intake Form and send it on to **opsgpo@microsoft.com** including MSA email account you used to register on DPC, GPO team will request your access to MDOS. You will receive an email to join MDOS via the MSA email account provided.
- Log in to MDOS **https://digitaloperations.oa.microsoft.com** to activate your account

3. Create Down Level System in MDOS

- Create DLP through MDOS > Business Administration > Manage Business > Add DLP.

4. MDOS Smart Client and OA3 Tool when working with Factory Floor

- Install MDOS Smart Client application
- Login MDOS Smart Client and configure your business

5. DPK Fulfillment

- Place order in MDOS

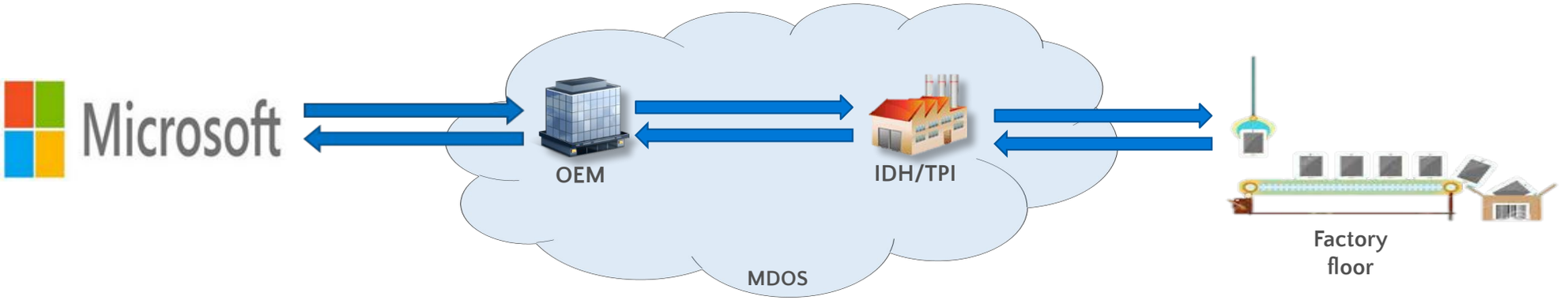
6. Complete end to end OA3.0 process using MDOS

- Assign DPK to DLP - > fulfill DPK in MDOS Smart Client -> run OA3.0 process -> report keys back to MDOS Cloud-> report CBR to Microsoft

What is MDOS?

MDOS is a fully cloud based digital key distribution & entitlement service for MSFT OEM partners. It will give partners the ability to purchase, deploy, manage, bind, return, and recall Digital Product Keys as needed.

https://mdosusermanual.azurewebsites.net/



The key benefits of moving to MDOS include:

- Flexible platform: Easy to add new partners and scale your business
- Self-service capabilities
- Efficient inventory management
- User-friendly interface
- Software as a service – no need to upgrade software, always up to date
- Integrated with other Microsoft platforms

MDOS provides the following capabilities:

- Basic OA 3.0 infrastructure (order, fulfill, transfer, return, report, etc.)
- Automated setup/onboarding
- ERP system integration
- Integration with other Microsoft platforms (DPC, Connector, and DOC)
- Low cost scalability to support new Microsoft programs (pricing configurator, DSB, cloud attachments, etc.)
- Business Intelligence reporting
- Self-serve capabilities (Pop-up support, tip tool, chat support, form integration, support forums, link to documentation, etc.)
- Offline run mode (File-based DPKs)

Sign in for the first time

- Copy the first-time sign-in link and paste to Internet Explorer/Edge browser in an InPrivate mode.
- Log in using the MSA email account credentials you provided to the GPO team.

Subject: Welcome to the Microsoft Digital Operations Center

Welcome to the Microsoft Digital Operations Center (DOC)!

Your new DOC account has been created. To begin using DOC applications, you will need to complete the following five steps the first time you sign in.

STEP 1 – Find your sign-in PIN (Personal Identification Number).
After this welcome email, you will receive an additional email containing a first time sign-in PIN. Please make note of the PIN; it is a six-digit number.

STEP 2 – Select your preferred sign-in method.
The Digital Operations Center supports several types of sign-in methods, depending on your user account type. You may select any qualifying account of your choice or create a new one. Please note that your company may have policy guidelines regarding this account selection.

User Account Type	Supported sign-in credentials		
Microsoft Partner Extranet *yourdomain\userid*	Windows Live ID [redacted]	Microsoft CorpNet [redacted]	
External customer (OEM, Distributor, etc.)	✓	✓	
External partner (AR, SPV, etc.)	✓	✓	
Internal Microsoft employee or vendor			✓

STEP 3 – Sign in for the first time.
With the information from Steps 1 and 2, you are ready to sign in to DOC by clicking the following link: <first time sign-in link>. You will be asked to select a preferred sign-in method. After making your selection, you will be directed to the sign-in page.

STEP 4 – Enter your PIN.
Once you have successfully signed in, you will be asked to provide the PIN number obtained in Step 1. After entering your PIN, you will be taken to the Home Page.

STEP 5 – Browser Configuration.
After you have successfully completed your first-time login, please follow the steps outlined in Section 1 of our "About DOC" guide to ensure DOC runs smoothly within Internet Explorer: About DOC. You are now ready to start using the Microsoft Digital Operations Center!

Note: *Your account must be activated within 30 days of receipt of this email, otherwise your account will be suspended.*

Note: *If your account is suspended or if your account becomes locked after three unsuccessful sign-in attempts, please contact your Company Administrator. The Company Administrator is a designated person within your organization defined in your Microsoft agreement.*

To learn more about the functionality of various applications within DOC, click here: About DOC

Thank you,
Microsoft DOC Support Team

If you have received this email in error, please notify us using the following link: <Digital Operations Center Portal Helpdesk link>

If you have any difficulties with the first time sign-in or using DOC, please contact your Company Administrator or click here: <Digital Operations Center Portal Helpdesk link>

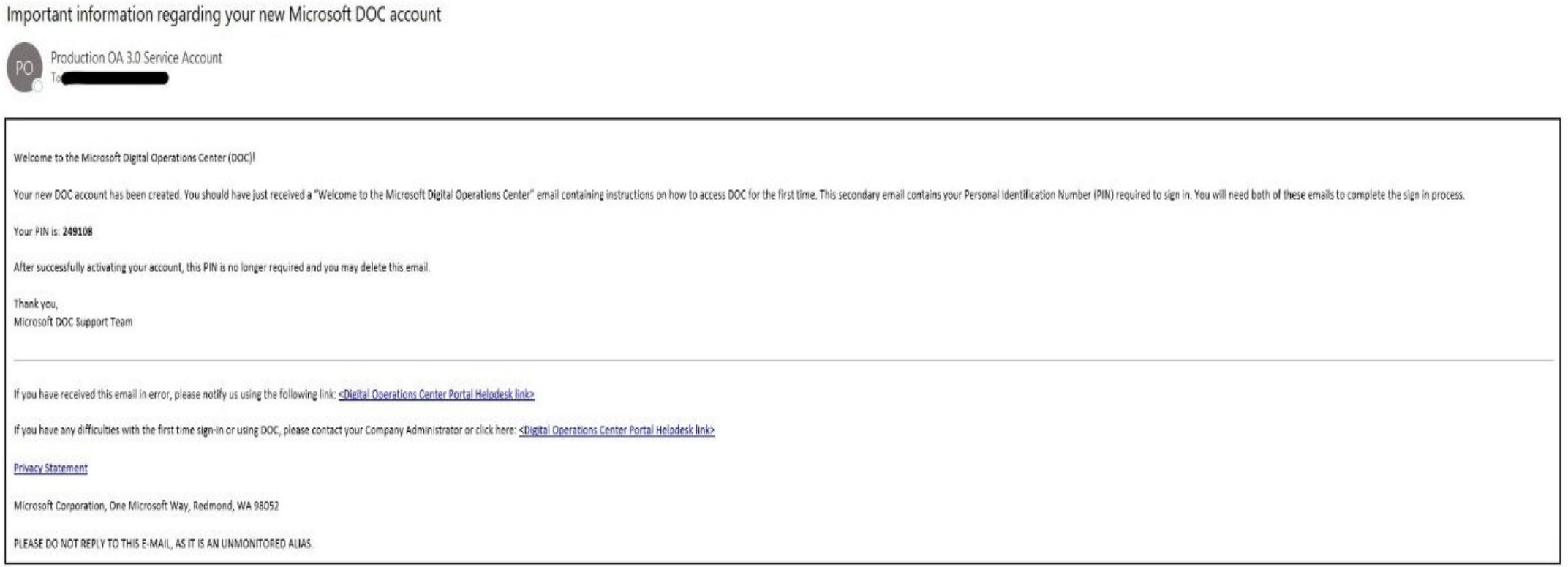
Privacy Statement

Microsoft Corporation, One Microsoft Way, Redmond, WA 98052

PLEASE DO NOT REPLY TO THIS E-MAIL, AS IT IS AN UNMONITORED ALIAS.

Enter your PIN

- Once you have successfully signed in, you will be asked to provide the PIN number.
- After entering PIN, you will be taken to the Home Page.
- The invitation mail will provide you the detailed step (as per below screen).



Important information regarding your new Microsoft DOC account

PO Production OA 3.0 Service Account
To [redacted]

Welcome to the Microsoft Digital Operations Center (DOC)!

Your new DOC account has been created. You should have just received a "Welcome to the Microsoft Digital Operations Center" email containing instructions on how to access DOC for the first time. This secondary email contains your Personal Identification Number (PIN) required to sign in. You will need both of these emails to complete the sign in process.

Your PIN is: **249108**

After successfully activating your account, this PIN is no longer required and you may delete this email.

Thank you,
Microsoft DOC Support Team

If you have received this email in error, please notify us using the following link: <Digital Operations Center Portal Helpdesk link>

If you have any difficulties with the first time sign-in or using DOC, please contact your Company Administrator or click here: <Digital Operations Center Portal Helpdesk link>

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Recommendations

- **We recommend to ensure there is more then one Administrator user onboarded in MDOS:** It is recommended that OEMs have more than one user onboarded to MDOS to mitigate against issues and delays if a user is unable to access MDOS. Module 8 (User Management) in the MDOS User Manual explains how to add a new user.
- Please contact msoemops@microsoft.com for needed support upon onboarding completion.

Factory Floor

- The factory floor is where the bulk of manufacturing takes place. This training provides an overview of the key processes, requirements and tools involved on the factory floor.
  - **Key People Involved**: OEM/TPI engineering and manufacturing
  - **Detailed Training**: Factory Floor

Manufacturing Process & Requirements

DPK Transferring	DPK Injection	Hardware Hash Generation	CBR Submission	PC Activation
• Transfer DPKs between inventories to the factory floor key inventory	• Inject the DPK to the firmware of the computer	• Generate the hardware hash based on the hardware component data	• Submit the Computer Build Report with DPK, HW Hash and other data to Microsoft	• The end user activates the computer

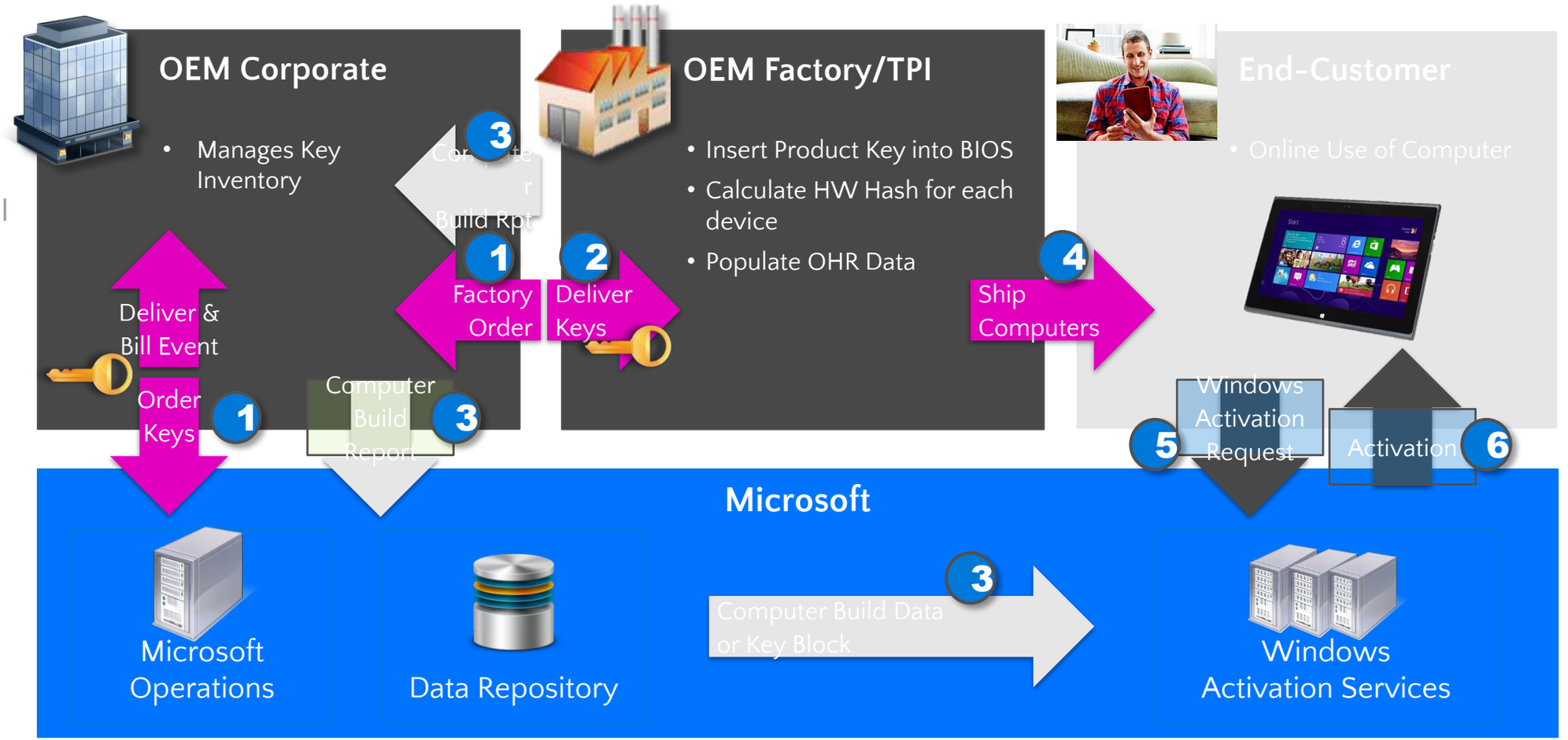
Manufacturing Tools

OA 3.0 Tool (OA3Tool.exe): Provided with the OA 3.0 solution, this tool is used to generate the .bin file and to generate the hardware-hash.

Firmware Injection Tool: Should be provided by the motherboard vendor or firmware provider, and is used to inject the .bin file into the firmware

OA 3.0 End to End Process – Centralized Business Model

- Centralized Model
- OEM:
  - Orders DPKs
  - Fulfills DPKs
  - Transfers DPKs to TPI
  - Submits CBRs
  - Perform returns
- TPI does not transact directly with Microsoft
- Requirements:
- Inventory Management System
  - MDOS
  - Custom
- Connection to TPI
  - DPK/CBR Transfer

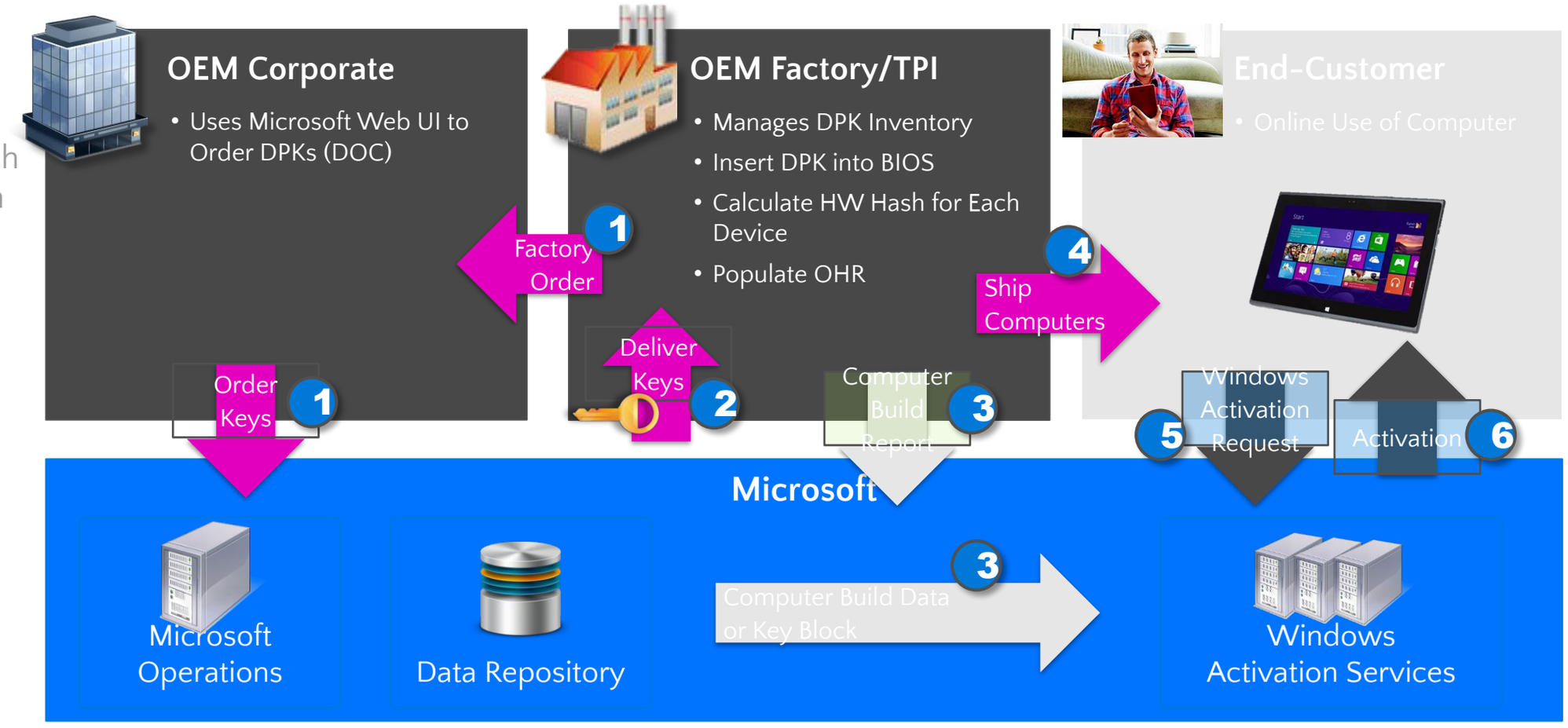


OA 3.0 End to End Process – Decentralized Business Model

- Decentralized Model OEM allows third parties such as TPI to conduct transaction on behalf of them.

- OEM:
  - Orders DPKs
  - Perform returns

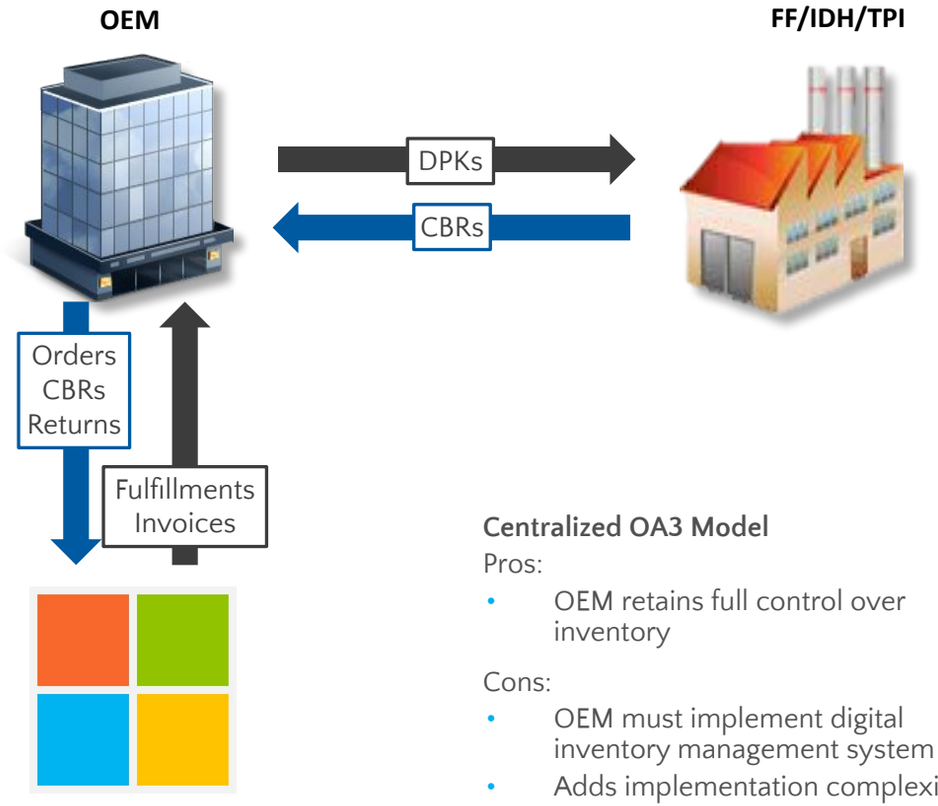
- TPI:
  - Place call off orders
  - Fulfills DPKs and manufacture
  - Submits CBRs to MS
  - Cannot perform returns



Centralized or Decentralized?

Please Note: OEMs take ownership of all DPK inventory at fulfillment and are responsible for that DPK throughout the end-to-end OA3 processes regardless of business model.

Centralized OA3 Business Model



Centralized OA3 Model

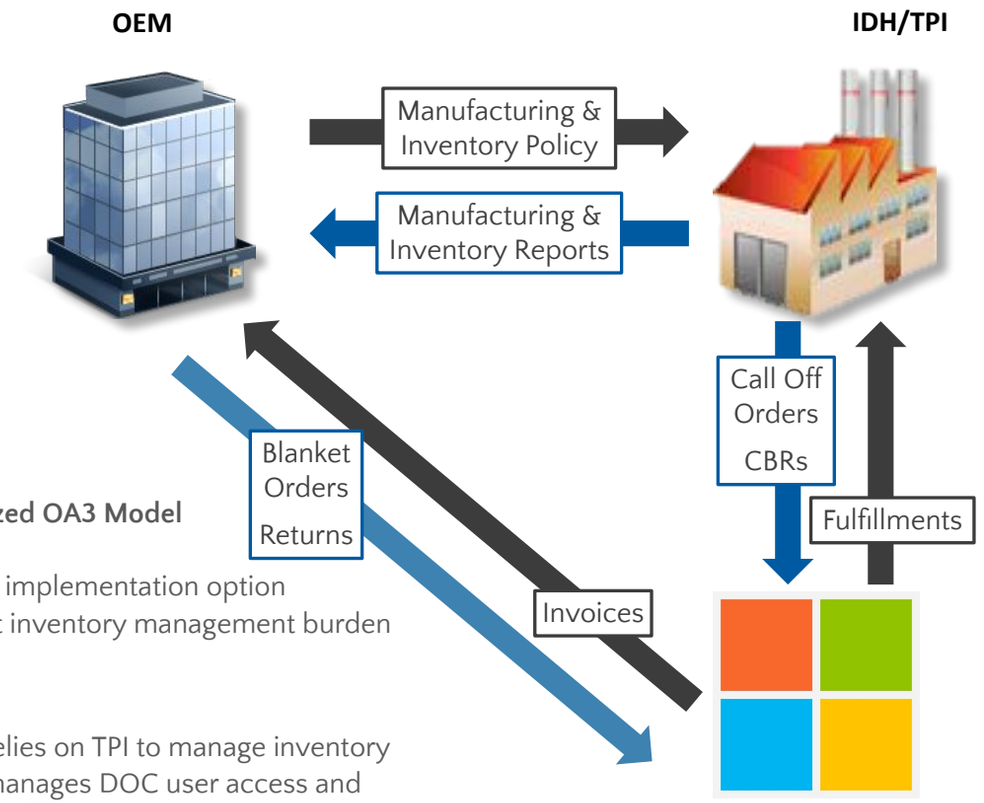
Pros:

- OEM retains full control over inventory

Cons:

- OEM must implement digital inventory management system
- Adds implementation complexity

Decentralized OA3 Business Model



Decentralized OA3 Model

Pros:

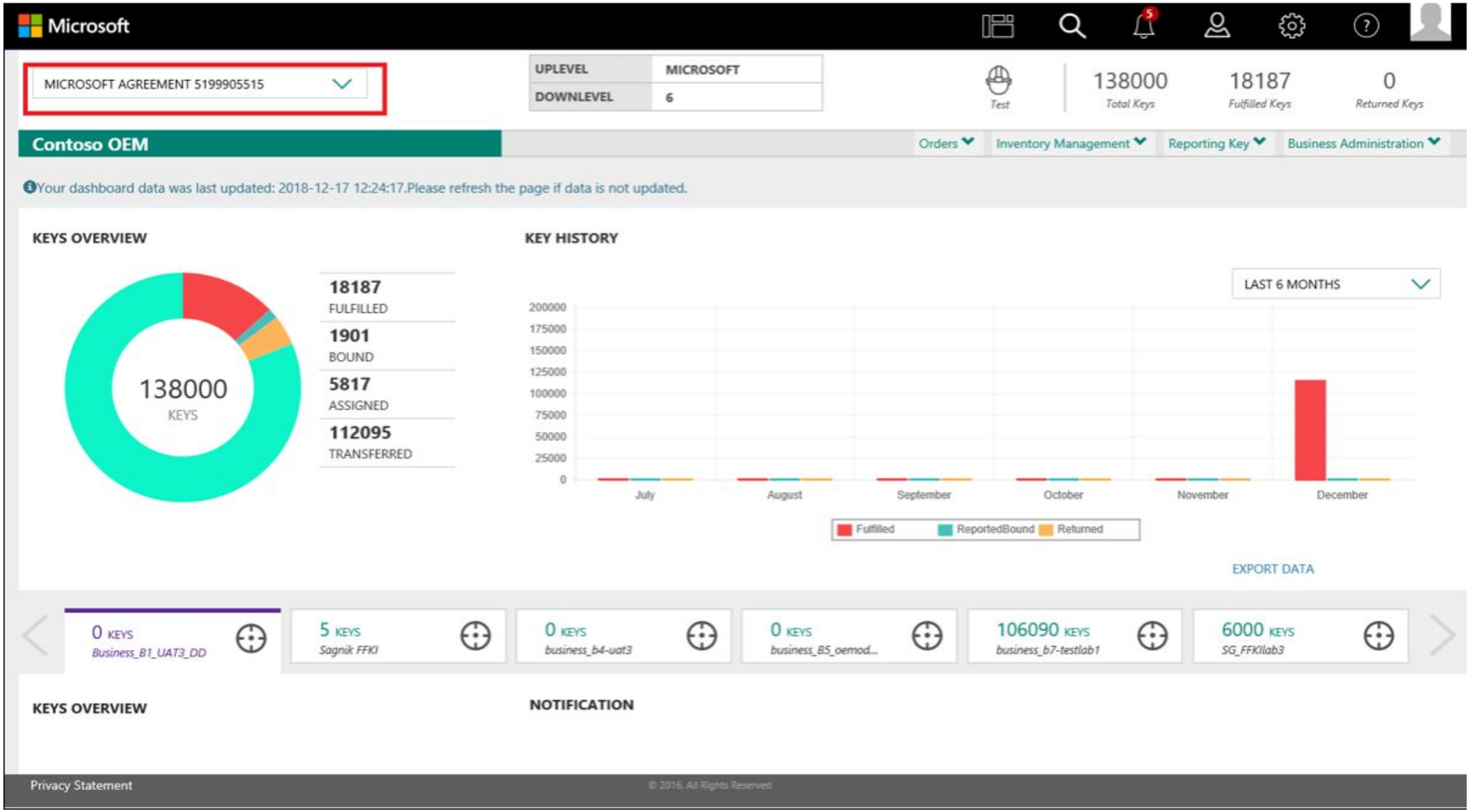
- Fastest implementation option
- Lowest inventory management burden

Cons:

- OEM relies on TPI to manage inventory
- OEM manages DOC user access and rights for TPI

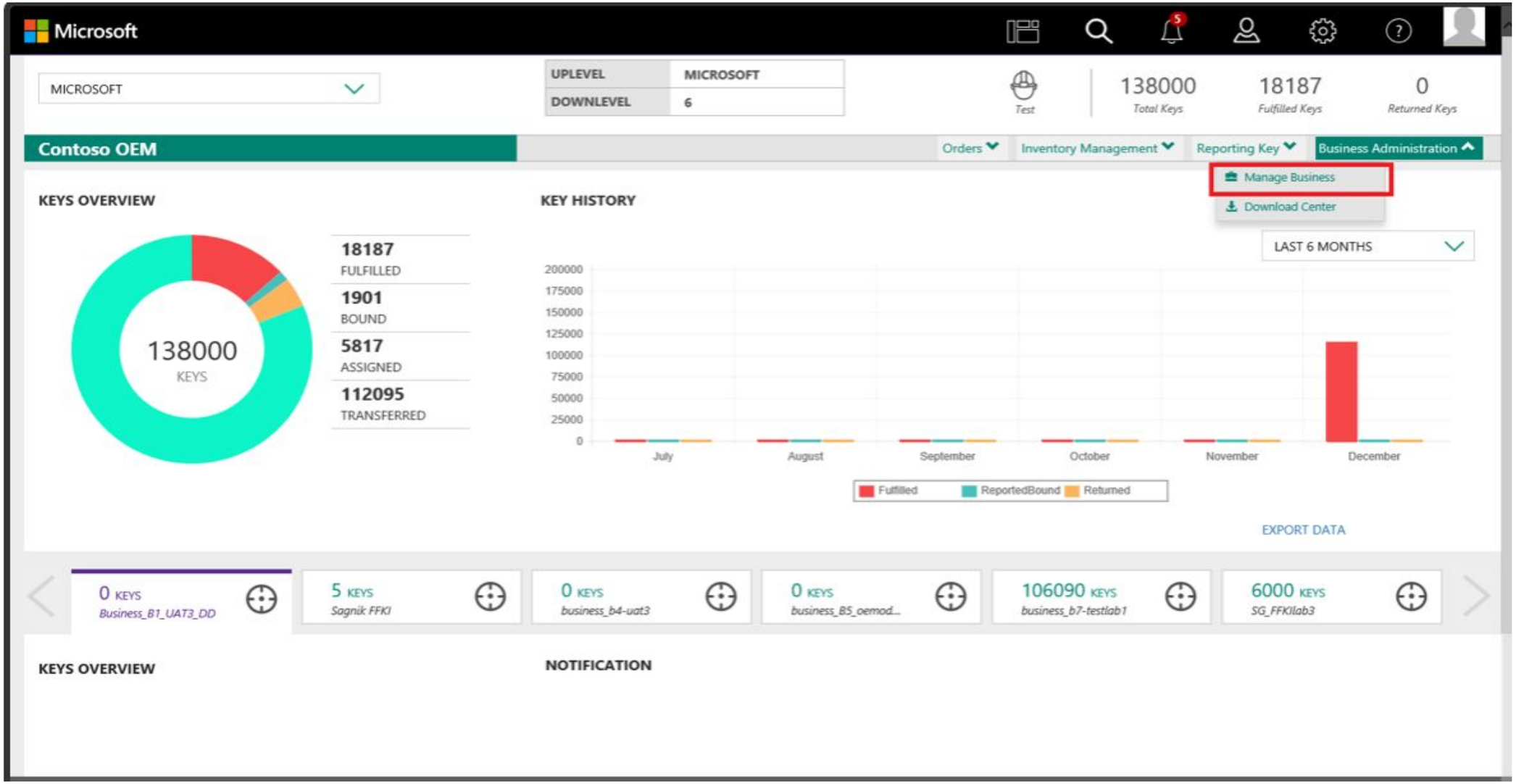
MDOS Dashboard

Instruction: Please review the readiness materials for MDOS.



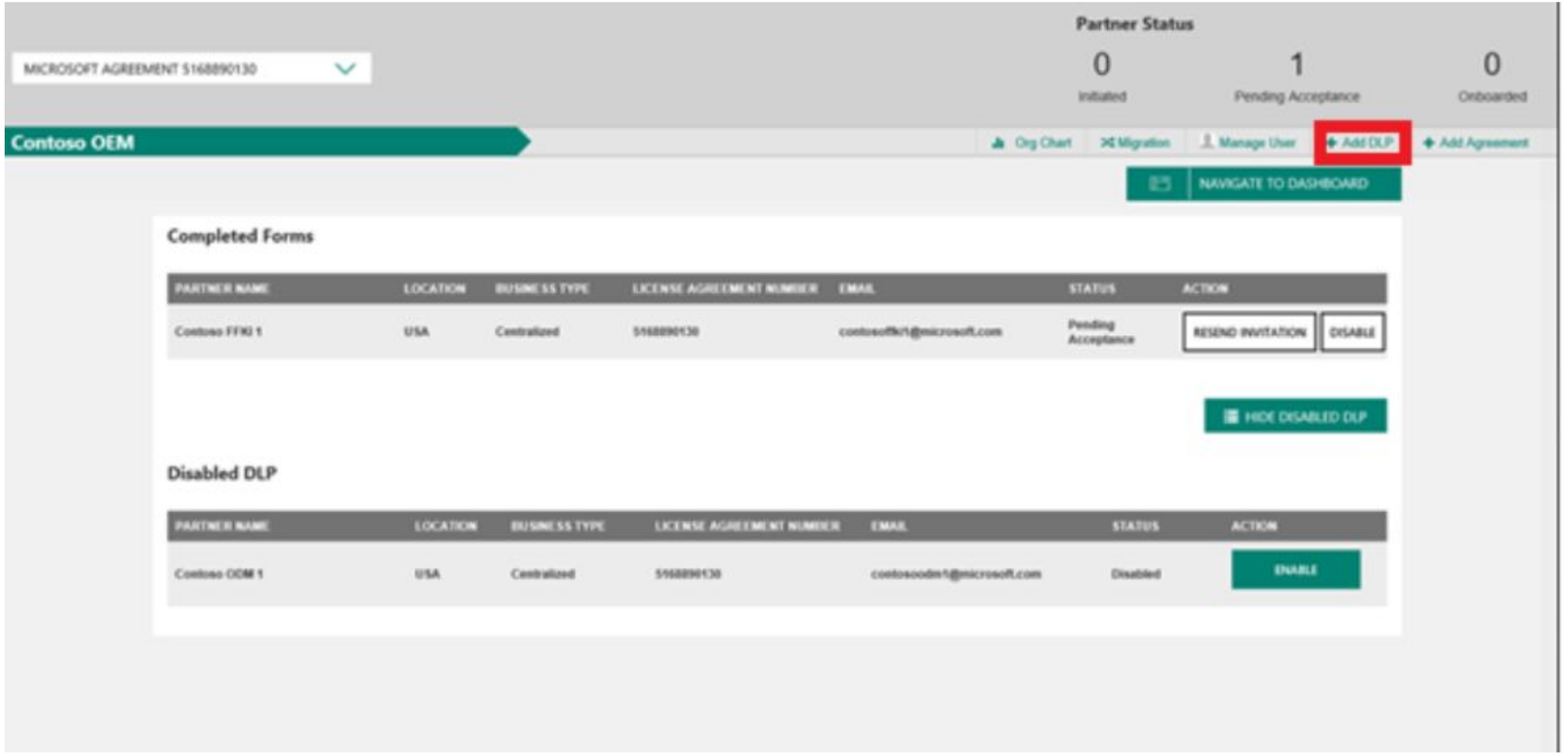
Add DLP after completing MDOS set up

Instructions: From the Dashboard<Business Administration< Manage Business



Add DLP after completing MDOS set up

Instructions: What we call Wizard page will display, you would be able to add DLP by clicking on ‘Add DLP’, also check the status of the DLP previously added



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 MDOS as LOGIN details.

Email address must be MSA, convert email address– https://signup.Microsoft.com https://account.Microsoft.com

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:

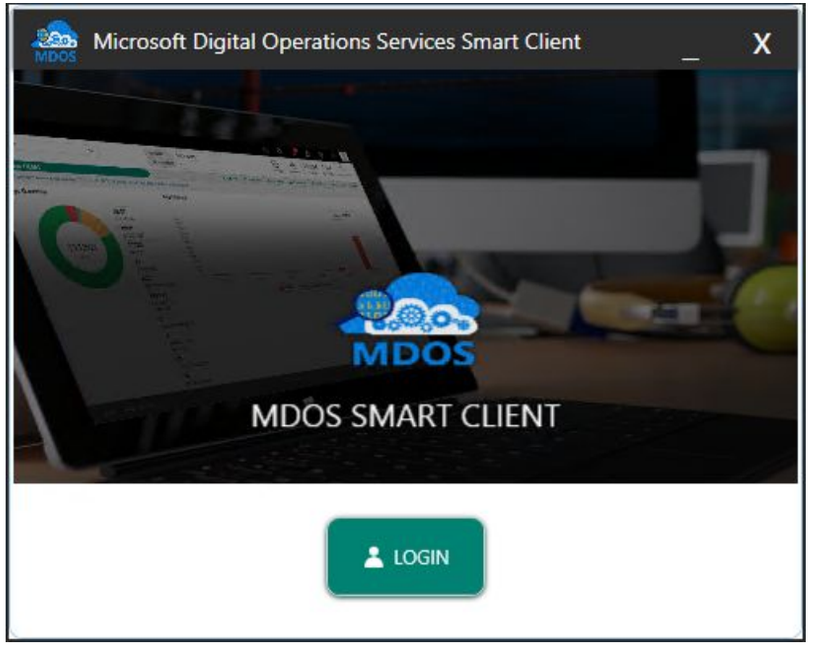
I. **DOWNLOAD MDOS SC**
   - Please click here to download MDOS Smart Client

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.



OA3 Tool

OA3 Tool – Available in Windows 10 ADK from the following link- https://developer.microsoft.com/EN-US/windows/hardware/windows-assessment-deployment-kit

- Command-line tool that supports assembling, reporting, and returning a non-unique identifier for the activation of computers on the factory floor
- Installing Windows ADK, “Deployment Tools” should be selected. After installation, oa3tool.exe (RTM version) can be found on OSDisk (C:)

Firmware Injection Tool – 3rd Party Tool

- Available from the motherboard manufacturer
- Injects the .BIN file into the Firmware

MDOS Smart Client System requirements

- Windows 10 Pro or Windows Server 2012R2 or SQL Server Standard, Express 2012 or X86 System
- Processor: 1 gigahertz (GHz) or faster processor or SoC
- RAM: 8 gigabyte (GB) for 32-bit or 2 GB for 64-bit
- Hard disk space: 32 GB for 32-bit OS or 64 GB for 64-bit OS
- Graphics card: DirectX 9 or later with WDDM 1.0 driver
- Display: 1024 x 768 Minimum

MDOS User Manual link for the steps to onboarding to MDOS SC

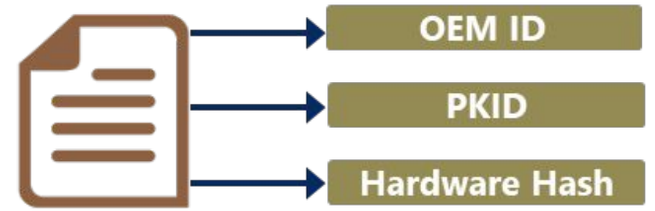
https://mdosusermanual.azurewebsites.net/Index.html

Computer Build Report (CBR) Essentials

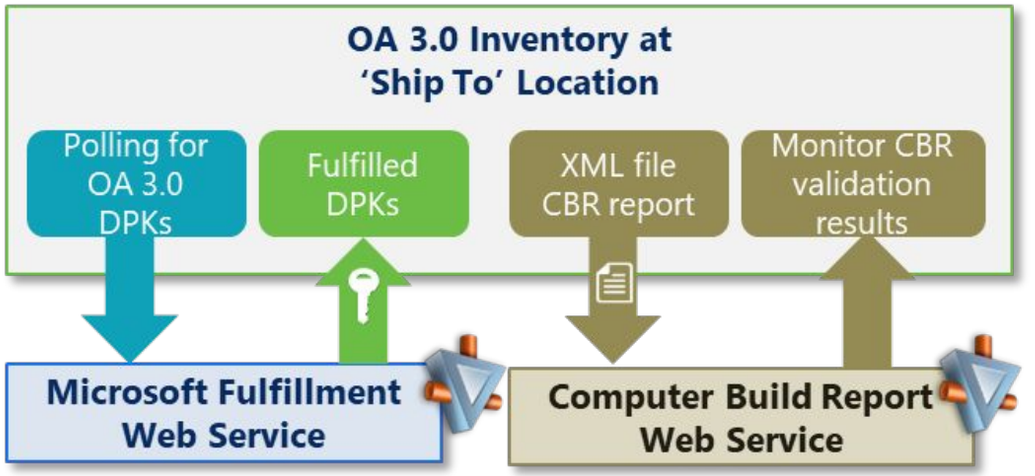
- After DPK injection and hardware hash generation has occurred, the resulting Computer Build Report (CBR) data is sent from the factory floor to the OEM corporate key inventory and then to Microsoft.
  - **Key People Involved**: OEM or TPI representatives responsible for OA 3.0 CBR submission and monitoring
  - **Detailed Training**: Fulfilment, Inventory Management or CBR Overview

Computer Build Report Overview

The purpose of the Computer Build Report (CBR) is to report bound DPKs to Microsoft for activation enablement processing.



CBR (XML file) *Key fields in the CBR*

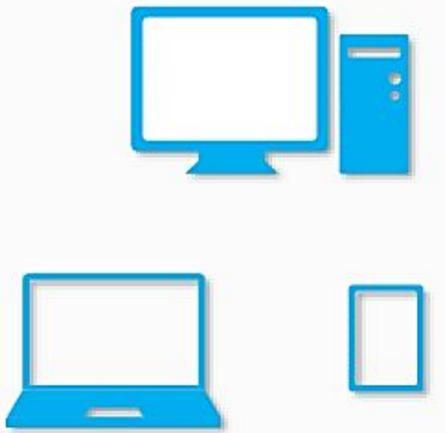


- CBRs are submitted by the OEM or TPI directly to Microsoft's CBR Web Service. The OEM/TPI who transact using a custom B2B solution will continue to require certificates in order to transact and to successfully submit a CBR
- CBR results must be downloaded and used to update your DPK inventory key states. Two potential results are possible:
  - Activation Enabled – [DPK successfully enabled for full end customer activation experience]
  - Activation Denied – [DPK not enabled for activation. These results will be accompanied by a reason code]
- OHR data must be included on the CBR and is used by Microsoft to enable programs and services that benefit OEMs, channel partners, consumers and Microsoft.

Reporting to Microsoft – OEM Hardware Reporting (OHR)

- OEM Hardware Reporting (OHR) refers to device data that OEMs submit to Microsoft for Windows devices.
- OHR data enriches device reporting to a granular level.
- There are 5 components of OEM Hardware Reporting data that OEMs provide:

1 Form Factor	2 Form Factor Sub Class	3 Touch Screen	4 Screen Size	5 Model Number
Desktop	• Standard • AIO	There are only two valid inputs "Touch" or "Non-Touch"	In inches to one decimal place for example: 10.1"	Alpha Numeric String
Notebook	• Standard • Convertible • Ultraslim			
Tablet	• Standard			



Motherboard Replacement (RDPK Allowance and Planning)

OEMs are encouraged to return DPKs from faulty motherboards to Microsoft for credit and inject a new DPK onto the new motherboard prior to returning the device to the customer. Usage of RDPK keys in motherboard replacement scenarios is optional.

RDPK Allowances

- New Partner: Upon onboarding to OA 3.0, OEMs will receive an initial allocation of **50 RDPKs** for your first quarter. This allocation of RDPKs will be available for the first quarter only, and no further RDPKs will be available until the following RDPK time period.
- Annual Allocation:
- After the first quarter, a limited volume of royalty-free RDPKs are allocated to your Company OA3 production begins according to "Fair Usage Period" which means the twelve months beginning August 1.
- For each Fair Usage Period, the Fair Usage Quantity of Replacement DPKs shall not exceed **3%** of Company's unit volume of DPKs installed in Customer Systems and reported in Company's CBRs during the 12-month period ending the preceding May 31, net of returns and other credits for those units both during and after the Fair Usage Period.
- Any RDPK orders in excess of these allowances will be subject to the full royalty rate being applied (as indicated in the Product List)

Motherboard Replacement (RDPK Allowance and Planning)

1. How to check for free RDPKs unit?
   Send to MSOEMOPS (msoemops@microsoft.com)

2. Where to check for RDPK SKU ID?
   DOC > Agreements > Manage Agreement Product

Product Name	Fulfillment Type	Language Name	Language Code	Licensable ID
motherboard	All			
Windows® 10 IoT Enterprise Motherboard Replacement (OEM Activation 3.0 Required)	DPK	Non-specific	NON	42C-00173
Windows® 8 Pro N Motherboard Replacement DPK (OEM Activation 3.0 Required)	DPK	Non-specific	NON	FWC-01639
Windows® Motherboard Replacement DPK (OEM Activation 3.0 Required)	DPK	Non-specific	NON	FQC-05607

3. Where to place order for RPDK?
   MDOS or DOC, ordering process is the same, only the SKU is different.

4. Do I need to use the RDPK immediately once I fulfil?
   No, only when necessary

Returns

- OEMs must return DPKs directly to Microsoft using the DOC returns Web UI or the returns function in DIS/MDOS
- TPIs can not be authorized to return DPKs
- OEMs are required to report all lost or stolen DPKs to Microsoft via the return tools
- The following DPK types are never eligible for credit:
  - Replacement DPKs (RDPKs or MBR keys)
  - Multiple Activation Test Keys (MAK)
  - Lost or Stolen DPKs
  - DPKs more than 365 days past fulfilment

Return Scenario	Credit Approved?	Explanation
Stock Balancing (no Computer Build Report submitted)	10% Limit & if returned within the same month as DPK retrieval	The previous month's invoice quantity determines the Stock Balancing Allowance for the current month. Any DPKs returned above this allowance would be blocked by Microsoft but no credit would be issued. Stock Balancing DPKs must be returned in the same month that they are fulfilled. Please refer to slide 18 for more details.
Manufacturing Damage (Computer Build Report submitted)	365-Day Rule	DPKs returned due to manufacturing damage must be returned to Microsoft within 365 days of the date on which the DPKs were originally retrieved from the MS Fulfillment Service in order to be eligible for credit. DPKs returned after 365 days will be de-activated by Microsoft but no credit will be issued.
Standard DPKs used for testing purposes	365-Day Rule	Standard DPKs used for end-to-end testing must be returned to Microsoft within 365 days of the date on which the DPKs were originally retrieved from the MS Fulfillment Service in order to be eligible for credit. DPKs returned after 365 days will be de-activated by Microsoft but no credit will be issued.
End User Return	365-Day Rule	DPKs returned due to End User Return scenarios must be submitted to Microsoft within 365 days of the date on which the DPKs were originally retrieved from the MS Fulfillment Service in order to be eligible for credit. DPKs returned after 365 days will be de-activated by Microsoft but no credit will be issued.
End of Life / Contract Expiration	90-Day Rule & 365-Day Rule	DPKs must be returned to Microsoft within 90 days of the contract expiration/product end of life date and within 365 days of the date on which the DPKs were originally retrieved from the MS Fulfillment Service in order to be eligible for credit. DPKs returned after these 90 and 365 day limits will be de-activated by Microsoft but no credit will be issued.
Contract Termination	10-Day Rule	DPKs must be returned to Microsoft within 10 days of the contract termination date in order to be eligible for credit. DPKs returned after 10 days will be de-activated by Microsoft but no credit will be issued.
OA 3.0 Replacement DPKs (MBR)		
OA 3.0 Multiple Activation Test Keys (TKY)		
Lost or Stolen DPKs		

Returns

- Each DPK must have a Return Reason specified. There are five OA 3.0 Return Reasons:

Return Reason	Return Reason Code	Supported Return Scenario	CBR Required?	Supplemental Documentation?
No Documentation Required	ZOA	Agreement Termination Agreement Expiration Product End of Life Stock Balancing TKY MBR	✘	✘
End User Return	ZOB	End User Return	✓	✓
Manufacturing Damage	ZOC	Manufacturing Damage	✓	✓
Test Key	ZOD	Standard DPKs used for testing purposes	✓	✓
Lost or Stolen	ZOE	Lost or Stolen DPKs	N/A	✓

GML (Genuine Microsoft Label)

GML is purchased through De La Rue (DLR)

- There are 2 separate DLR distribution locations; UK and Malta
- OEMs are required to establish a contract with De La Rue covering terms, liability, order authorization, and Ship To locations
- For further information, kindly reach out to De La Rue team <Gateshead.customerservice@uk.delarue.com>

7003 GML Required. A GML is required for this Product.

This AT resides on Pricelists for:

- Windows® 10 Pro for Workstations
- Windows® 10 Pro Standard
- Windows® 10 Pro Hardware Restricted SKU
  - Various HW-based SKUs
- Windows® 10 Home Advanced Chinese Language Edition
- Windows® 10 Home Plus Chinese Language Edition
- Windows® 10 Home Chinese Language Edition Standard Version

Additionally Pro National Academic have their own label (AT 1503)

- Windows 10 Pro National Academic Products (Worldwide)
  - Education-specific GML
- Windows® 10 Home (National Academic only)(EM) Standard Version

Note: GML remains optional in all non-required scenarios

GML Requirement Table

Windows Product	Worldwide	China
Windows 10 and 10 Pro	✔	✔
Windows 10 Pro for Education	✔	✔

New Part Number	Description
H17-10001	Windows GML
H17-20001	For Education GML

Testing

OEMs can perform testing in MDOS Test Environment and/or MDOS Production Environment, only to be used for internal test and manufacturing purposes.

1. Testing in MDOS Test Environment at Royalty free

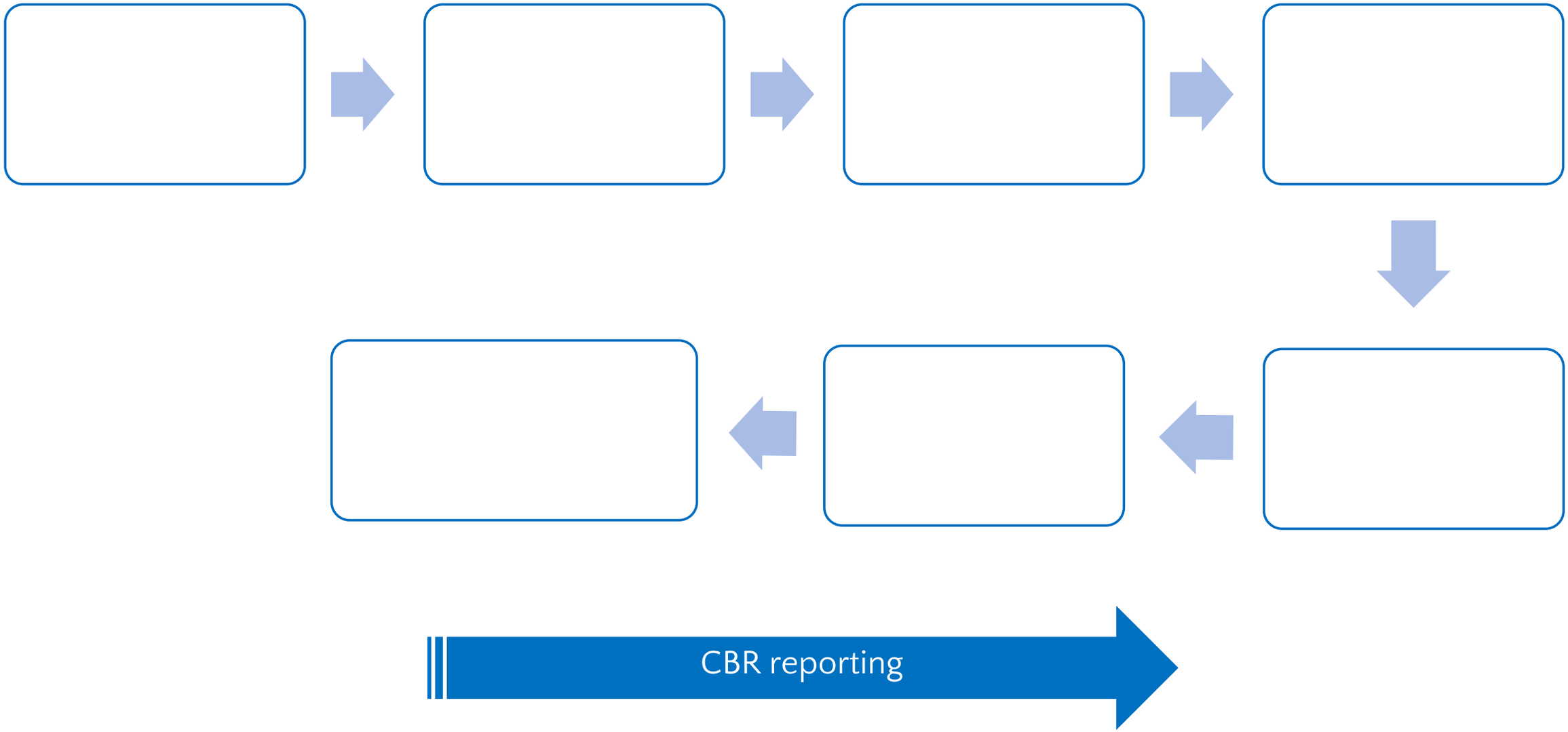
2. Testing in MDOS Production Environment

- OEMs have an allowance of 25 Product Test Keys (PTK) of a single use on a quarter basis, that function like DPK but are royalty free. These PTKs are meant to be used in the lab and image development scenario.

- OEMs have an allowance of 12 Multiple Activations Test Key (TKEY) on a quarter basis, these digital keys can be activated multiple times and used in any of the appropriate test scenarios.

- OEMs can test using real keys and return the keys for credit once CBR is reported and acknowledged successfully.

Basic Flow



Who to contact?

WW OEM Operations Support msoemops@microsoft.com

Deep Dive Resources

- The OA 3.0 Foundational training provides an end to end overview of OA 3.0, including activities, processes and tools that support OA 3.0: https://devicepartner.microsoft.com/en-gb/communications/comm-oem-activation-3-training-oems-and-tpis
- Topics include:
  - Agreements, products and Pricing Overview
  - Ordering Essentials
  - Fulfilment, Inventory Management & CBR Overview Factory Floor Essentials
  - Genuine Microsoft Labels (GMLs) Essentials
  - Test Key Overview
  - Digital Store Bundling (DSB)
  - Data Update Essentials
  - Production Build Report (PBRs) Essentials
  - Replacement DPK Management
  - Returns Essentials
  - Invoicing Essentials
  - Associated Product Materials (APMs) Essentials

- The OA3 Implementation Kit is now live on DPC: https://devicepartner.microsoft.com/en-gb/assets/detail/oem-activation-30-implementation-toolkit-zip
- For MDOS Support please review the MDOS and MSC Training Resources here

Acronyms

Acronym	Term
AM	Account Manager
BIOS	Basic Input / Output System
CBR	Computer Build Report
COA	Certificate(s) of Authenticity
DOC	Digital Operations Center
DPK	Digital Product Key
FFKI	Factory Floor Key Inventory
GML	Genuine Microsoft Label
HW Hash	Hardware Hash
NDA	Non-Disclosure Agreement
OA 2.1	OEM Activation 2.1
OA 3.0	OEM Activation 3.0
OM	Outsource Manufacturer (install images and manufacture embedded devices on behalf of OEMs)
OPK	OEM Pre-Installation Kit
PKEA	Product Key Entry Activation
RDPK	Replacement Digital Product Key
RMA	Return Material Authorization
SKU	Stock Keeping Unit
SOC	Software Order Centre
TPI	Third Party Installer/Integrator
UI	User Interface

Thank you!