

MDOS SMART CLIENT

USER MANUAL V6.0

Last Updated: November 2019

© 2019 MICROSOFT CORPORATION. ALL RIGHTS RESERVED.

THIS DOCUMENT IS PROVIDED "AS-IS." INFORMATION AND VIEWS EXPRESSED IN THIS DOCUMENT, INCLUDING URL AND OTHER INTERNET WEB SITE REFERENCES, MAY CHANGE WITHOUT NOTICE. YOU BEAR THE RISK OF USING IT THIS DOCUMENT DOES NOT PROVIDE YOU WITH ANY LEGAL RIGHTS TO ANY INTELLECTUAL PROPERTY IN ANY MICROSOFT PRODUCT. YOU MAY COPY AND USE THIS DOCUMENT FOR YOUR INTERNAL, REFERENCE PURPOSES. THIS DOCUMENT IS CONFIDENTIAL AND PROPRIETARY TO MICROSOFT. IT IS DISCLOSED AND CAN BE USED ONLY PURSUANT TO A NON-DISCLOSURE AGREEMENT

TABLE OF CONTENTS

SECTION 0. TERMS AND DEFINITIONS----- 4

SECTION 1. INTRODUCTION----- 6

 1.1 MDOS SC Value Propostion----- 8

SECTION 2. MDOS SC INSTALLATION-----10

 2.1 MDOS SC ONBOARDING-----10

 2.2 MDOS SC INSTALLATION SET UP -----11

 2.3 SYSTEM COMPONENTS-----22

 2.4 SYSTEM REQUIREMENTS-----22

 2.5 DATABASE SIZE MANAGEMENT-----23

SECTION 3. MDOS SC LOGIN-----30

 3.1 BUSINESS CONFIGURATION-----31

SECTION 4. DASHBOARD-----41

 4.1 VIRTUAL TOUR-----41

 4.2 TOP NAVIGATION BAR-----43

 4.3 MENU BAR-----49

 4.4 KEYS OVERVIEW-----56

 4.5 KEYS COUNT-----57

 4.6 KEY TRANSACTION-----57

SECTION 5. KEY OPERATIONS-----62

 5.1 GET KEYS-----62

 5.2 SEARCH KEYS-----65

 5.3 RETURN KEYS-----71

 5.4 REVERT KEYS-----75

 5.5 IMPORT KEYS-----80

 5.6 EXPORT KEYS-----83

 5.7 OA 3.0 TOOL-----89

 5.8 KEY PROVIDER SERVICE-----92

SECTION 6. REPORTS-----93

 6.1 CBR (COMPUTER BUILD REPORT)-----93

 6.2 PBR (PRODUCT BINDING REPORT)-----99

| | | |
|--------------------------------------|----------------------------------|-----|
| 6.3 | UPDATE OHR (OEM HARDWARE REPORT) | 110 |
| 6.4 | EDIT OPTIONAL INFORMATION | 114 |
| SECTION 7. SETTINGS | | 119 |
| 7.1 | SETTINGS DASHBOARD | 119 |
| 7.2 | SYSTEM SETTING | 122 |
| 7.3 | BUSINESS SETTING | 125 |
| 7.4 | PROXY SETTING | 125 |
| 7.5 | DATABASE RESTORE | 126 |
| SECTION 8. ADVANCE FEATURES | | 136 |
| 8.1 | MIGRATION | 136 |
| 8.2 | USER EMAIL | 139 |
| 8.3 | LANGUAGES SUPPORTED | 140 |
| 8.4 | ENVIRONMENT SWITCH | 141 |
| 8.5 | HELP | 143 |
| 8.6 | ABOUT | 144 |
| 8.7 | INTERNET CONNECTION | 144 |
| 8.8 | LOGOUT | 145 |
| SECTION 9. TROUBLESHOOTING | | 146 |
| 9.1 | TROUBLESHOOTING | 146 |
| SECTION 10. ACRONYMS AND DEFINITIONS | | 149 |
| 10.1 | ACRONYMS | 149 |
| 10.2 | DEFINITIONS OF KEY STATUS | 150 |
| SECTION 11. VERSION HISTORY | | 152 |

SECTION 0. TERMS AND DEFINITIONS

Terms:

OA 3.0: OEM Activation 3.0: The methodology by which an OEM can prepare a computer for the Windows 8 or Windows 8.1 or Windows 10 end-user activation and validation process.

Factory Floor Key Inventory (FFKI) refers to the inventory on the factory floor where devices are manufactured on a large scale. The number of keys needed on the manufacturing line is determined by the OEM. The number is based on the line forecast and current inventories on the Factory Floor Key Inventory system on the factory floor. The keys are protected and transmitted from MDOS to the Factory Key Inventory system via HTTPS. The MDOS FFKI connects to the MDOS Cloud directly via API or support via an offline model. The FFKI also directly connects to the OA 3.0 tool. The MDOS FFKI business model is governed by the OEM Global Partner Agreement, under OA 3.0 terms. As part of the OA 3.0 decentralized business model, the relationship between OEM and any partner managing the MDOS FFKI business model on the OEMs behalf is managed directly between the OEM and their FFKI partner.

TPI: Third-Party Installer: A manufacturer that is licensed through a TPI agreement to preinstall the Windows operating system onto a computer on behalf of an OEM. TPIs are authorized to use the OA 3.0 Tool

CBR: Computer Build Report: A report that the OEM generates for each manufactured computer at the OEM site, and then sends to Microsoft for processing. This report includes the header data, the hardware hash value, the product key ID, and any included optional information.

Hardware Hash: A unique, hash value that represents the hardware component information for a specific computer. The OEM uses the OA 3.0 Tool to calculate and send this value, in addition to the product key ID, to Microsoft in the Computer Build Report.

PBR: Product Build Report: A report that the OEM or Factory partner generates for attaching Office 365 and or Microsoft Store Products to a Windows key or set of keys prior to or post shipment of the device. A PBR can be created and submitted for a Windows Key up to the point the device is activated. PBR's cannot be submitted for Windows Digital Product Keys that are in the activation enabled state.

ULP: Up Level Partner: A partner that is a parent to the down level partner in the MDOS Business setup. Partners who are OEM's are Up Level Partners to their Factory Partners who are considered Down Level Partners in the hierarchy of the MDOS system.

DLP: Down Level Partner: A partner that is a child of the Up Level Partner (ULP) in the MDOS Business setup. Th DLP partner receives Digital Product Keys and Service Keys from their Up Level Partner in the MDOS hierarchy. The DLP is invited to join the ULP's business via an email invite, complete with the MDOS Smart Client Factory Floor tool installation link contained.

DPK's: Digital Product keys: The 25-character product key, formatted as XXXXX-XXXXX-XXXXX-XXXXX-XXXXX, which Microsoft provides to partners and end users to activate a single copy of Windows on a computer. The item that is ordered, fulfilled and deployed to the factory to be injected into the firmware of the Windows device. DPK's are used in the manufacturing of Windows based devices and can have specific items attached to these keys for end user entitlements.

Product Key ID: A unique serial number that Microsoft provides. This number is associated with the product key.

Standard Order: An order for product placed by an OEM, specifying a single delivery location (OEM or TPI site) and including a specific quantity and requested delivery date for each line item. The product keys are fulfilled directly to the OEM.

SECTION 1. INTRODUCTION

Welcome to the Microsoft MDOS Smart Client (SC) 2.0, for use with the MDOS Cloud to complete the OEM Activation 3.0 (OA3.0) end to end process. If you are not familiar with the OA3.0 process, please review the below information to ensure you have a strong base level understanding before proceeding.

OA3.0 is the new method of manufacturing Windows 10 and beyond devices. Microsoft converted using Certificates of Authority (COA Stickers) to Digital Product Keys (DPK's) which require a BIOS injection of the 5x5 digital product key into the motherboard BIOS/UEFI of every Windows device. As part of the manufacturing process, Microsoft also requires a computer build report (CBR) be sent back for each device that is manufactured with Windows 10 and beyond.

The OEM Activation 3.0 requires an end to end process to complete the manufacturing requirements. The process starts with an OEM entering into a licensing agreement to manufacture and ship Windows and Microsoft products, such as Microsoft Office. Once a licensing agreement is in place between the OEM and Microsoft, the OEM is then required to onboard to the MDOS cloud web services in order to transact.

As part of the onboarding process to the MDOS cloud, the OEM will be required to setup and define a business within MDOS and invite their respective down level partner (DLP's) to participate in the end to end process. Once the OEM onboards their manufacturing partner(s) or Third Party Installer(s) (TPI), the TPI will install the new Microsoft MDOS Smart Client 2.0 application on the manufacturing lines in order to manufacture Windows 10 systems and beyond. Please see the diagram below for an end to end flow diagram example of how the OA3.0 process works:

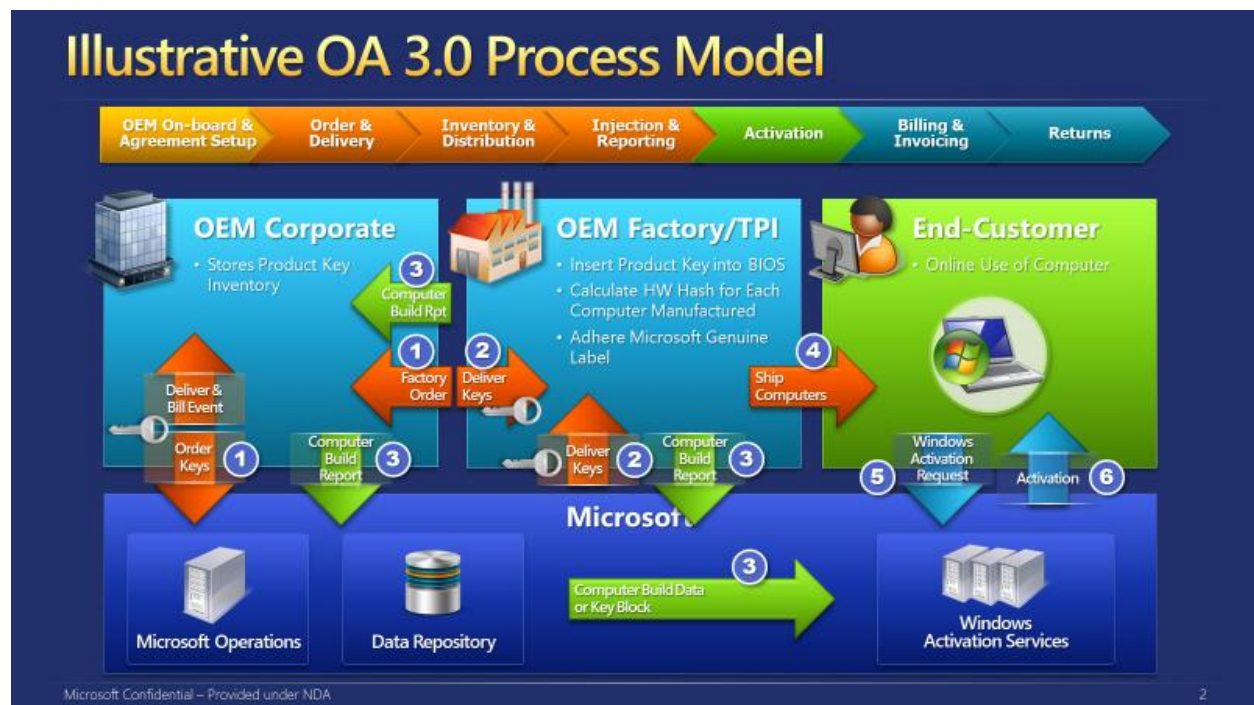


Diagram 1: OEM Activation 3.0 end to end process flow

MDOS Architecture Overview: It is important to understand the architecture of the MDOS system as there are two parts; MDOS Cloud and the MSC v2.0. The MDOS cloud is a dedicated Microsoft Azure Web Service that is available to Breadth Partners of Microsoft worldwide. MDOS cloud is a web service, accessed and managed by using a standard Internet Browser and does not require the installation of local files or applications in order to run or function.

The second portion of the MDOS service is the new MDOS Smart Client v2.0, which is a standard Win32/64bit application with web services support. The MSC is installed in the factory on the manufacturing line(s) and provides access to the Microsoft digital product keys and product pins required in order to manufacture Windows 10 devices and beyond.

Once the OEM has onboarded to the MDOS Cloud and has defined their business, the OEM is ready to invite the TPI for installation of the MSC client and the start of Windows device manufacturing. The MSC client will install and automatically connect back to the MDOS cloud for final setup and configuration. Once the MSC client completes installation, the OEM can deploy or transfer a set of Digital Product Keys to their respective Down Level Partners (TPI's) for manufacturing windows devices and sending back a CBR for each device, thus completing the full end to end OA3.0 process.

MDOSSC Client 2.0 Overview: The Microsoft MDOS Cloud is an Azure based web service offering that is used mainly by either an OEM and or an ODM partner. The MDOS cloud is the "Parent" entity in the business definition within the MDOS system and is the service that connects to Microsoft's OA 3.0 backend web services (see diagram 1 OEM Activation 3.0 end to end process flow). The MDOS cloud is used by the OEM/ODM to place orders, fulfill the digital product keys, setup a business with down level partners in factories, perform digital product key computer build report (CBR) submissions, Product Binding Report (PBR's) submissions, as well as digital product key returns in what we call a Centralized Business setup. The MDOS cloud is used to connect to the MDOS Smart Client, which resides within the factory or manufacturing site, in order to complete Windows OA 3.0 manufacturing end to end requirements.

The MDOS Smart Client V2 is a web services based smart client application that is required to complete Windows 10 and beyond OEM Activation 3.0 manufacturing. The new MDOS SC is a standard 32/64bit Windows application that will install on a Windows workstation or Windows Server class machine. Once the OEM partner has logged into the MDOS Cloud, they will proceed to creating a secure business. The business they define will depend on their manufacturing requirements and needs, the number of manufacturing partners required, and the locations these factories reside. The OEM partner will decide who their manufacturing partners will be when manufacturing Windows devices. Once the OEM has identified their manufacturing partners, they will "invite" their manufacturing partners into their MDOS Business by sending an MDOS Cloud email to the manufacturing contact they will work with. The manufacturing partner contact upon receipt of the "MDOS Business Invite" email, will click on the client installation link to begin installing the MDOS SC v2 client onsite. The MDOS client will automatically determine the requirements to complete the installation of the client software and to securely connect that client to the respective Up Level Partner (ULP) in the MDOS Cloud.

Once the MDOS SC installation completes and the manufacturing contact logs into the MDOS SC system, they will have access to Windows based Digital Product Keys deployed by their Up Level Partner (ULP),

the OEM or ODM. The manufacturing contact can log into the MDOS SC system using either their Microsoft Account (MSA) or Corporate Active Directory Account (AAD), The MDOS SC can accommodate any number of Up Level Partners to work with, ensuring the individual ULP's partners Digital Product Keys remain separate and secure from other DLP entities within the OEM's business setup. Once the MSC is connected to the MDOS cloud, the parent partner can view all manufacturing related activities performed by their down level partner real time as required. The MSC manufacturing site can send CBR's, PBR's and DPK's back to their Up Level Partner using the new MSC Client.

1.1 MDOS SC VALUE PROPOSTION

Description

This section provides an overview of the new features and capabilities which MDOS SC offers to the partners.

Single Click Installation

Single click installation provides the end user with a single click "setup" that begins and completes the new MDOS Smart Client installation. Single click setup will complete all software required to enable digital commerce and transactions with Microsoft via the MDOS Cloud.

Rich UX Feature

- **Mirrored User Interface:** The new MSC will mirror the MDOS Cloud's User Interface (UI), providing customers with a familiar UI, enabling the ability to onboard and transact in a much faster way.
- **Auto switch between PQ (Test Environment) and Production (Production Environment):** MSC will offer partners and customers the ability to switch back and forth between the PQ Test environment and Production environment, without the need to re-install the MSC client.
- **Rich Onboarding and Readiness Content:** The new MSC will provide in depth and detailed onboarding documentation, user manual, tooltips as well as step by step embedded videos to assist partners and customers with installation, onboarding and general usage scenarios.

Live Notification Feature

Provides live notification features on performing any key operations in SC

- **Offline/Disconnected MSC (AKA File Based OA3):** The new MSC will no longer support the concept of "File Based" OA3, the ability to export the Digital Product Keys from the system to manually burn the DPK into a machine, importing the Computer Build Report back into the system once complete. With the new MSC, customers will only have 24 hours for the MSC to be "disconnected" from the Internet and the MDOS Cloud. After 24 hours of being

disconnected, the statistics and state of the client will no longer be accurate and will require a connection to complete additional functions and use available features.

- Digital Products Key (DPK) Full E2E Encryption: The new MSC will support full DPK encryption from MDOS Cloud to the Client. All communications that occur between the new MSC and the MDOS cloud will be encrypted, ensuring full service security and protection.

Effective Interaction with MDOS Feature

- Documented API's and Security Layer: Soon, both MDOS Cloud and MSC will support a programmatic interface via supported Application Programming Interface (API's) to complete transactions with Microsoft and down level partners. These API's will enable partners to connect MDOS Cloud of MSC to existing ERP, MES and or EMS factory systems, avoiding the use of the User Interface.
- API backward compatibility N and N-1 version: Both MDOS Cloud and the MSC will soon support direct API programming interfaces for partners who want to digitally transact in a programmatic way. The API support will provide ways to interface with existing shop floor and corporate systems already in place. Microsoft will support N (Latest API version) and N-1 (Previous API version) support, which means we will require partners to upgrade when the version of the API is extended beyond N.

Silent Update Feature

Silent update enables the deployment and installation of new features, services and or bug fixes to the MDOS Smart Client (MSC). Partners and customers will no longer need to identify, download and run a separate update package to upgrade their MDOS Smart Client software. Silent update will automatically update the MSC automatically without user interaction or prompts, always keeping the client up to date with the latest offerings from Microsoft

MSA and Corporate AAD Sign In

The new MSC will support both Microsoft Account (MSA) and Azure Active Directory corporate sign in and authentications. Feel free to use whichever MDOS login account meets your needs as both MDOS Cloud and Client support both sign in and authentication options. AAD is a more secure login that leverages the customers corporate email address.

The MDOS FFKI Smart Client:

- Interacts with MDOS, and consumes the services relating to key fulfillment, computer build report, product binding report, and key recall.
- Interacts with Microsoft OA3.0 Tool, and provides interface support to Assemble, Report, and Return through the Key Provider Service (KPS) component.
- Works as a production system in a factory's production line that has onboarded to OA3.0.

- Supports user management and logging support for security and traceability.

SECTION 2. MDOS SC INSTALLATION

2.1 MDOS SC ONBOARDING

Overview:

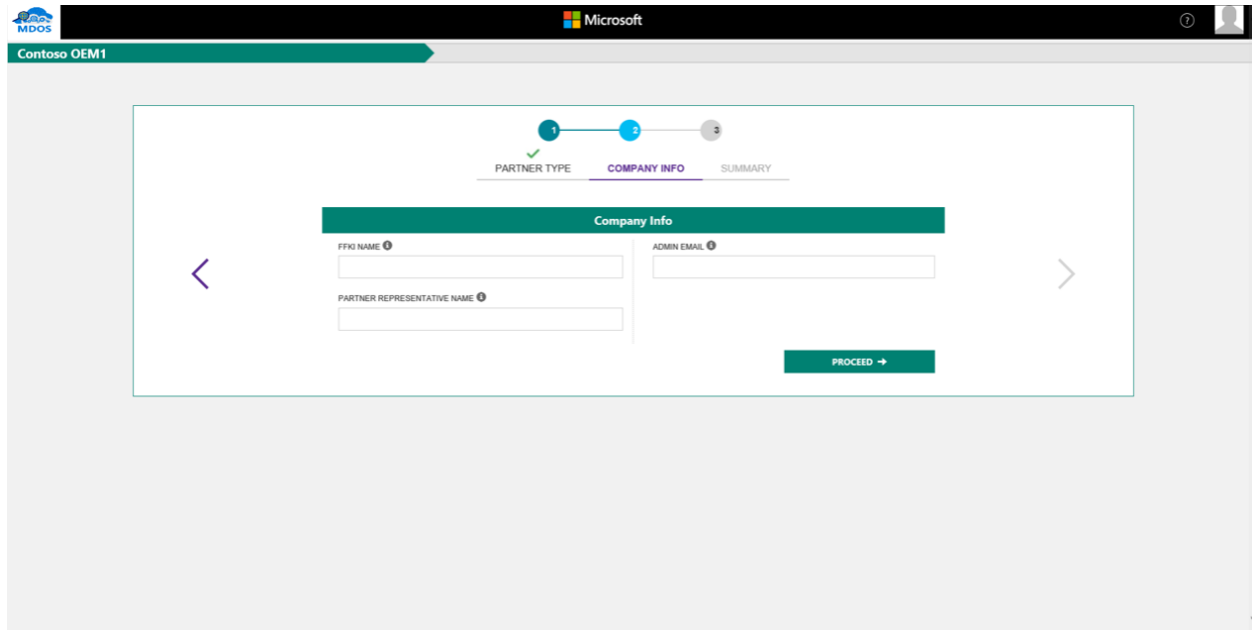
The new MDOS SC client is a factory floor line client application that interfaces with the MDOS Cloud to enable Windows device manufacturing utilizing the OA3.0 activation process. The OEM partner will use the MDOS cloud “Business Setup” to invite their factory floor partners to their business setup in the MDOS cloud. The OEM can decide to create a tiered architecture to the factory by using the MDOS FKI (Datacenter) cloud instance that provides control and/or management of the MDOS SC FFKI clients on the physical factory floor. For example, an OEM may have 2 factory partners they would like to work with. These downstream factories each have a data center where the factory floor lines are controlled and managed. The OEM may decide to setup their business structure with 2 FKI’s representing the 2-factory datacenter’s as an additional level of management. The OEM would thus create 2 Down Level Partners within their MDOS business representing the factory data centers, or FKI’s. Those FKI sites can then choose to add as many MDOS SC FFKI client systems on the physical factory floors as required. The MDOS Cloud FKI instance will now receive Digital Product Keys from their parent, the OEM, and can subsequently transfer DPK’s to their respective MDOS SC FFKI’s individually as needed. This setup allows the factory to restrict internet traffic to the factory floor, routing only the MDOS SC FFKI client traffic to the actual factory floor. This setup also provides an additional level of DPK management by requiring the FKI (Factory DataCenter) staff to manage the individual down level FFKI lines individually.

The OEM/TPI can also decide to forgo the need for an MDOS Cloud FKI and simply invite the factory partners to participate with just MDOS SC FFKI clients as down level partners within their MDOS Business setup. This allows the OEM to transfer DPK’s directly to the factory floor for manufacturing, avoiding the setup of the Cloud FKI entity at all.

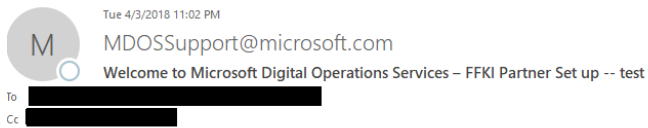
Instruction: Follow the high-level steps for onboarding the new MDOS SC FFKI client into the MDOS Cloud by downloading the MDOS SC installation package

Step-by-step:

1. OEM/TPI needs to add the new down level partner (DLP) FFKI in MDOS cloud by providing a name for the FFKI instance, partner representative name and email id of the FFKI representative, the factory manager or the person who will be responsible for the new MDOS SC installation (Note: Email id needs to be unique for each FFKI)



2. Once the new DLP FFKI instance has been added successfully in MDOS, the FFKI partner will receive an email with a hyperlink to download the latest MDOS SC FFKI installation package



Hello [redacted]

Welcome to the MDOS Smart Client (MSC). Cloud OA OEM 3 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**
 - o Please click [here](#) to download MDOS Smart Client
- II. **READINESS MATERIALS (USER MANUAL AND VIDEOS)**
 - o To get detailed instructions on how to complete installations, set up and key operations please refer to user manual [URL](#)
- III. **TECHNICAL SUPPORT**
 - o 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.

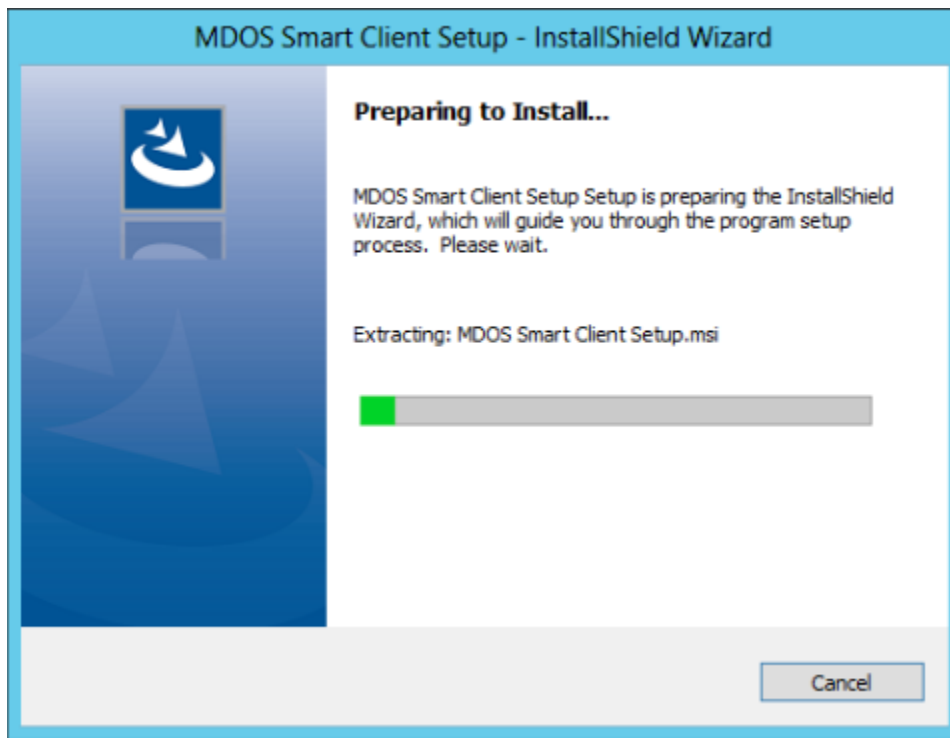
3. Partner must choose to download and save the package to their local machine for installation. We propose saving the installation package to the users Desktop for easy access and ease of installation.

2.2 MDOS SC INSTALLATION SET UP

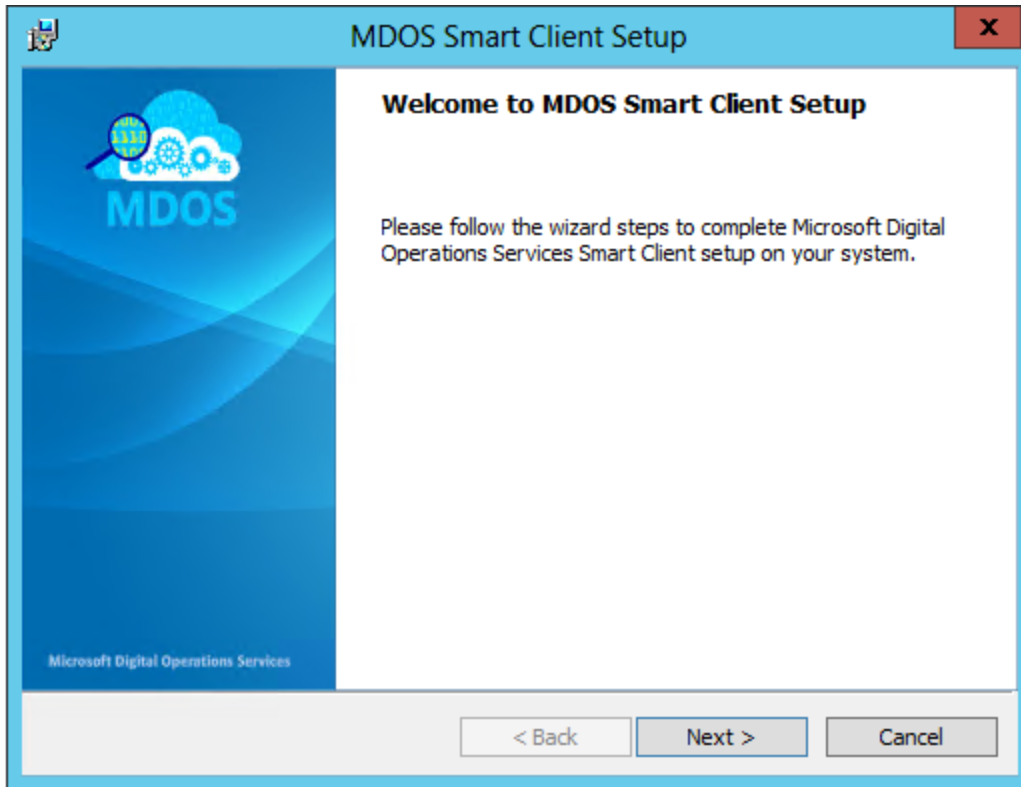
Instruction: Follow the below steps to install MDOS SC in partner's machine.

Step-by-step:

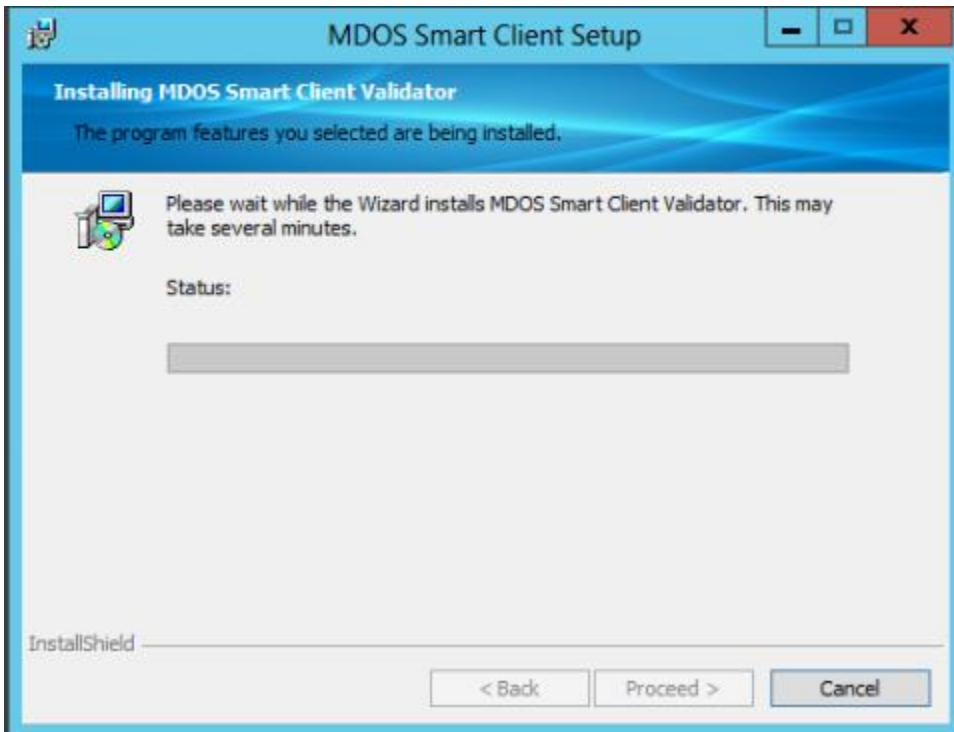
1. Go to the folder where you saved the new MDOS SC setup package.
2. Right-click the new *MDOSSC.exe* setup package and select 'Run as administrator' and begin the install.



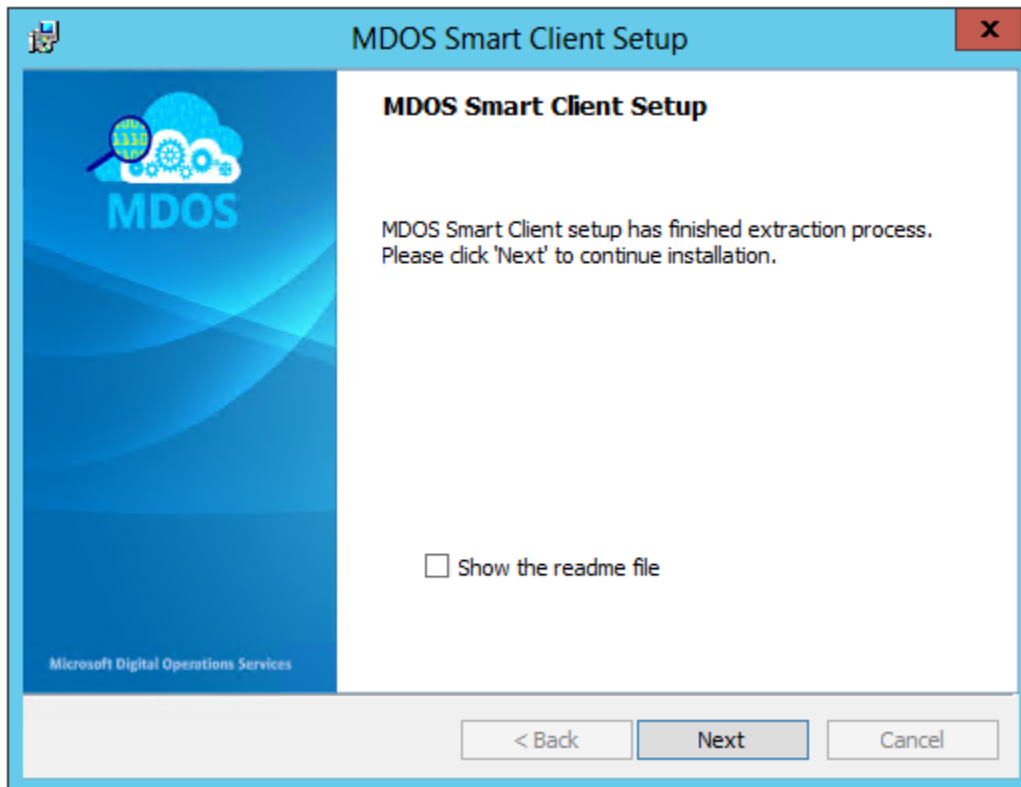
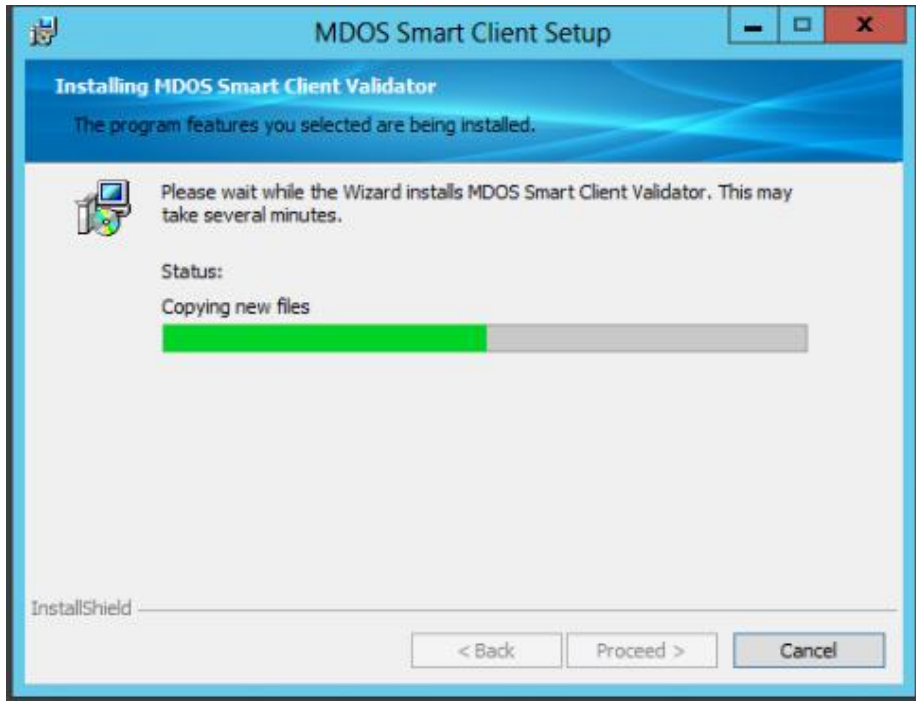
3. After the setup wizard is launched, a welcome screen will pop up. Click Next.



4. Click on Proceed button.



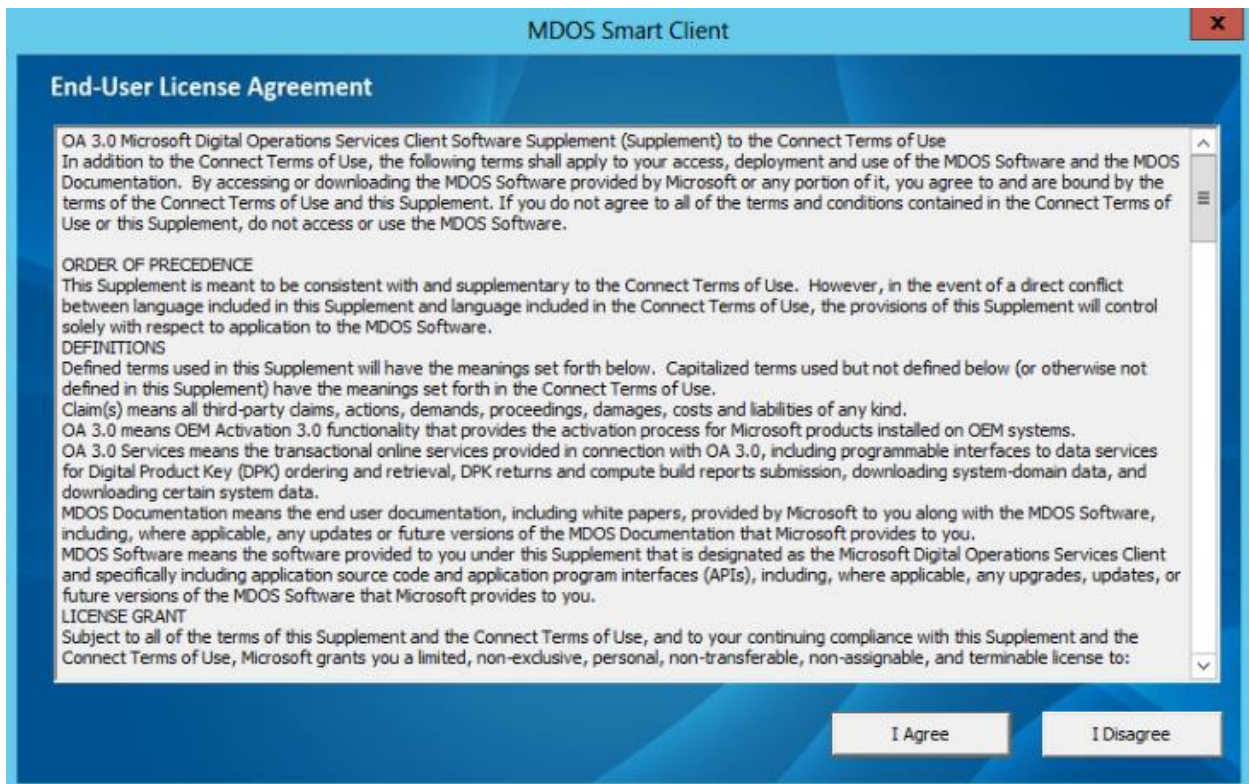
5. The setup will validate for the required pre-requisites (ex. .Net Framework, SQL server) if it is already available.



6. Once the validator is installed, click on proceed button.



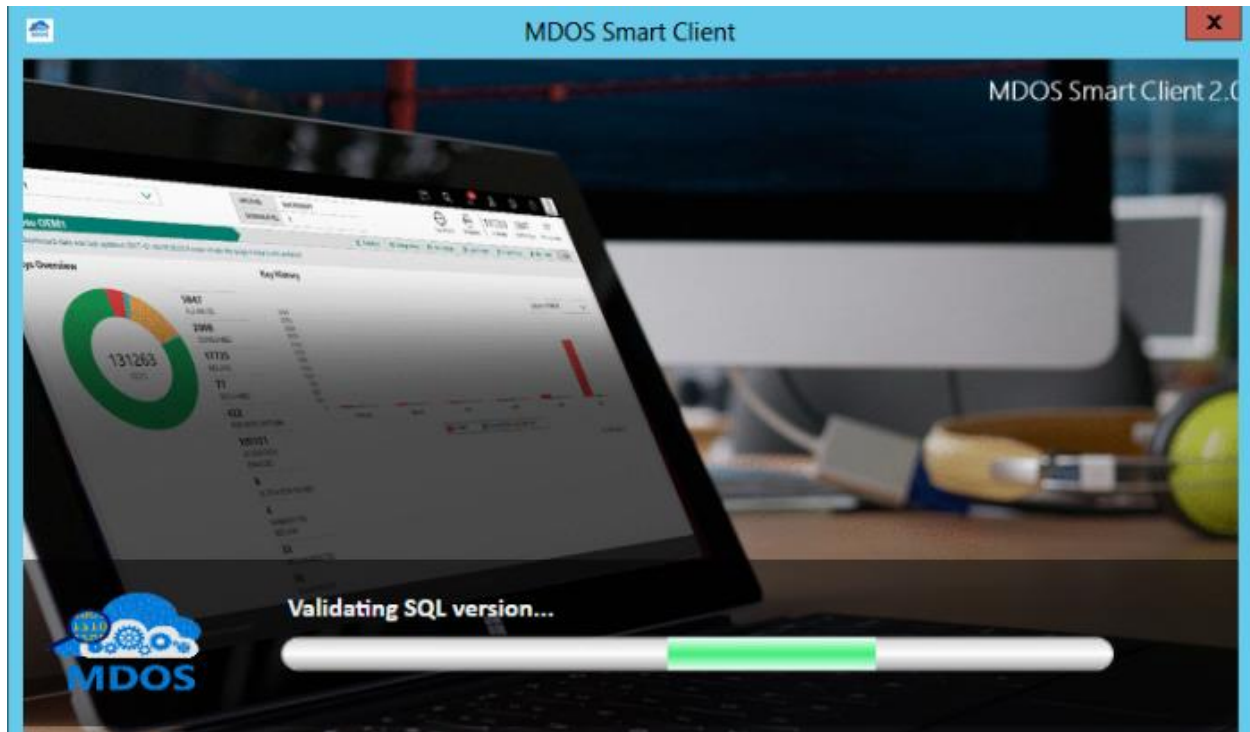
7. When directed to the End-User License Agreement (EULA) window, please go through the terms and conditions and click on "I Agree", only if you agree, to proceed with installation.



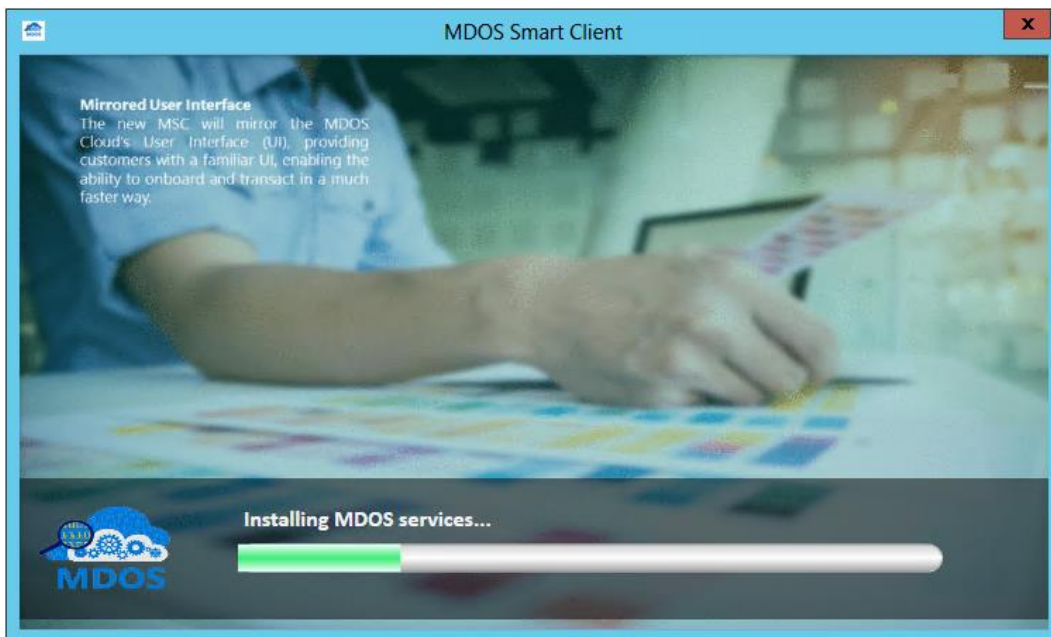
8. If MDOS SC detects an existing MDOS FFKI 1.x version already installed on the machine, the partner will be displayed with the below pop-up message, asking if they want to upgrade from FFKI1.x to the new MDOS SC

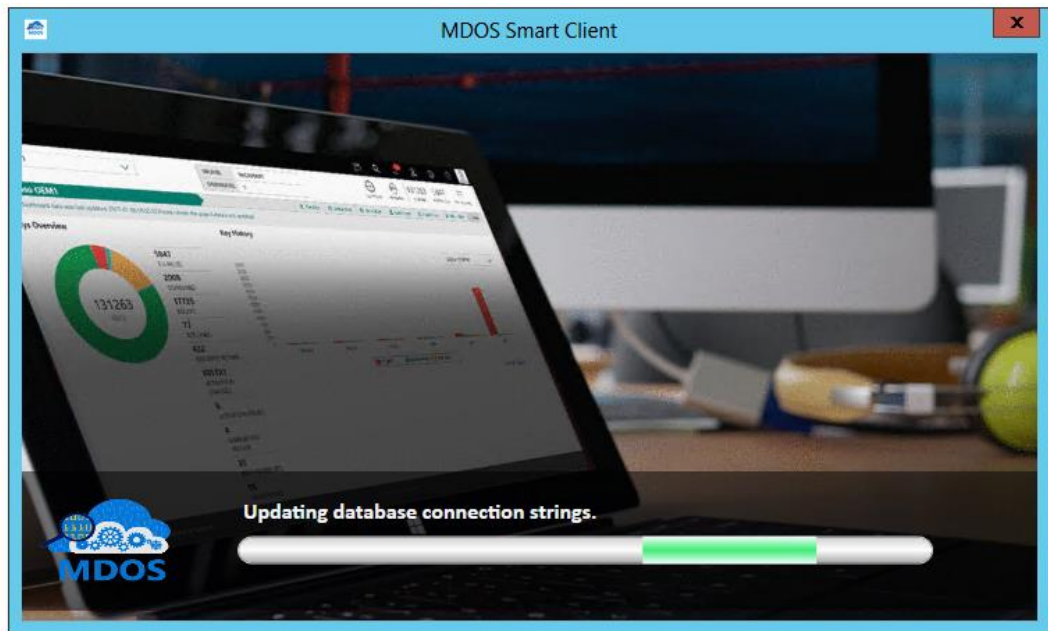
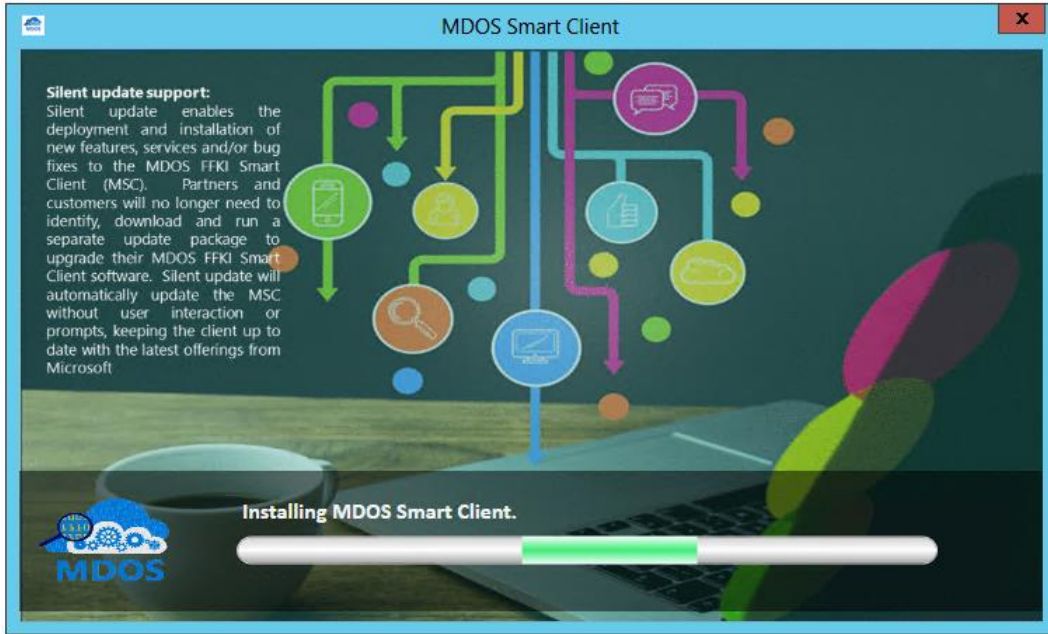


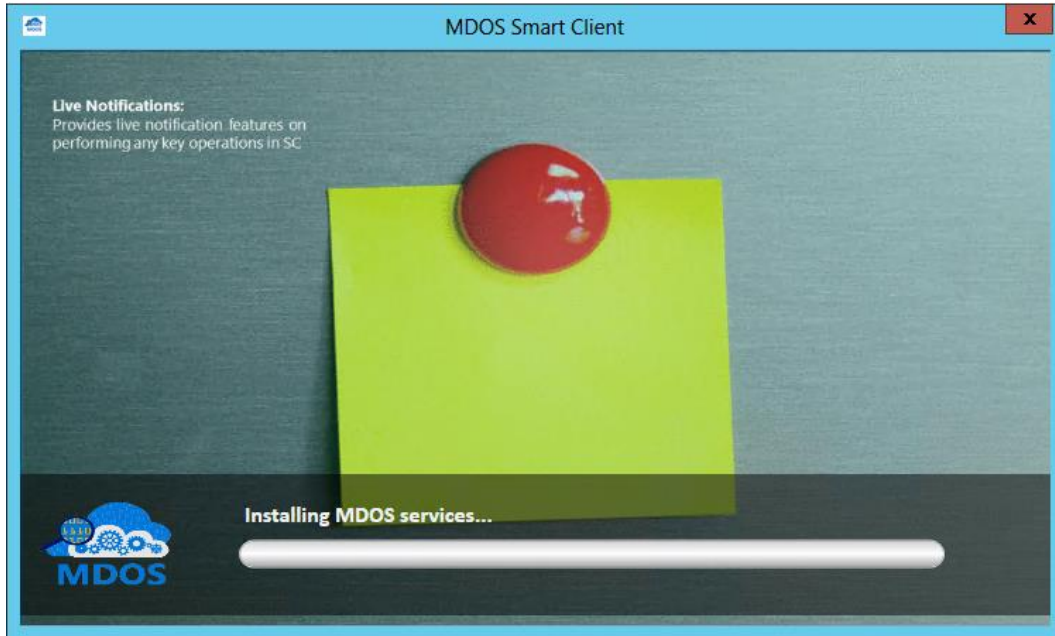
9. If the partner clicks 'Proceed' button, SC installation will continue.
10. The setup package will verify if the SQL express 2016 is already installed in the machine, if not the package will install the software.

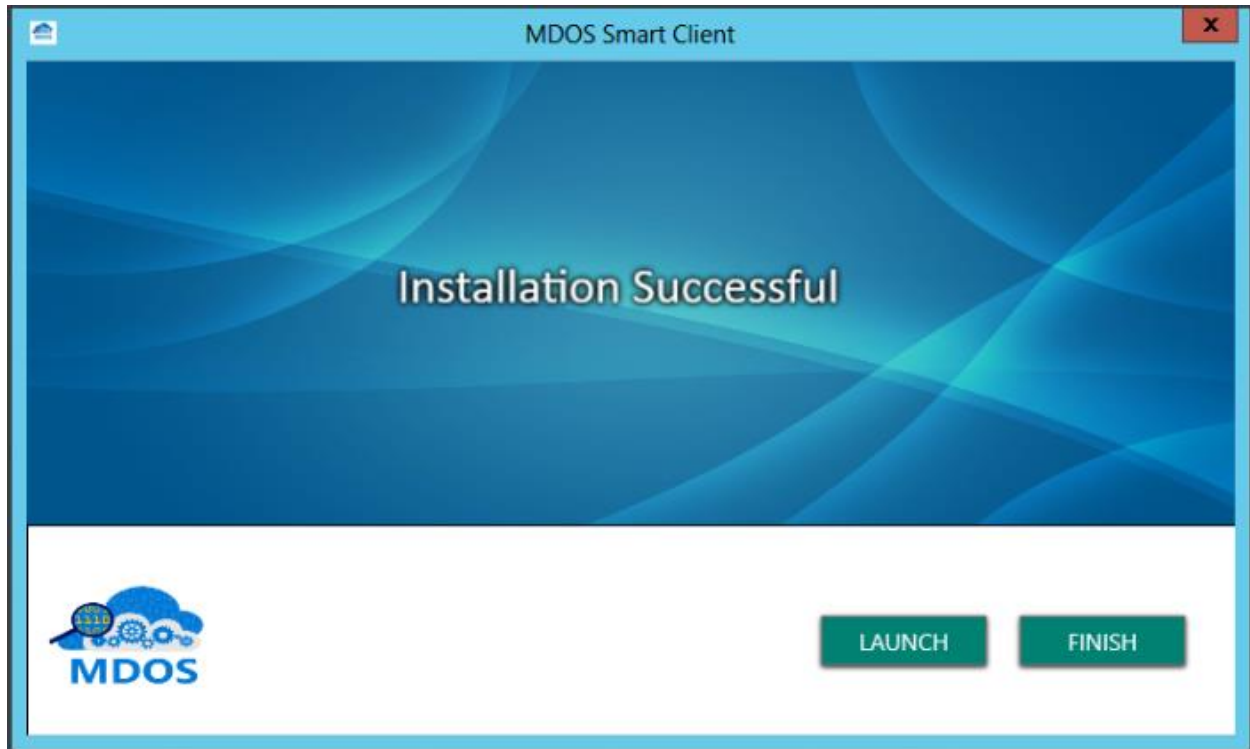


11. If there are any old SQL versions installed on the machine, it will automatically upgrade to the SQL version 2016 SP1.
12. Once the SQL express edition is installed successfully, the package will install the MDOS SC application.
13. Watch for the information displayed during the installation screen









14. Once the setup is completed, the application is ready to use. Click on the Launch button if you want to use the application just after installation or click on finish.
15. Installation process will take 20 to 30 minutes depending upon the hardware configuration of the machine.
16. Installation might fail if there is any pending system restart to install services and dependency applications. Please restart your system and install again in this case.
17. If the setup ends before installation process is completed, setup screen will show "Installation Interrupted" message. Please refer to 'Troubleshoot' section to troubleshoot the issue.



2.3 SYSTEM COMPONENTS

Description

This section explains about the components that will be packaged along with MDOS SC application.

MDOS SC includes the following components,

- Smart Client application,
- Key Provider Service (KPS),
- MDOS Web Services,
- Windows Services,
- Database (Test and Prod)

2.4 SYSTEM REQUIREMENTS

Description

Review the system requirements and acquire the software and hardware system needed before beginning the MDOS SC installation process.

Partners should set up the user profile for SC in only one machine, if more than one machine is configured the same user profile, then partners might face issue in key operations.

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

2.5 DATABASE SIZE MANAGEMENT

Description

Microsoft Digital Operations Services – Smart Client (MDOS-SC) data purging

Starting in November 2019, aged data will be purged from the local MSC database when the database reaches its set size limit in order to maintain operational continuity.

Details

In order to maintain operational continuity within the MSC system, aged data will be purged from the local MSC database when the database reaches its set size limit of 8GB (this is a configurable value).

Please note that as the data purge is only local to the system, there will be no impact on data stored within MDOS. Full key information and transaction data are still retained by Microsoft in our internal systems.

Important information about the data purge

- Only aged information will be affected, more detail on the data that will be removed can be found in the documents referenced below

- Users can choose whether to allow the purge when prompted or select “later” if they do not want to allow the process at that time
- If users do not allow the data purge within a suitable timeframe this may cause the MSC instance to crash and data to be lost at a later date due to database reaching its limit
- Hardwarehash data can be retrieved after the purge if needed, more detail on this process can be found in the documents referenced below

Benefit

This new practice of purging aged data will help maintain operational continuity within the MSC system.

Frequently Asked Questions

Q. When will purging happen?

A. When the MDOS-SC Database size reaches the threshold of purging, i.e, the database size has reached 8 GB (this is a configurable value), the purging process will be triggered.

Q. How will a user know when the purging process is starting?

A. MDOS-SC users for which the threshold has been reached will get a pop-up message when they perform either of the following actions in MDOS-SC:

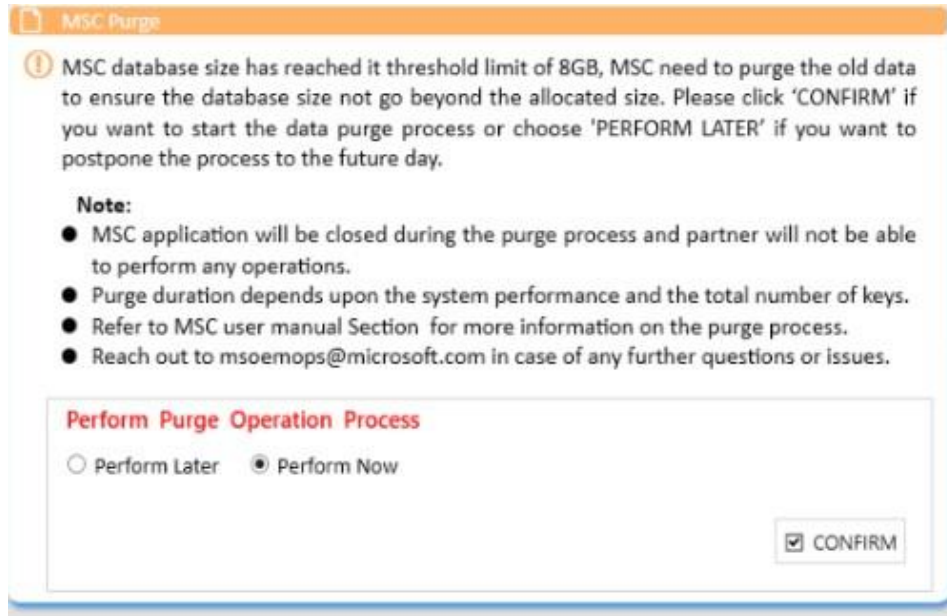
1. Logging in to MSC
2. Moving to the Settings screen

Q. Does the purge have to be completed when the notification appears or can it be scheduled?

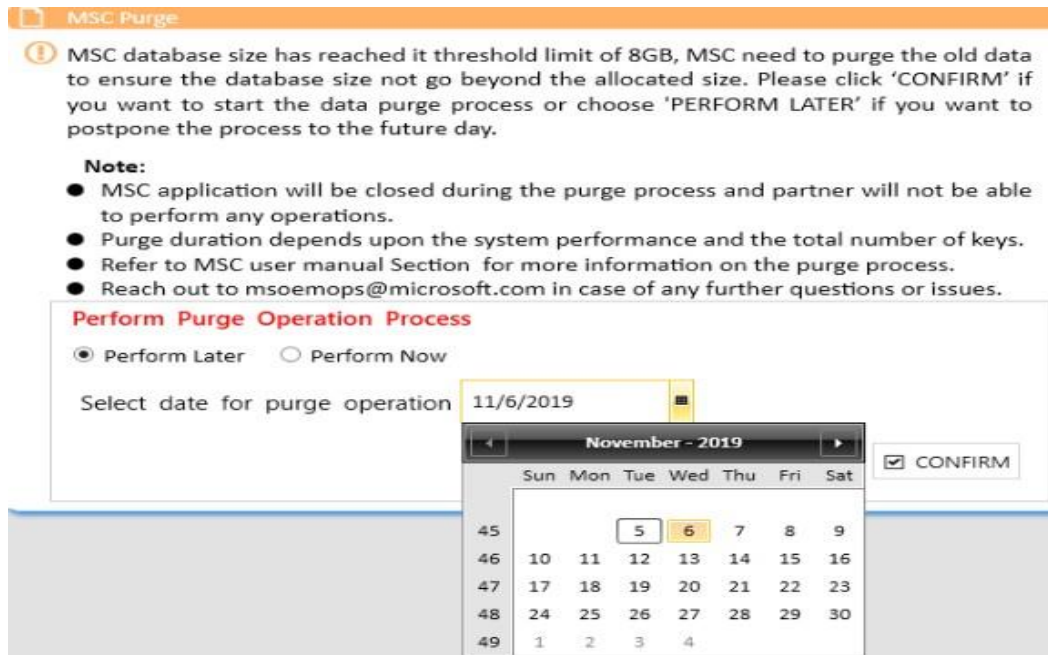
A. The user can choose to perform the purge immediately or delay to a later date.

MSC will keep prompting the user to allow the purge until it has been completed.

1. **Perform Now:** If you choose to perform immediately, please select Perform Now and click confirm. This will close the MDOS – SC application and start the purging process.



2. **Perform Later:** Clicking this button will allow the user to select a preferred date to perform the purge. The user should click confirm and close the pop-up window. The user will be able to use MDOS-SC as usual.



Q. Can MSC be used during the purge process?

A. The MDOS-SC application will remain closed during the entire purging process.

- If the MDOS-SC user tries to open MDOS-SC during the purging process, a pop-up message will be displayed informing the user that purging is in progress.
- The MDOS-SC user will be able to log in to MDOS-SC and perform operations without any issue once the purging process is complete.

Q. How long will the purging process take?

A. For 8 GB of data with the recommended hardware configuration, the purging process should take around 30 minutes. With a lower hardware configuration, the process might last up to 3 hours.

Q. Can the purge be scheduled for a specific time?

A. Yes, when the user selects “later” they will be prompted to select a date and time.

Q. What happens if the purge process is not performed?

A. If the user does not purge the data and the database size grows beyond the limit, MSC will not respond as expected or may even stop working **Q. Which data will be purged?**

A. Once the user confirms the purging process, the following data will be cleared from the MDOS-SC database:

- 1. Key history:** The history of keys that were **returned** and **activation enabled** up to 90 days (this is a configurable value) prior to the purging confirmation will get cleaned up. Only the last key history of such keys will be displayed after the purging process is completed.

No key history purging will happen for keys that were returned or activation enabled within 90 days of the purging confirmation.

No key history purging will happen for keys in any other state except the abovementioned ones.

- 2. Hardwarehash:** The hardwarehash of keys that were **returned** and **activation enabled** up to 90 days (this is a configurable value) prior to the purging confirmation will be cleaned up. The hardwarehash field for these keys will be displayed as blank after the purging process is completed. No hardwarehash purging will happen for keys that were returned, or activation enabled within 90 days of the purging confirmation.

No hardwarehash purging will happen for keys in any other state except the above mentioned ones.

3. Key transaction data: Key transactions (CBR and PBR) which were completed up to 60 days (this is a configurable value) prior to the purging confirmation will be cleaned up. These transactions will not be displayed in the MDOS-SC application when the purging process is completed. Transactions that were completed within 60 days of the purging confirmation will not be purged.

Transactions that have not been completed yet will not be purged.

4. Alerts: Alerts that were received in MDOS-SC up to 90 days (this is a configurable value) prior to the purging confirmation will get cleaned up.

5. Logs: These are internal database logs and do not track any action done by partners.

| Purged data | Key Status | Aged time | Retrieve available |
|------------------|-----------------------|---------------|--------------------|
| Key History | Activation & Returned | up to 90 days | No |
| Hardwarehash | Activation & Returned | up to 90 days | Yes |
| Log | all | up to 90 days | No |
| Alert | all | up to 90 days | No |
| Transaction Data | CBR and PBR | up to 60 days | No |

Q. Will the purging process remove all of the aged data mentioned in the table?

A. No. The purge tool will check the database after each data category is purged. If the database size is now below the archival threshold, no further purging will be done and the process will be completed.

For example, let’s say that the purge threshold is 8 GB but the database size has reached 9 GB. Once the user confirms the data purge, the archival process will start. Let’s also suppose that the purge sequence is as follows:

- 1) SQL logs
- 2) Hardwarehash
- 3) Key history
- 4) Transactions
- 5) Alerts

In this case, the purge will happen to the SQL logs first. Once the purge for SQL logs is completed, the purge tool will check the current size of the database. If the size is still greater than the threshold value, the purge for the hardwarehash of eligible keys will start. Once the purge process of the hardwarehash is complete, the purge tool will again check the current size of database.

Now, if the size is still greater than the threshold, the purge process will continue to the next data category according to the set sequence. However, if the database size is now less than the threshold value, the purging process will stop there, and in the example provided, the key history, transactions, and alerts will not be touched by the tool.

Once the purging process is complete, the user can use the MDOS-SC application as usual.

Q. How can partners check the current database size?

A. Partners can see the current database size in the Settings dashboard. They can click on **Monitor Database Connection** in the dashboard and view the database size.

Q. Which purged data can partners retrieve from MDOS?

A. Only aged data will be purged.

- Partners will be able to retrieve the hardwarehash from MDOS by clicking on View Key option which is available after right clicking on the key in search results.
- The other purged data will not be available in MDOS.

Q. Why is the HH data being purged?

A. We have duplicated data stored at MDOS cloud as well, we will keep HH in 90 days for any factory query, up to 90 days HH record you can find on OEM MDOS.

Q. Why is the key history data being purged?

A. Key history contains the history of key state changes in MSC. This information has no significance after 90 days of the key being activation enabled or returned.

Q. Why is the alert data being purged?

A. Alerts that are more than 90 days old are not relevant to partners.

Q. Why is the key transaction data being purged?

A. Transactions are meant to monitor the process of key state transition during reporting. Once the transaction is complete, this information will no longer be significant.

Q. Why are the logs being purged?

A. Logs are internal database logs and not visible to partners.

Q. How can partners retrieve the data stored in MDOS?

A. OEM Partners can follow the instructions mentioned in the MDOS user manual to find the HH information.

Partners can go to their ULP and request the hardwarehash against the product key.


Partners can also raise a ticket with the mdoemops, providing MSFT Product Key IDs or MDOS Product Key IDs to get the hardwarehash.

Q. Does this process impact MDOS data?

A. No

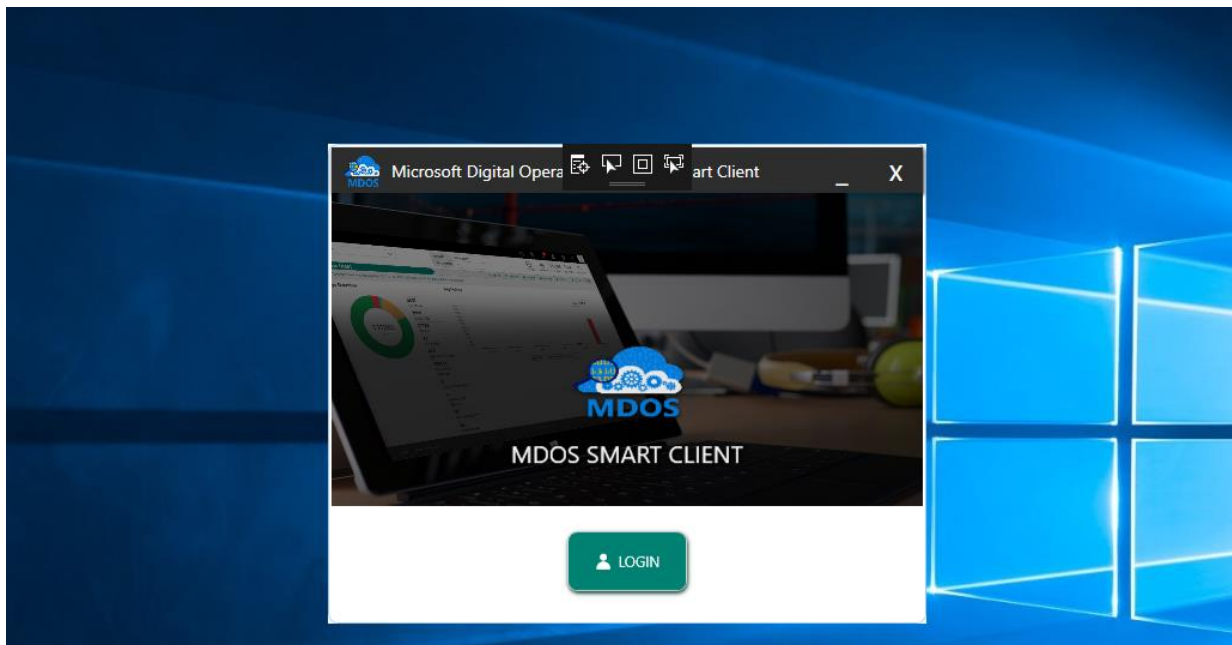
SECTION 3. MDOS SC LOGIN

Instruction:

To launch the new MDOS SC application, locate the MDOS SC icon  shortcut created in the desktop, right click and choose “Run as Administrator” and the application will launch and execute, prompting you to login

Step by Step:

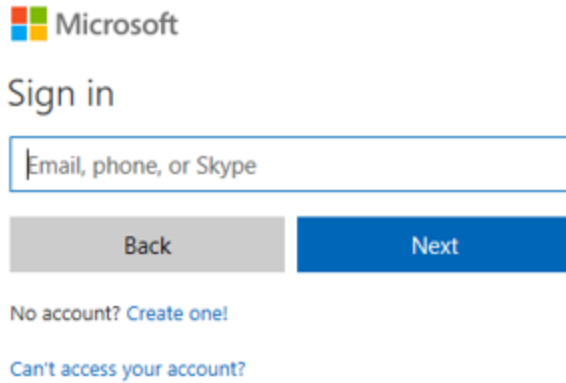
1. Right click on the SC icon and run it in administrator mode.
2. You will see the login screen popup



3. Click on login button to launch the application, partner will be asked to provide the email ID and password of the FFKI added in the MDOS Cloud by the Up Level Partner, usually the OEM or ODM. This email address and login ID is the email address and password of the Factory Worker who will use the MSC FFKI Client application to manufacture devices.

NOTE: MDOS SC will ask the partner to provide the email ID and password only for the first time, for the subsequent logins, SC will cache the information and allow partner to login on click ‘LOGIN’ button without providing email ID and password, till partner clicks the ‘LOGOUT’ button.

Sign in to your account



4. Once valid email and password are provided, and login is successful, partner will be redirected to business configuration screen.

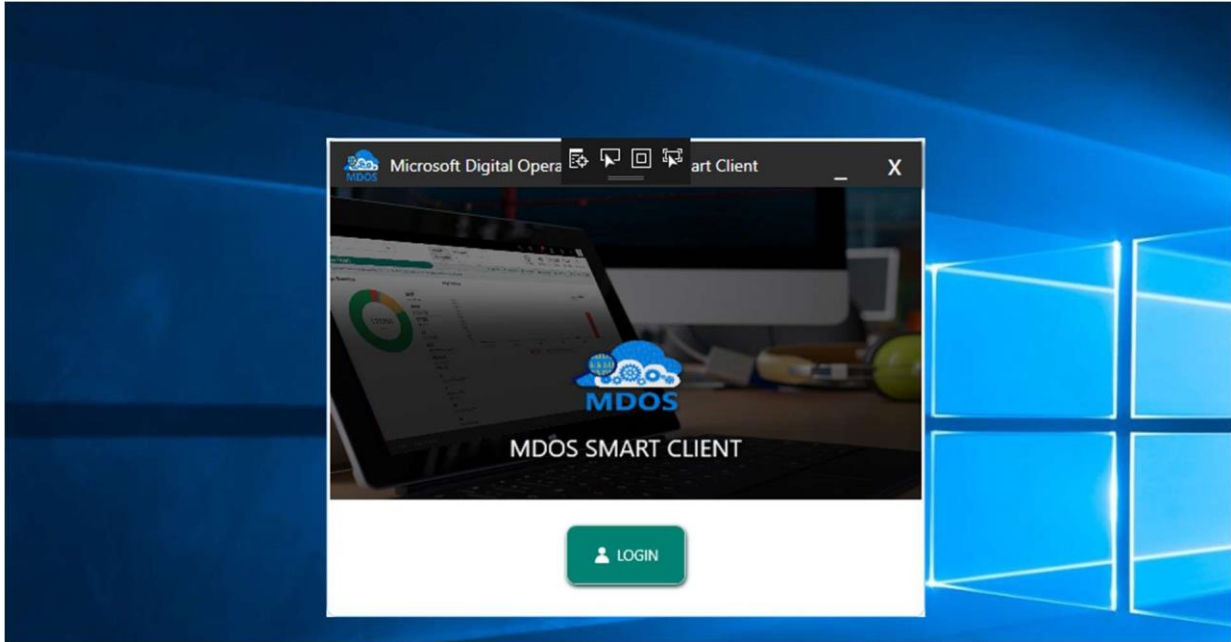
3.1 BUSINESS CONFIGURATION

Instruction:

If the partner was using FFKI1.x and wanted to migrate a specific business in MDOS SC, then they can perform business setup during their first login in MDOS SC.

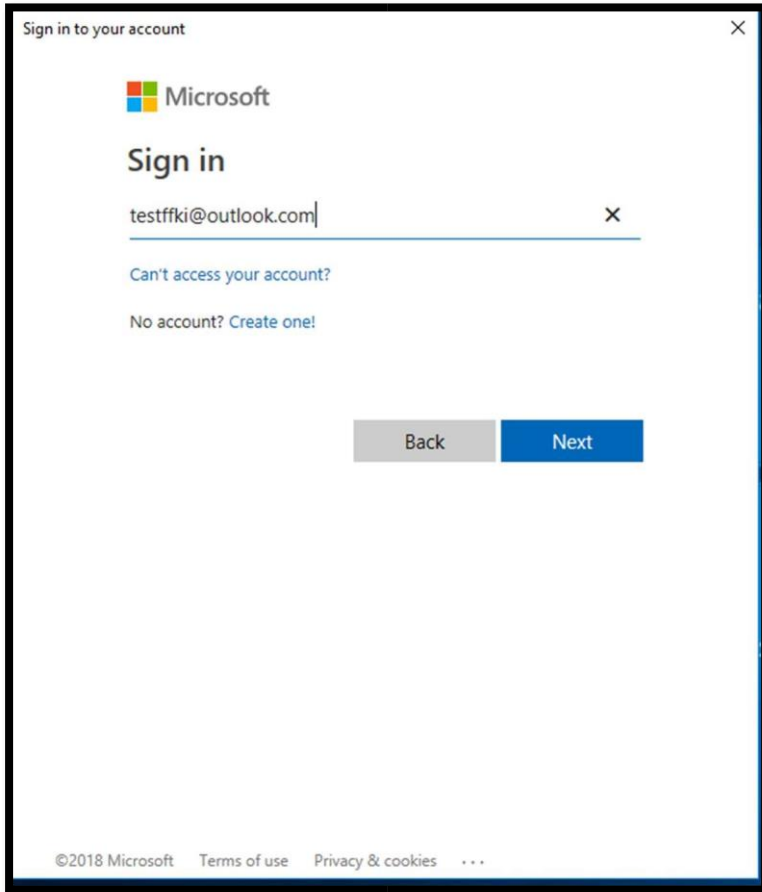
Step by Step:

1. Double click on SC icon to launch MDOS SC.
2. You will see the login screen popup

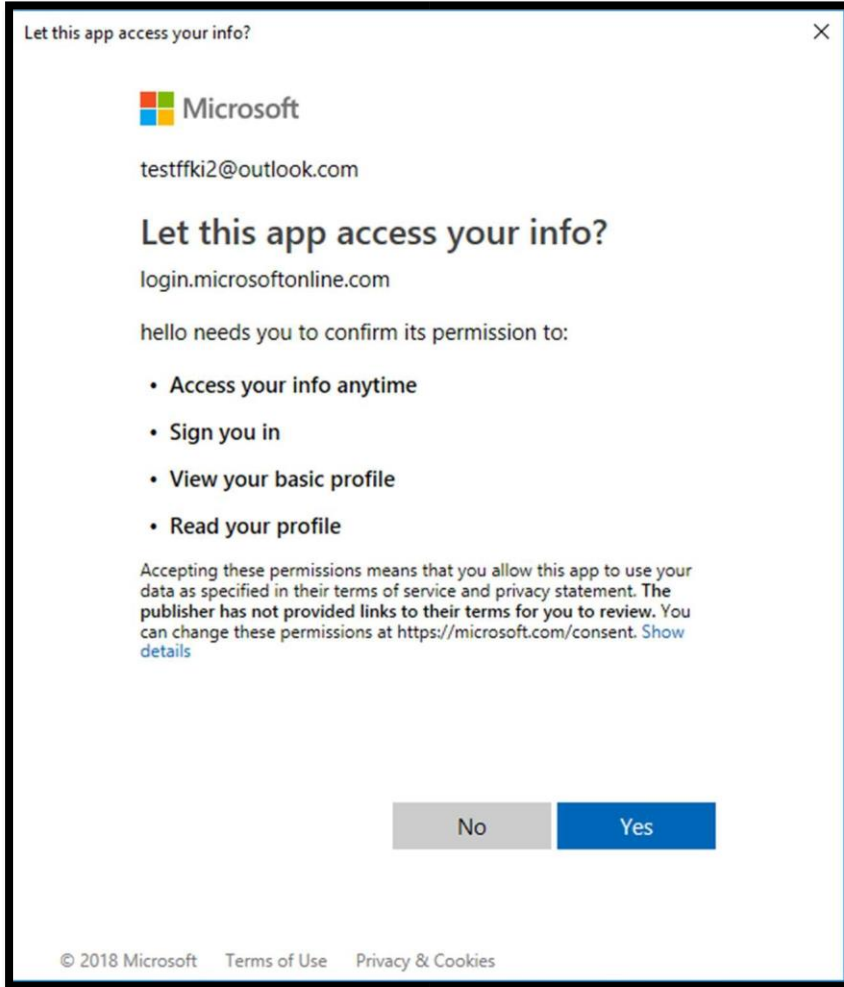


3. Click on login button to launch the application, partner will be asked to provide the email ID and password of the FFKI added in the MDOS Cloud by the Up Level Partner, usually the OEM or ODM. Partner need to provide the FFKI email address (added in MDOS) and password to login to MDOS SC.

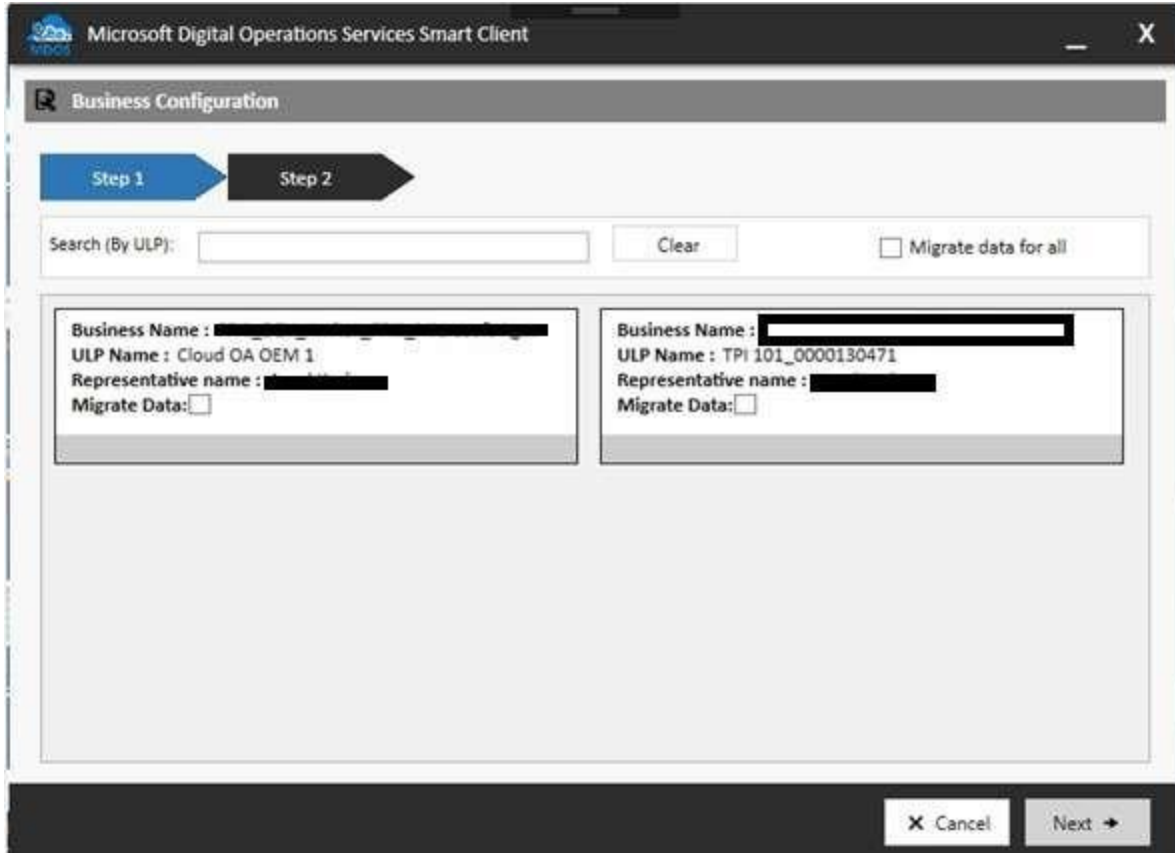
NOTE: MDOS SC will ask the partner to provide the email ID and password only for the first time, for the subsequent logins, SC will cache the information and allow partner to login on click 'LOGIN' button without providing email ID and password, till partner clicks the 'LOGOUT' button.



4. Once valid email and password are provided, and login is successful, partner will be redirected to Business Configuration screen.

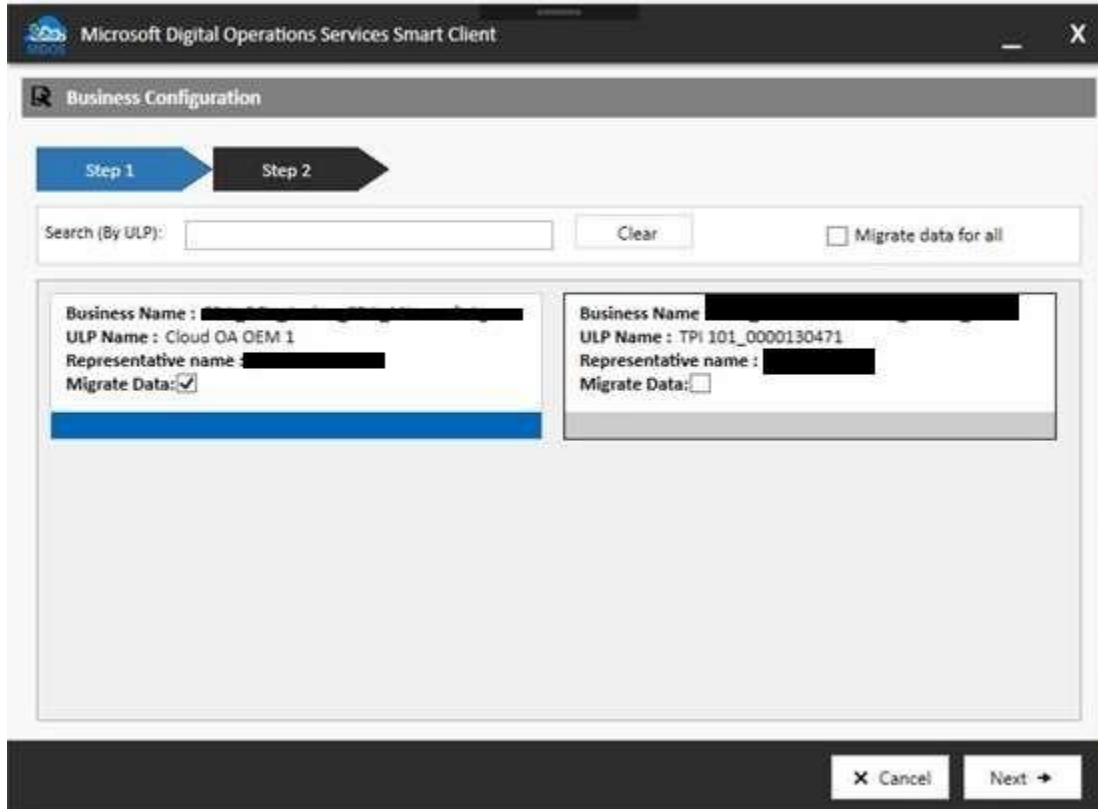


5. The business configuration screen will show all the available but non-configured FFKI business's from MDOS Cloud.
6. Once the profile and business search is completed, partner can select the business from the list of businesses (under which FFKI partner is added) that they need to migrate to MDOS SC.

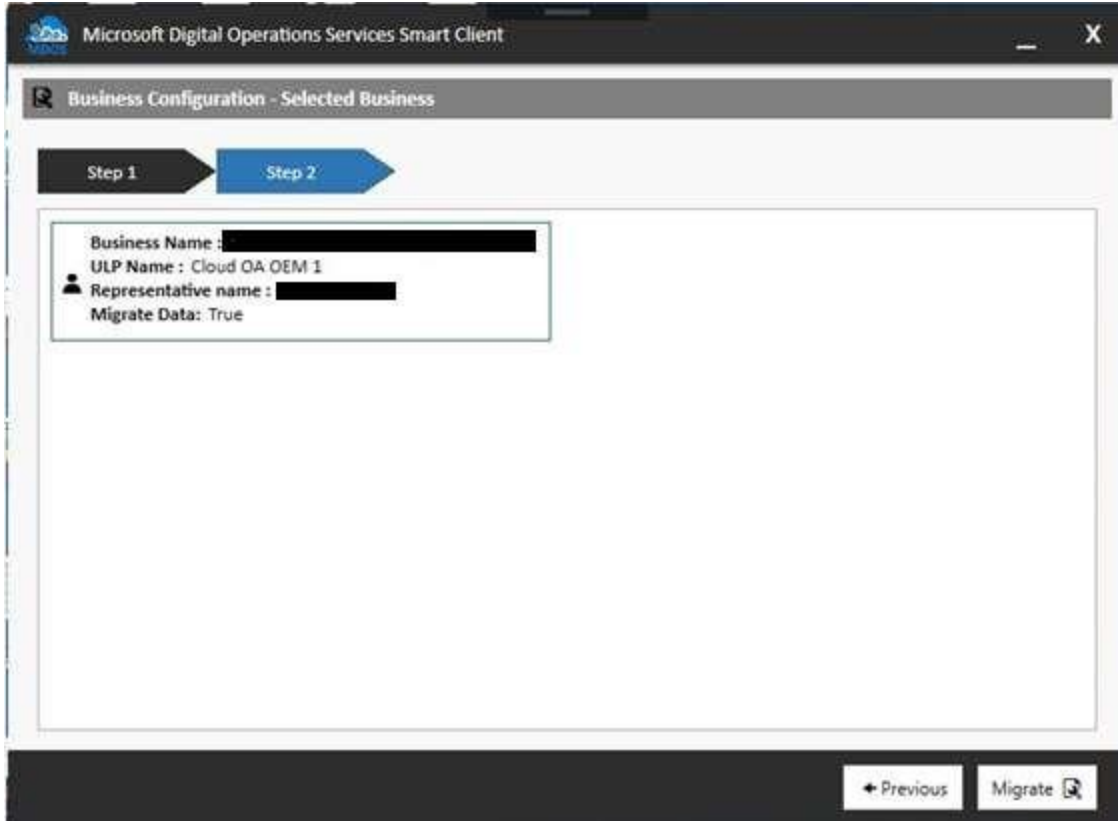


The business details contains the below fields: a) Business name

- b) ULP name: ULP partner under which FFKI is added
- c) Representative name
- d) Migrate data: Select this checkbox if you need to migrate data from previous FFKI 1.x version.
- e) Migrate data for all: Select this check box to allow to migrate data from FFKI 1.x to MSC for all selected business. (Note: All the business selected after this check box selection will by default get "Migrate Data" check box selected).

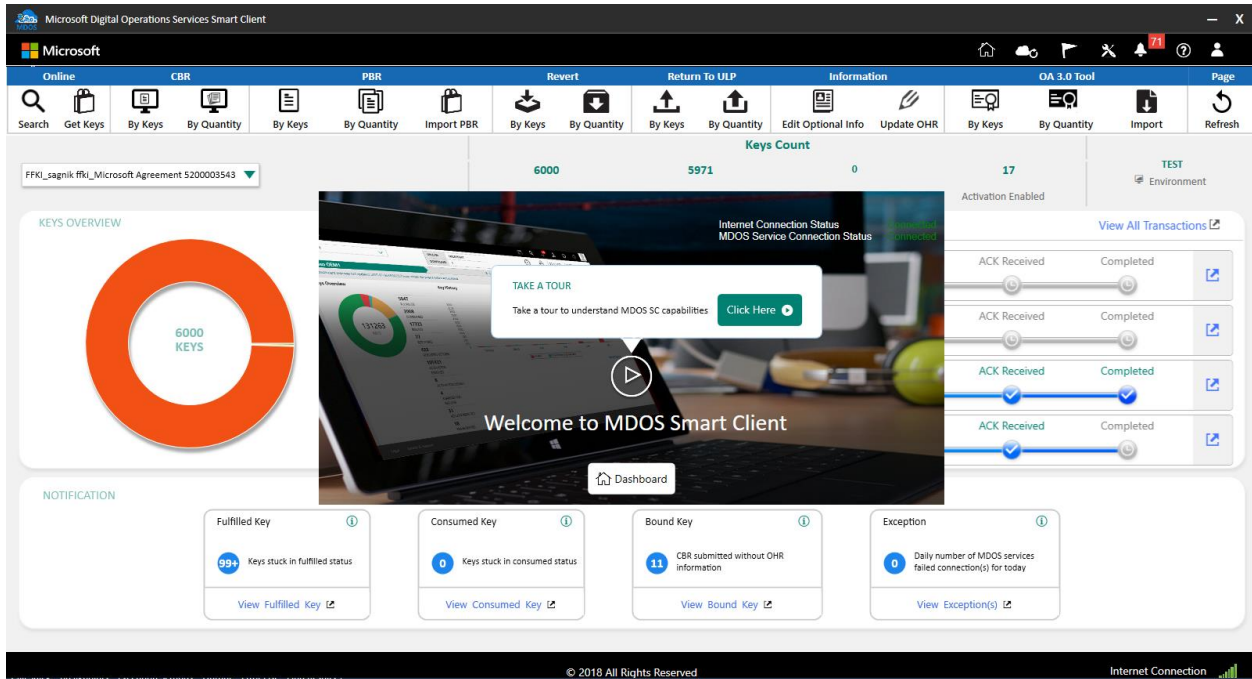


7. Click on Next button to proceed to the next screen for confirmation.



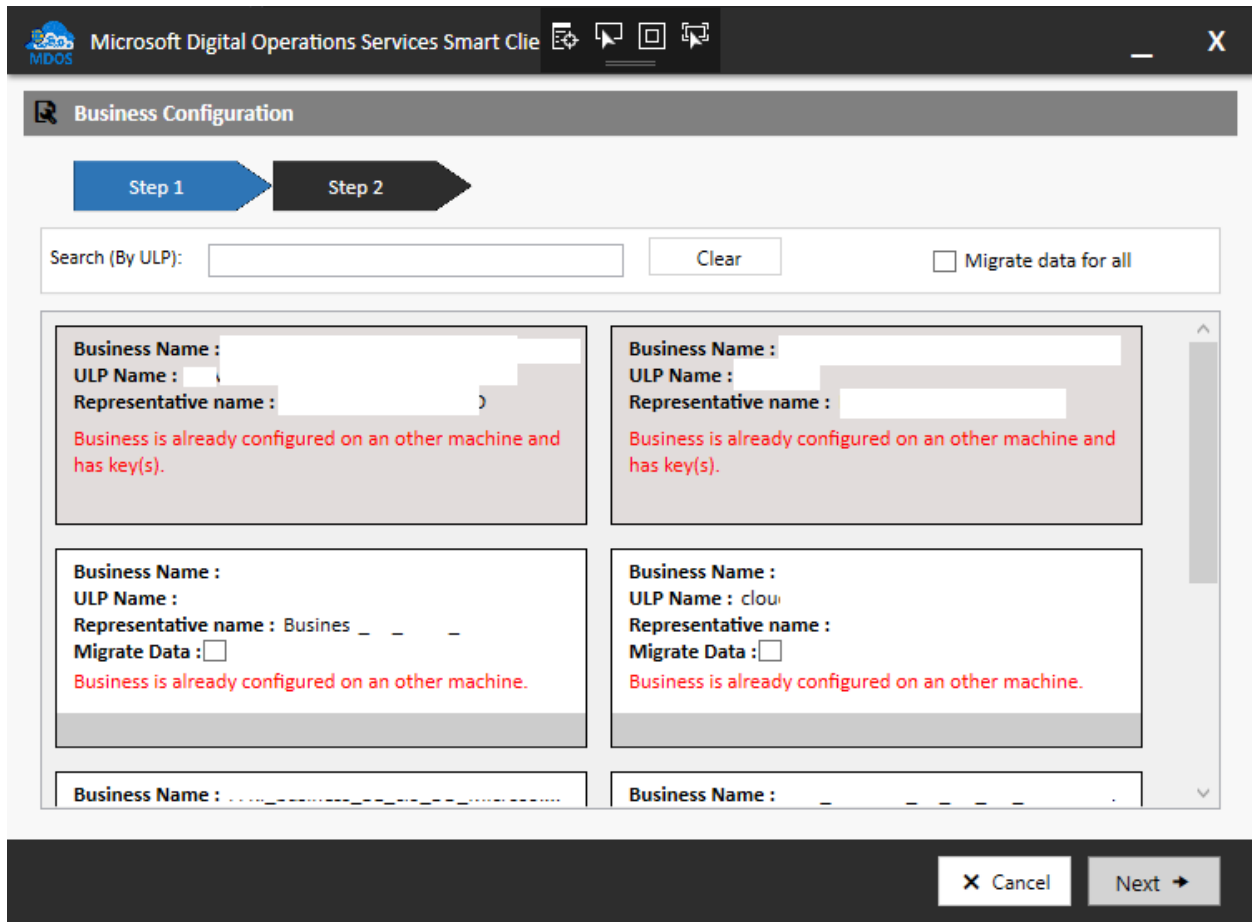
8. Partner will see the business details (that they have selected) in the next screen. Click on migrate button. If the migrate data is true, Data migration will start in silent mode and notify partner once migration is completed. If migrate data is not selected, partner will be redirected MDOS SC dashboard page.

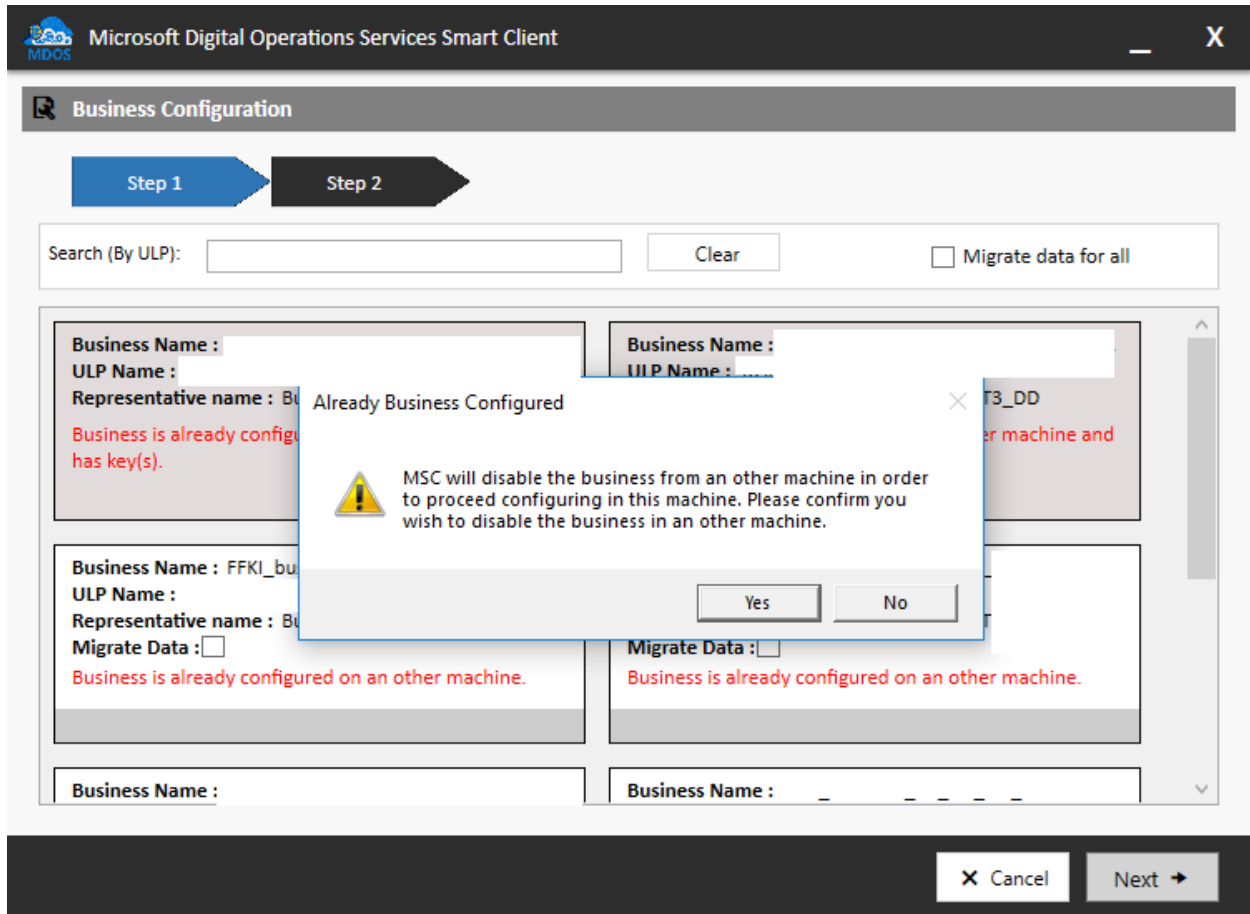
MDOS Smart Client User Manual



Note: In case business already configured on other system and having keys in their inventory, you will see those Box with grey background and red color message “Business is already configured on another machine and has key(s).”). User cannot select that business for MSC configuration.

However if business(s) which are already configured and don't have any keys in their inventory, you will see the box with vanilla background and red message “Business is already Configured on other machine”. User can selected this business to configure MSC. But it will disable this business on other machine.





SECTION 4. DASHBOARD

Description:

The dashboard provides quick links to direct you to key functions. This is the MDOS SC landing page and it provides a top navigation bar, status bar, action ribbon, and the main dashboard.

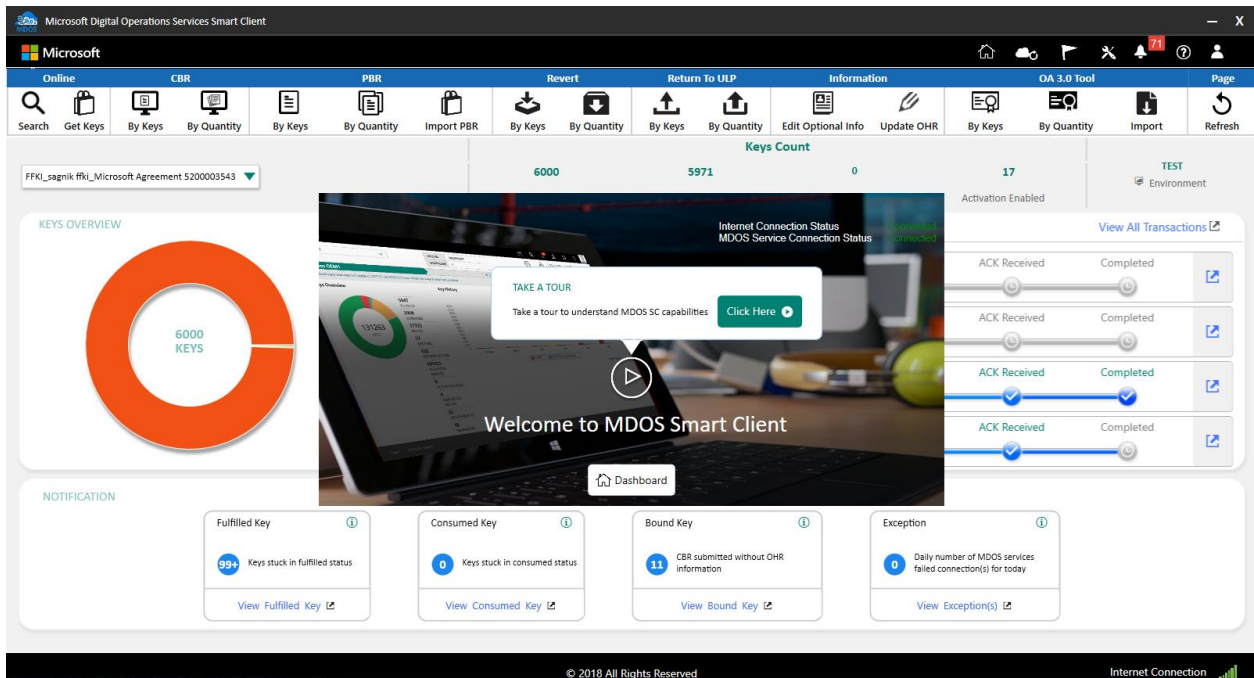
4.1 VIRTUAL TOUR

Description:

Virtual tour will be shown when the partner logs into the SC, this functionality will help the partner to understand MDOS SC capabilities. It includes high-level information of all the capabilities available in the dashboard.

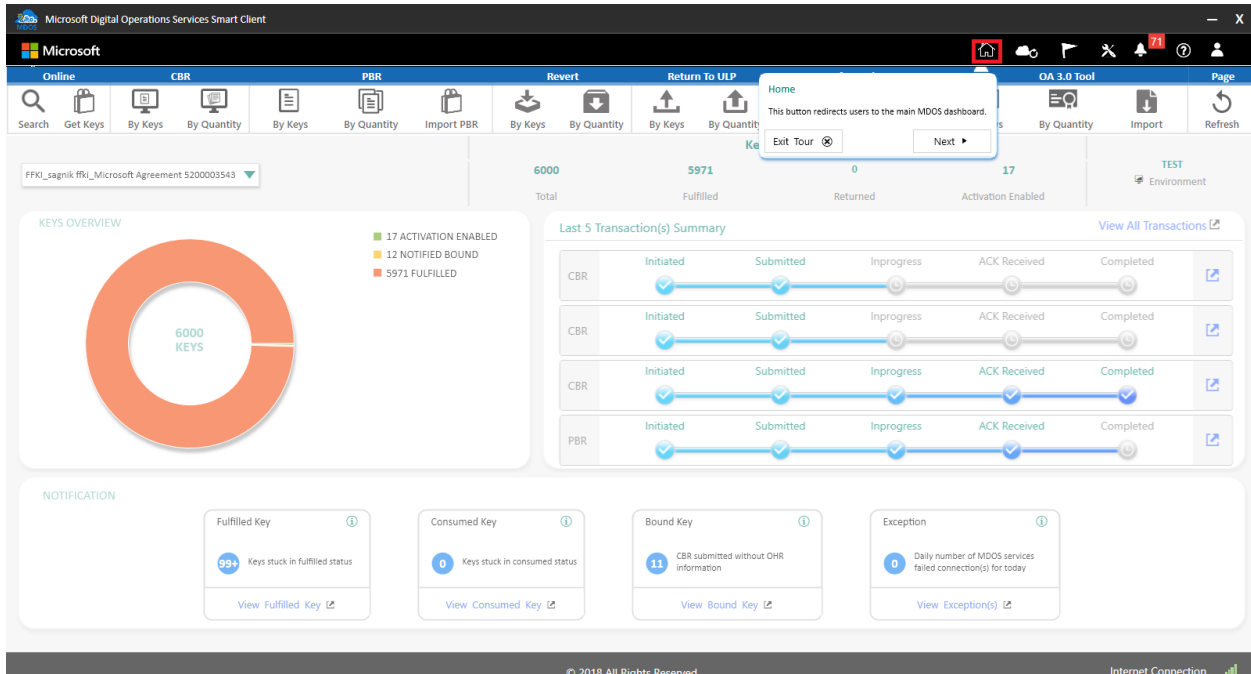
Step-by-step

1. Click on 'Click Here' button to take a tour from the welcome screen.

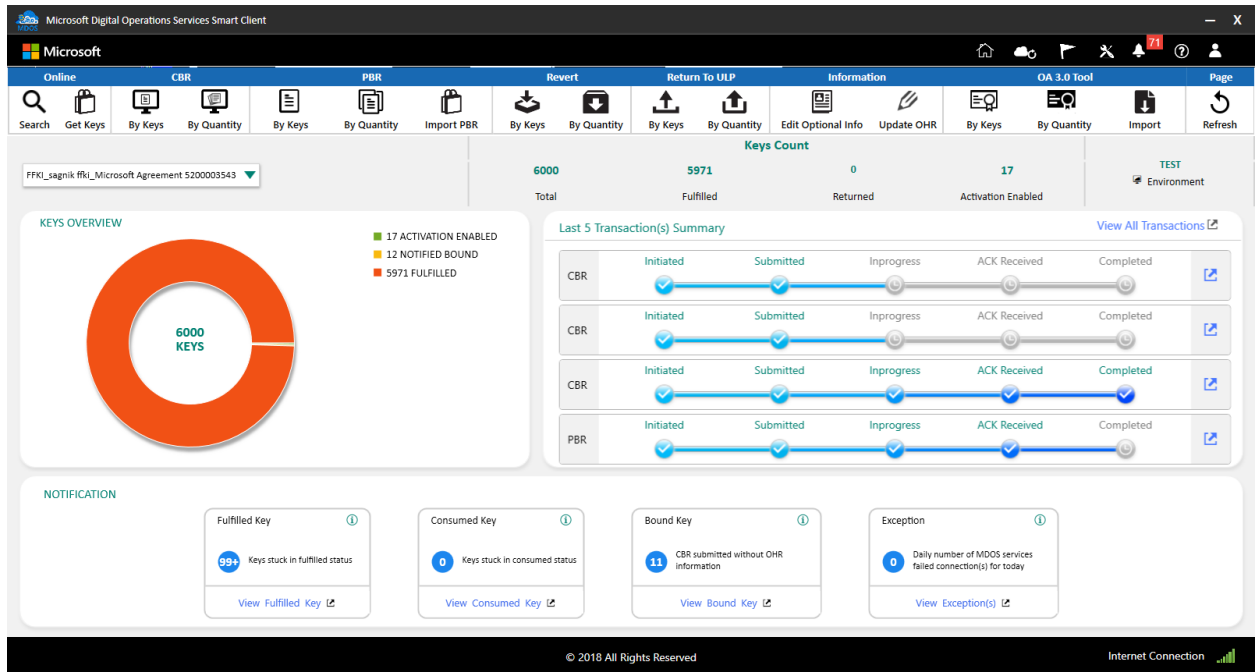


2. Starting from Home icon, the tour will continue to next icon when the partner clicks 'Next' button. Each pop up will have a tool tip of the capability currently shown

MDOS Smart Client User Manual



3. Partner will be taken to the next icon for review, then click the next button to proceed, or click the 'Exit Tour' option and the partner will be taken to the dashboard page.



4. Partner can also click 'Dashboard' button in the pop-up so that the virtual tour option will be skipped.

4.2 TOP NAVIGATION BAR

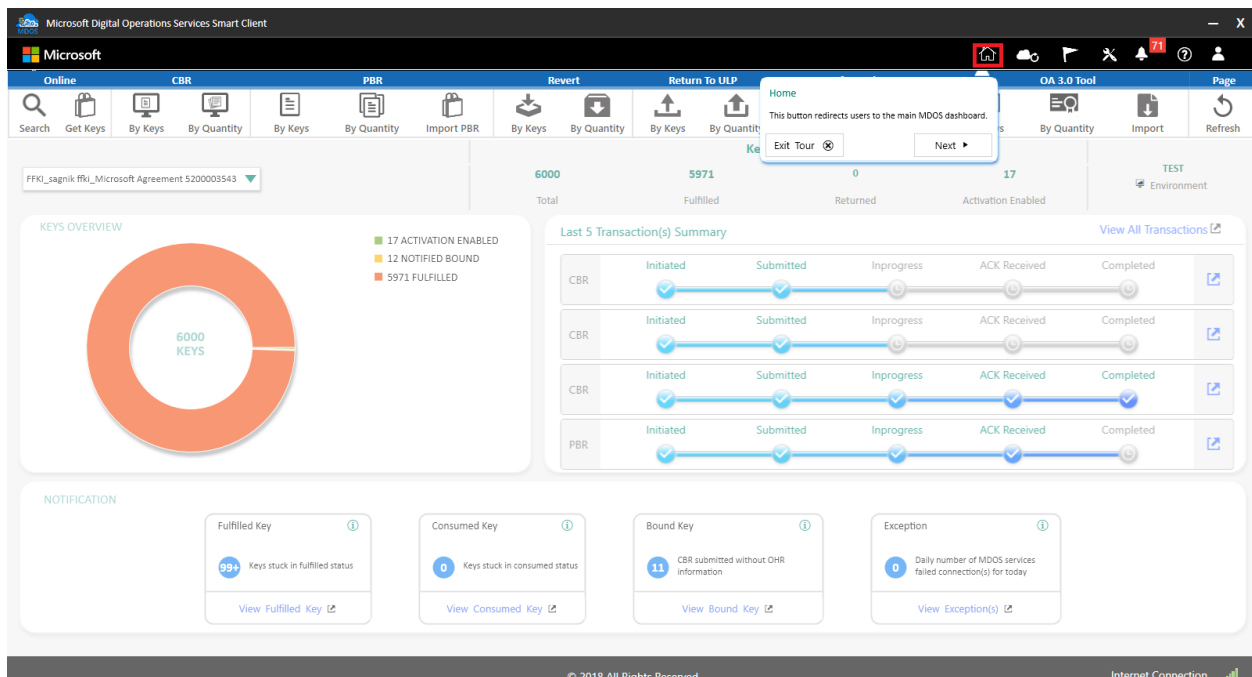
Description:

The top navigation bar provides quick links to key actions:

- **Home** – Get a quick visual glimpse of your key (DPK) inventory by group.
- **Business profile sync** – Sync up your business profiles
- **Software update flag** – Displays the alerts for any software updates
- **Settings** – Get a System UI view of your MDOS FFKI SC.
- **Alert** – See a quick status list of your most recent key actions and updates.
- **Help** – Link to the online User Manual for detailed descriptions and step-by-step instructions.
- **User Account info** – View log in info, log out or log back into your account, switch account environments, or change language preferences.

Home:

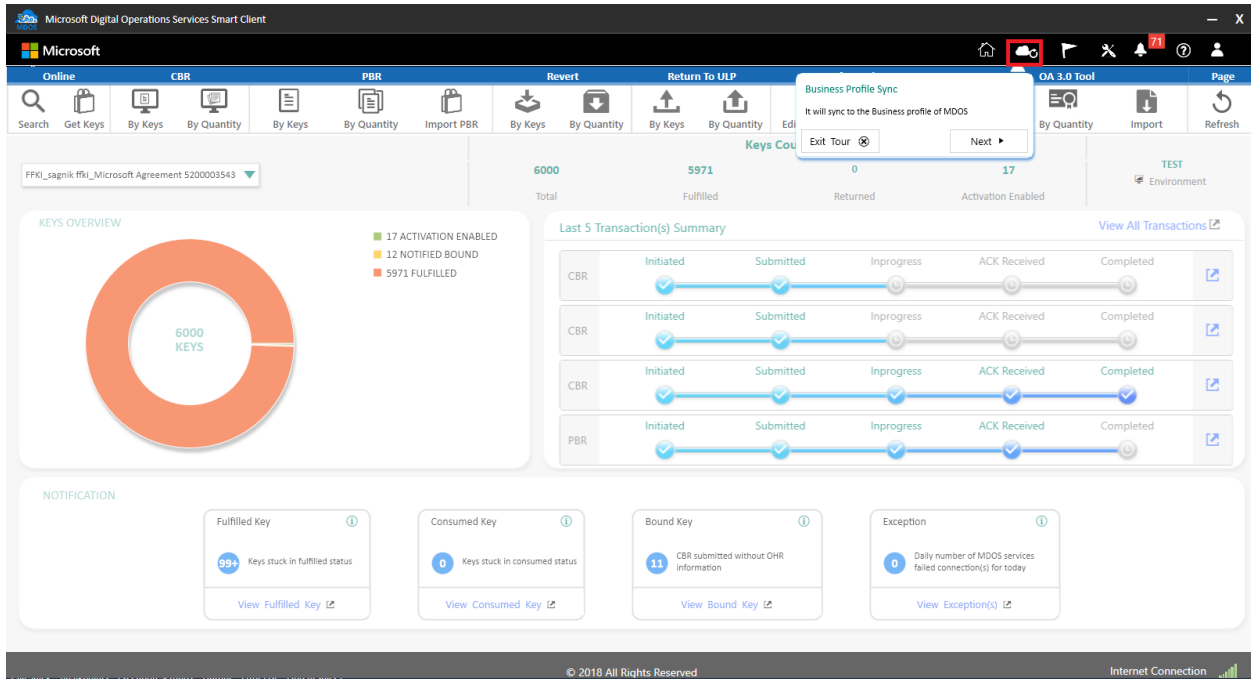
Get a quick visual glimpse of your keys counts, grouped by status by clicking on the dashboard icon (boxes image). This visual display shows you inventory in an easy-to-understand and interactive chart view. Donut and line charts provide a visual breakdown by color, and allow you to click to drill down on a status.



Business Profile Sync:

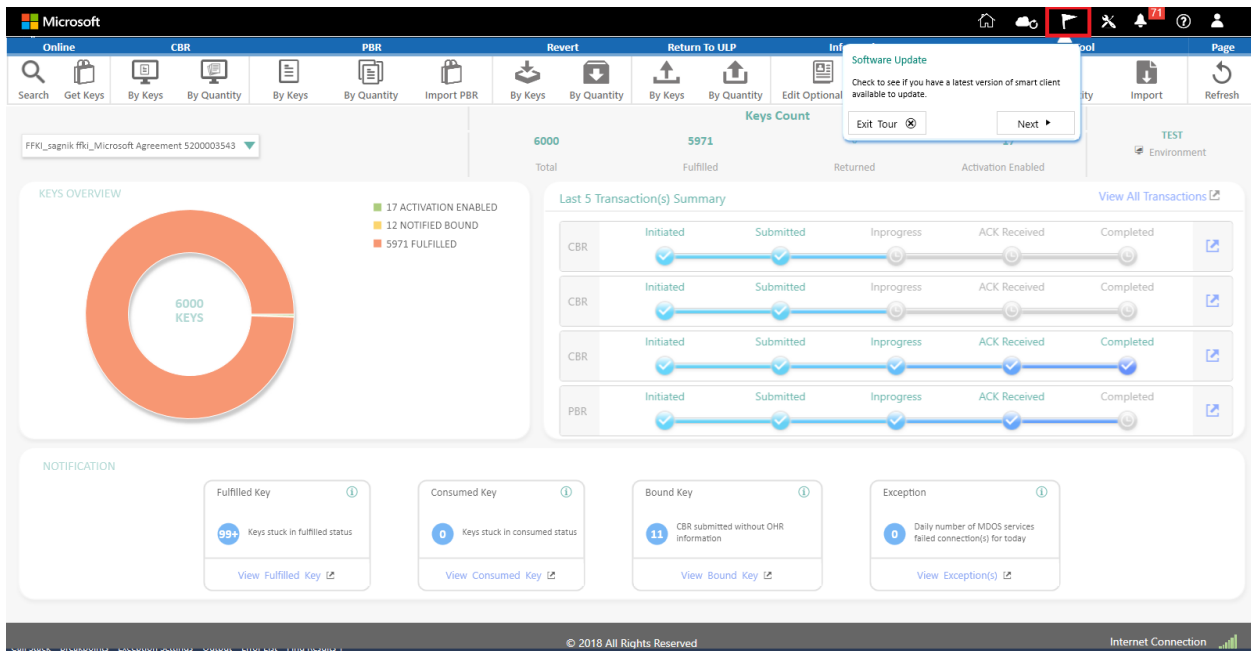
Sync your business profiles on click of the icon. If the same FFKI is added in some other business, then it will be reflected in MDOS SC on click of this icon.

MDOS Smart Client User Manual



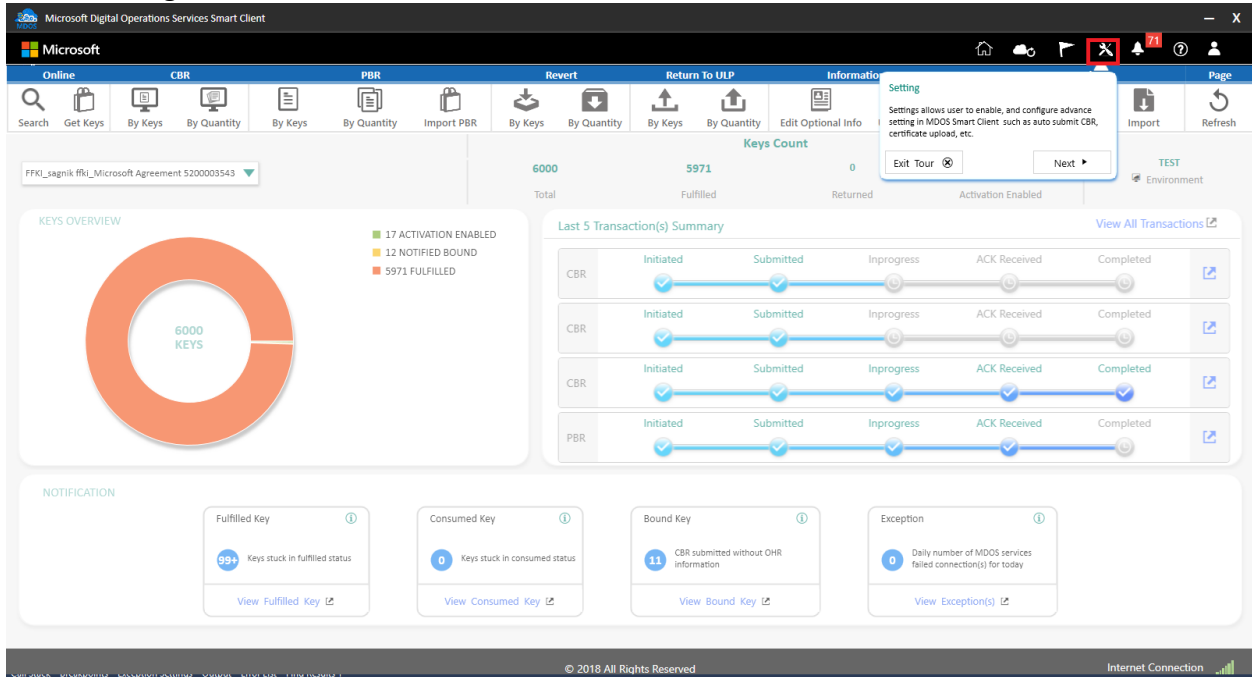
Software Update flag:

See a quick status of the software update alerts by clicking the flag icon. This flag will show all the software updates that have occurred on the system.



Settings:

Go to this page to view account setup. It contains all auto setting informations like auto submit CBR, auto fulfillment etc. along with import and export file location setting and disconnected mode setting.



Alert Icon:

See a quick status list of your most recent key actions and updates by clicking on the Alert icon (bell image). When a number shows up or changes, click on the alert icon to see a notification dropdown that contains a summary list of your most recent actions and updates. Click on the SHOW ALL button to see a complete list.

MDOS Smart Client User Manual

The screenshot displays the Microsoft Digital Operations Services Smart Client interface. At the top, there is a navigation bar with tabs for Online, CBR, PBR, Revert, Return To ULP, Information, and Page. Below this is a search bar and several action buttons like 'Get Keys', 'By Keys', and 'By Quantity'. The main content area shows a 'Keys Count' section with a donut chart and a table of 'Last 5 Transaction(s) Summary'. The 'NOTIFICATION' section at the bottom contains four alert cards: 'Fulfilled Key' (99+), 'Consumed Key' (0), 'Bound Key' (11), and 'Exception' (0). An 'Alert' tooltip is visible in the top right corner.

Partners can click through each alert for further information, they can read individual alerts or delete or export the alerts. In case partners didn't want to go through all alerts, they can select all the alerts and click 'Mark as read' option to mark the alerts as read. This will reduce the count of the unread alerts.

The screenshot displays the Microsoft Digital Operations Services Smart Client interface. At the top, there is a navigation bar with tabs for Online, CBR, PBR, Revert, Return To ULP, Information, and Page. Below this is a search bar and several action buttons like 'Get Keys', 'By Keys', and 'By Quantity'. The main content area shows a 'Notification Overview' section with a table of notifications. The table has columns for Priority, Date, From, Title, and Message. A 'Mark as Read' button is highlighted in a red box. The table shows several notifications, including one with the title 'Store Products' and message 'No store products found'.

| Priority | Date | From | Title | Message |
|----------|----------------------|-------|----------------|---|
| High | 3/28/2019 6:13:35 PM | Local | Store Products | No store products found |
| High | 3/28/2019 3:56:18 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:53:05 PM | Local | Export Key | Keys Exported Successfully! |
| High | 3/28/2019 3:49:42 PM | Local | Import key | Import Key: 1 key(s) imported successfully |
| High | 3/28/2019 3:49:04 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:48:58 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:48:35 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:48:32 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:47:56 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |
| High | 3/28/2019 3:46:53 PM | Local | Import key | Import Key: 0 key(s) imported successfully, 1 key(s) failed to import, to view the failed keys please follow path . |

Help:

The Help Icon (Question mark symbol) provides a link to the online User Manual. The User Manual is a comprehensive resource of descriptions, examples, and step-by-step instructions

MDOS Smart Client User Manual

for all the capabilities available in MDOS. You can also find definitions for acronyms, and links to other sources, such as FAQs.

The screenshot shows the Microsoft Digital Operations Services Smart Client dashboard. A 'Help' tooltip is visible, stating: "Help button will take users to the new digital MDOS user manual. The user manual contains examples, explanations, step by step guides, and videos explaining every aspect of MDOS Smart Client." The tooltip includes 'Exit Tour' and 'Next' buttons. The dashboard features a navigation bar with 'Online', 'CBR', 'PBR', 'Revert', 'Return To ULP', and 'Information' tabs. Below the navigation bar, there are sections for 'Keys Count' (Total: 6000, Fulfilled: 5971, Returned: 0), 'KEYS OVERVIEW' (a donut chart showing 6000 KEYS with 17 Activation Enabled, 12 Notified Bound, and 5971 Fulfilled), 'Last 5 Transaction(s) Summary' (a table of transaction progress), and 'NOTIFICATION' (four notification cards: Fulfilled Key (99+), Consumed Key (0), Bound Key (11), and Exception (0)).

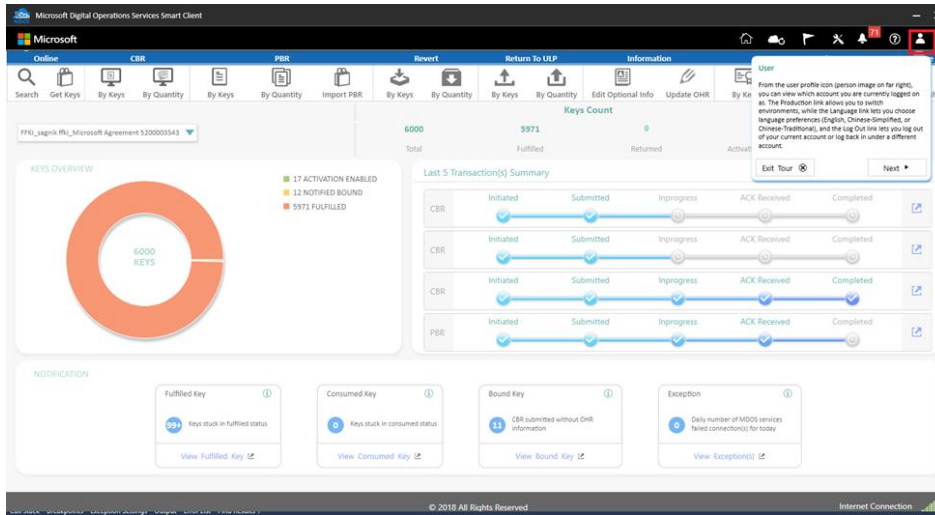
User Account Info:

The Admin icon (person image) provides a view of all your user accounts and lets you manage users connected to your account from this dashboard.

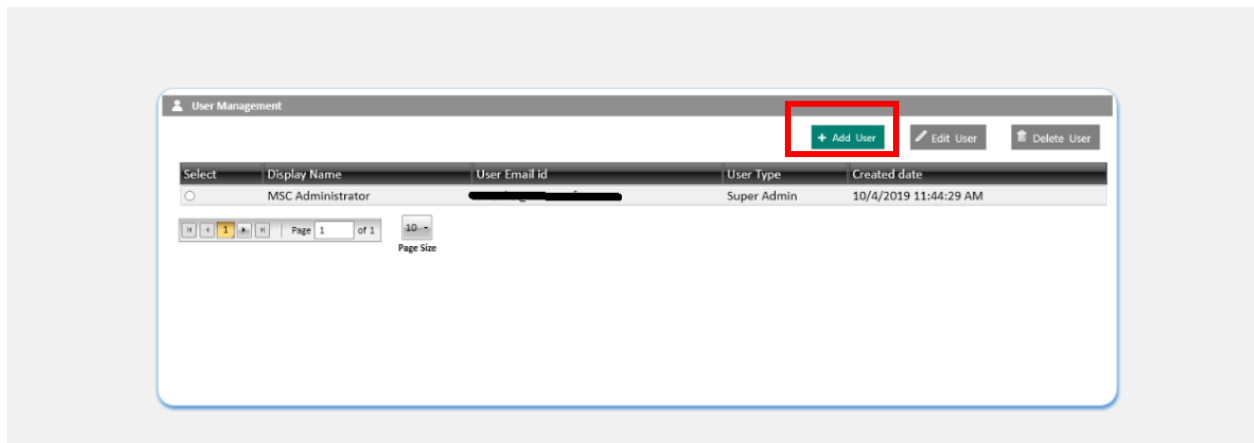
This screenshot is identical to the one above, but with a 'User' tooltip visible. The tooltip text reads: "From the user profile icon (person image on far right), you can view which account you are currently logged on as. The Production link allows you to switch environments, while the Language link lets you choose language preferences (English, Chinese-Simplified, or Chinese-Traditional), and the Log Out link lets you log out of your current account or log back in under a different account." The tooltip includes 'Exit Tour' and 'Next' buttons. The dashboard content remains the same as in the previous image.

User Management:

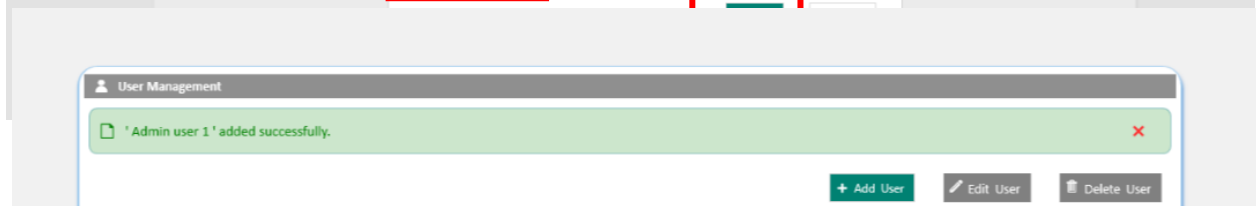
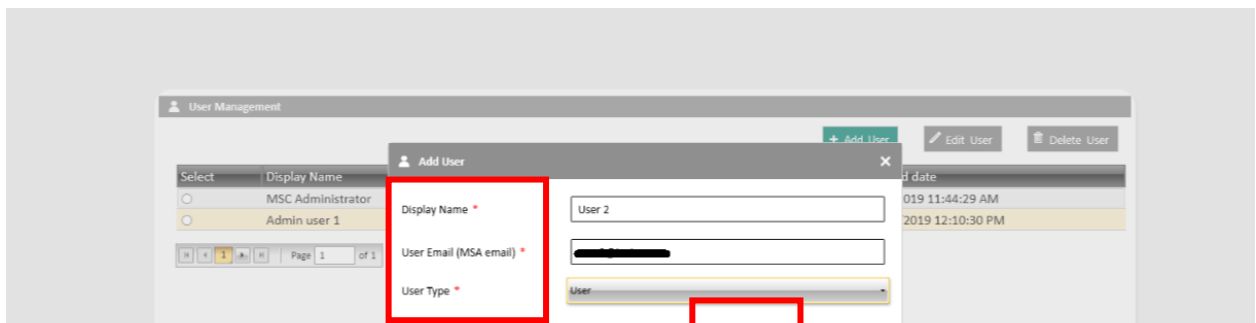
Admins have the ability to add multiple authorized users in MSC. To add another authorized user in MSC, click on the User Account button to be directed to the User Management section of MSC.



- Click 'Add User'



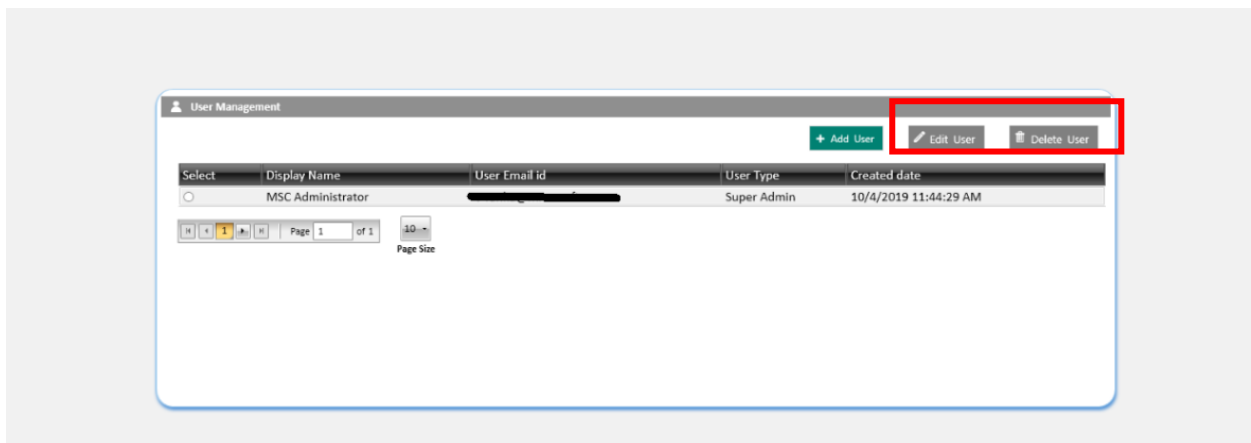
- Enter the display name you wish to associate to the user, the user email address and the user type.
- Click Save





To edit a previously added user, click on the user you wish to edit and click on edit user.

To delete a previously added user, click on the user you wish to delete and click delete user.

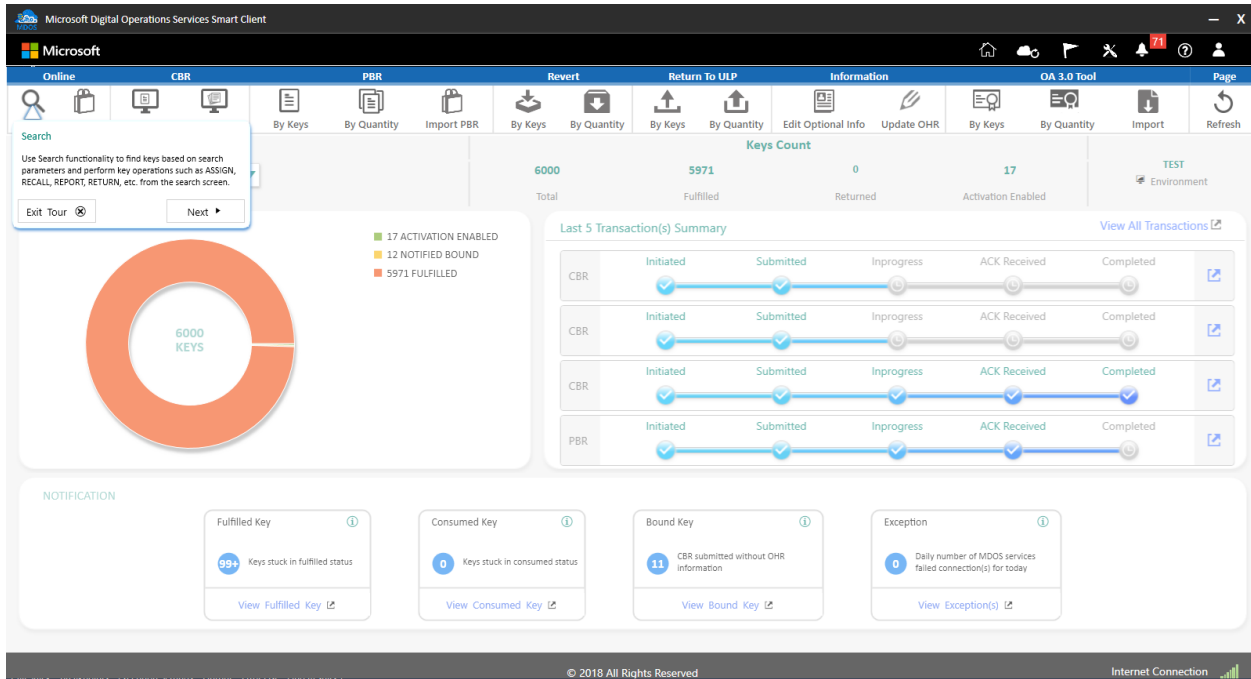


4.3 MENU BAR

Search:

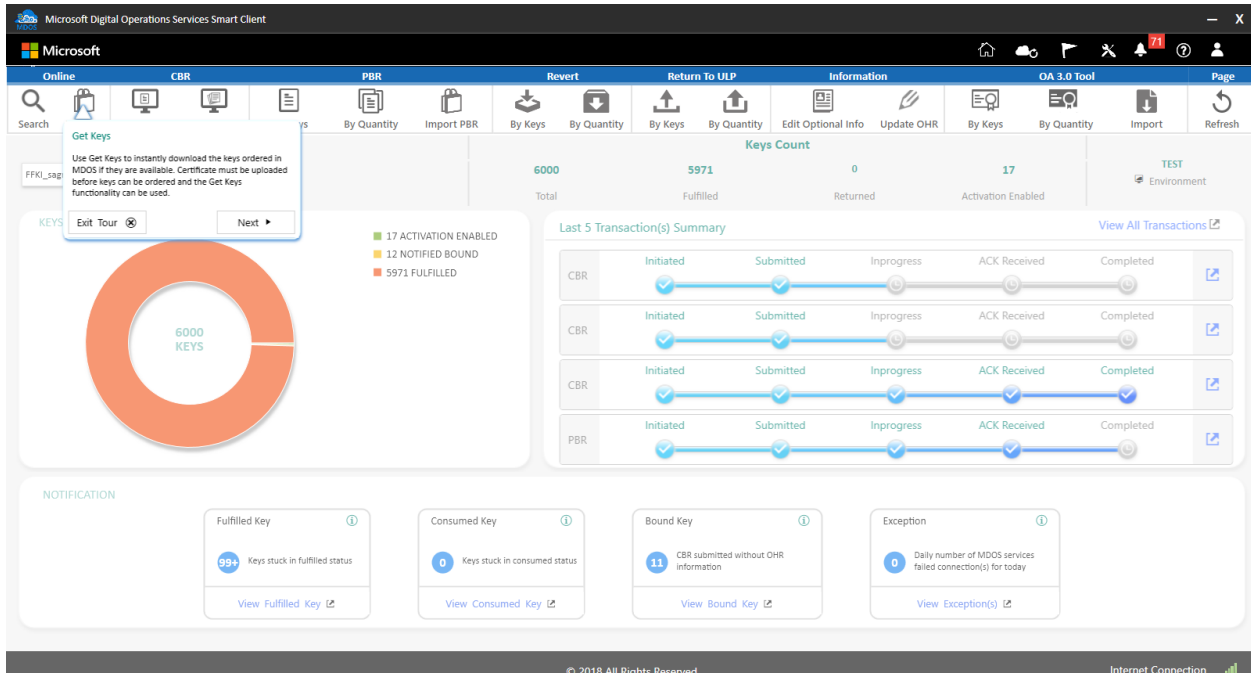
The Search Key allows users to search for keys based on search parameters and perform key operations such as RECALL, REPORT, RETURN, etc. from the search screen.

MDOS Smart Client User Manual



Get Keys:

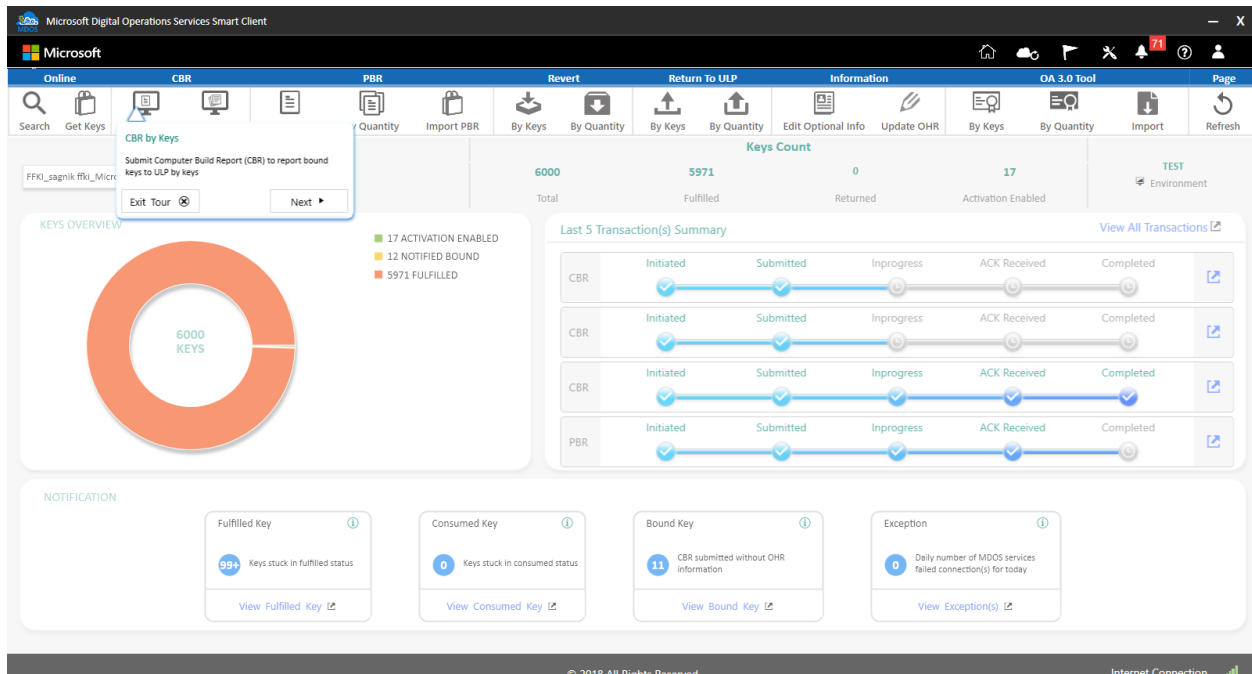
The Get Keys command is used to check for and download available Digital Product Keys from the Up Level Partner. Use the Get Keys command to force the MSC to check for available keys. The Get Keys command will follow the SLA's of the ULP.



CBR:

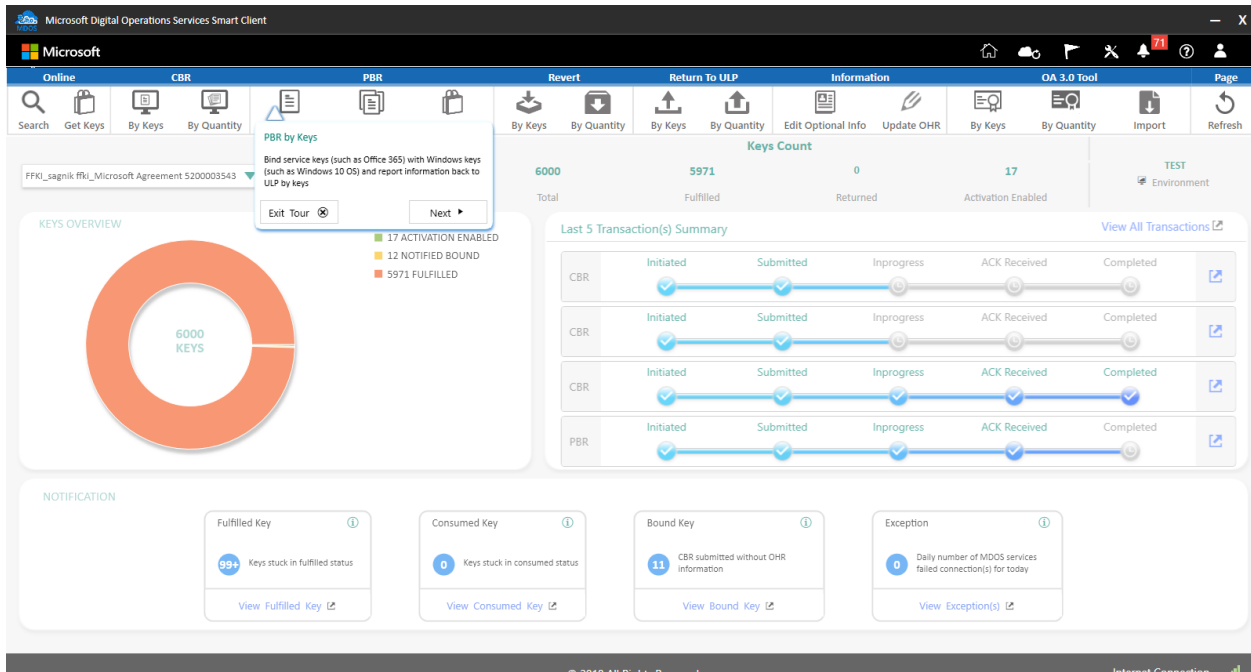
A Computer Build Report (CBR) is a mandatory report that is sent to Microsoft notifying which keys have been used (bound), so they can be activated. This report is required by Microsoft to obtain the following details: OEM ID, Hardware Hash, Product Key ID, and Key State. Once the CBR is submitted and validated, Product Key IDs will be registered in Microsoft’s activation service, and Windows can be activated by the end user. The CBR process is manual, unless you are set up for auto reporting. The CBR report is created by running the OA3tool.exe /report command on the client device post flashing the DPK into the devices firmware. For more information on the OA3tool.exe and how to configure the tool for use in the factory floor in conjunction with the MSC, please download and review the following documents from the Microsoft DOC website:

- OEM Activation 3.0 Overview Usage Guide.xps
- OEM Activation 3.0 WinClient Test Guidance Plan.xps



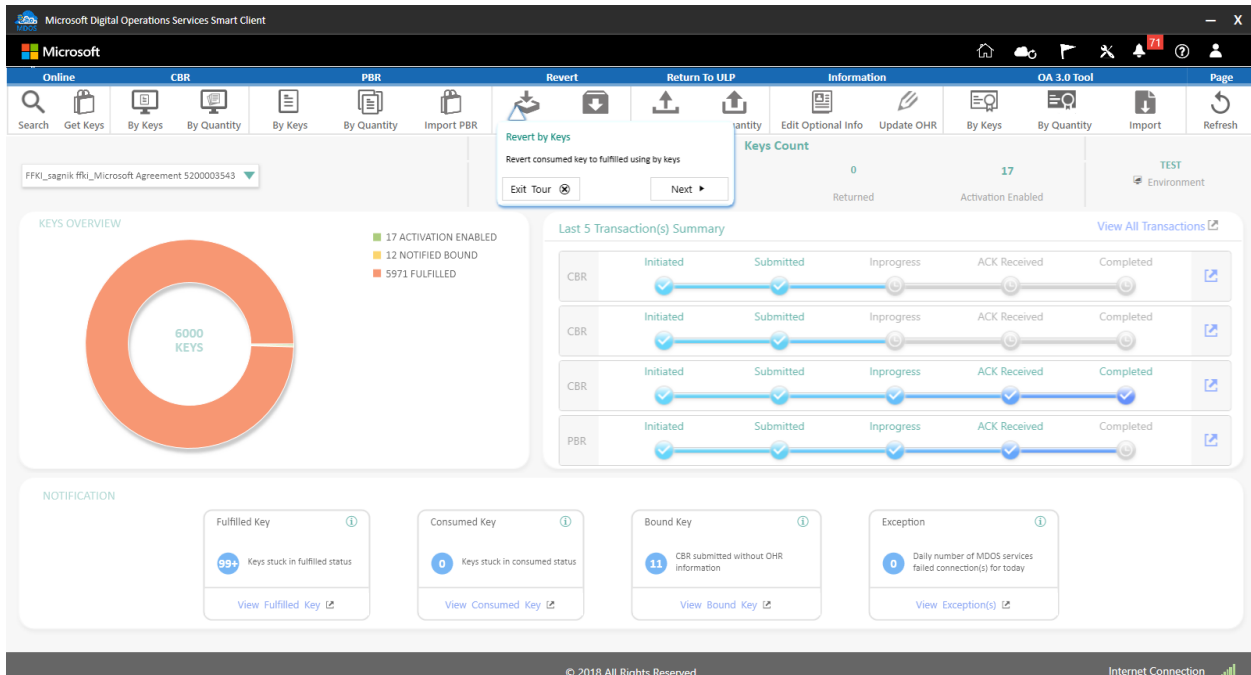
PBR:

Bind Windows keys (such as Windows 10 OS) with service keys (such as Office 365) and Store products and report the information back to Microsoft.



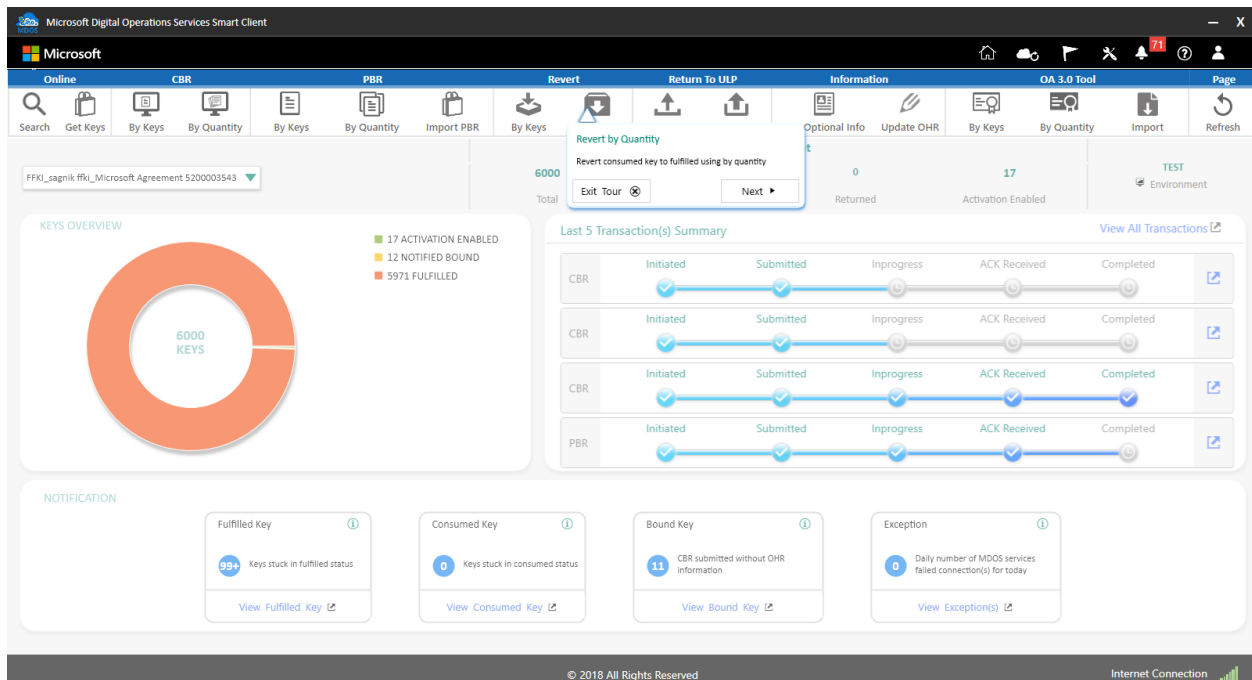
Revert:

Revert keys allows the partners to revert the key status from the Consumed state to the Fulfilled in case of manufacturing error's. Do not revert Consumed Digital Product Keys that have been: 1. Injected in a device, where that device has shipped to a customer. 2. A CBR report has been created and submitted to Microsoft for a specific DPK. In both of these cases, reverting a key will cause the potential for a duplication situation.



Return to ULP:

Down level partners (OEM/IDH/TPI users) may be able to return keys to Microsoft due to different potential scenarios. In a centralized model, down level partners will notify up level partner (OEM) via MDOS, of which keys can be returned. The OEM can then return keys to Microsoft.



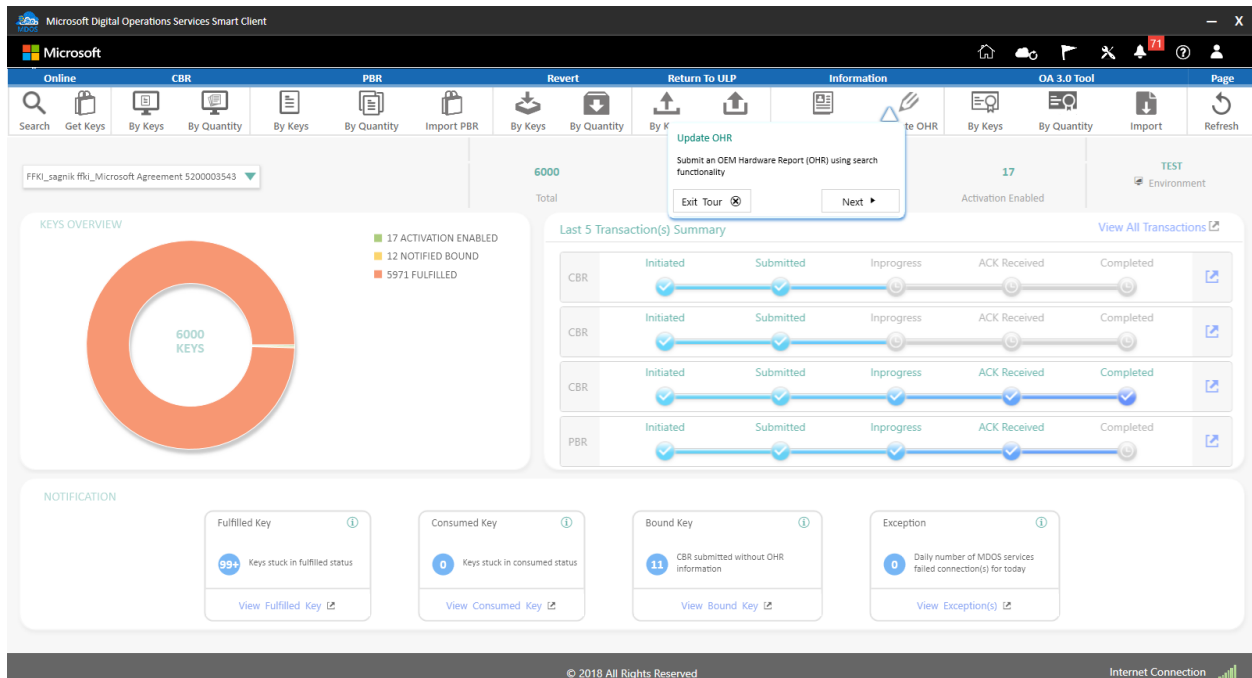
Information:

The OEM Hardware Report (OHR) generally follows the Computer Build Report (CBR) and includes additional hardware data required by Microsoft, such as model number, screen size, touch screen. The OHR is required by Microsoft. (Refer to your agreement for details).

An OHR is usually submitted at the same time as the CBR. However, it can be updated after the CBR has been submitted as well. The OHR update will allow a downlevel partner to update data and the report will automatically submit any time an update is made.

The OEM partner is ultimately responsible for the data and accuracy of the report. Content that is supplied by the downlevel partners should be reviewed by the OEM before submission.

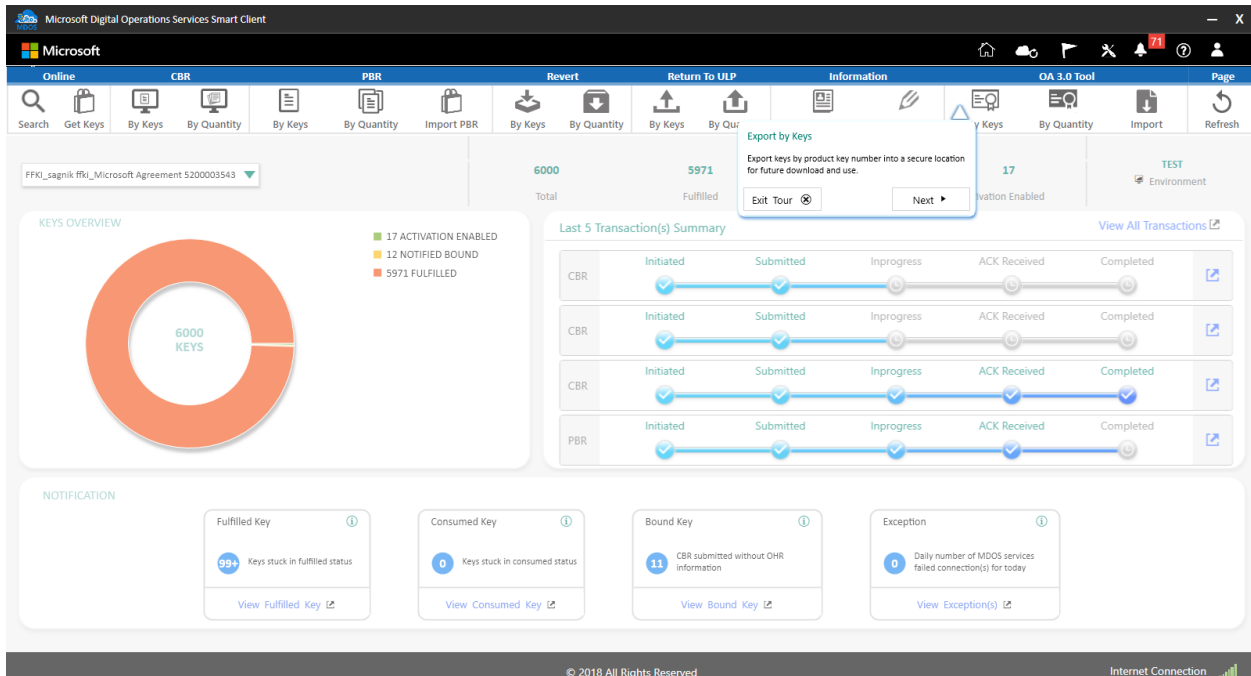
OEM Optional Information report, provides additional optional reporting fields that can be reported as part of the Computer Build Report (CBR) and OEM Hardware Report (OHR). This includes additional hardware details fields such as, OEM Extended Identifier, Country, PEV (Promotional Code), Channel Relationship ID, and Selling Location.



OA 3.0 Tool:

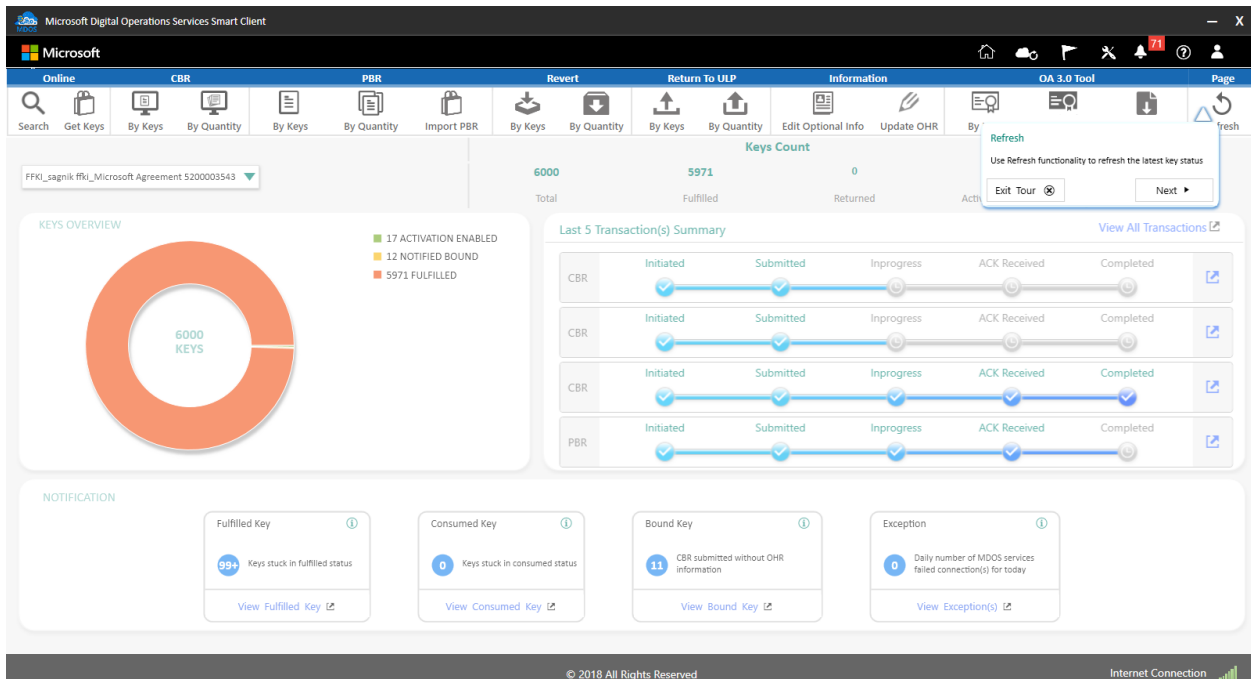
The OA3tool.exe is a utility provided by Microsoft in the Microsoft Automated Deployment Kit (ADK). The OA3tool.exe is used to electronically pull a DPK from the MDOS FFKI SC client application while connected to the network. The MDOS FFKI SC Client interfaces with the OA3tool to correctly pull the next DPK from the database. The OA3tool also crates the Computer Build Report using the OA3tool.exe /Report command. The CBR will automatically be imported into the MDOS FFKI SC client application once the report is generated for each device on the factory floor. If your MDOS SC client is disconnected from the network, you can choose to export DPK's for manual use with the OEM BIOS Flash tool and the OA3tool.exe, as well for importing of the CBR's back into the MSC. The MSC allows for a limited time to be disconnected from the cloud.

MDOS Smart Client User Manual



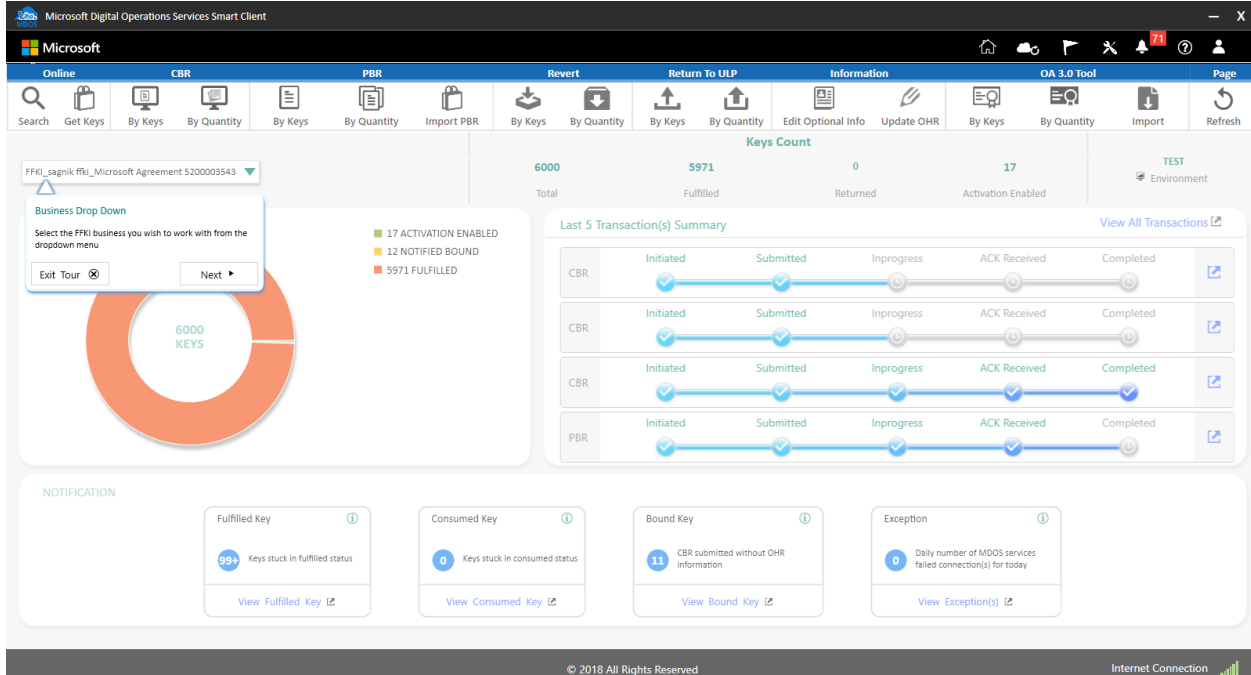
Refresh:

Refresh option allows the partners to refresh the key status, in case partner felt the SC not displaying the correct key status, partners can use this 'Refresh' option which will sync the key status with database and display the latest status.



Business drop down:

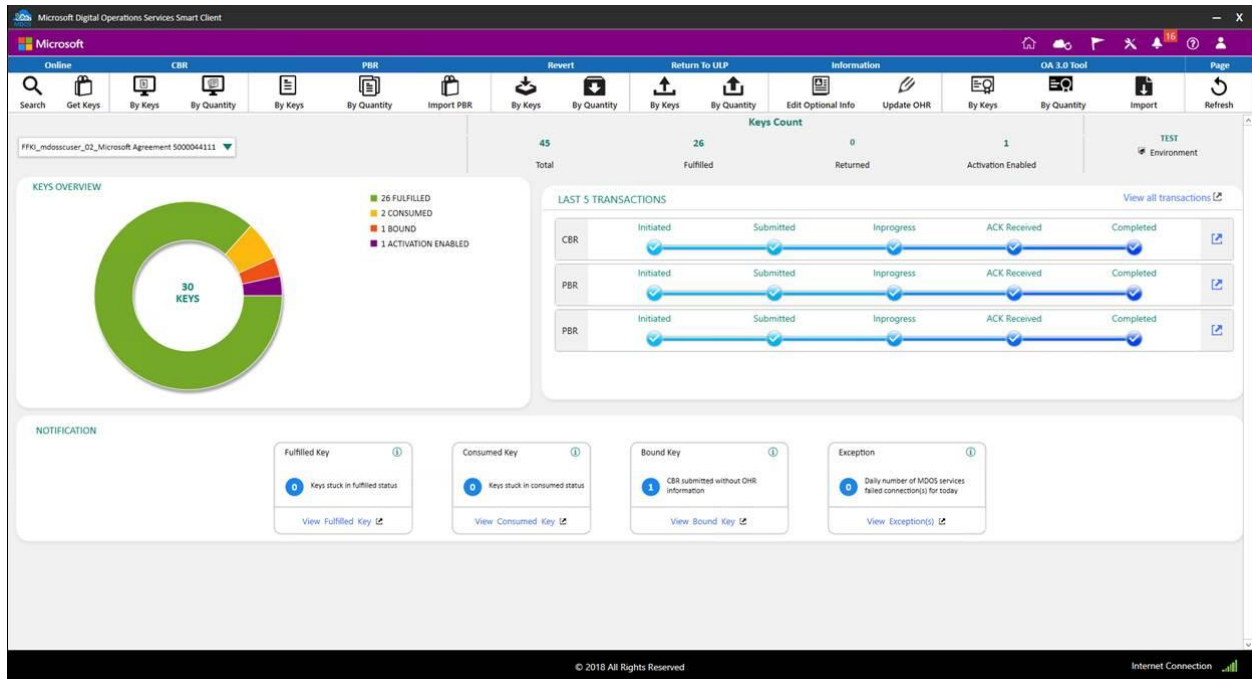
Select the business with which you need to perform key operations. If partner has multiple business, they select the business from the dropdown and work on the selected business.



4.4 KEYS OVERVIEW

Description:

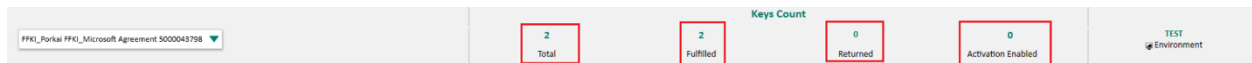
Get a quick visual glimpse of your keys counts, grouped by status (Fulfilled, Consumed, Bound, Activation Enabled and Returned) in a donut chart view. This visual display shows you inventory in an easy-to-understand and interactive chart view.



4.5 KEYS COUNT

Description:

See a default view of current count of product keys by Total keys, Fulfilled keys, Returned keys and Activation Enabled keys.



- Fulfilled – Keys that are fulfilled by FFKI
- Returned – Keys that are returned to Microsoft
- Activation Enabled – CBR acknowledgement by Microsoft that are ready to be activated

4.6 KEY TRANSACTION

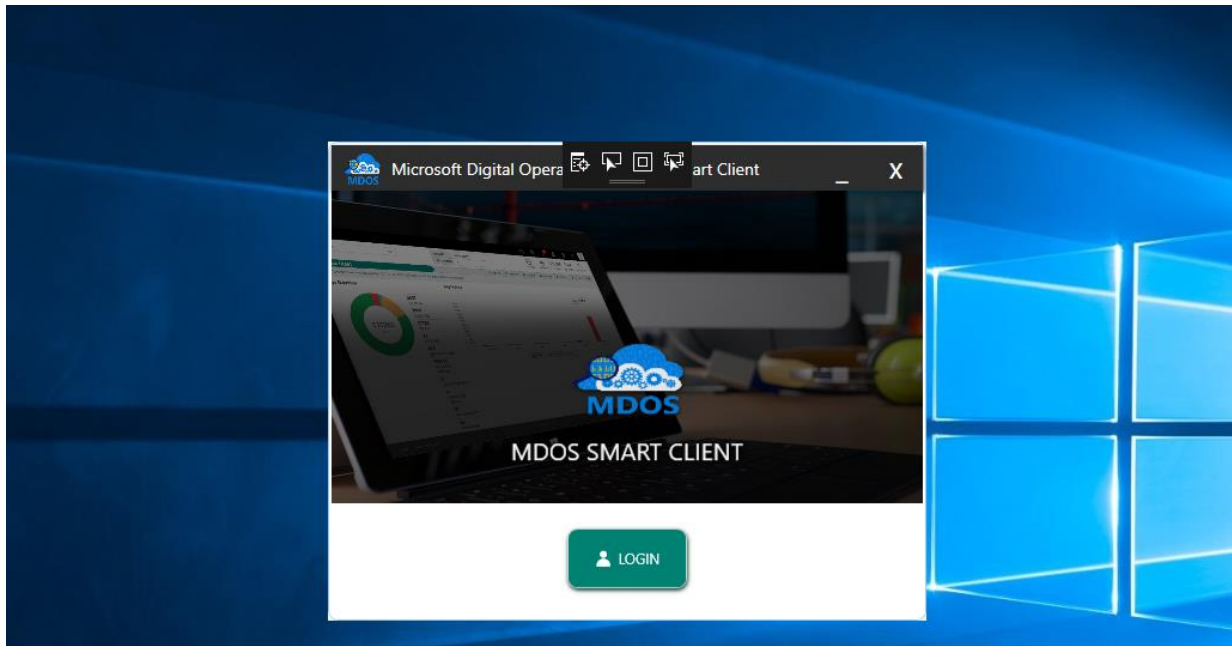
Description:

This section allows the partners to view the CBR and PBR transactions performed from MSC, in dashboard partner will be able view the latest 5 transactions, however partners can view all the transactions by navigating to the page.

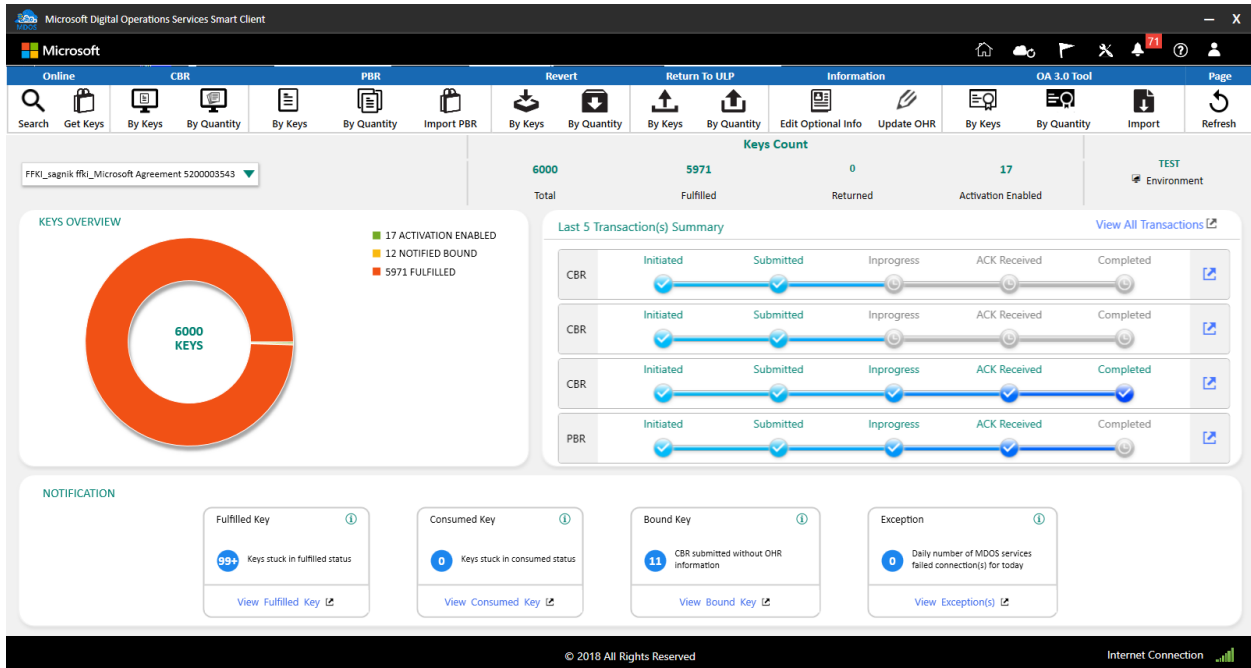
Tool tip: See the latest five transactions submitted for CBR, PBR and monitor the progress of these transactions till completion.

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.

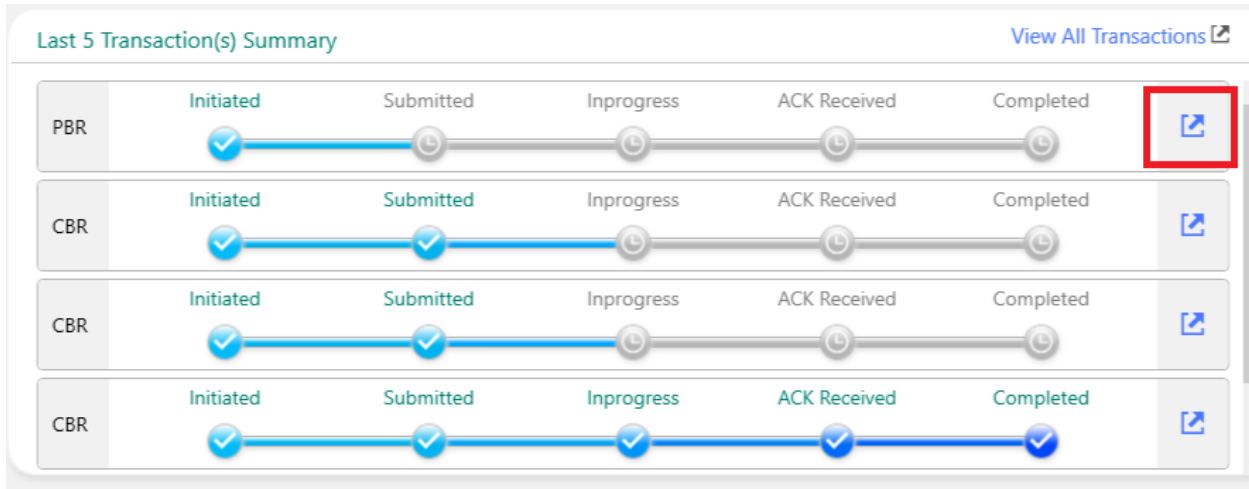


2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



3. From Key transaction section, partner can view the latest 5 transactions.

- Click on view transaction to view the keys associated with this transaction.



FFKL_sagnik fkl_Microsoft Agreement 5200003543

Keys Count

| | | | | |
|-------|-----------|----------|--------------------|------------------|
| 6000 | 5971 | 0 | 17 | TEST Environment |
| Total | Fulfilled | Returned | Activation Enabled | |

Transaction search mode is on. Now search key(s) within transaction. To return to normal search, please click on Reset Button.

Key Status: MS Order Number: Product Key: Serial Number:

Key Type: OEM Part Number: MS Product Key Id From: Hardware Hash:

PBR Binding Status: Licensable Part Number: MS Product Key Id To: Tracking Info:

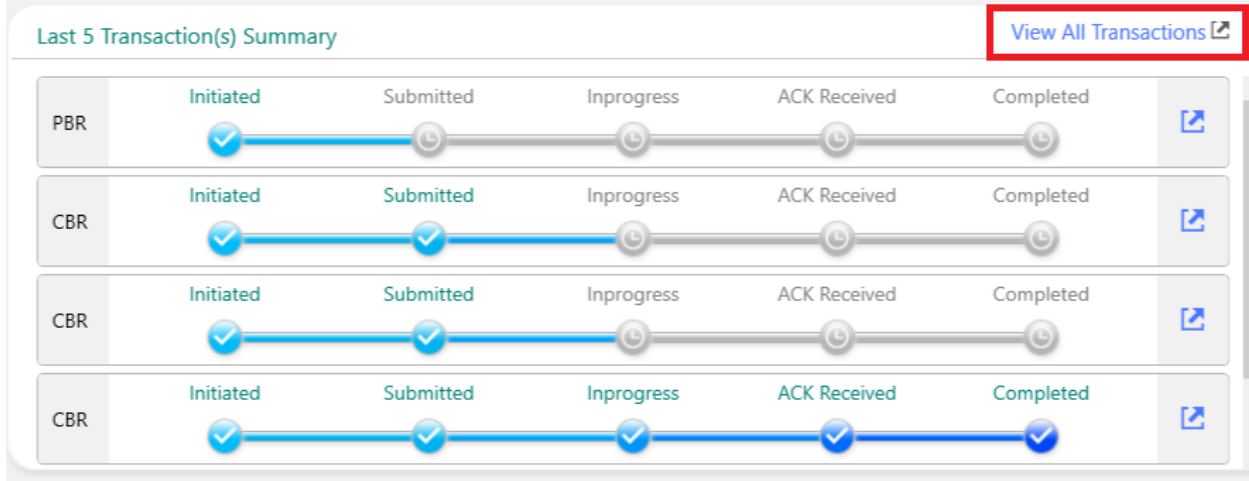
Advanced Search

| MS Product Key | Key Type | Key Status | Product Key | Licensable Name | Licensable Part Number | OEM PO Number | OEM Part Number | Call Off Reference Number |
|----------------|----------|-------------------|-----------------------------|---------------------------|------------------------|-----------------|-----------------|---------------------------|
| 3258631316866 | Standard | ActivationEnabled | XXXXX-XXXXX-XXXX-XXXX-GCQDQ | WINHMENTBLT2N1100LCOA3 | KJ7-00001 | W10-46583-20000 | | |
| 3258708017363 | Service | Fulfilled | XXXXX-XXXXX-XXXX-XXXX-B4G3Q | WINHMENTBLT2N10DM100LCOA3 | LD9-00001 | M1065-BBY201509 | | |

Page 1 of 1

[Export Search Results](#)

- To view all the transactions, click on view all transaction.



| Online | | CBR | | PBR | | Revert | | Return To ULP | | Information | | OA 3.0 Tool | | Page | | |
|--|-------------|--------------------------------------|-------------|------------------------|-----------------------|---|----------------------|----------------------|---------|---------------|--------------------|--------------------------|---------|------------------|--------|------------------------|
| Search | Get Keys | By Keys | By Quantity | By Keys | By Quantity | Import PBR | By Keys | By Quantity | By Keys | By Quantity | Edit Optional Info | Update OHR | By Keys | By Quantity | Import | Refresh |
| FFKI_sagnik fKi_Microsoft Agreement 5200003543 | | | | | | 6000 Total | | 5971 Fulfilled | | 0 Returned | | 17 Activation Enabled | | TEST Environment | | |
| All Key Transaction(s) | | | | | | | | | | | | | | | | |
| Search by Transaction Type | | From Date | | To Date | | | | | | | | | | | | |
| All | | Search by Created date | | Search by Created date | | Search <input type="button" value="Reset"/> | | | | | | | | | | |
| Type | Status | Unique ID | Total Count | Completed Count | Created Date | Submitted Date | Acknowledgement Date | Completed Date | Action | | | | | | | |
| PBR | Initiated | CD20462F-3966-4271-AE65-C51484DE0B73 | 2 | 0 | 10/26/2018 9:23:17 AM | | | | | | | | | | | Action |
| CBR | Submitted | A11B9594-DD4A-4CE5-8230-4CFC9603F93F | 9 | 0 | 10/5/2018 9:40:44 AM | 10/5/2018 10:10:00 AM | | | | | | | | | | Action |
| CBR | Inprocess | FA0B88FD-B2AD-42F3-AA4D-D6C52FCASCAA | 10 | 7 | 10/5/2018 9:37:04 AM | 10/5/2018 10:09:58 AM | 10/5/2018 6:02:18 PM | | | | | | | | | Action |
| CBR | Completed | 99B59D0E-25EA-4F3C-B22A-1D7202C1E70D | 5 | 5 | 10/1/2018 3:35:37 PM | 10/1/2018 3:42:31 PM | 10/1/2018 4:53:08 PM | 10/1/2018 4:53:08 PM | | | | | | | | Action |
| PBR | AckReceived | 231A2676-F3C0-4671-AF1E-53779387709F | 4 | 4 | 10/1/2018 3:35:30 PM | 10/1/2018 4:51:17 PM | 10/1/2018 4:52:44 PM | | | | | | | | | Action |
| Page 1 of 1 Page Size | | | | | | | | | | | | | | | | |

You can see the last five transactions in any status. Below are the list of transaction states:

TRANSACTION STATUS

1. **Initiated:**
When partner submit CBR/PBR for the first time, the key transaction state is created with Initiated status.
2. **Submitted:**

Once the key related to the respective transaction (CBR/PBR transaction) are successfully submitted to MDOS for further process, the transaction state is updated to **'Submitted'** state.

3. In process:

For the group of CBR/PBR reported by the partner, if partial keys are reported successfully and few keys are still pending to be reported, the transaction state will be **'In process'** state.

4. ACK Received (Acknowledgement Received):

Once the acknowledgement of the group of keys (CBR/PBR reported by the partner) retrieved successfully, the transaction state will update to **'ACK received'**.

5. Completed:

Once the transaction is complete for the group of PBR/CBR submitted by the partner, the Transaction will be update to completed state.

SECTION 5. KEY OPERATIONS

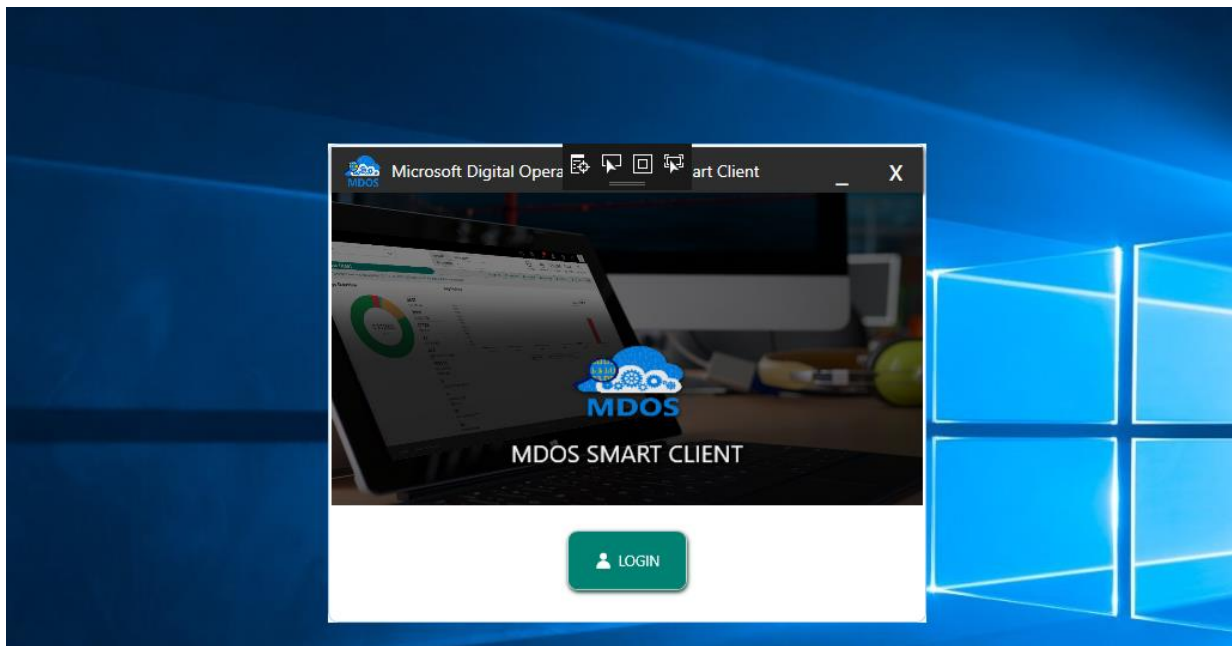
5.1 GET KEYS

Description:

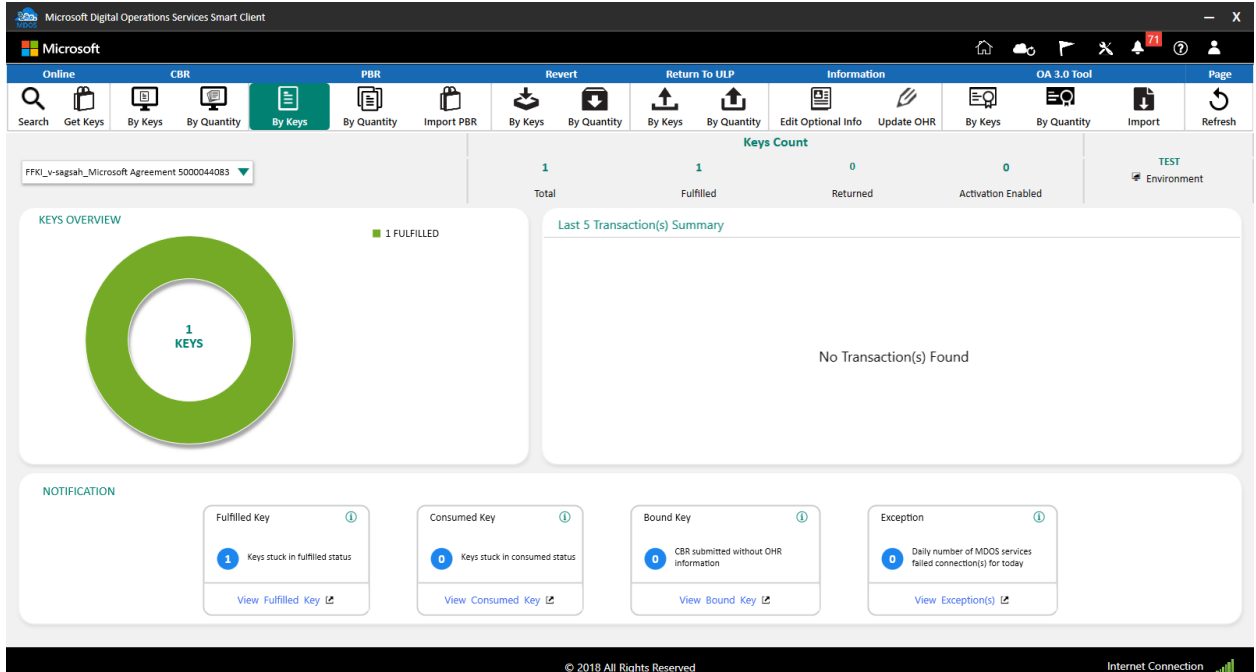
Get Keys allows keys that have been assigned to FFKI by their ULP partner from MDOS Cloud to be downloaded and fulfilled to the MDOS Smart Client following the SLA's of the ULP.

Step-by-Step:

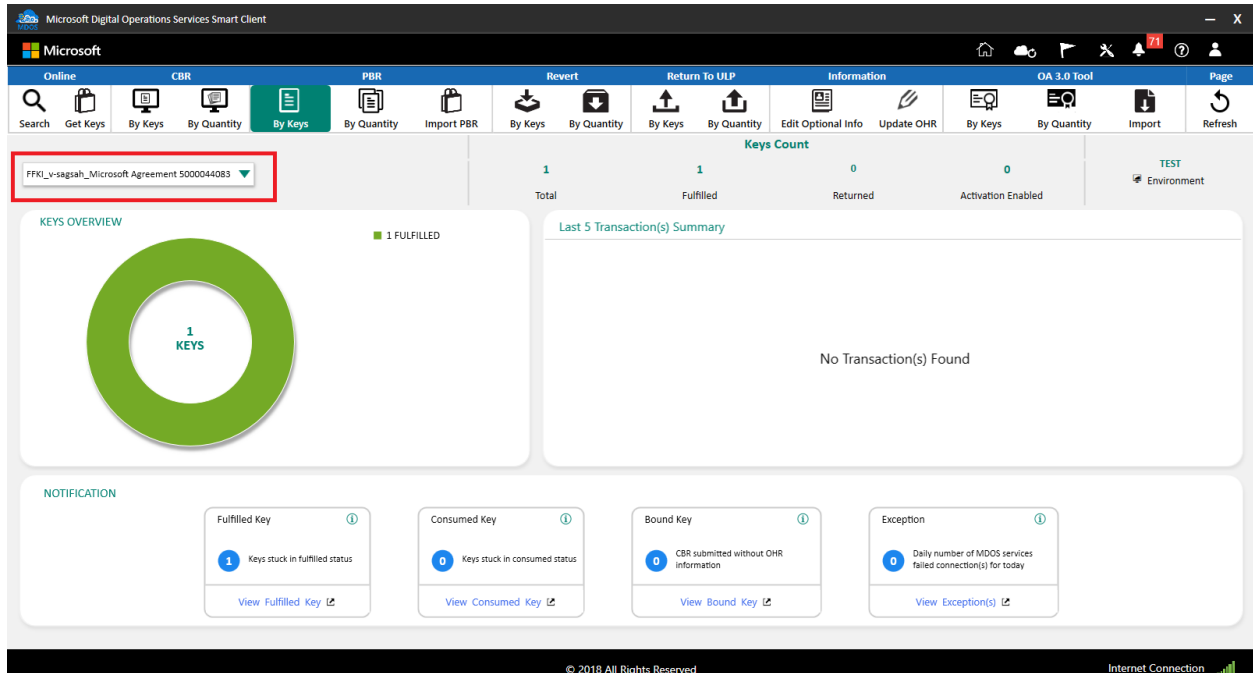
1. Log into Smart Client using FFKI partner account credentials.



2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



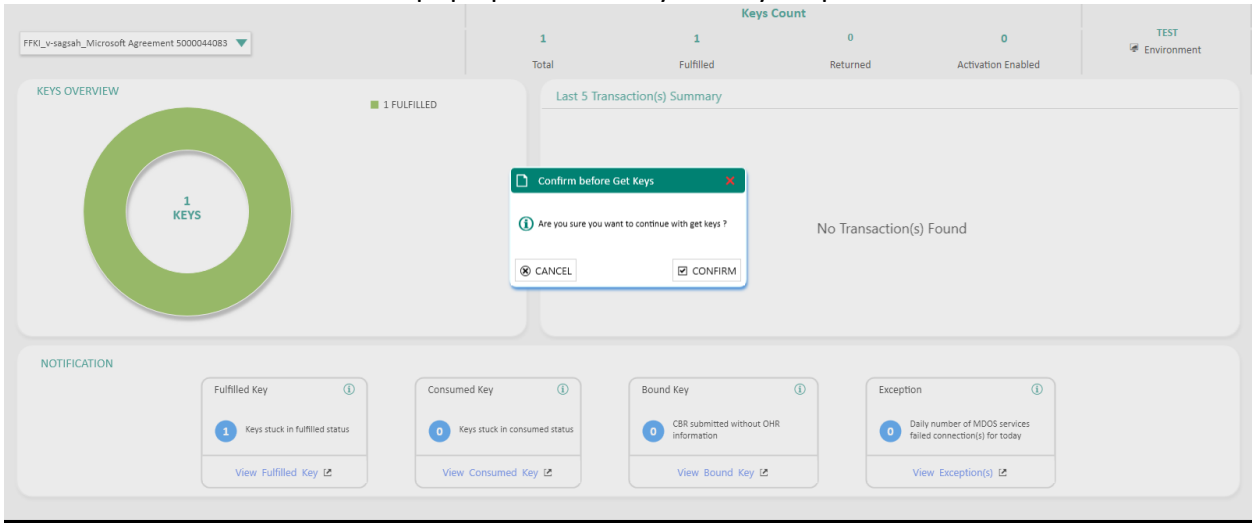
3. After that, select the appropriate business from which to download the keys in smart client as shown in the below screen.



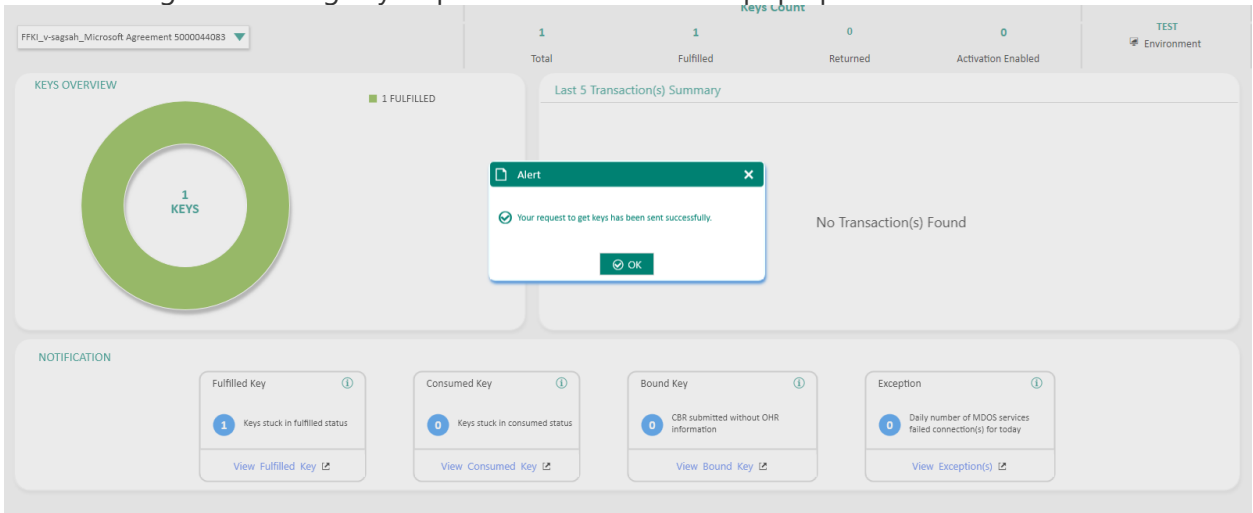
4. From the dashboard view, click on Get Keys to download the keys, which are assigned by ULP to FFKI partner.



5. A confirmation window will pop up to confirm your Key Request. Click CONFIRM.



6. A message confirming key request has been sent will pop up. Click OK.



7. Please follow below steps:
 - a. If keys are available, they will show up in dashboard within 2-3 minutes.
 - b. If keys are not yet available for fulfillment, you may need repeat steps again after 10 minutes.

5.2 SEARCH KEYS

Description:

The Search Key allows users to search for keys based on search parameters and perform key operations such as RECALL, REPORT, RETURN, etc. from the search screen.

Search fields include the following fields and options:

- KEY TYPE –
 - Standard – (i.e. Windows OS)
 - Service – (i.e. Office products, XBOX, other add-ons)
 - MBR – Motherboard Replacement
 - MAT – Multiple Activation Test
- KEY STATUS – Includes: Activation Denied, Activation Enabled, Activation Enabled Pending Update, Assigned, Bound, Consumed, FFKI Fulfilled, Fulfilled, Marked for Return, Marked for Submit, Notified Bound, Reported Bound, Reported Returned, Returned.
- OEM PO NUMBER – The Purchase Order (PO) number assigned when order is placed
- OEM PART NUMBER – The unique ID assigned by MSFT for an ordered Sku
- LICENSABLE PART NUMBER – Unique ID assigned by Microsoft.
- CALL OFF REFERENCE NUMBER – The number assigned in MDOS once the Call Off order has been placed.
- MICROSOFT ORDER NUMBER – Order number received from Microsoft after an order is placed.
- MICROSOFT PRODUCT KEY ID – Shortened number associated with the long Product Key ID.
 - Long Product Key ID is the 25-character product key, also referred to as a 5x5 key, formatted as XXXXX-XXXXX-XXXXX-XXXXXXXXXX, which Microsoft provides to activate a single copy of Windows on a computer)

There are also additional search options when you open a new window with Advanced Search fields:

- ADVANCED SEARCH - You may search by PRODUCT KEY ID FROM, PRODUCT KEY ID TO, MASKED PRODUCT KEY, DPK LABEL, HARDWARE HASK, OEM RMA (Return Merchandise Authorization) NUMBER.

1. Click on the search icon to view search fields

MDOS Smart Client User Manual

© 2018 All Rights Reserved Internet Connection

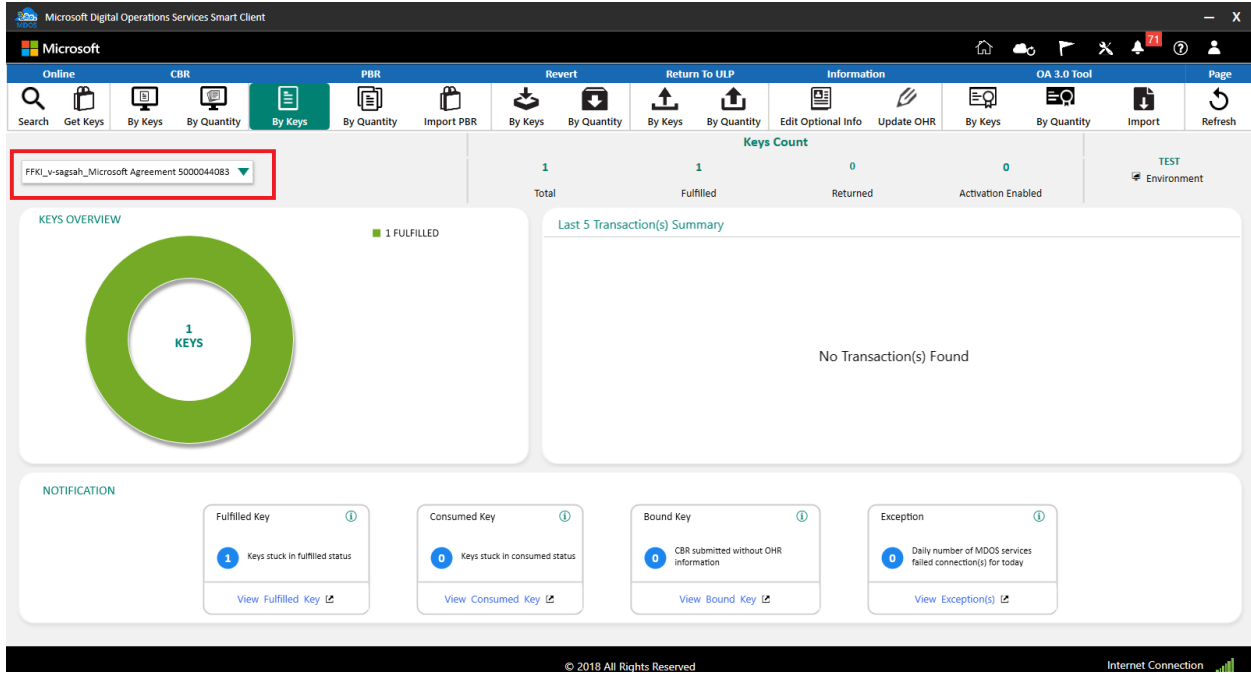
| MS Product Key | Key Type | Key Status | Product Key | Licensable Name | Licensable Part Number | OEM PO Number | OEM Part Number | Call Off Reference Number |
|-----------------|----------|-------------------|----------------------|--------------------------------|------------------------|---------------|-----------------|---------------------------|
| 2961048232632 | Service | Fulfilled | XXXXXXXXXXXXXXXXXXXX | O36SP Sub OLC OA3 PTK AFOLB | 714-00013 | 4TH JAN 2019 | | |
| 2961048232633 | Service | Return To ULP | XXXXXXXXXXXXXXXXXXXX | O36SP Sub OLC OA3 PTK AFOLB | 714-00013 | 4TH JAN 2019 | | |
| 2961048232634 | Service | Fulfilled | XXXXXXXXXXXXXXXXXXXX | O36SP Sub OLC OA3 PTK AFOLB | 714-00013 | 4TH JAN 2019 | | |
| 3258505707451 | Standard | Return To ULP | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 3258505707452 | Standard | Marked For Submit | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 3258505707452 | Standard | Marked For Submit | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 3258505707453 | Standard | Return To ULP | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 3258505707454 | Standard | Return To ULP | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 3258505707455 | Standard | Return To ULP | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 PTK | KW9-00004 | 4TH JAN 2019 | | |
| 899901257634237 | Standard | Bound | XXXXXXXXXXXXXXXXXXXX | WIN HOME 1D OLC OA3 NonAct PTK | KW9-00458 | WER | | |

Tip Tool: Use Search functionality to find keys based on search parameters and perform key operations such as ASSIGN, RECALL, REPORT, RETURN, etc. from the search screen.

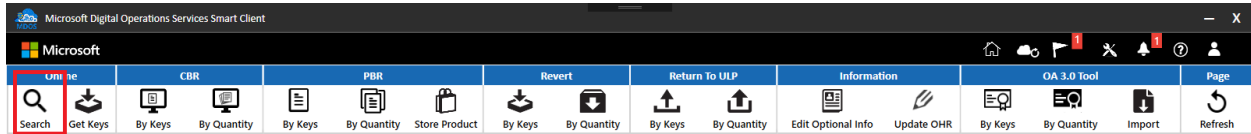
Step-by-Step:

1. From the dashboard view, select the business from the Business dropdown menu.

MDOS Smart Client User Manual

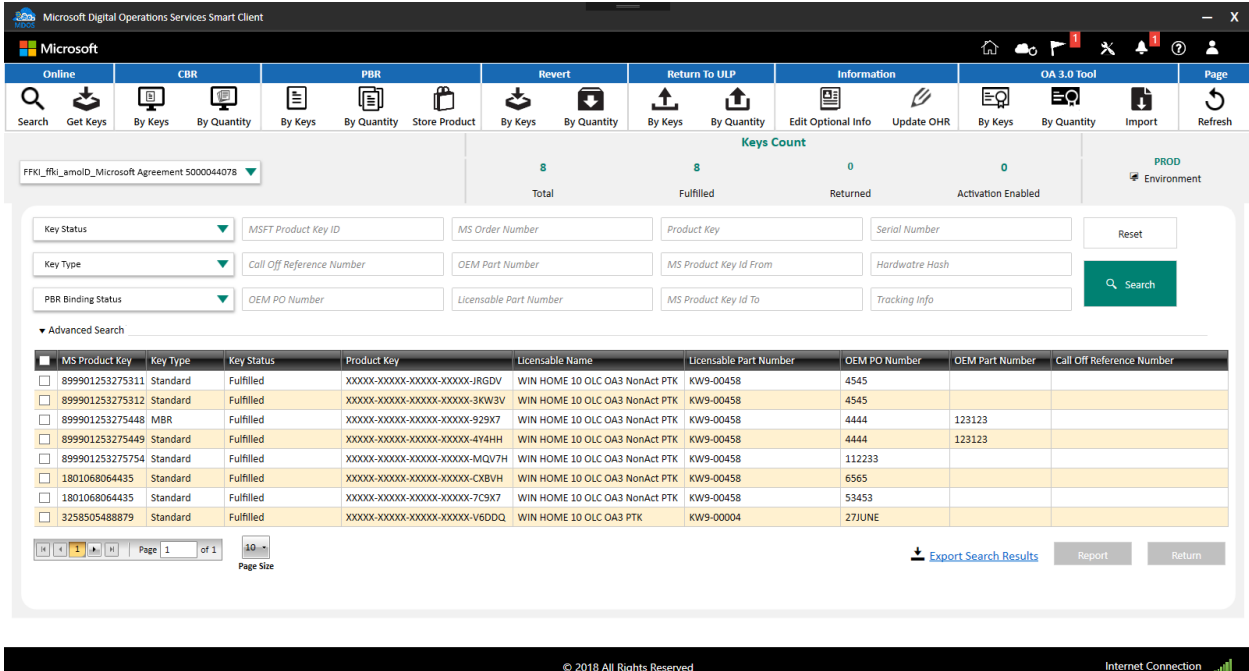


3. Click on the search icon in the top navigation bar.

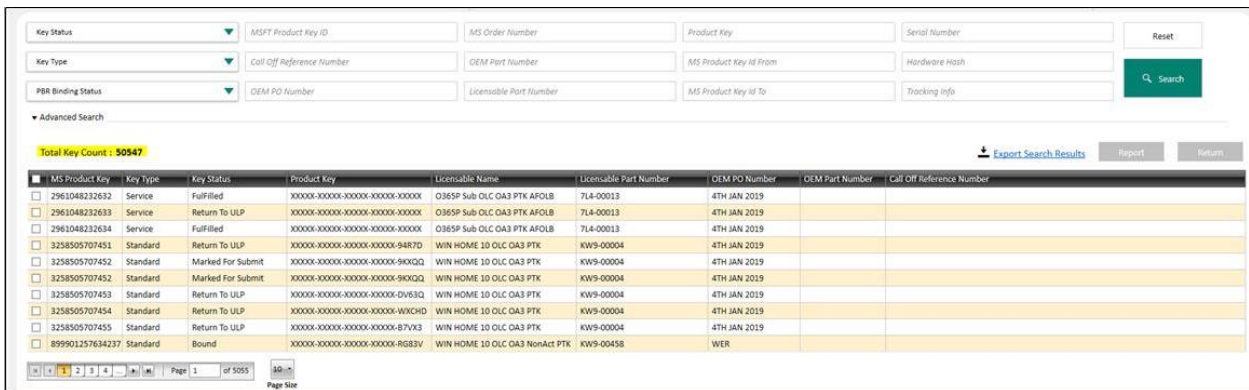


4. Enter search criteria, such as Key Status, Key Type, Assigned to, MS Fulfilled date, OEM RMA Date, etc., and click on the SEARCH button.

MDOS Smart Client User Manual

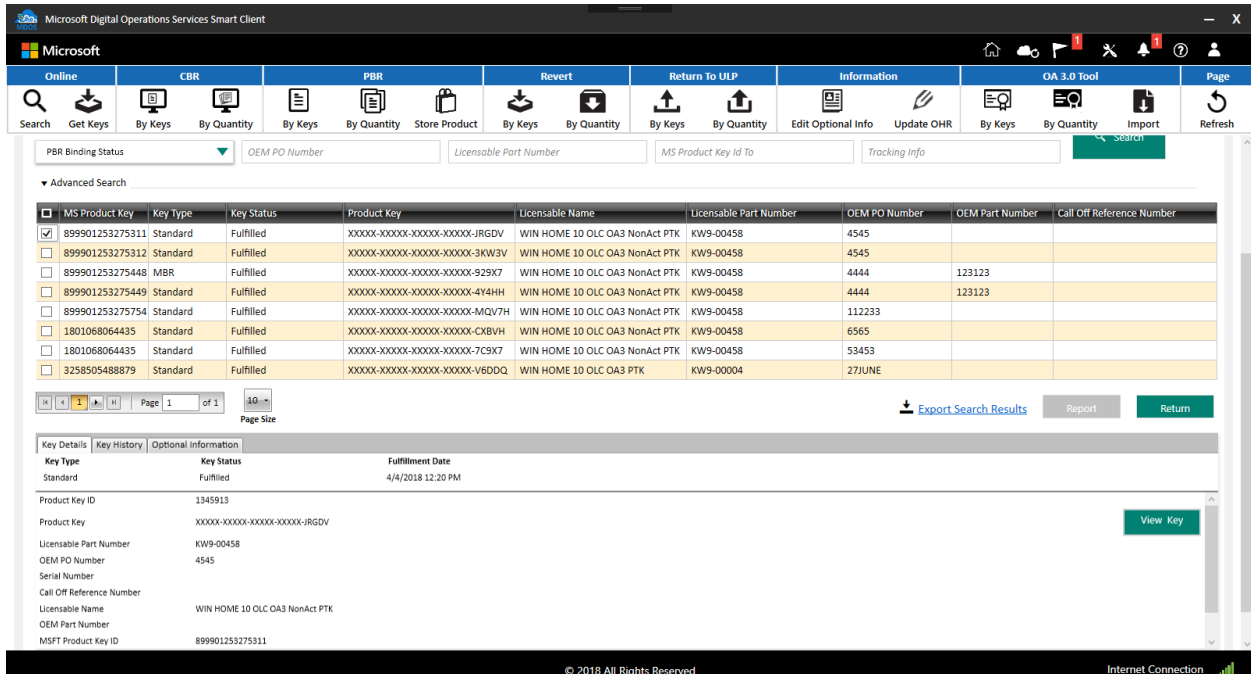


5. Search results will display all the keys based on the search criteria. The total number of keys found within the search parameters will also be displayed.



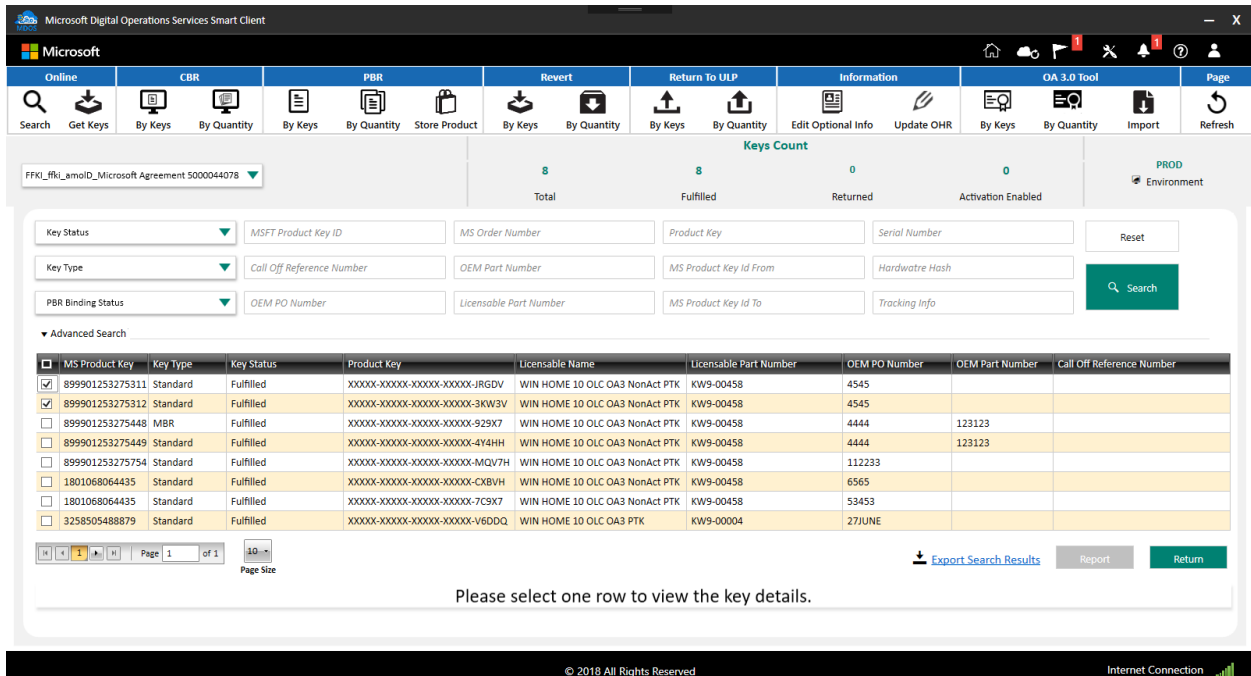
6. Keys can then be selected to perform other operations like Export, Assign, Recall, etc.

MDOS Smart Client User Manual



1. Check the box(es) to select keys and view key information.

Note: Only information for one key can viewed at a time.

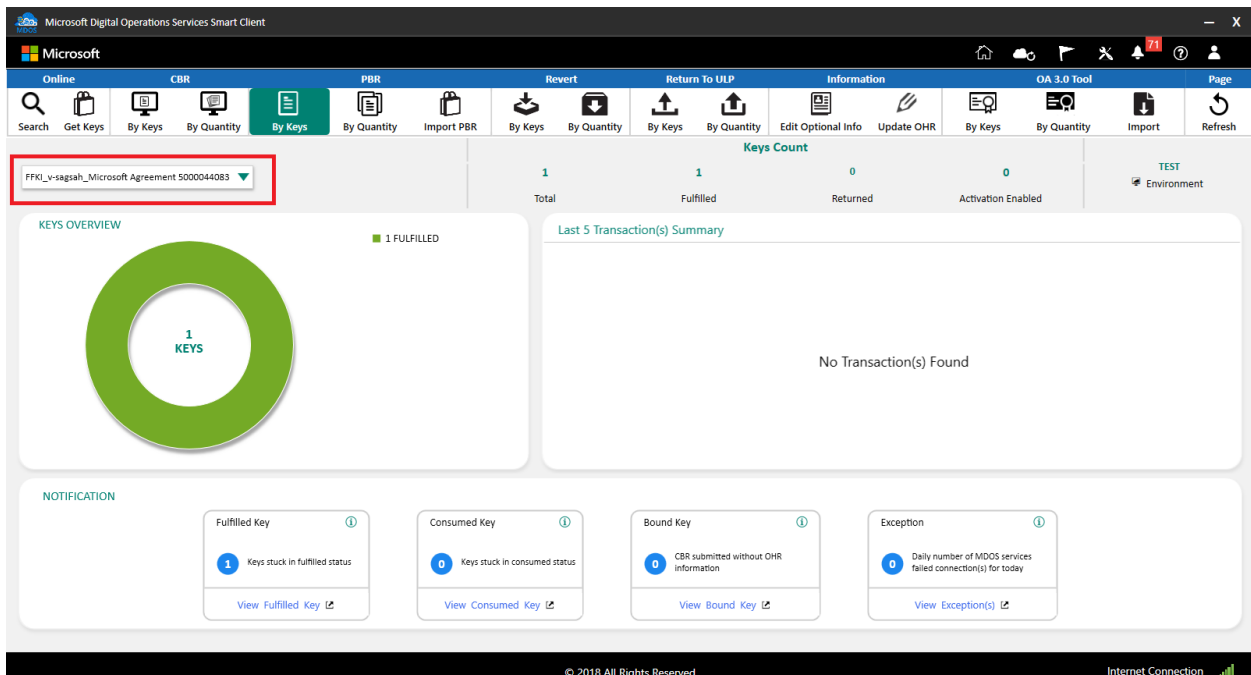


Display the total keys count in search grid

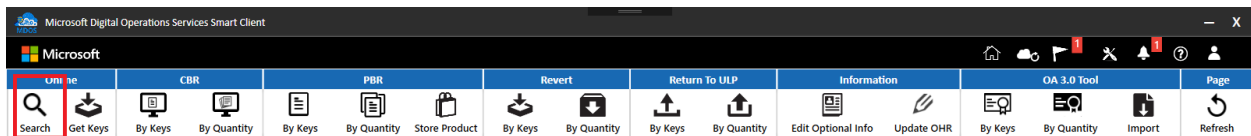
Currently MSC does not show the total keys searched in Search screen, with this change FFKI partner will see the total key count from search key page.

Step-by-Step:

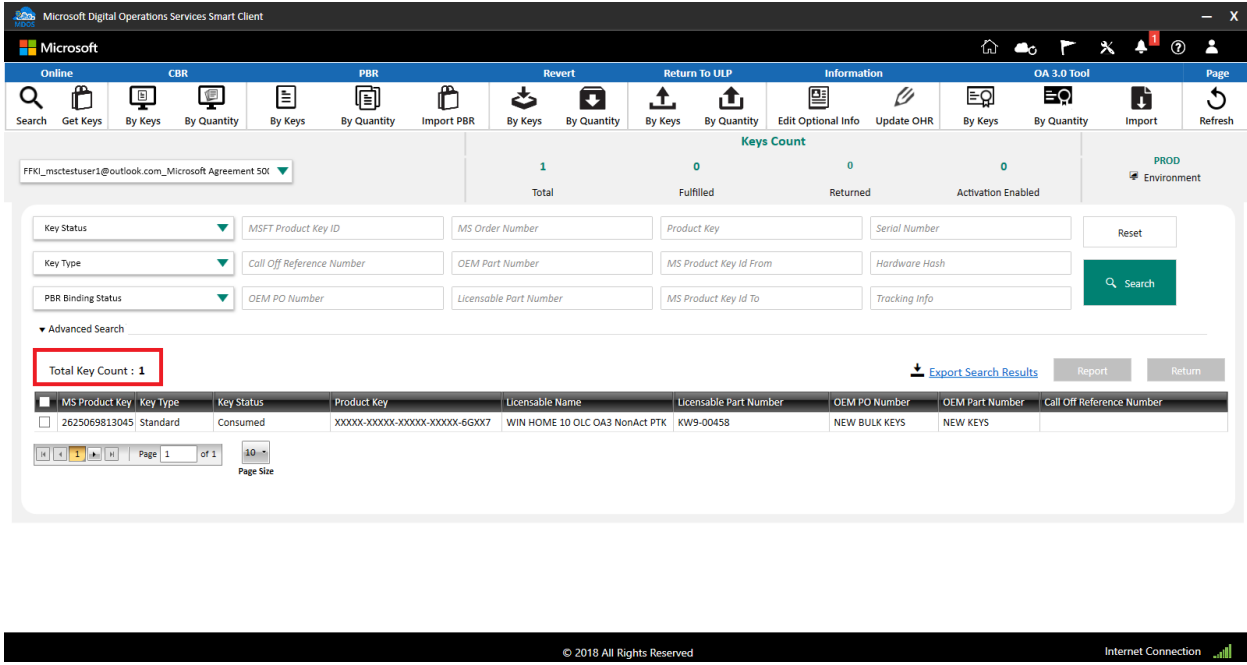
1. From the dashboard view, select the business from the Business dropdown menu.



3. Click on the search icon in the top navigation bar.



4. You can see the total key count from search page on left top of product key list grid.



5.3 RETURN KEYS

Description:

Return Keys allows the FFKI partner to return the keys that were assigned to them to their ULP partner from MDOS SC so that the keys will returned to MDOS Cloud.

5.2.1 Return Keys by quantity

Step-by-step:

1. From the top menu, select By quantity under Return to ULP.



2. Enter the quantity of keys to be returned.

MDOS Smart Client User Manual

The screenshot shows the Microsoft Digital Operations Services Smart Client interface. The top navigation bar includes buttons for Online, CBR, PBR, Revert, Return to ULP, Information, and OA 3.0 Tool. The 'Return to ULP' button is highlighted. Below the navigation bar, there is a search bar and a 'Keys Count' section with the following data:

| Keys Count | Total | Fulfilled | Returned | Activation Enabled |
|------------|-------|-----------|----------|--------------------|
| | 8 | 8 | 0 | 0 |

The main content area is titled 'Return By Quantity' and contains a table with the following columns: Key Type, Licensable Part Number, OEM Part Number, OEM PO Number, Available Keys, and Quantity. The table contains 8 rows of data:

| Key Type | Licensable Part Number | OEM Part Number | OEM PO Number | Available Keys | Quantity |
|----------|------------------------|-----------------|---------------|----------------|----------|
| Standard | KW9-00458 | | 112233 | 1 | 1 |
| Standard | KW9-00004 | | 27JUNE | 1 | 0 |
| Standard | KW9-00458 | | 4545 | 2 | 1 |
| Standard | KW9-00458 | | 53453 | 1 | 0 |
| Standard | KW9-00458 | | 6565 | 1 | 0 |
| Standard | KW9-00458 | 123123 | 4444 | 1 | 0 |
| MBR | KW9-00458 | 123123 | 4444 | 1 | 0 |

At the bottom right of the table, there is a 'Return to ULP' button highlighted in green.

3. Click on Return to ULP.

The screenshot shows the Microsoft Digital Operations Services Smart Client interface. The top navigation bar includes buttons for Online, CBR, PBR, Revert, Return to ULP, Information, and OA 3.0 Tool. The 'Return to ULP' button is highlighted. Below the navigation bar, there is a search bar and a 'Keys Count' section with the following data:

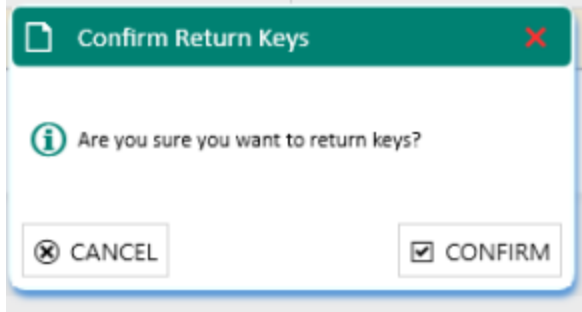
| Keys Count | Total | Fulfilled | Returned | Activation Enabled |
|------------|-------|-----------|----------|--------------------|
| | 8 | 8 | 0 | 0 |

The main content area is titled 'Return By Quantity' and contains a table with the following columns: Key Type, Licensable Part Number, OEM Part Number, OEM PO Number, Available Keys, and Quantity. The table contains 8 rows of data:

| Key Type | Licensable Part Number | OEM Part Number | OEM PO Number | Available Keys | Quantity |
|----------|------------------------|-----------------|---------------|----------------|----------|
| Standard | KW9-00458 | | 112233 | 1 | 1 |
| Standard | KW9-00004 | | 27JUNE | 1 | 0 |
| Standard | KW9-00458 | | 4545 | 2 | 1 |
| Standard | KW9-00458 | | 53453 | 1 | 0 |
| Standard | KW9-00458 | | 6565 | 1 | 0 |
| Standard | KW9-00458 | 123123 | 4444 | 1 | 0 |
| MBR | KW9-00458 | 123123 | 4444 | 1 | 0 |

At the bottom right of the table, there is a 'Return to ULP' button highlighted in red.

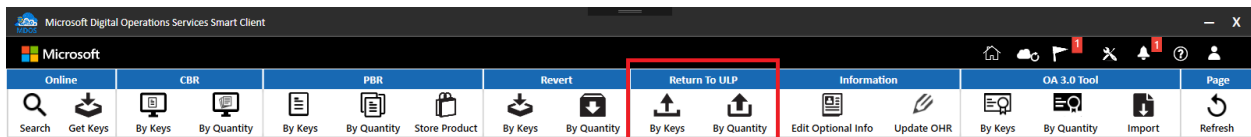
4. A confirmation window will pop up to confirm your selection. Click CONFIRM.



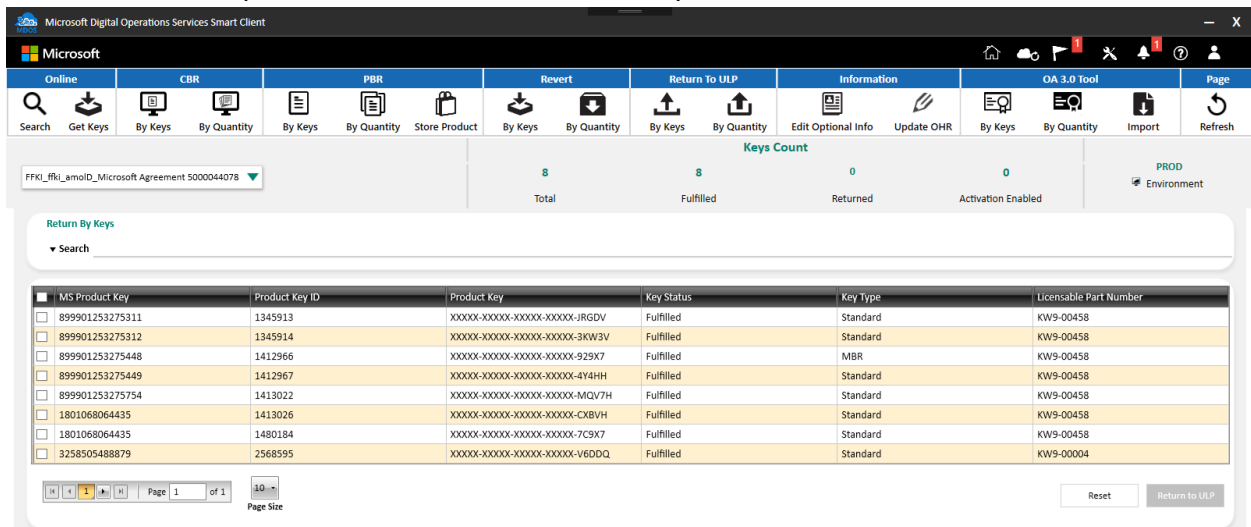
5.2.2 Return Keys by Keys

Step-by-step:

1. From the top menu, select By Keys under Return to ULP.



2. From the More pulldown menu, select Return Keys.



3. Enter the search criteria and Click on the SEARCH button.

MDOS Smart Client User Manual

Keys Count

8 Total 8 Fulfilled 0 Returned 0 Activation Enabled PROD Environment

Return By Keys

Search: FFKI_ffkl_amoId_Microsoft Agreement 5000044078

| MS Product Key | Product Key ID | Product Key | Key Status | Key Type | Licensable Part Number |
|---|----------------|-------------------------------|------------|----------|------------------------|
| <input checked="" type="checkbox"/> 899901253275311 | 1345913 | XXXXX-XXXXX-XXXXX-XXXXX-JRQDV | Fulfilled | Standard | KW9-00458 |
| <input checked="" type="checkbox"/> 899901253275312 | 1345914 | XXXXX-XXXXX-XXXXX-XXXXX-3KW3V | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 899901253275448 | 1412966 | XXXXX-XXXXX-XXXXX-XXXXX-929X7 | Fulfilled | MBR | KW9-00458 |
| <input type="checkbox"/> 899901253275449 | 1412967 | XXXXX-XXXXX-XXXXX-XXXXX-4Y4HH | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 899901253275754 | 1413022 | XXXXX-XXXXX-XXXXX-XXXXX-MQV7H | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 1801068064435 | 1413026 | XXXXX-XXXXX-XXXXX-XXXXX-CXBVH | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 1801068064435 | 1480184 | XXXXX-XXXXX-XXXXX-XXXXX-7C9X7 | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 3258505488879 | 2568595 | XXXXX-XXXXX-XXXXX-XXXXX-V6DDQ | Fulfilled | Standard | KW9-00004 |

4. All keys eligible for return will display in the table.

5. Check the box(es) to the select KEY IDs you would like to return.

Keys Count

8 Total 8 Fulfilled 0 Returned 0 Activation Enabled PROD Environment

Return By Keys

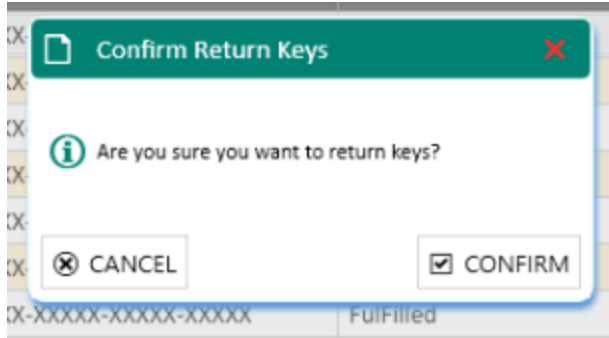
Search: FFKI_ffkl_amoId_Microsoft Agreement 5000044078

| MS Product Key | Product Key ID | Product Key | Key Status | Key Type | Licensable Part Number |
|---|----------------|-------------------------------|------------|----------|------------------------|
| <input checked="" type="checkbox"/> 899901253275311 | 1345913 | XXXXX-XXXXX-XXXXX-XXXXX-JRQDV | Fulfilled | Standard | KW9-00458 |
| <input checked="" type="checkbox"/> 899901253275312 | 1345914 | XXXXX-XXXXX-XXXXX-XXXXX-3KW3V | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 899901253275448 | 1412966 | XXXXX-XXXXX-XXXXX-XXXXX-929X7 | Fulfilled | MBR | KW9-00458 |
| <input type="checkbox"/> 899901253275449 | 1412967 | XXXXX-XXXXX-XXXXX-XXXXX-4Y4HH | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 899901253275754 | 1413022 | XXXXX-XXXXX-XXXXX-XXXXX-MQV7H | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 1801068064435 | 1413026 | XXXXX-XXXXX-XXXXX-XXXXX-CXBVH | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 1801068064435 | 1480184 | XXXXX-XXXXX-XXXXX-XXXXX-7C9X7 | Fulfilled | Standard | KW9-00458 |
| <input type="checkbox"/> 3258505488879 | 2568595 | XXXXX-XXXXX-XXXXX-XXXXX-V6DDQ | Fulfilled | Standard | KW9-00004 |

Return to ULP

5. Click the Return to DLP button.

6. A confirmation window will pop up to confirm your selection. Click CONFIRM.



7. Once the keys are returned, a “Key(s) returned successfully” message will briefly pop up in the green highlighted banner.

FFKI_FFKI_Test_Aamir_Microsoft Agreement 5000043726

79499 Total 78954 Fulfilled 0 Returned 0 Activation Enabled PROUD Environment

Keys return Successfully!!!

Return By Keys

▼ Search

| Product Key ID | Product Key | Key Status | Key Type | Licensable Part Number | MS PRODUCT KEY ID |
|----------------------------------|-----------------------------|------------|----------|------------------------|-------------------|
| <input type="checkbox"/> 2033378 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582415 |
| <input type="checkbox"/> 2033379 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582415 |
| <input type="checkbox"/> 2033382 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582417 |
| <input type="checkbox"/> 2033383 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582417 |
| <input type="checkbox"/> 2033384 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582418 |
| <input type="checkbox"/> 2033385 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582418 |
| <input type="checkbox"/> 2033386 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582419 |
| <input type="checkbox"/> 2033387 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582419 |
| <input type="checkbox"/> 2033388 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582420 |
| <input type="checkbox"/> 2033389 | XXXXXX-XXXXXX-XXXXXX-XXXXXX | Fulfilled | Standard | KJ7-00001 | 3258631582420 |

Page 1 of 7896 Page Size Reset Return to ULP

5.4 REVERT KEYS

Description:

Often FFKI partners accidentally export keys which are not intended for key injection and want to revert the key back to fulfilled state. Partners can use the revert keys capability to revert the key status to fulfilled state in this instance.

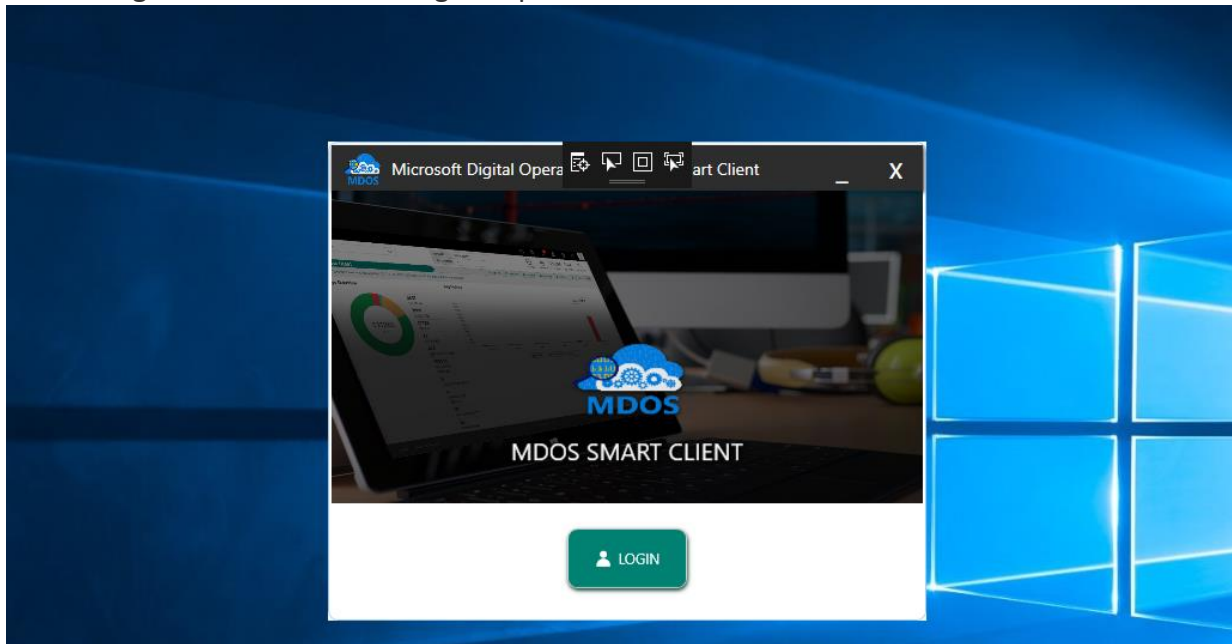
Note: Do not revert Consumed Digital Product Keys that have been: 1. Injected in a device, where that device has shipped to a custome. 2. A CBR report has been created and submitted to Microsoft for a specific DPK. In both of these cases, reverting a key will cause the potential for a duplication situation.

5.4.1 Revert keys by keys

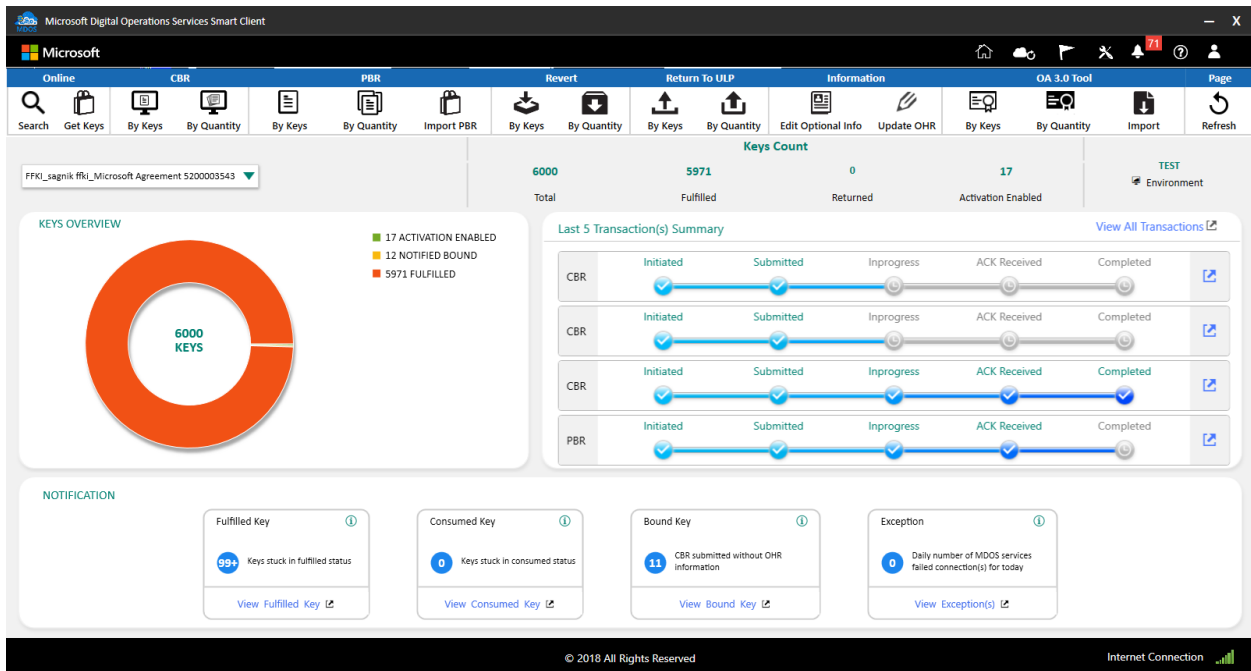
Tip Tool: Revert keys by keys will revert the key status from consumed to fulfilled by keys.

Step-by-step:

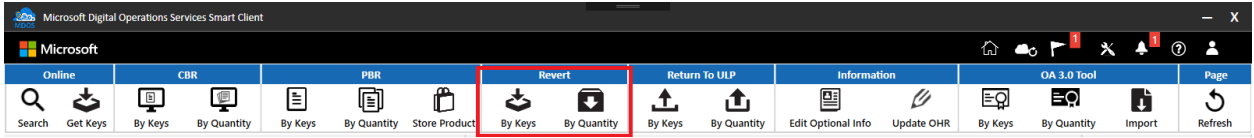
1. Log into Smart Client using FFKI partner account credentials.



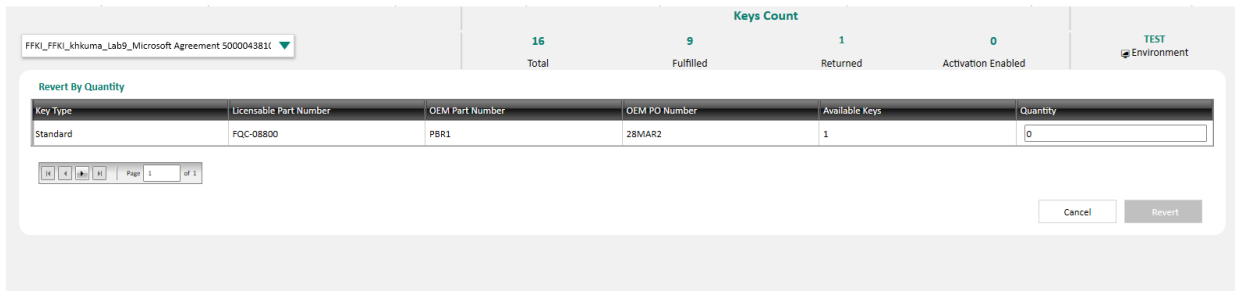
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



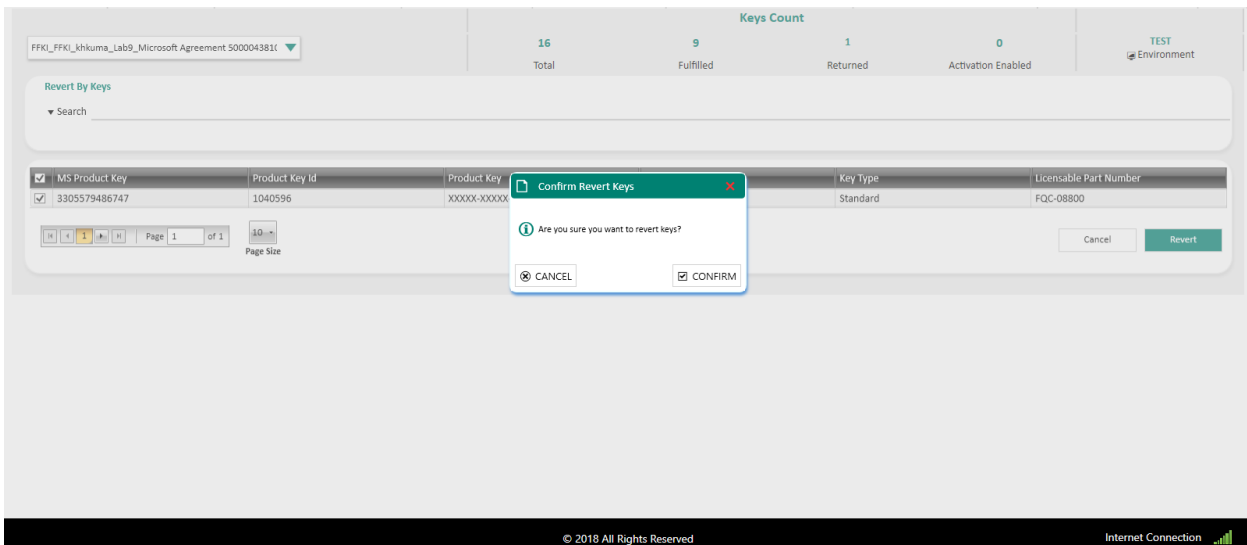
3. Select By Keys under Revert.



4. Select the keys you want to revert and click on revert button.



5. Once the FFKI partner clicks on the Revert button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.



6. Once the keys are reverted back to fulfilled status, a “Keys Revert Operation Successfully” message will briefly pop up in the green highlighted banner.

Keys Revert Operation Successfully!!!

REVERT BY KEYS

Search

MS Fulfilled date From

MS Fulfilled date to

Key Type

PRODUCT KEY

PRODUCT KEY ID FROM

PRODUCT KEY ID TO

PRODUCT KEY ID

OEM PART NUMBER

MS ORDER NUMBER

OEM PO NUMBER

LICENSABLE PART NUMBER

Reset

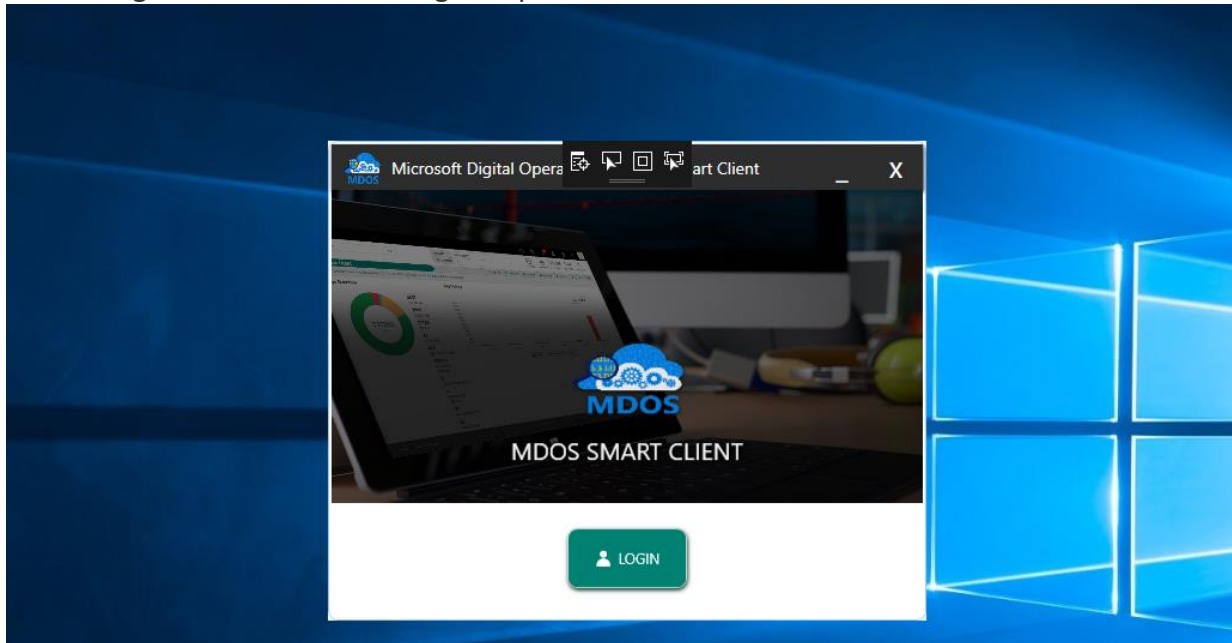
Search

5.4.2 Revert keys by quantity

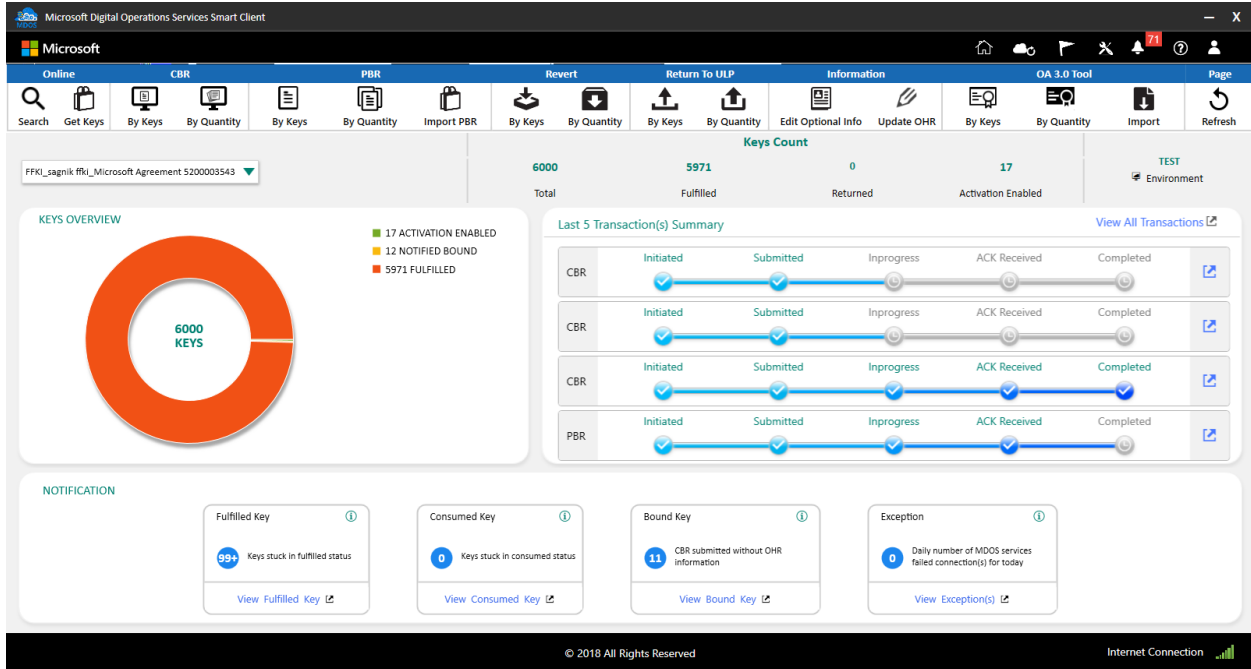
Tip Tool: Revert keys by keys will revert the key status from consumed to fulfilled by quantity.

Step-by-step:

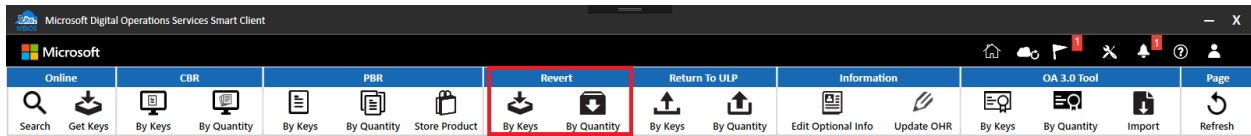
1. Log into Smart Client using FFKI partner account credentials.



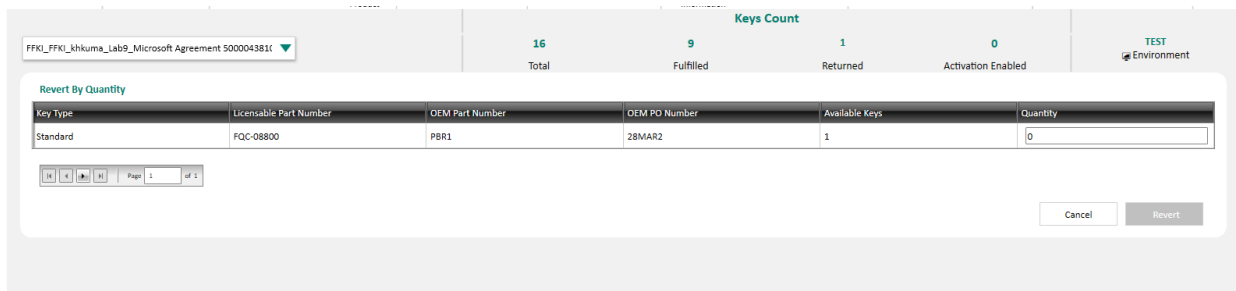
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



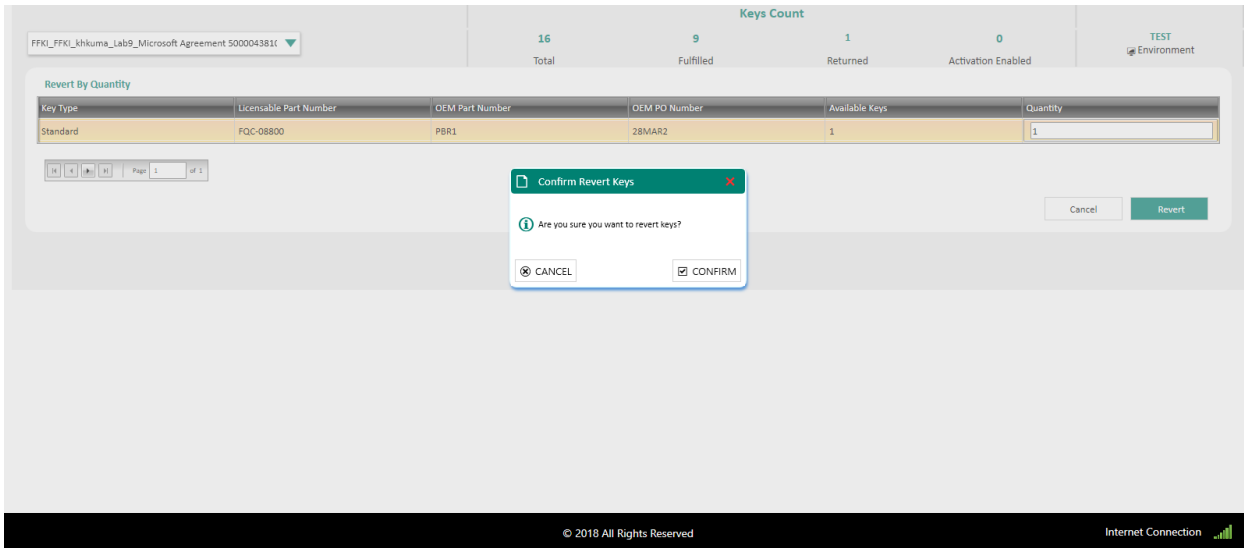
3. Select By Quantity under Revert.



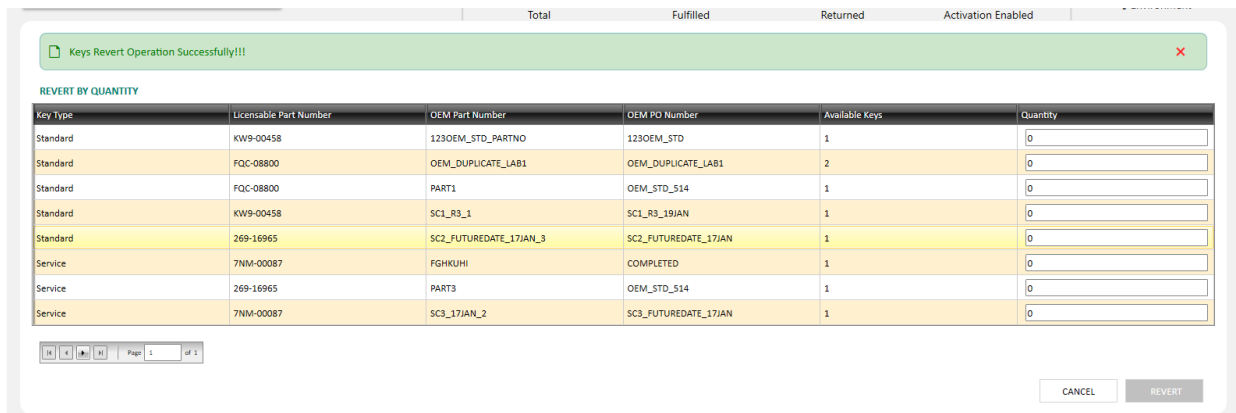
4. Enter the quantity of keys against licensable part number which you want to revert.



5. Click on Revert button.
6. Once the FFKI partner click on the Revert button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.



7. Once the keys are reverted, a “Keys Revert Operation Successfully” message will briefly pop up in the green highlighted banner.



5.5 IMPORT KEYS

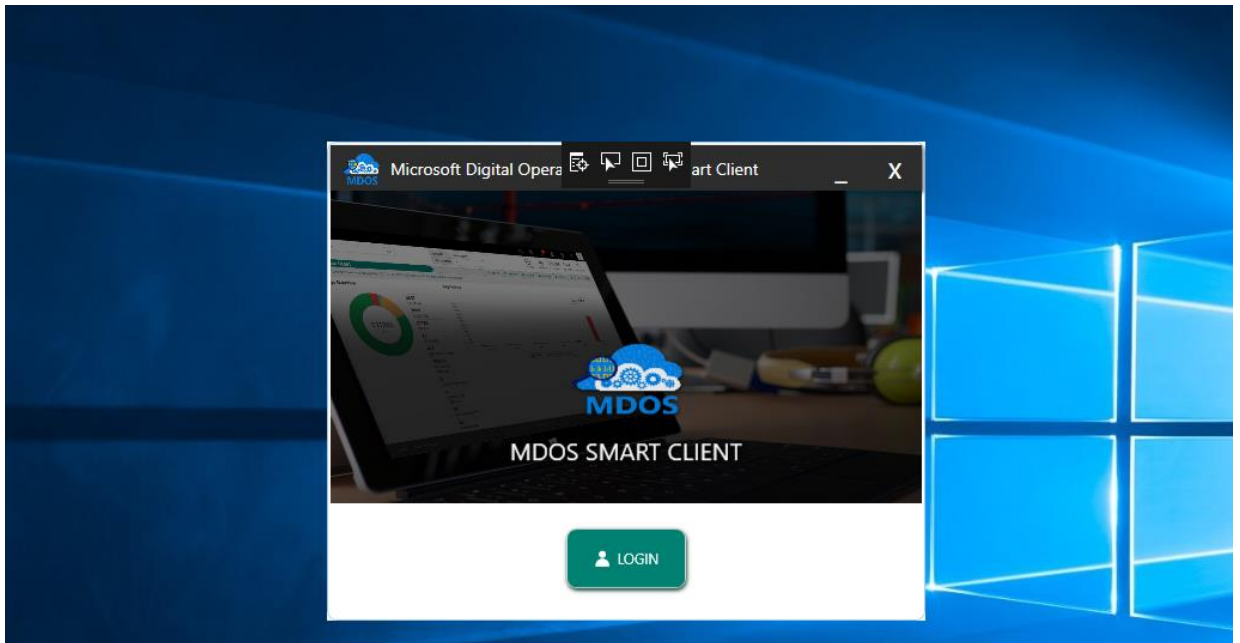
Description:

The Import keys functionality allows a down level partner (DLP) to import keys into the MDOS SC system from an external file location. The keys must be in Consumed status to be imported and the file format from where the keys are being imported must be XML.

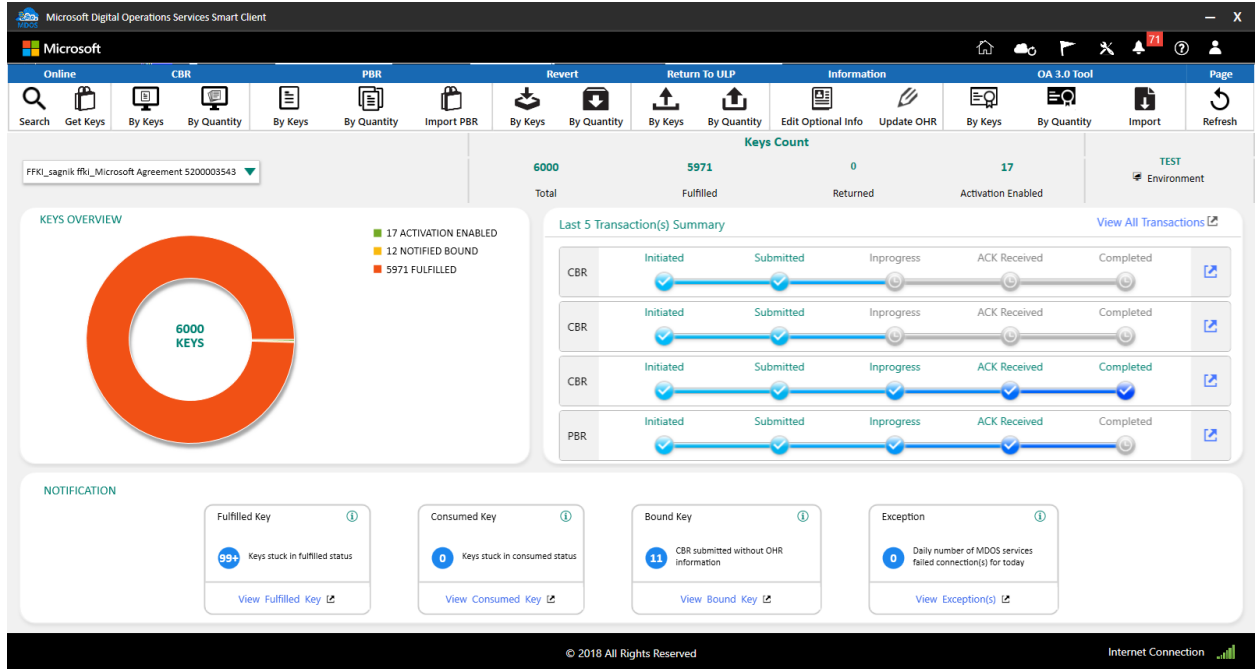
Tip Tool: Import keys into the Smart Client from an external file location.

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.

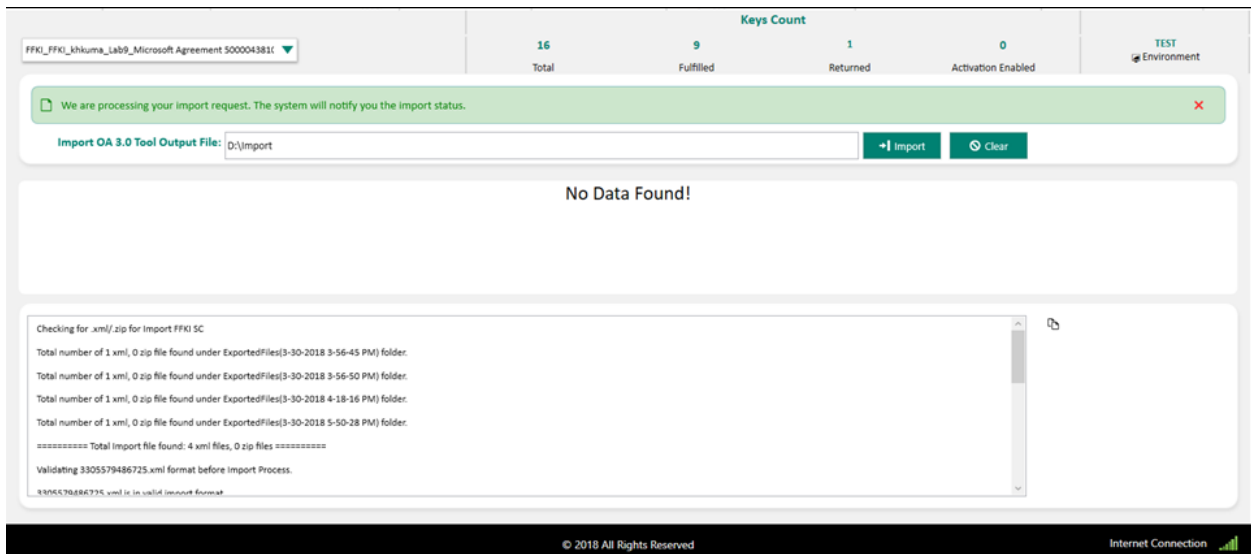
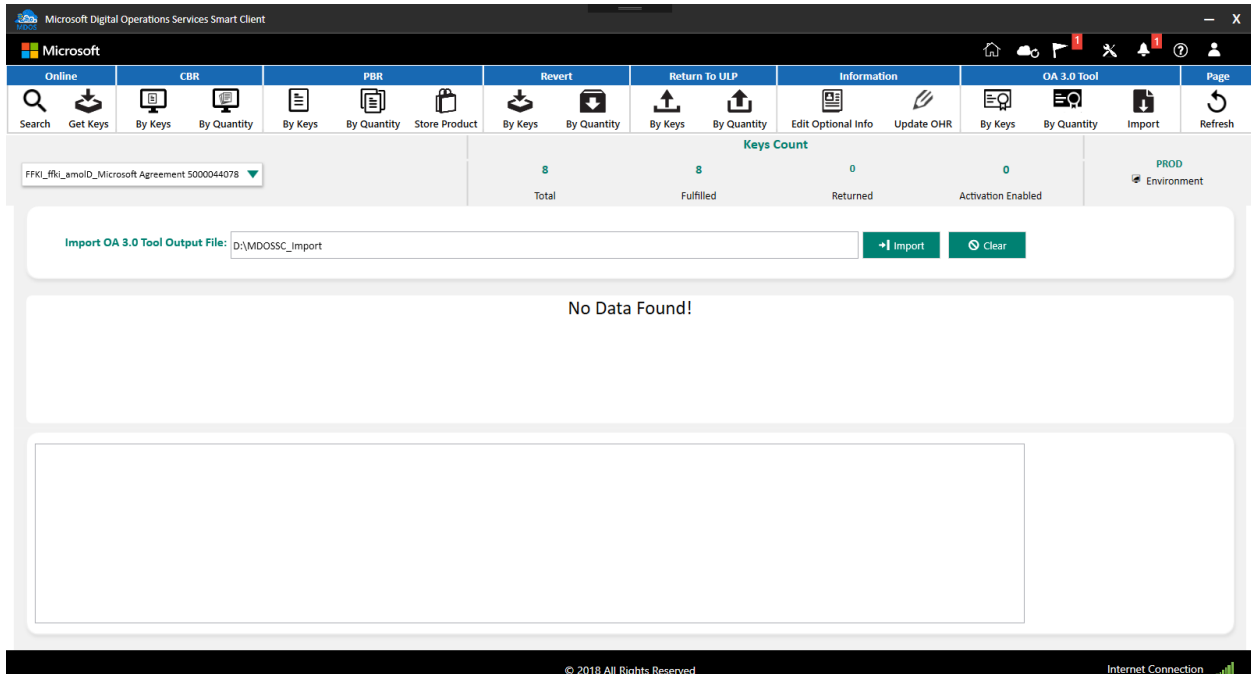


3. After clicking “Dashboard” button, FFKI partner will need to click on the Import Button as shown in the below screen.



4. After clicking partner will get the below screen. FFKI partner will need to click on the import button. All files present in the file import path location will be upload in the MDOS.

NOTE: FFKI partner will need to set the Import Path from the settings page. To learn more about Settings please refer to the settings page.



Once the keys are imported, a notification will appear under the Alert icon, indicating recent changes.

5.6 EXPORT KEYS

Description:

The Export keys functionality allows FFKI to export keys from MDOS SC system to an external file location. The keys must be in fulfilled status to be exported and the format of the exported file will be a XML file.

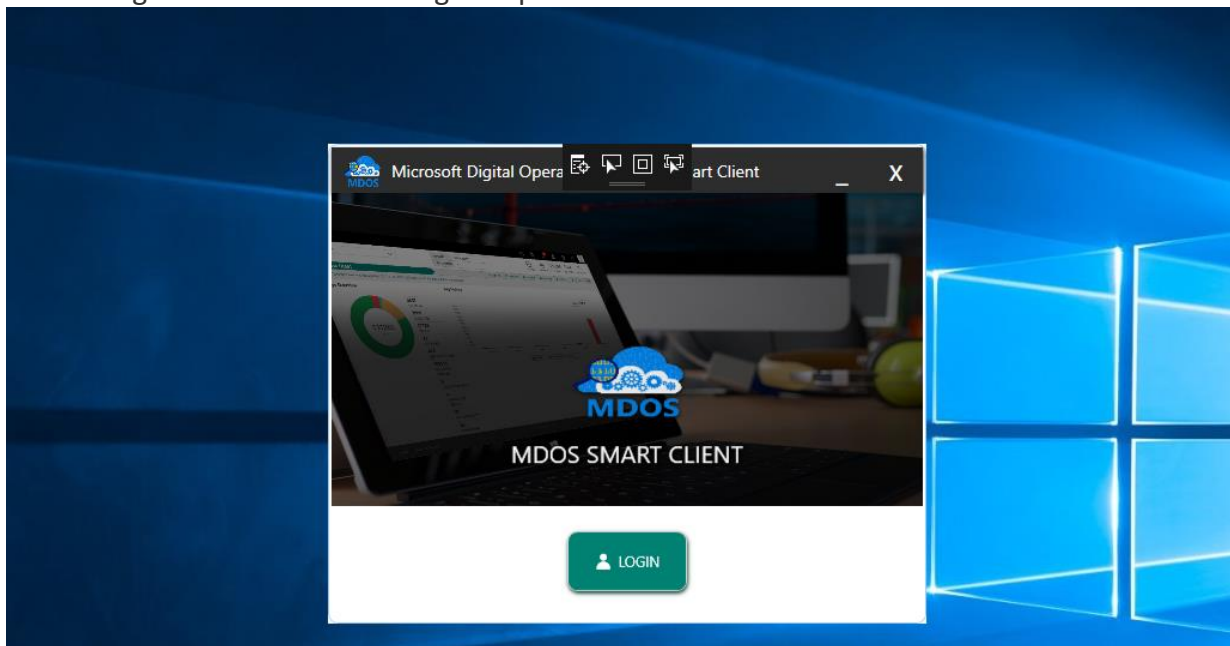
Note: Microsoft recommends that to complete the OA3.0 end to end process that all entities within the Business Setup within MDOS should be network connected. If the entities within the business are not network connected, there is a risk of duplicate device manufacturing with the same DPK, Lost DPK's, as well lost CBR's and the potential for non activatable systems. The MDOS solution is based on being network connected from the parent to all children in the business setup

Tip Tool: Export keys from MDOS SC into a zip file and store in a secure location for future download and use. User will be notified of the location from where the user can download the keys.

5.6.1 Export keys by keys

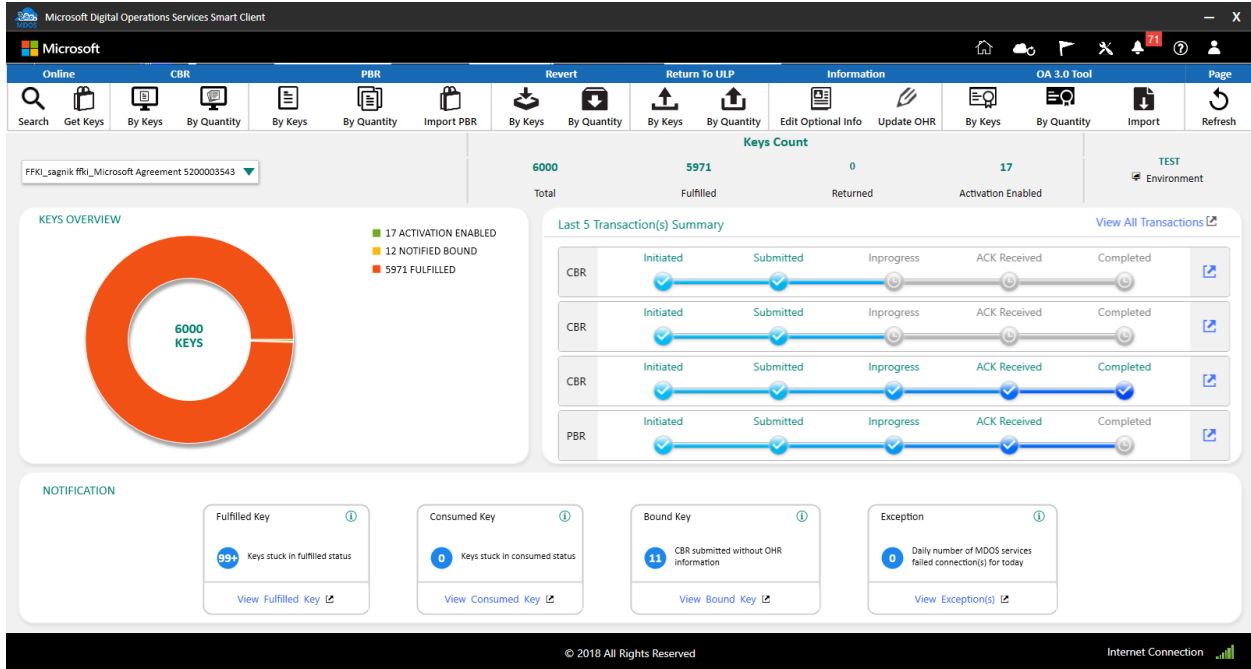
Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.

MDOS Smart Client User Manual



3. Select By Key under OA 3.0 tool option.



4. Select the keys which you want to Export and click on Export Keys Button.

FFKI_FFKI_khkuma_Lab9_Microsoft Agreement 5000043811

Keys Count: 16 Total, 9 Fulfilled, 1 Returned, 0 Activation Enabled

TEST Environment

Note: If you would like to change the export file location, please navigate to settings page.

Export By Keys

▼ Search

| MS Product Key | Product Key ID | Product Key | Licensable Part Number | OEM Part Number | Licensable Name |
|--|----------------|-------------------------------|------------------------|-----------------|--------------------------------|
| <input type="checkbox"/> 899901252750028 | 1040604 | XXXXX-XXXXX-XXXXX-XXXXX-D4RHH | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |
| <input type="checkbox"/> 899901252750029 | 1040605 | XXXXX-XXXXX-XXXXX-XXXXX-FG83V | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |
| <input type="checkbox"/> 899901252750033 | 1040609 | XXXXX-XXXXX-XXXXX-XXXXX-89BVH | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |

Directory: D:\Export

Page 1 of 1

Cancel Export Keys

- Once the FFKI partner clicks on the Export Keys button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.

FFKI_FFKI_khkuma_Lab9_Microsoft Agreement 5000043811

Keys Count: 16 Total, 9 Fulfilled, 1 Returned, 0 Activation Enabled

TEST Environment

Export By Keys

▼ Search

| MS Product Key | Product Key ID | Product Key | Licensable Part Number | OEM Part Number | Licensable Name |
|---|----------------|-------------------------------|------------------------|-----------------|--------------------------------|
| <input checked="" type="checkbox"/> 899901252750028 | 1040604 | XXXXX-XXXXX-XXXXX-XXXXX-D4RHH | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |
| <input type="checkbox"/> 899901252750029 | 1040605 | XXXXX-XXXXX-XXXXX-XXXXX-FG83V | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |
| <input type="checkbox"/> 899901252750033 | 1040609 | XXXXX-XXXXX-XXXXX-XXXXX-89BVH | KW9-00458 | | WIN HOME 10 OLC OA3 NonAct PTK |

Directory: D:\Export

Page 1 of 1

Cancel Export Keys

Confirm Export keys

Are you sure you want to export key(s)?

CANCEL CONFIRM

- Once the keys are exported, a “Key Exported Successfully” message will briefly pop up in the green highlighted banner.

FFKI_OEM6_FFKI1_Microsoft Agreement 5000043688

Keys Count: 13 Total, 8 Fulfilled, 0 Returned, 0 Activation Enabled

PROD Environment

Keys exported successfully!!!

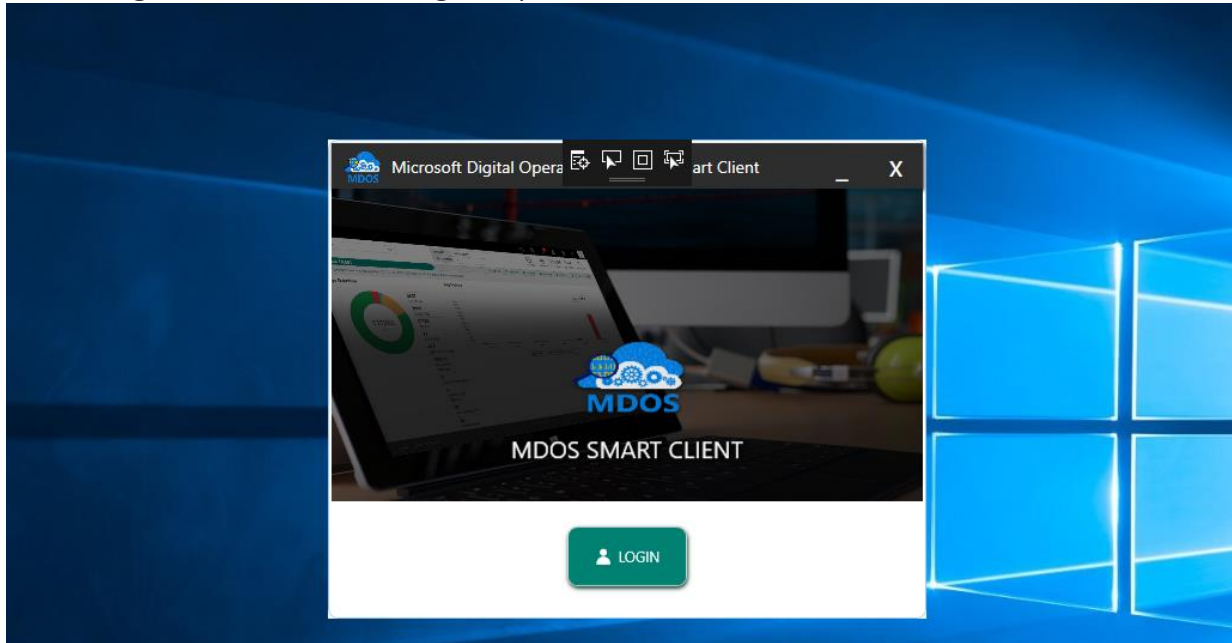
EXPORT BY KEYS

▼ Search

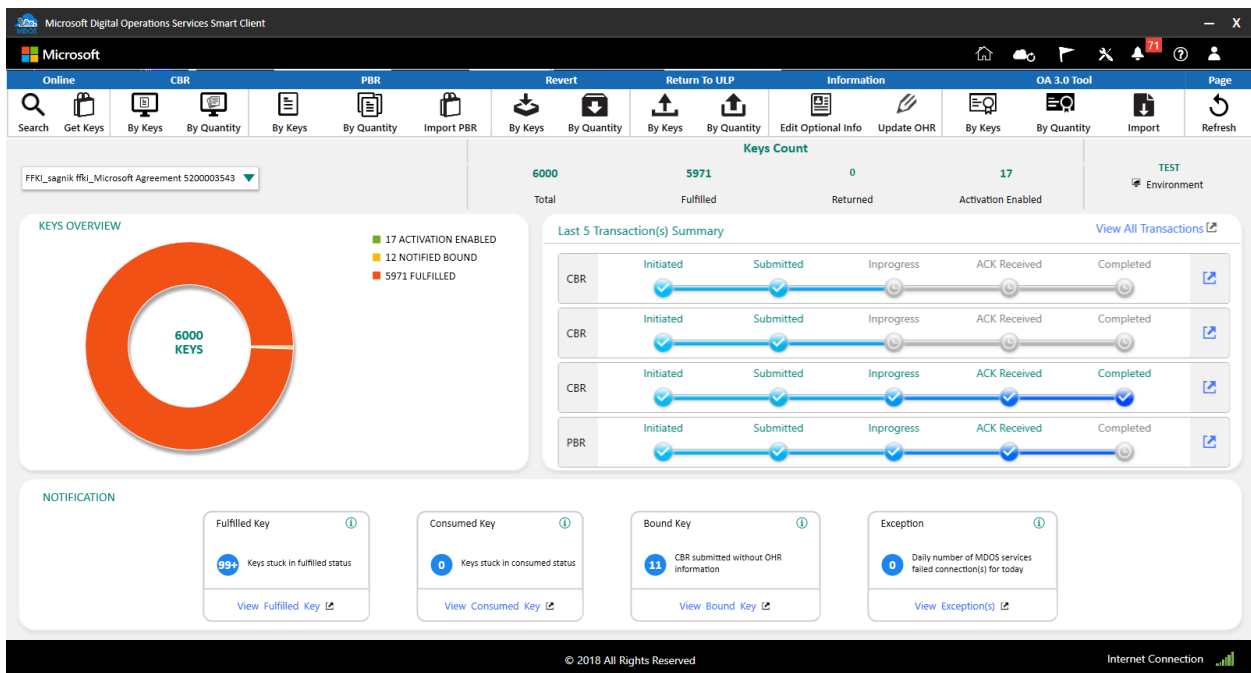
5.6.2 Export keys by quantity

Step-by-Step:

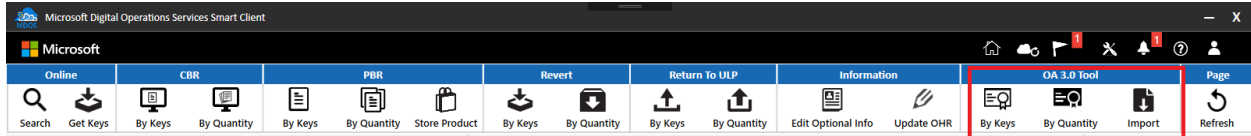
1. Log into Smart Client using FFKI partner account credentials.



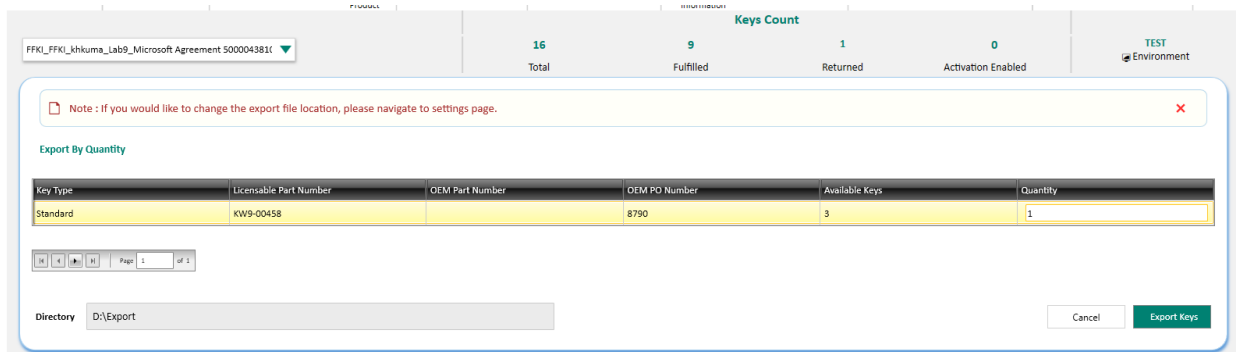
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



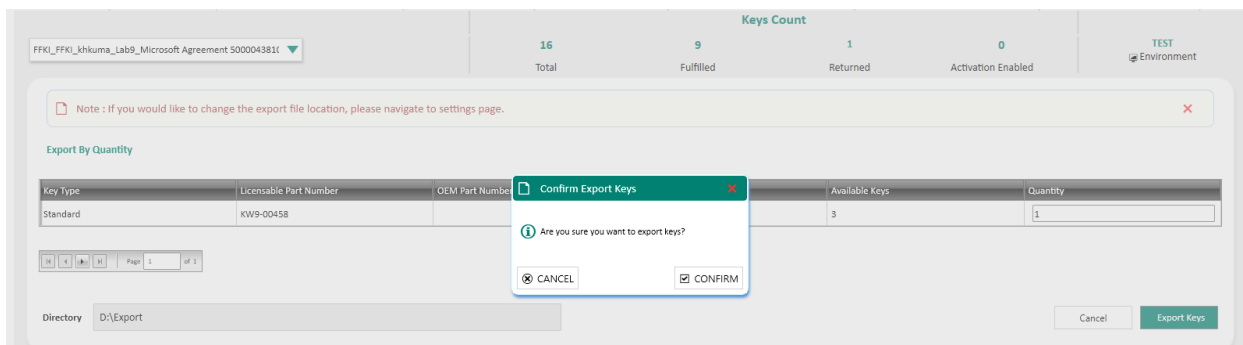
3. Select By Quantity under OA 3.0 tool option.



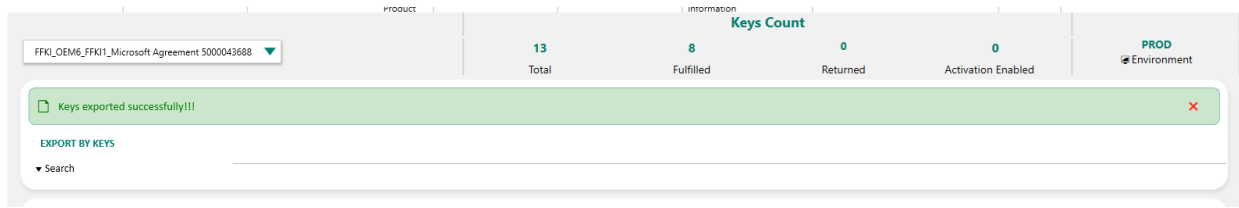
4. Enter the quantity of keys which you want to Export and click on the Export Keys Button.



5. Once the FFKI partner clicks on the Export Keys, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.



6. Once the keys are exported, a “Key Exported Successfully” message will briefly pop up in the green highlighted banner.



5.7 OA 3.0 TOOL

Description

This section explains the partner on how to configure the OA3.0 tool

1. Edit your “oa3tool.cfg” file according to server-based configuration file format. You can reference OA3Tool guide provided by Microsoft for more information.

Example for server-based oa3tool configuration file:

```
<OA3>
  <ServerBased>
    <KeyProviderServerLocation>
      <IPAddress>*****</IPAddress>
      <ProtocolSequence>ncacn_ip_tcp</ProtocolSequence>
      <EndPoint>9011</EndPoint>
      <Options></Options>
    </KeyProviderServerLocation>
    <Parameters>
      <Parameter name="LicensablePartNumber" value="*****" />
      <Parameter name="OEMPartNumber" value="*****" />
      <Parameter name="OEMPONumber" value="*****" />
      <Parameter name="ProductKeyIdFrom" value="1234567890" />
      <Parameter name="ProductKeyIdTo" value="1234567890" />
    </Parameters>
    <OEMOptionalInfo>
      <Field>
```

```
<Name>ZPC_MODEL_SKU</Name>
<Value>****</Value>
</Field>
<Field>
  <Name>ZMANUF_GEO_LOC</Name>
  <Value>*****</Value>
</Field>
<Field>
  <Name>ZPGM_ELIG_VAL</Name>
  <Value>*****</Value>
</Field>
<Field>
  <Name>ZOEM_EXT_ID</Name>
  <Value>*****</Value>
</Field>
<Field>
  <Name>ZCHANNEL_REL_ID</Name>
  <Value>*****</Value>
</Field>
<Field>
  <Name>ZFRM_FACTOR_CL1</Name>
  <Value>***</Value>
</Field>
<Field>
  <Name>ZFRM_FACTOR_CL2</Name>
  <Value>***</Value>
</Field>
```

```

<Field>
  <Name>ZSCREEN_SIZE</Name>
  <Value>***</Value>
</Field>
<Field>
  <Name>ZTOUCH_SCREEN</Name>
  <Value>****</Value>
</Field>
</OEMOptionalInfo>
<TrackingInfo>*****</TrackingInfo>
  <SerialNumber>*****</SerialNumber >
  <BusinessID>***</BusinessID>
</Parameters>
</ServerBased>
<OutputData>
  <AssembledBinaryFile>OA3.bin</AssembledBinaryFile>
  <ReportedXMLFile>OA3.xml</ReportedXMLFile>
</OutputData>
</OA3>

```

NOTES:

- The red color text needs to be edited according to your real product info
- For the <OEMOptionalInfo> node, the yellow background color fields are required, and others are optional. You can refer to “[Edit Optional Information](#)” part for more details of the values.
- For the <BusinessID> node, the value should be Business Id which can be found in the Options -> Business setting.
- For the <Options> node, you can expand Hardware hash to 4000 characters in the new version of OA3.0Tool, this is only for the test. (Details can be referred to the OA3.0 guide provided by Microsoft) <Options>
 - <HardwareHashVersion>1</HardwareHashVersion>

```
<HardwareHashPadding>4000</HardwareHashPadding> </Options>
```

- If user only give **ProductKeyIdFrom**, then output key will be greater than or equal to **ProductKeyIdFrom**.
 - If user only give **ProductKeyIdTo**, then output key will be less than or equal to **ProductKeyIdTo**.
 - If user give both **ProductKeyIdFrom** and **ProductKeyIdTo**, then output key will be between the range of **ProductKeyIdFrom** and **ProductKeyIdTo** (including the edges).
2. Open a command line window, navigate to the OA3Tool folder, and run the following command.
`oa3tool.exe /Assemble /Configfile=oa3tool.cfg`
 3. If there are keys satisfying the parameter in your “oa3tool.cfg” file, the oldest one will be used. The ‘OA3.bin’ file defined in configuration file will be generated.
 4. Inject the key information contained in ‘OA3.bin’ into BIOS using your own injection tool.
 5. Run the following command on product machine. `oa3tool.exe /Report /Configfile=oa3tool.cfg`
 6. Key is changed status from “Consumed” to “Bound”.

5.8 KEY PROVIDER SERVICE

Description

This section explains the partner on how to configure the key provider service.

1. For the `<EndPoint>` node in above “oa3tool.cfg”, it is the port of key provider service. Please modify the endpoint of oa3tool.cfg file as following.
2. Update the `<endpoint>` node in the server-based oa3tool.cfg; make the endpoint value same as MDOS Key Provider service endpoint i.e. **9011** in step2.

```
<OA3>
  <ServerBased>
    <KeyProviderServerLocation>
      <IPAddress>localhost</IPAddress>
      <ProtocolSequence>ncacn_ip_tcp</ProtocolSequence>
      <EndPoint>9011</EndPoint>
    </Options/>
  </KeyProviderServerLocation>
  <Parameters>
```

Note: MDOS SC Key provider service is not configurable (by default the end point of MDOS key provider service is 9011). Therefore, users are only required to configure server-based oa3tool.cfg.

SECTION 6. REPORTS

6.1 CBR (COMPUTER BUILD REPORT)

Description:

A Computer Build Report (CBR) is a mandatory report that is sent to Microsoft notifying which keys have been used (bound), so they can be activated. This report is required by Microsoft to obtain the following details: OEM ID, Hardware Hash, Product Key ID, and Key State. Once the CBR is submitted and validated, Product Key IDs will be registered in Microsoft's activation service, and Windows can be activated by the end user. The CBR process is manual unless you are set up for auto reporting. The CBR is created by the OA3tool.exe that is used when manufacturing every device. The CBR is created by running the oa3tool.exe /Report command on the device being manufactured and will automatically submit that CBR to the MDOS SC client for reporting to Microsoft.

The OA3tool.exe is available from Microsoft within the Automated Deployment Kit (ADK). To script the OA3tool.exe on your manufacturing floor, in conjunction with the MDOS SC, please download and review the following documents from Microsoft's DOC website:

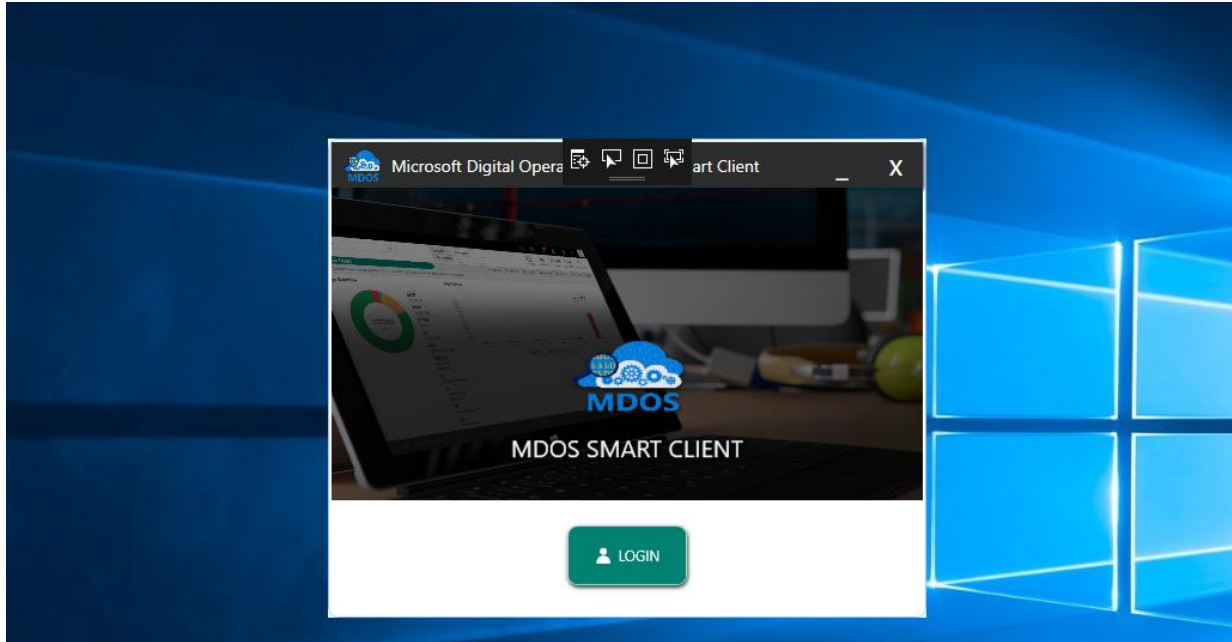
- OEM Activation 3.0 Overview Usage Guide.xps
- OEM Activation 3.0 WinClient Test Guidance Plan.xps

Computer Build Report (CBR) submits a usage report to Microsoft for keys that are in Bound status. Once validated, keys will be activated for use.

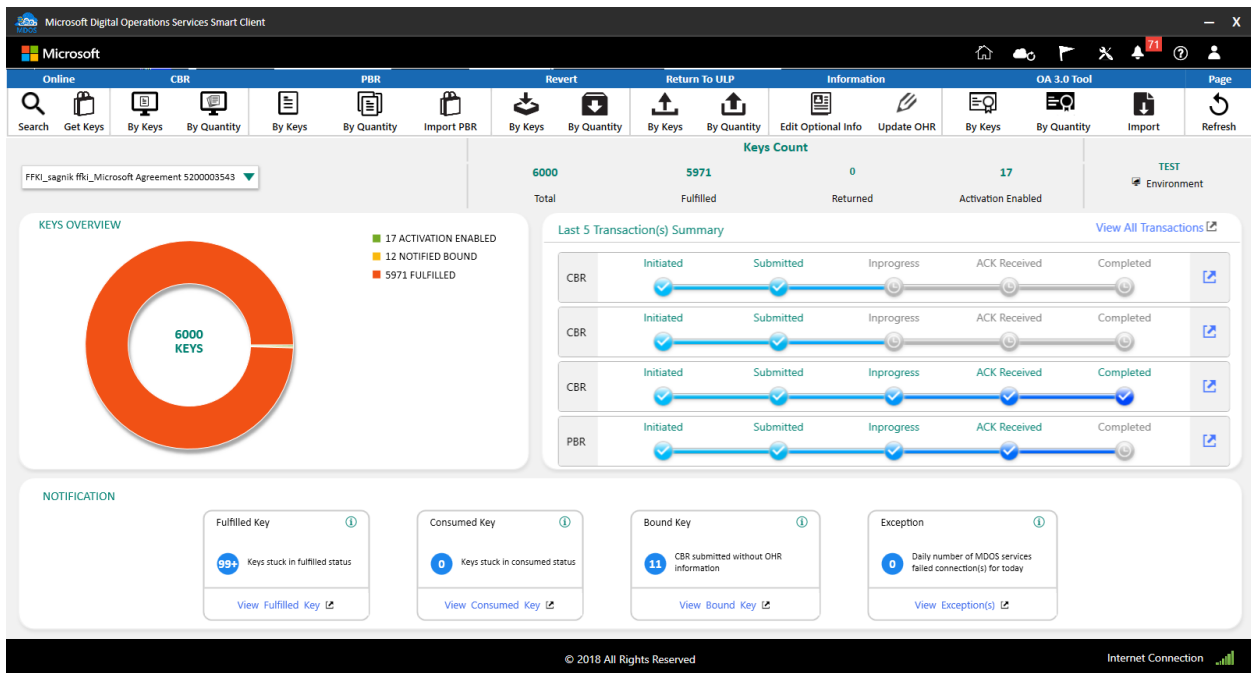
6.1.1 CBR Submit by keys

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.

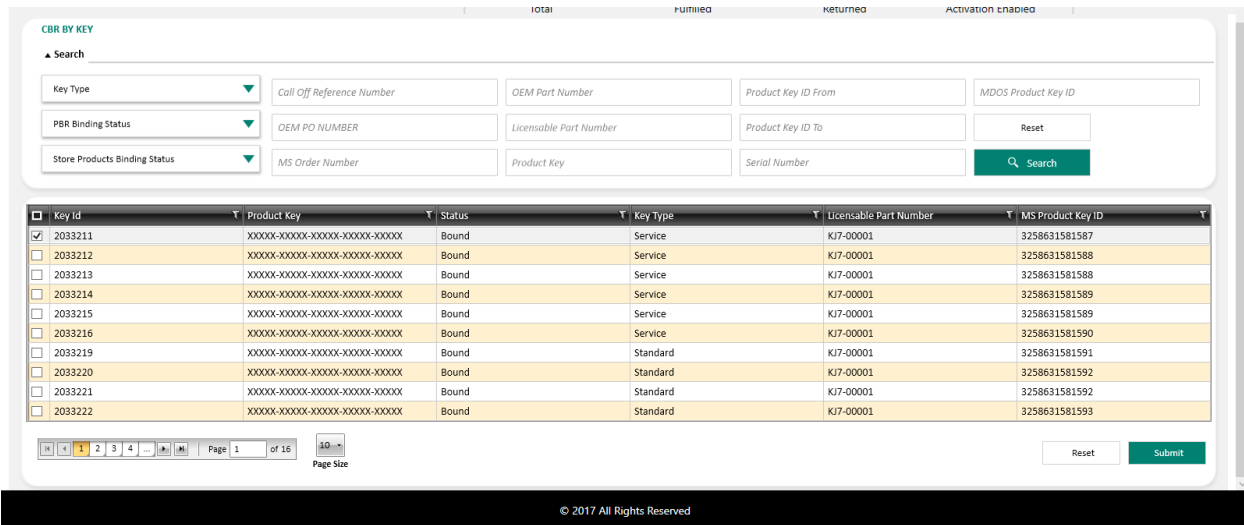


2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.

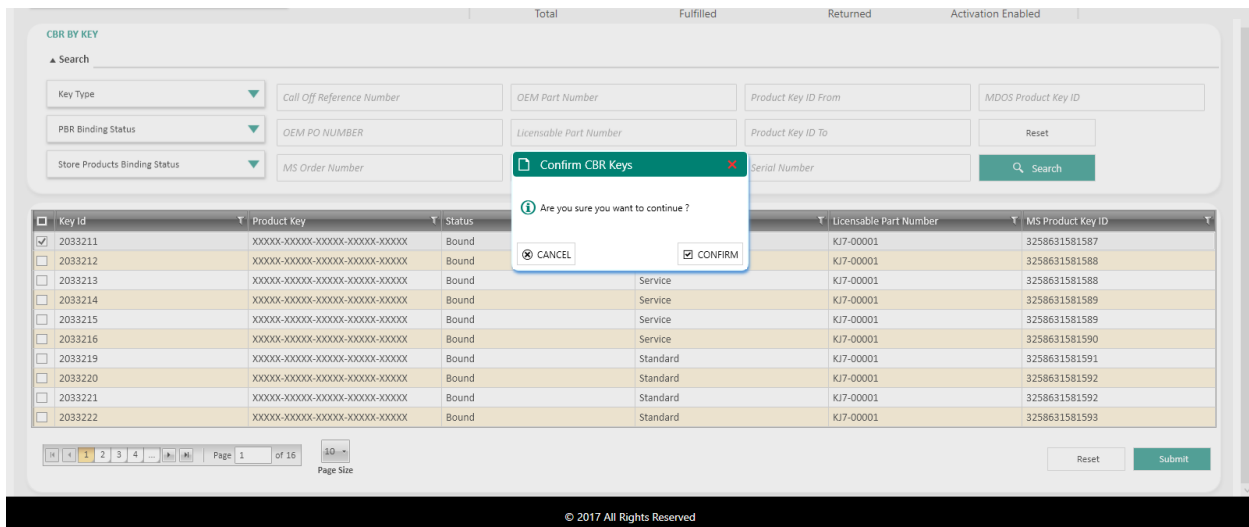


3. Click on the button CBR By Keys as shown in below screen to see the list of keys which are in “Bound” status in smart client.
4. Select the keys you want to submit the CBR to MS for. Click Submit to report.

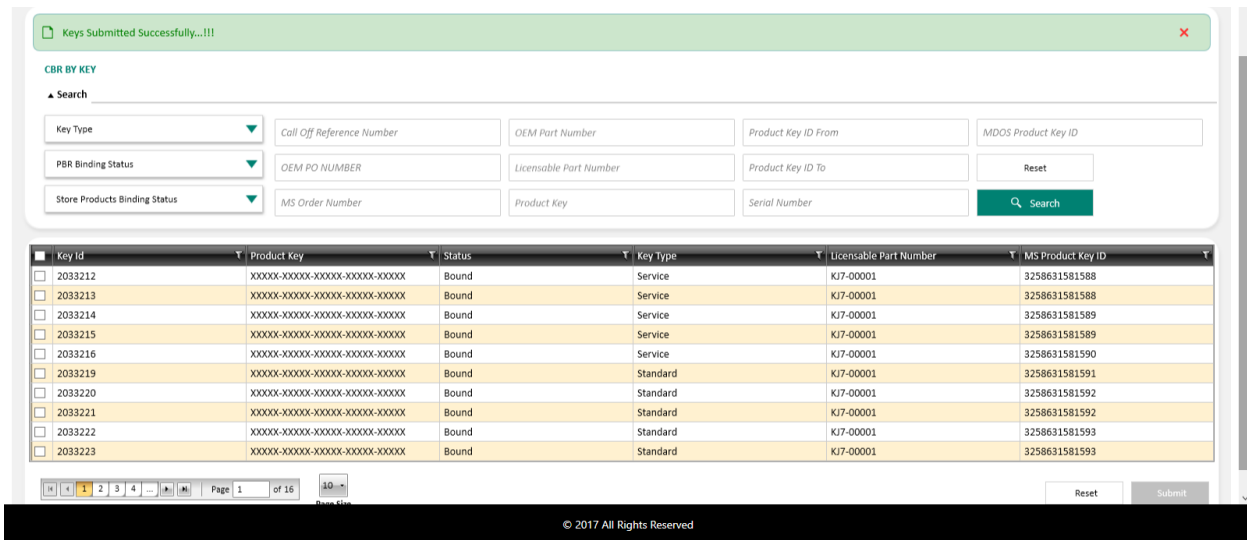
MDOS Smart Client User Manual



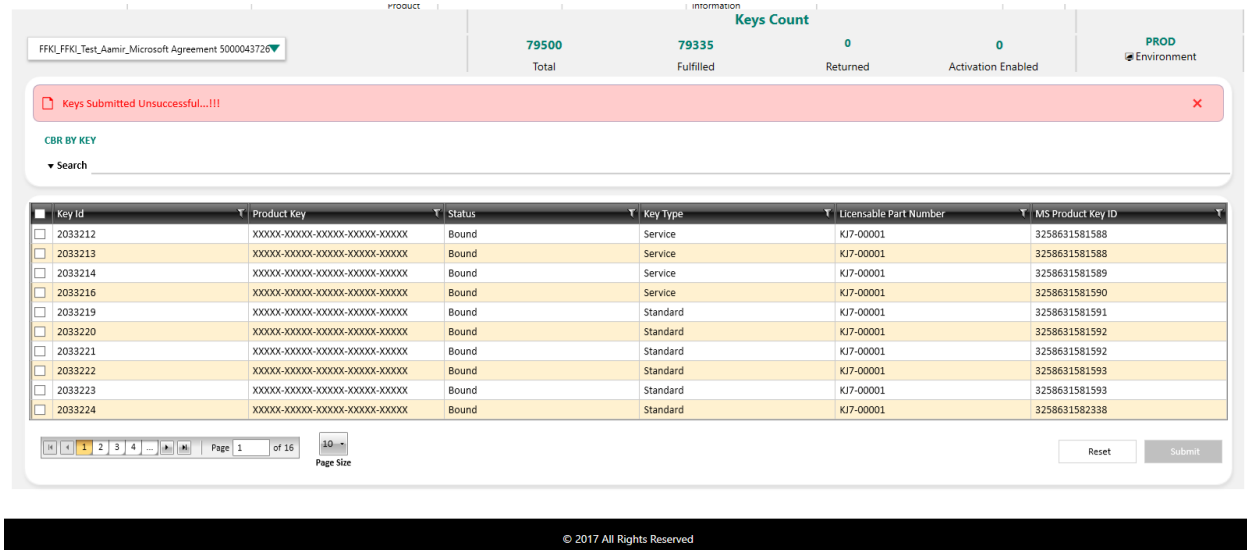
5. Once the FFKI partner clicks on the Submit button, a confirmation window will pop up to confirm your Key Request. Click CONFIRM.



6. Once the CBR has been submitted, a "Key Submitted Successfully" message will briefly pop up in the green highlighted banner.



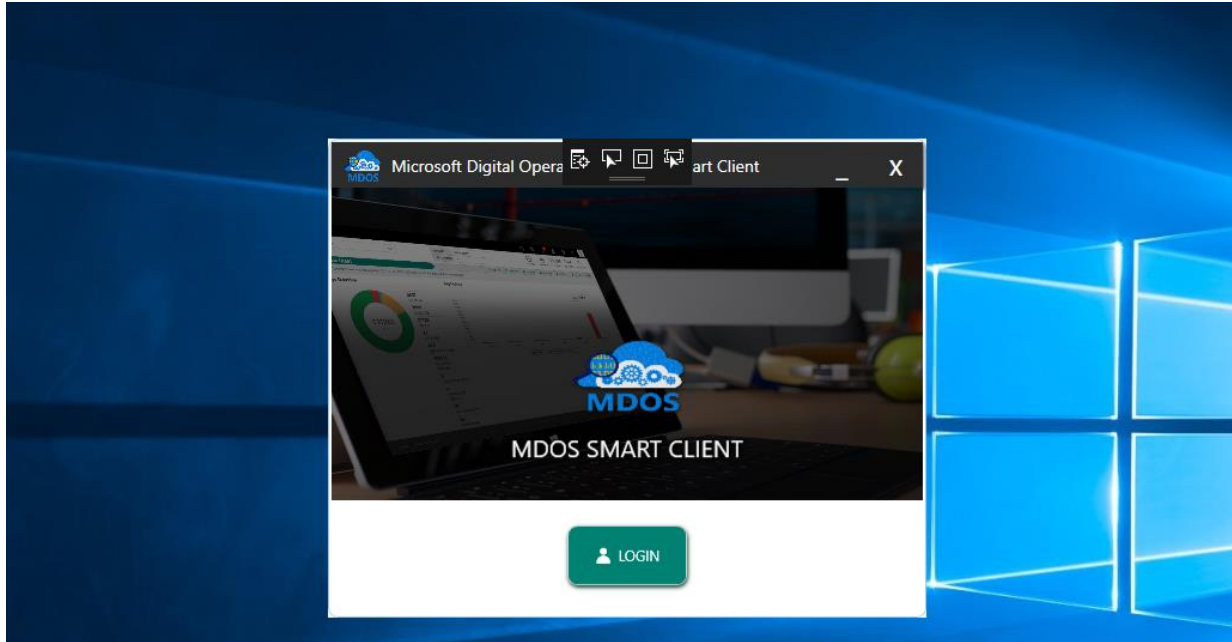
7. If the CBR has been not been submitted, a “Key Submitted Unsuccessfully” message will briefly pop up in the red highlighted banner.



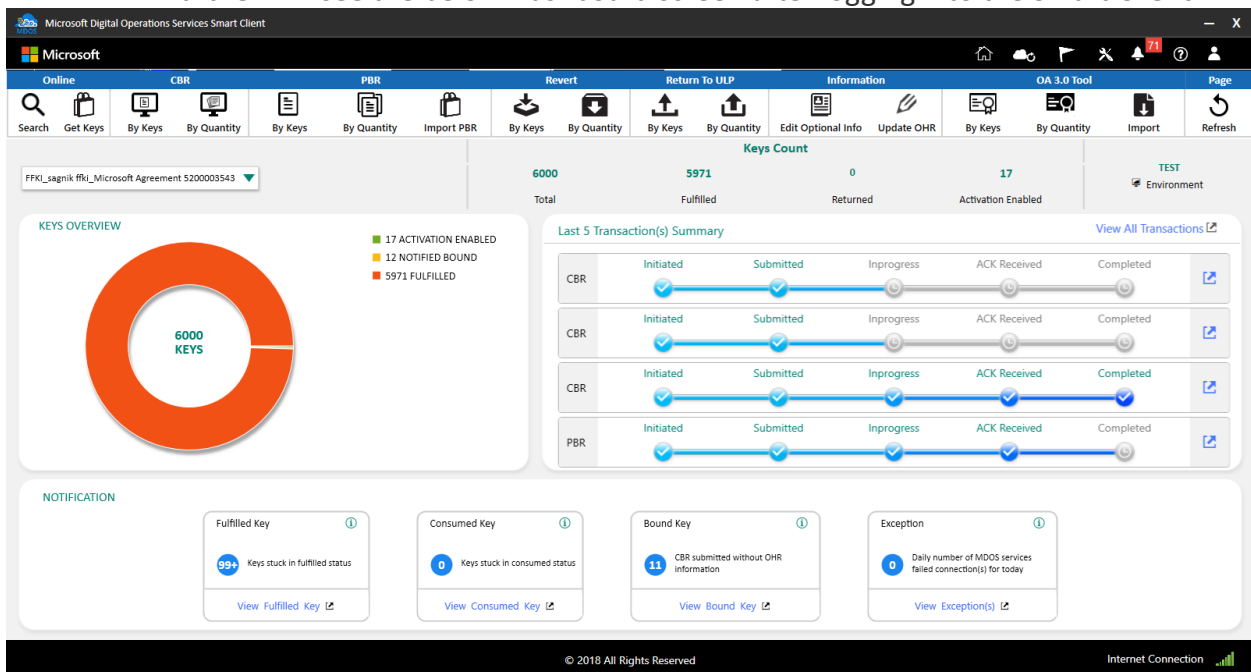
6.1.2 CBR Submit by quantity

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



3. Click on the button CBR by Quantity as shown in below screen.

4. Enter the quantity of keys to be Reported.

FFKI_FFKI_Test_Aamir_Microsoft Agreement 5000043726

Keys Count

| | | | | |
|-----------------------|---------------------------|----------------------|--------------------------------|----------------------------|
| 79500 Total | 79335 Fulfilled | 0 Returned | 0 Activation Enabled | PROD Environment |
|-----------------------|---------------------------|----------------------|--------------------------------|----------------------------|

CBR BY QUANTITY

| Key Type | Licensable Part Number | OEM Part Number | OEM PO Number | Available Keys | Quantity |
|----------|------------------------|-----------------|------------------|----------------|--------------------------------|
| Standard | KJ7-00001 | | W10-46622-50000 | 146 | <input type="text" value="0"/> |
| Standard | KJ7-00001 | | W10-46622-500001 | 5 | <input type="text" value="0"/> |
| Service | KJ7-00001 | | W10-46622-50000 | 4 | <input type="text" value="0"/> |

Page 1 of 1

Reset Submit

© 2017 All Rights Reserved

NOTE: Please make sure to enter the quantity less than or equal to available keys or the below error will appear.

FFKI_FFKI_Test_Aamir_Microsoft Agreement 5000043726

Keys Count

| | | | | |
|-----------------------|---------------------------|----------------------|--------------------------------|----------------------------|
| 79500 Total | 79335 Fulfilled | 0 Returned | 0 Activation Enabled | PROD Environment |
|-----------------------|---------------------------|----------------------|--------------------------------|----------------------------|

CBR BY QUANTITY

| Key Type | Licensable Part Number | OEM Part Number | OEM PO Number | Available Keys | Quantity |
|----------|------------------------|-----------------|------------------|----------------|----------------------------------|
| Standard | KJ7-00001 | | W10-46622-50000 | 146 | <input type="text" value="220"/> |
| Standard | KJ7-00001 | | W10-46622-500001 | 5 | <input type="text" value="0"/> |
| Service | KJ7-00001 | | W10-46622-50000 | 4 | <input type="text" value="0"/> |

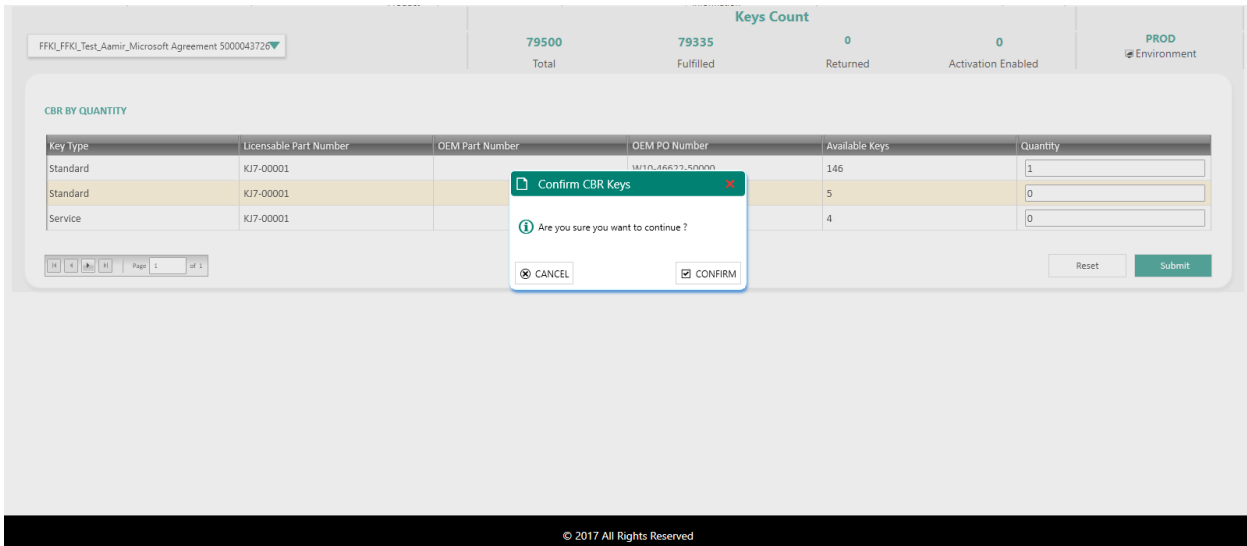
Quantity can not be greater than no. of Available keys

Page 1 of 1

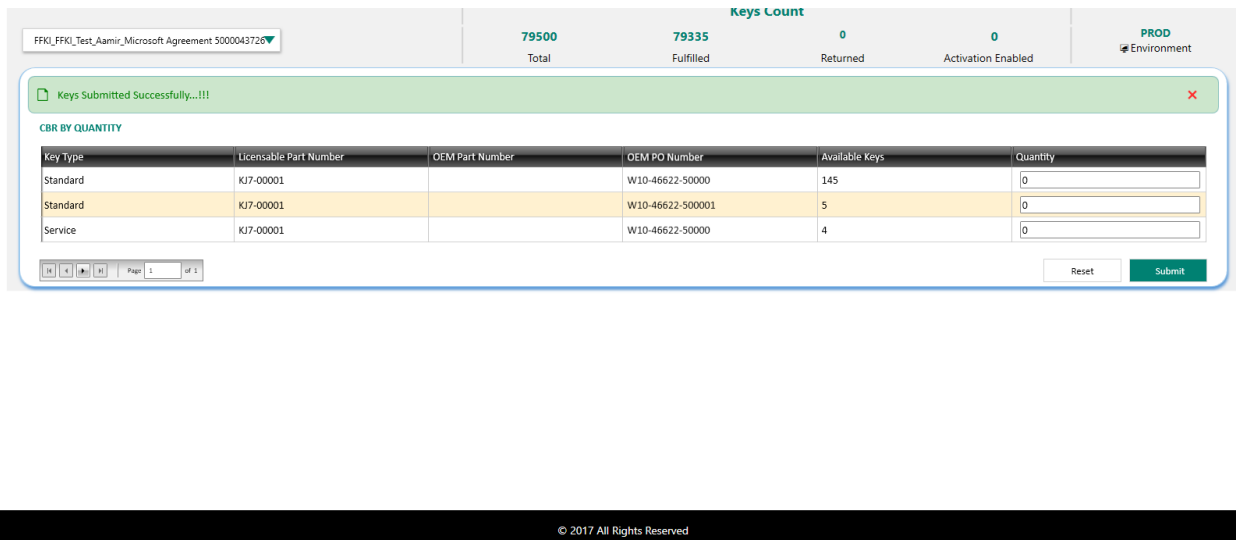
Reset Submit

© 2017 All Rights Reserved

- 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.



6.2 PBR (PRODUCT BINDING REPORT)

Description:

Binding keys is the process of binding service keys (such as Office 365) with Windows keys (such as Windows 10 OS). The process includes creating a link between the Digital Product Key (DPK) and the Service PIN, so the bound service products will be available to the end user once activated.

There are two approaches to binding content to the Windows Digital Product Keys (DPK's), one for the Office 365 suite, called Activation for Office Late Binding, and the ability to bind Microsoft Online Store products to a Windows DPK called Dynamic Store Bundling. OEMs may buy additional products and services from Microsoft and bind these to their Windows key(s) via their licensing agreement with Microsoft. To configure additional products for use within MDOS and MDOS SC, please contact your OEM Account Manager. Currently there are a variety of office products available to bind to the Windows keys and in the future additional store products may be available, including XBOX Live, credits to Microsoft Store, Games and more.

The Product Bind Report (PBR) is the report that is generated after keys are bound. The reporting process is seamless as it is created in the background after binding occurs. Once you complete a specific bundle configuration, the PBR will automatically be sent to Microsoft for recording and billing.

Example:

ABC OEM wants to attach Office 365 to its Windows 10 devices that they will be selling during their holiday promotion. ABC OEM will add Office 365 to the devices once they are in transit. First the OEM must order and fulfill the Office 365 products to their MDOS Cloud. The OEM will then transfer those Office 365 product keys to their Down Level Partner, so they are available to bind to the Windows keys. The OEM will go to MDOS SC and select PBR By Keys or By Quantity from the MSC Dashboard options. Next the OEM will select the Windows key and the services key to bind. Once the keys are bound, a "Key(s) bound successfully" message confirms the service is attached. The Product Bind Report (PBR) is automatically generated after keys are bound and the report is submitted to Microsoft for processing.

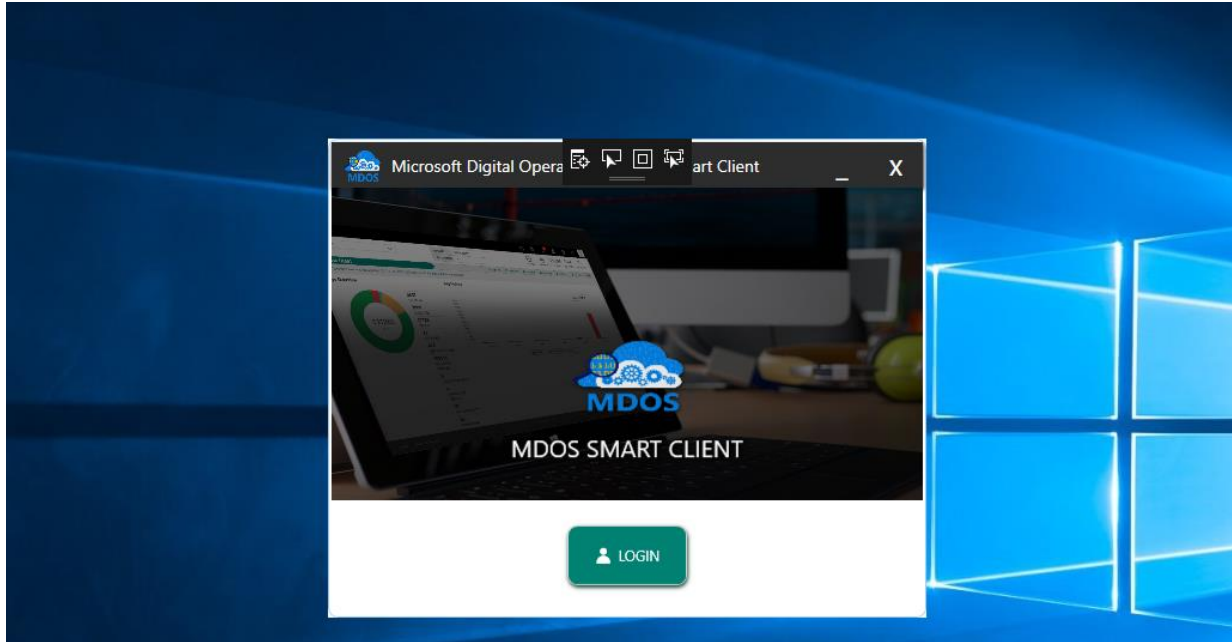
Tip Tool: Bind service keys (such as Office 365) with Windows keys (such as Windows 10 OS) and report information back to Microsoft.

6.2.1 Bind keys by keys

Tip Tool: Bind service keys (such as Office 365) with Windows keys (such as Windows 10 OS) by product key.

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.

3. Select By Keys under PBR.



- Select the Window key and Service key and Store product
The applicable combinations are:

One Bundle can be:

- One windows key + one service key
- One windows key + one/multiple store products
- One windows + one service key + one/multiple store products

Keys Count

| | | | | |
|-------|-----------|----------|--------------------|------------------|
| 6000 | 5971 | 0 | 17 | TEST Environment |
| Total | Fulfilled | Returned | Activation Enabled | |

WINDOWS KEY

| MSFTProductKeyId | OEMPartNumber | OEMPONumber | Bundle Status |
|-------------------------------------|---------------|-----------------|---------------|
| <input checked="" type="checkbox"/> | 3258631316866 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316867 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316868 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316869 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316870 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316871 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316872 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316873 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316874 | W10-46583-20000 | Not Bundled |
| <input type="checkbox"/> | 3258631316875 | W10-46583-20000 | Not Bundled |

Page 1 of 500

SERVICE KEY

| MSFTProductKeyId | LicensablePartNumber | OEMPONumber |
|-------------------------------------|----------------------|-------------|
| <input type="checkbox"/> | 3258708017362 | LD9-00001 |
| <input checked="" type="checkbox"/> | 3258708017363 | LD9-00001 |
| <input type="checkbox"/> | 3258708017364 | LD9-00001 |
| <input type="checkbox"/> | 3258708017365 | LD9-00001 |
| <input type="checkbox"/> | 3258708017366 | LD9-00001 |
| <input type="checkbox"/> | 3258708017367 | LD9-00001 |
| <input type="checkbox"/> | 3258708017368 | LD9-00001 |
| <input type="checkbox"/> | 3258708017369 | LD9-00001 |
| <input type="checkbox"/> | 3258708017370 | LD9-00001 |
| <input type="checkbox"/> | 3258708017371 | LD9-00001 |

Page 1 of 100

STORE PRODUCT

| PartNumber | PartDescription |
|-------------------------------------|---------------------------------|
| <input checked="" type="checkbox"/> | AAA-66941 PQRefresh PTK DSB 1 |
| <input type="checkbox"/> | AAA-66942 PQRefresh PTK DSB 2 |
| <input type="checkbox"/> | AAA-66943 OEPQRefresh PTK DSB 3 |
| <input type="checkbox"/> | AAA-66944 PQRefresh PTK DSB 4 |
| <input type="checkbox"/> | AAA-66945 PQRefresh PTK DSB 5 |
| <input type="checkbox"/> | AAA-66946 PQRefresh PTK DSB 7 |
| <input type="checkbox"/> | AAA-66947 PQRefresh PTK DSB 8 |
| <input type="checkbox"/> | AAA-66948 PQRefresh PTK DSB 9 |
| <input type="checkbox"/> | AAA-66949 PQRefresh PTK DSB 10 |
| <input type="checkbox"/> | AAA-66950 PQRefresh PTK DSB 11 |

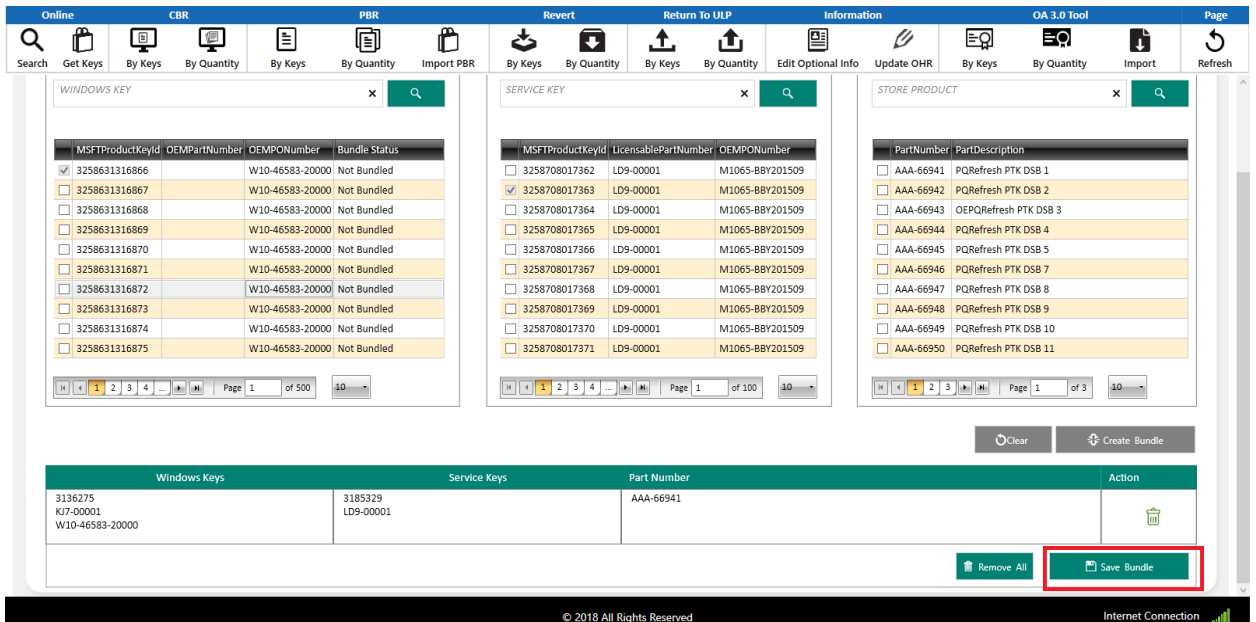
Page 1 of 3

Clear Create Bundle

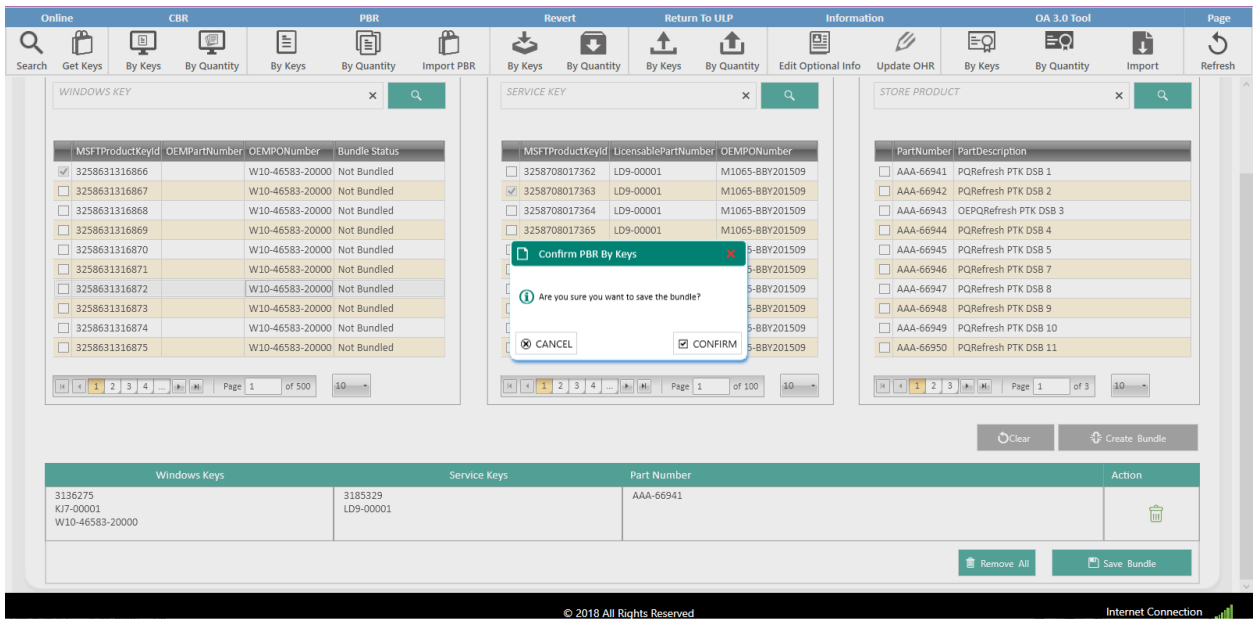
- Click on create bundle option. Once bundle is created, it will show in the table against the part number.

Clear Button: It will clear the created bundled.

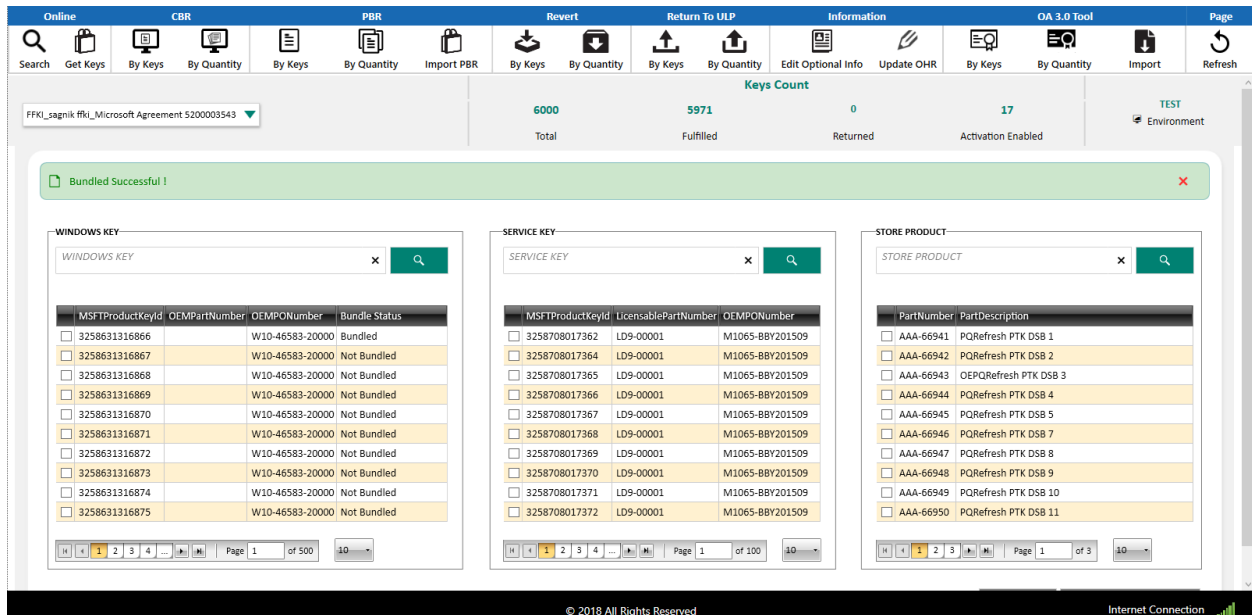
- After creating the bundles, click on save bundle button.



7. A confirmation window will pop up to confirm your selection. Click CONFIRM.



8. Once the keys are Bundled, a “Bundled Successfully” message will briefly pop up in the green highlighted banner.

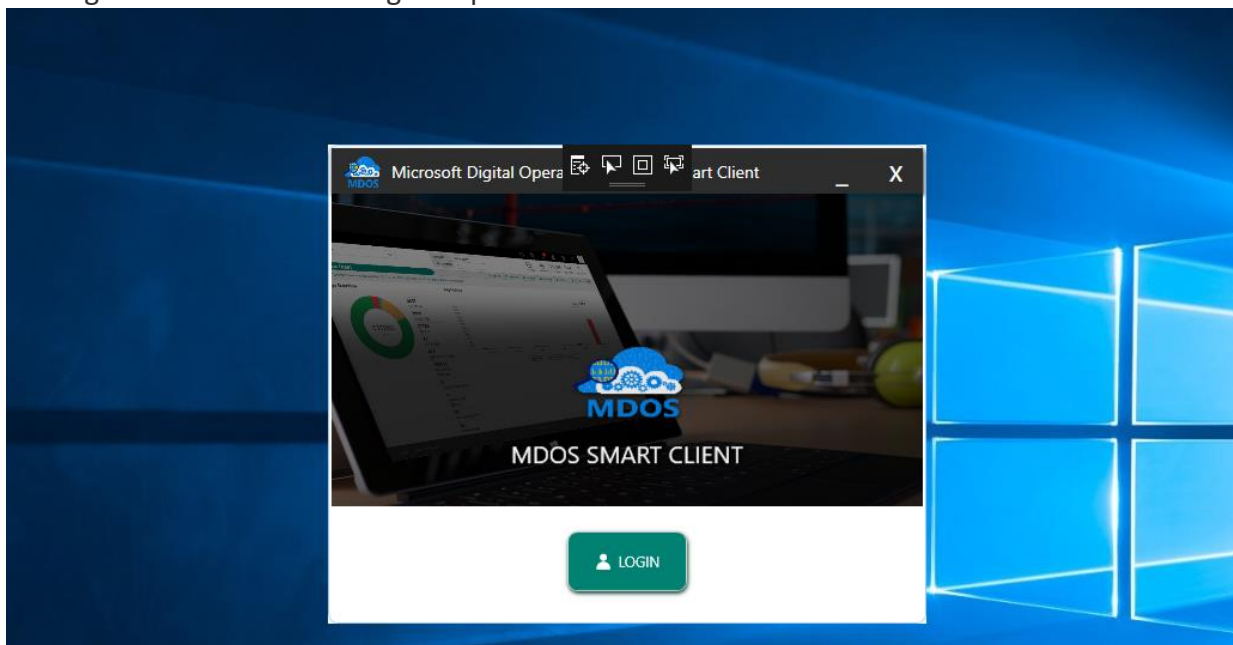


6.2.2 Bind keys by quantity

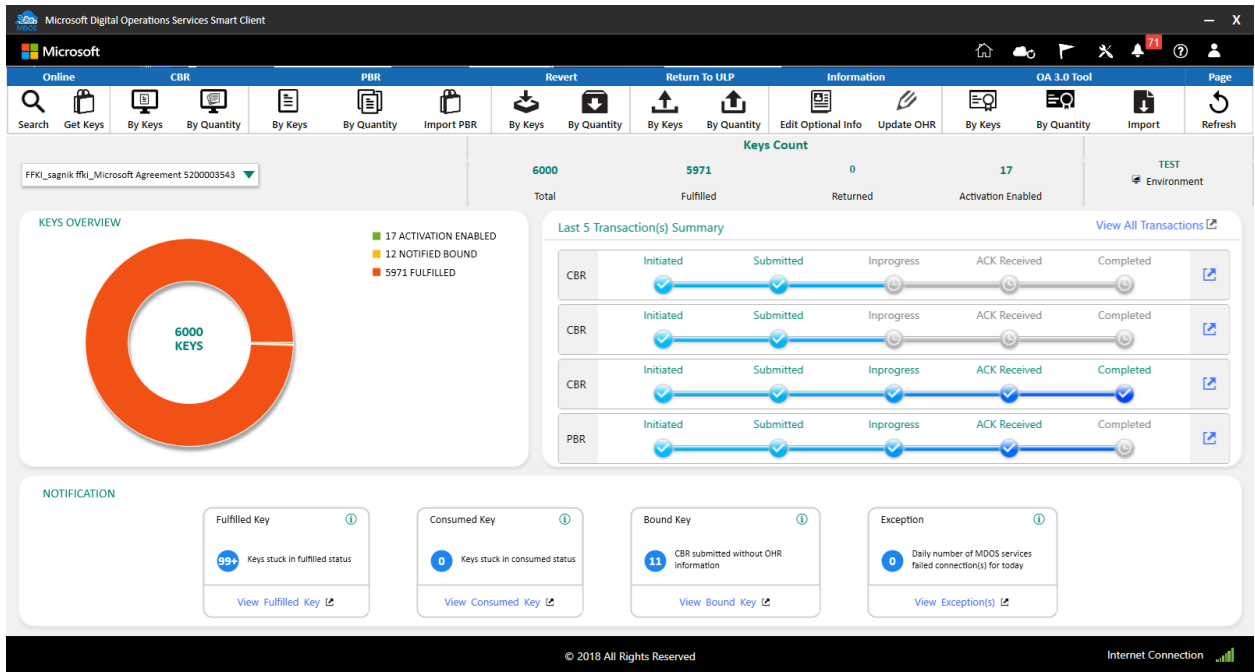
Tip Tool: Bind service keys (such as Office 365) with Windows keys (such as Windows 10 OS) by quantity.

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



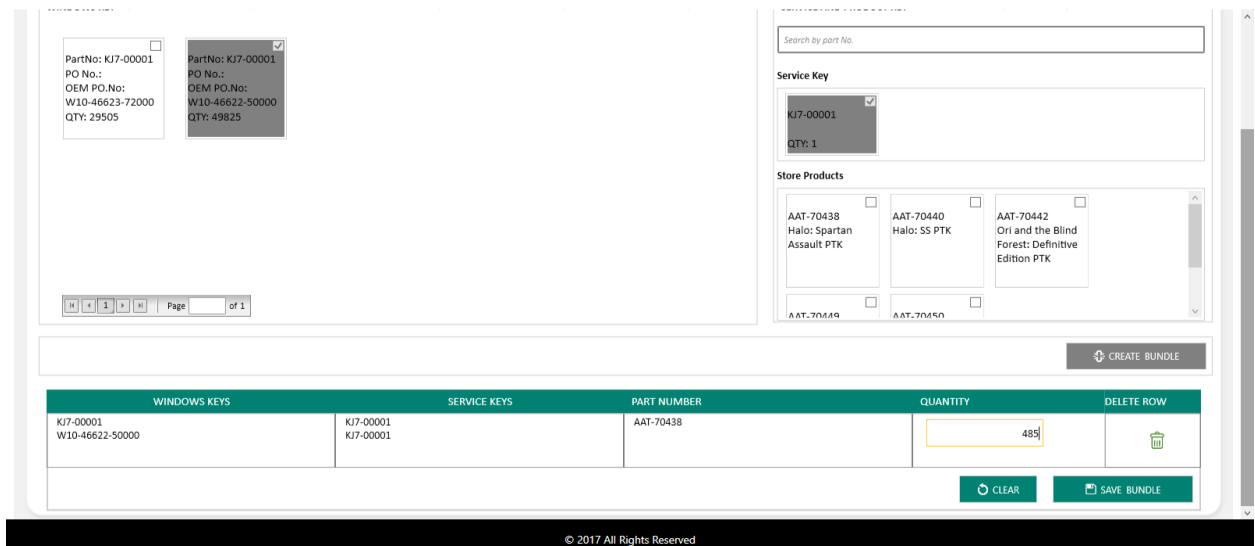
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



3. Select By Quantity under PBR.



4. Groups of window key can be mapped with group of service key and a list of Store products.

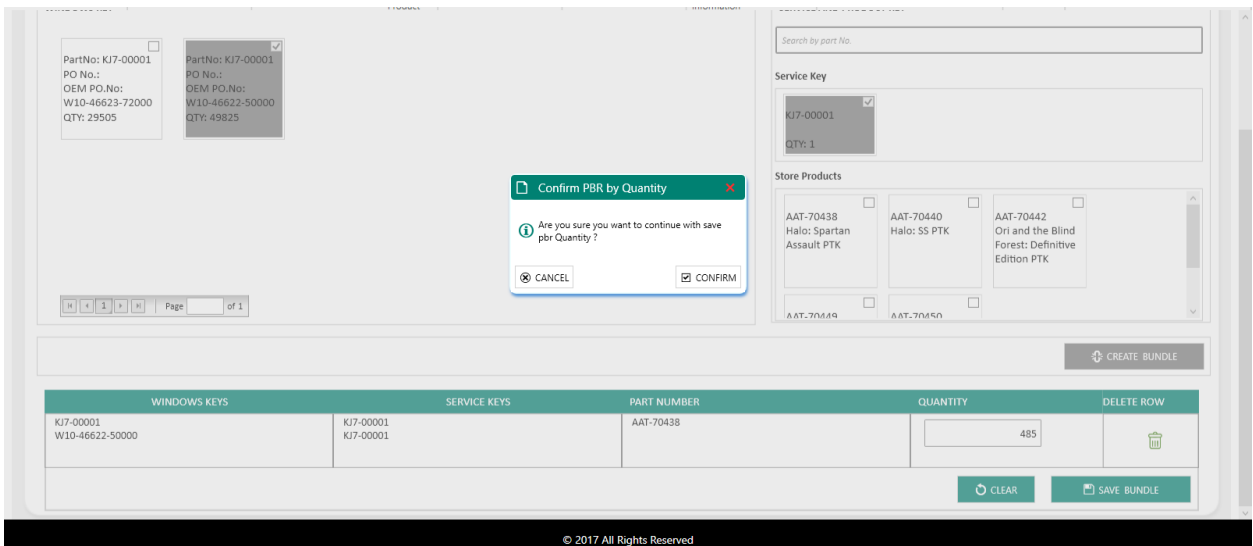


5. Enter the quantity of keys to bind for each key selected.

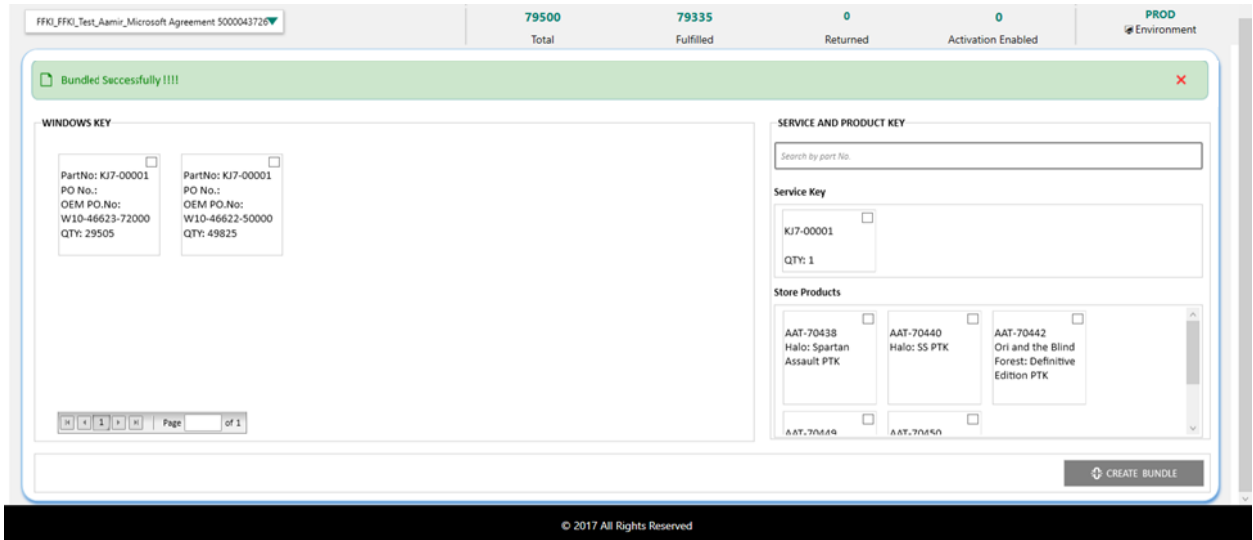
6. Click on create bundle option. Once bundle is created, it will show in the table against the part number.

Clear Button: It will clear the created bundled.

7. After creating the bundles, click on save bundle button.
8. A confirmation window will pop up to confirm your selection. Click CONFIRM.



9. Once the keys are Bundled, a "Bundled Successfully" message will briefly pop up in the green highlighted banner.

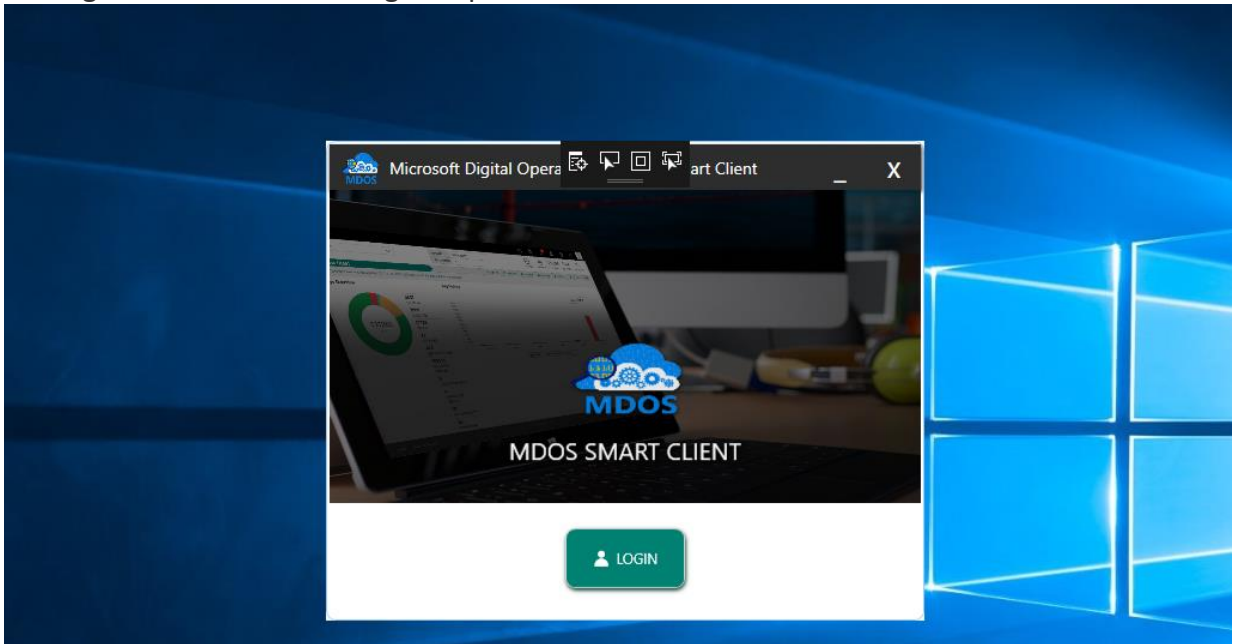


6.2.3 Import PBR

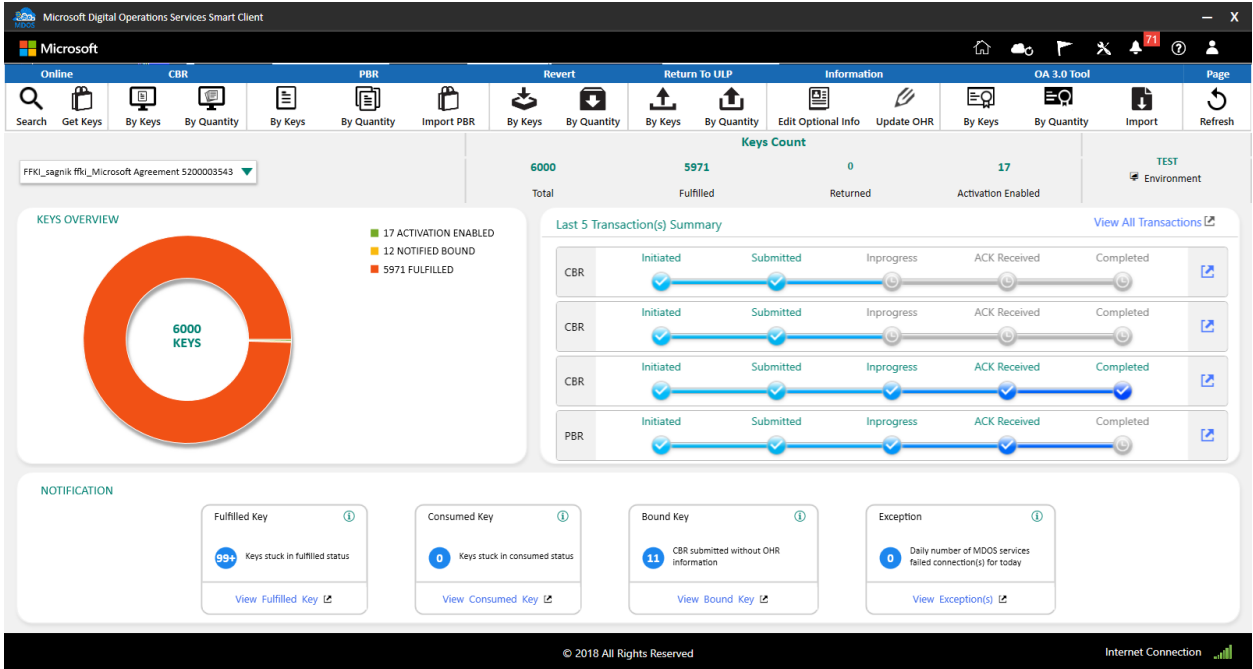
Tip tool: Import PBR feature allows partners to bind windows keys with service keys/store products available in their inventory using a file from local disk.

Step-by-Step:

1. Log into Smart Client using FFKI partner account credentials.



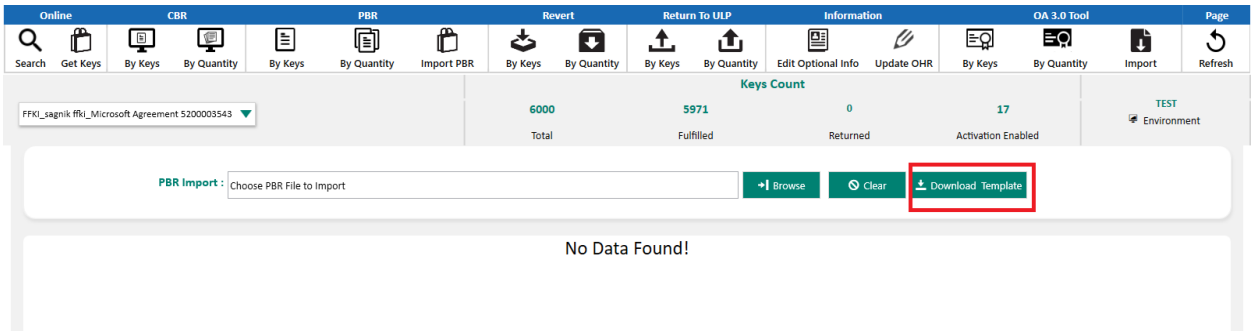
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



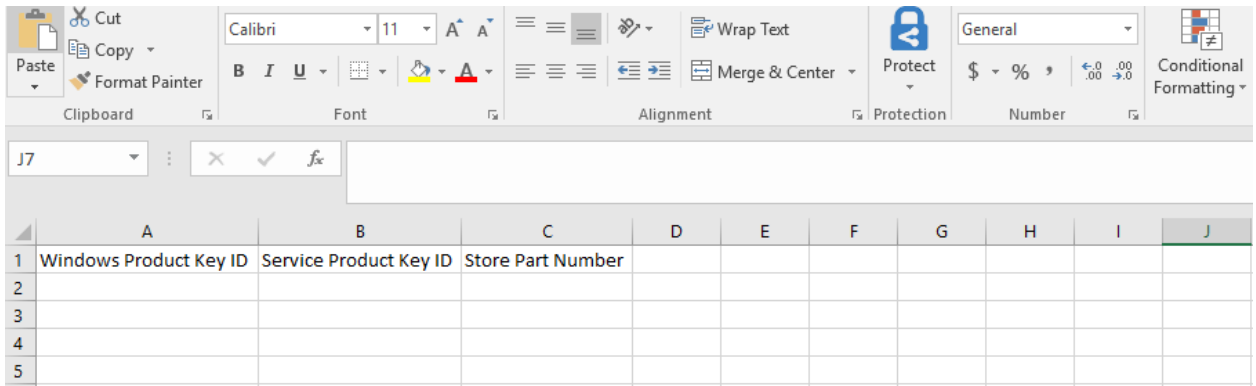
3. Select Import PBR under PBR.



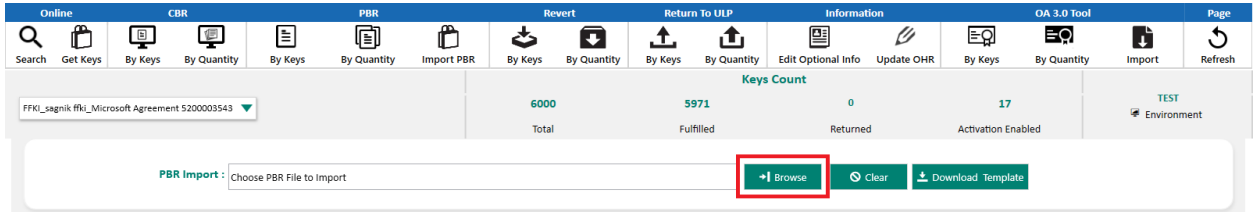
4. Click on download template.



- Once the template is downloaded , you can check the format in which key details need to be entered.

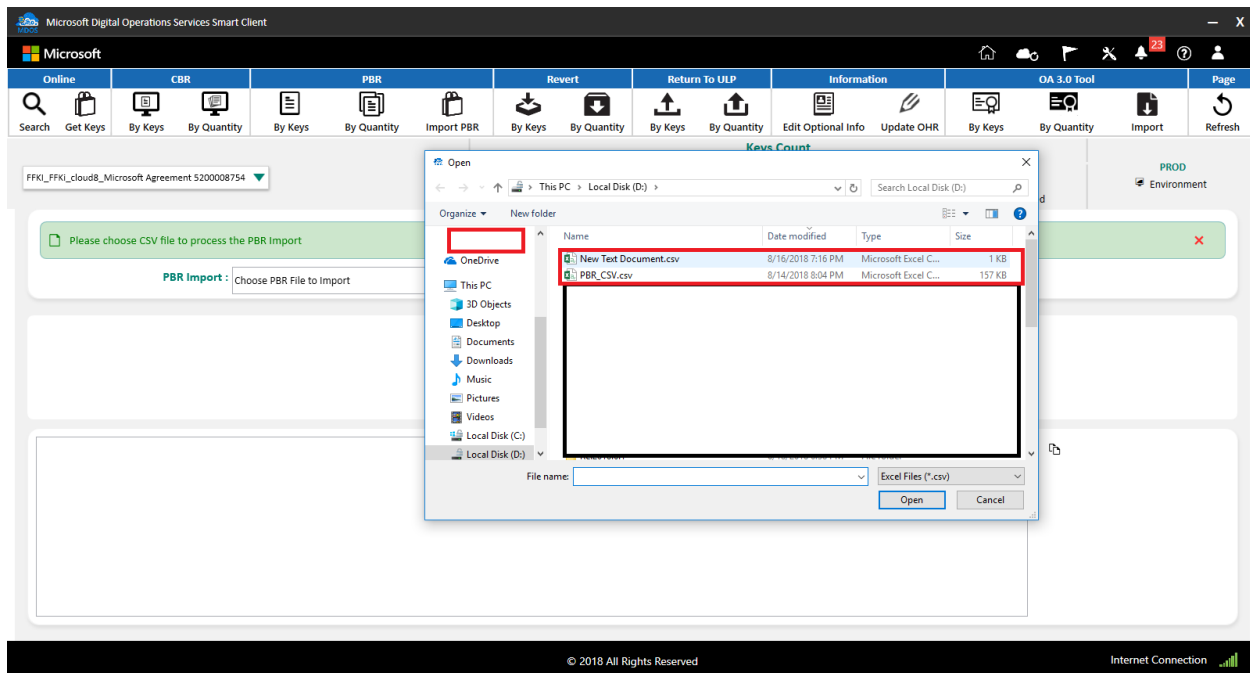


- To import the PBR data from file, click on browse button from import PBR section.

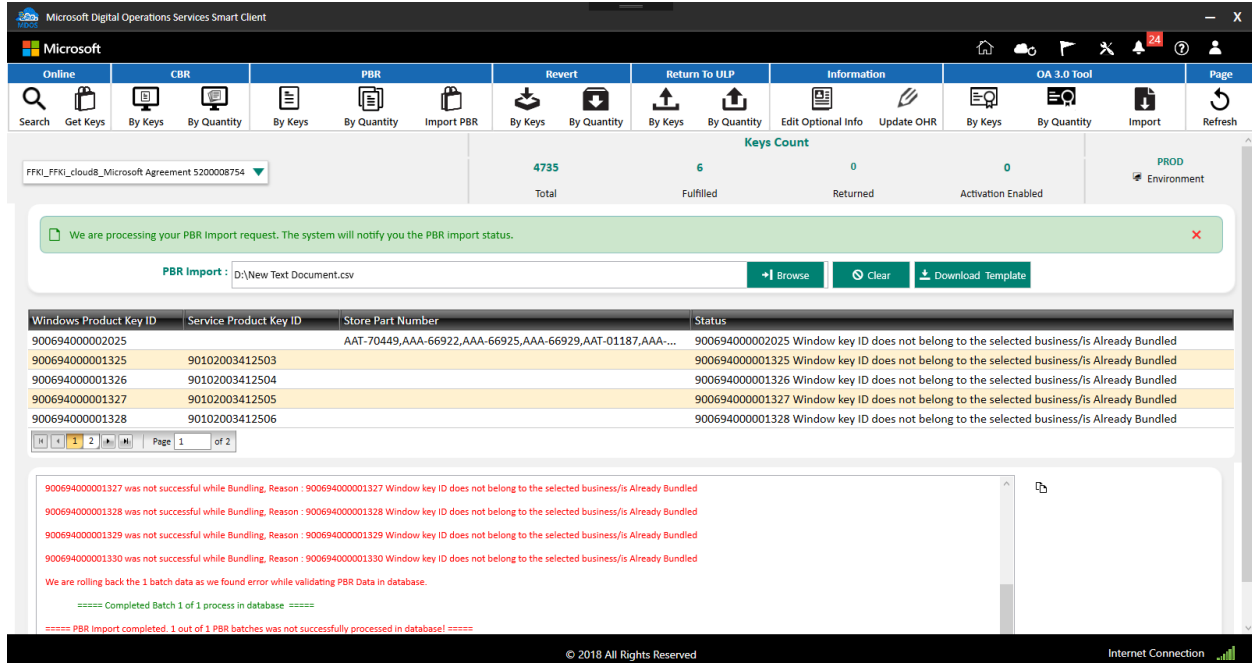


Clear Button: It will clear the selection.

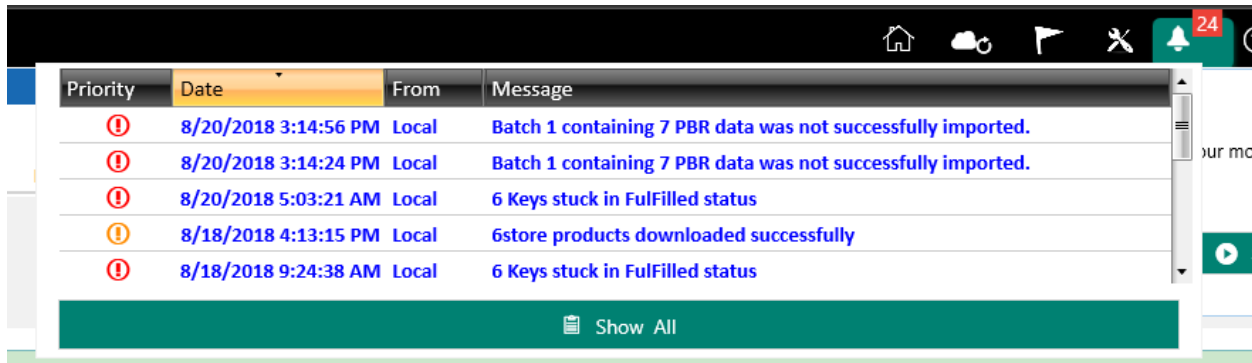
- Select the file from your local system and click open.



- After selecting PBR import file, PBR import operation will start and you will receive notification once the import operation is completed.



- Once the PBR is imported, you will see the notification message for successful PBR import.



6.3 UPDATE OHR (OEM HARDWARE REPORT)

Description:

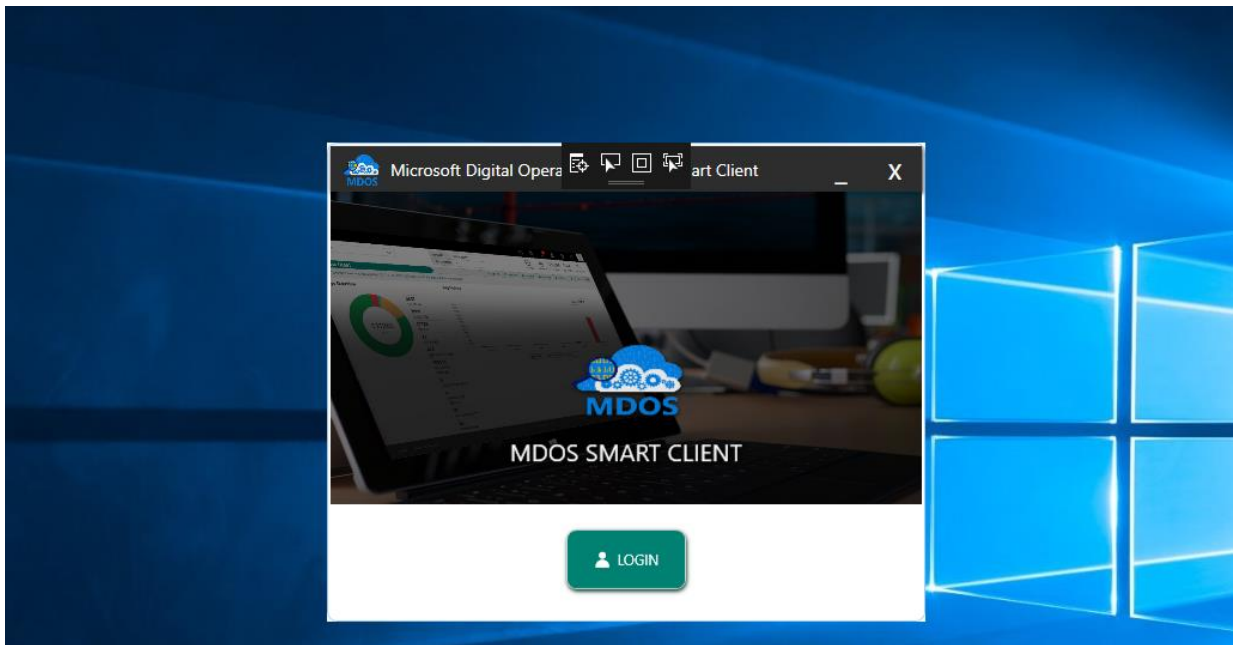
The OEM Hardware Report (OHR) generally follows the Computer Build Report (CBR) and includes additional hardware data required by Microsoft, such as model number, screen size,

touch screen. Contrary to the name, the OHR is not optional, but is now required by Microsoft. Please refer to your agreement for details.

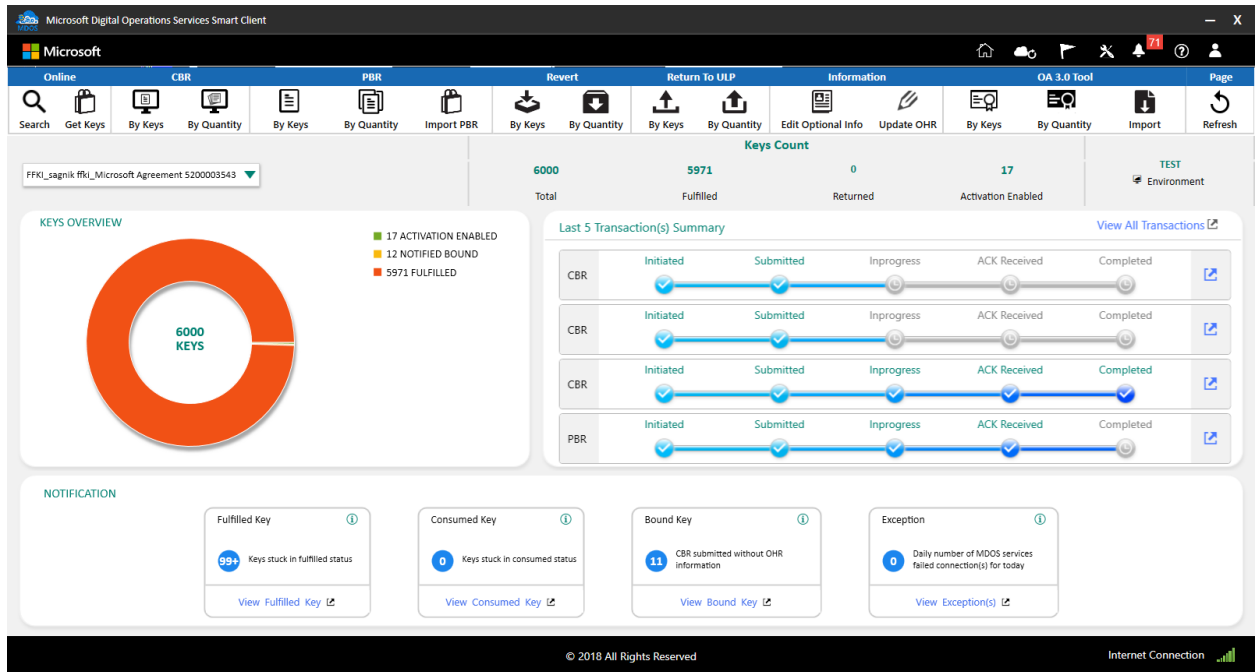
Tip Tool OEM Hardware Reporting (OHR) is a required by Microsoft for all injected Windows keys.

Step-by-step:

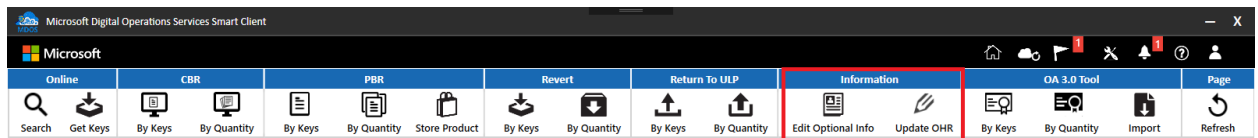
1. Log into Smart Client using FFKI partner account credentials.



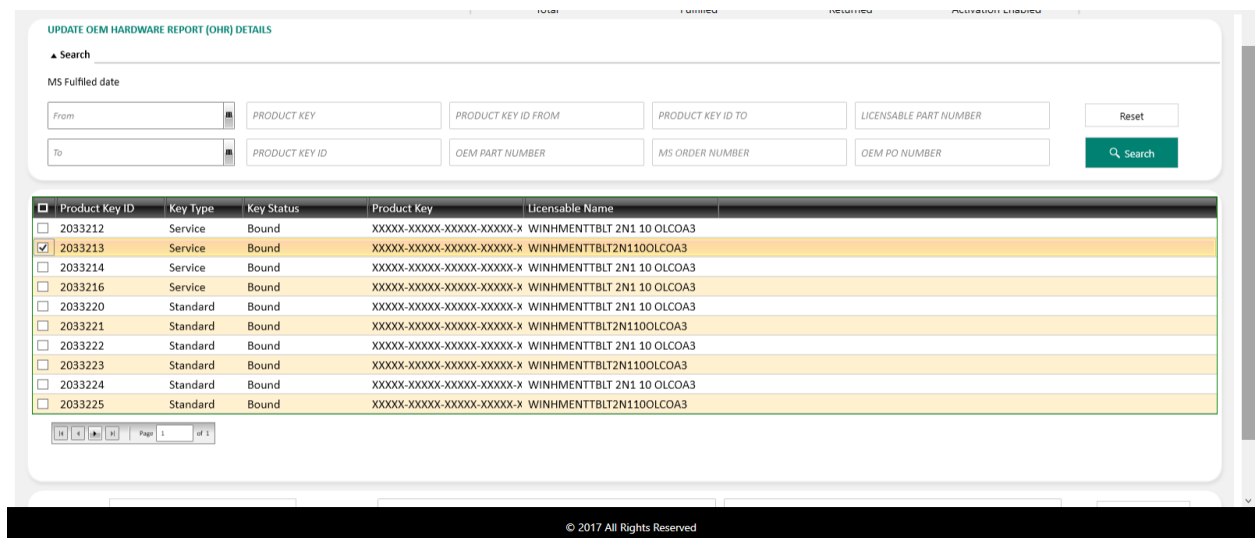
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



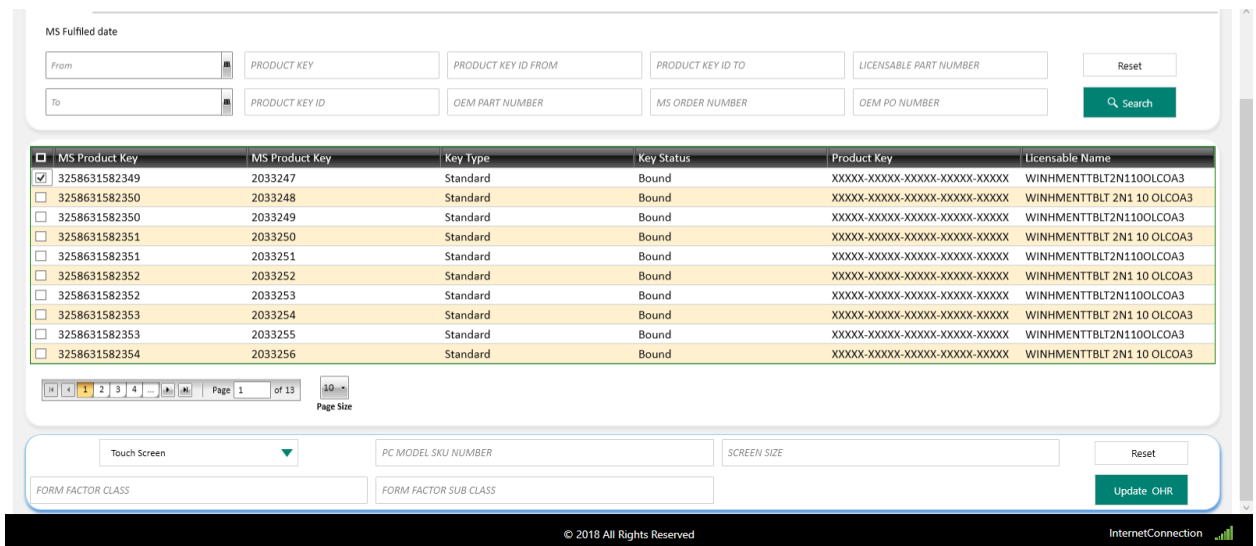
- After clicking the “DashBoard” button, FFKI partner clicks on the Update OHR Button as shown in the below screen.



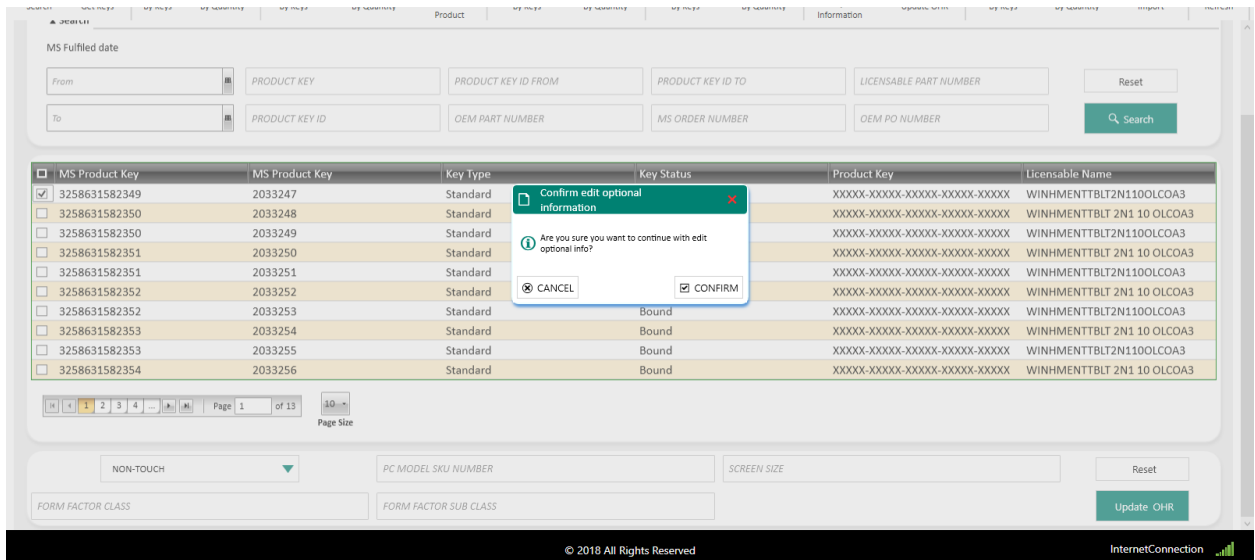
- After clicking Update OHR, the below screen will appear indicating a list of keys that require an OHR update.



- Partner can select the keys whose OHR data they want to update. After entering the OHR information, click on SAVE button.



- Once partner clicks the Save button, a confirmation window will pop up to confirm your selection. Click CONFIRM.



- Once the keys optional info is edited, a "Key optional Information updated successfully." message will briefly pop up in the green highlighted banner or a "Key optional Information updated failed." message will briefly pop up in the red highlighted banner.

The screenshot displays the 'Keys Count' section of the MDOS Smart Client. At the top, a summary shows: Total: 79499, Fulfilled: 78857, Returned: 0, and Activation Enabled: 0. A notification bar indicates 'Key OHR Data Updated Successfully'. Below this is the 'UPDATE OEM HARDWARE REPORT (OHR) DETAILS' section with a search filter. The main area contains a table of product keys with columns for MS Product Key, MS Product Key, Key Type, Key Status, Product Key, and Licensable Name.

| MS Product Key | MS Product Key | Key Type | Key Status | Product Key | Licensable Name |
|--|----------------|----------|------------|-------------------------------|----------------------------|
| <input type="checkbox"/> 3258631582349 | 2033247 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT2N1100LCOA3 |
| <input type="checkbox"/> 3258631582350 | 2033248 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> 3258631582350 | 2033249 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT2N1100LCOA3 |
| <input type="checkbox"/> 3258631582351 | 2033250 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> 3258631582351 | 2033251 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT2N1100LCOA3 |
| <input type="checkbox"/> 3258631582352 | 2033252 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> 3258631582352 | 2033253 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT2N1100LCOA3 |
| <input type="checkbox"/> 3258631582353 | 2033254 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> 3258631582353 | 2033255 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT2N1100LCOA3 |
| <input type="checkbox"/> 3258631582354 | 2033256 | Standard | Bound | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | WINHMENTTBLT 2N1 10 OLCOA3 |

6.4 EDIT OPTIONAL INFORMATION

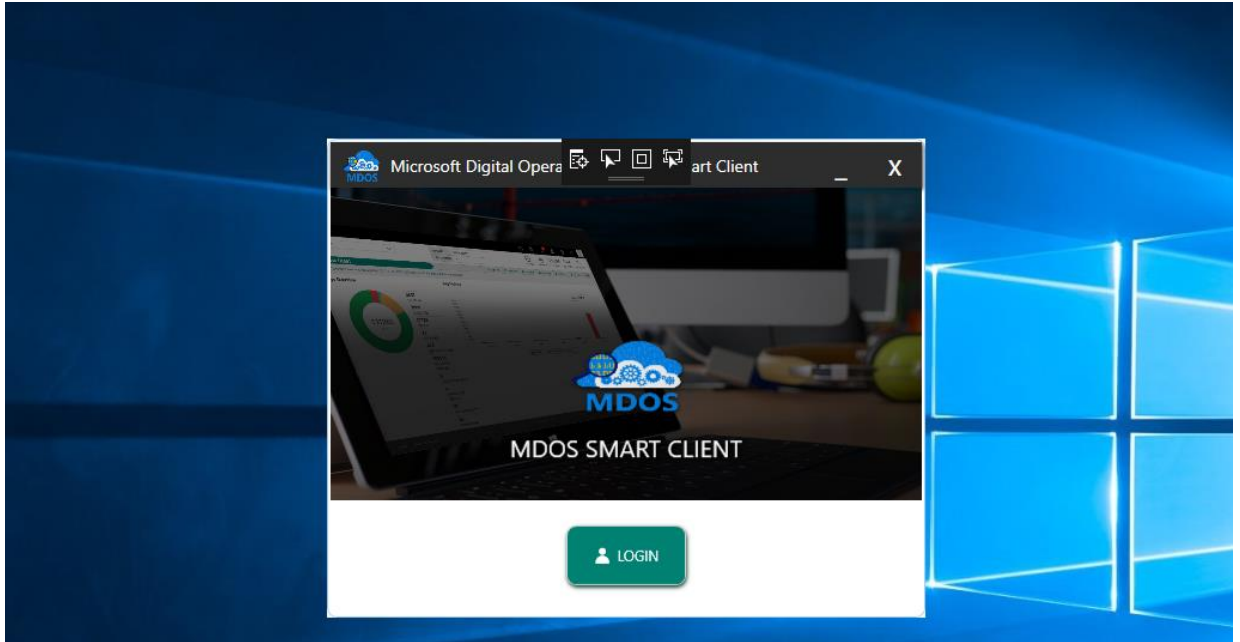
Description:

OEM Optional Information report, provides additional optional reporting fields that can be reported as part of the Computer Build Report (CBR) and OEM Hardware Report (OHR). This includes additional hardware details fields such as, OEM Extended Identifier, Country, PEV (Promotional Code), Channel Relationship ID, and Selling Location.

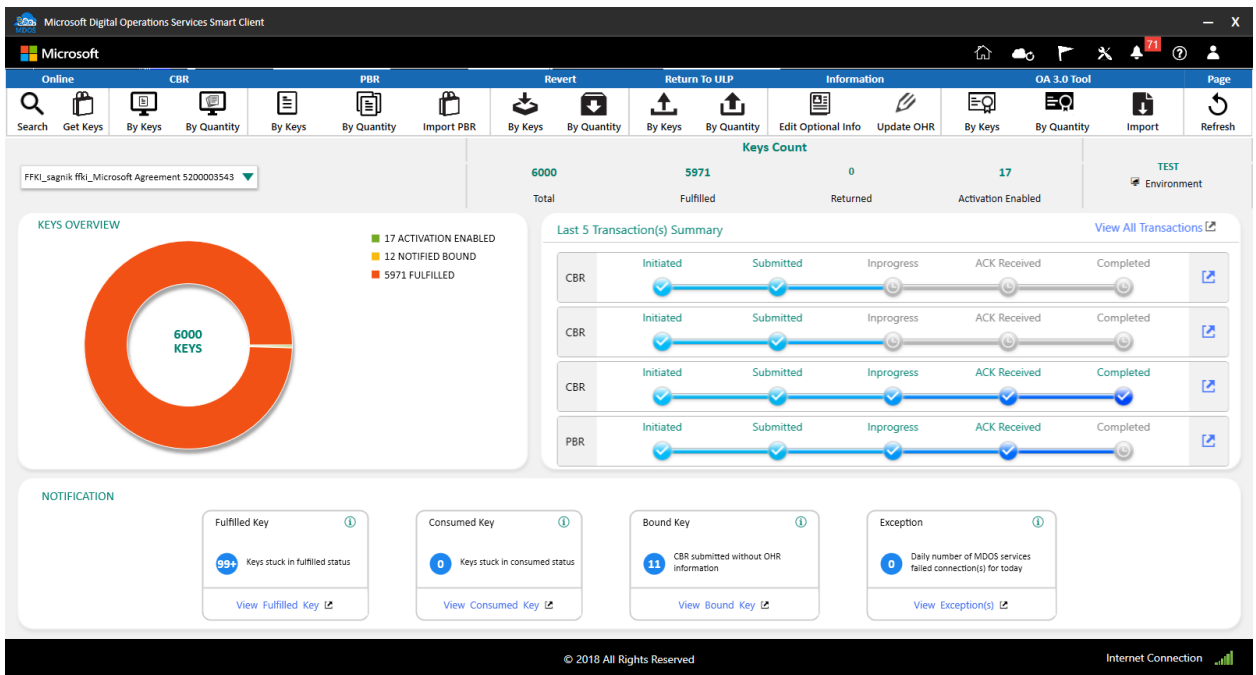
Tip Tool: OEM Hardware Report (OHR) follows a CBR and includes additional hardware data that is required by Microsoft.

Step-by-step:

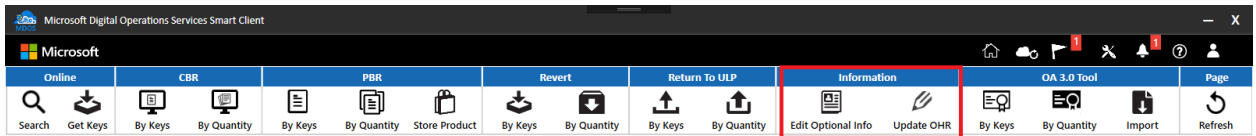
1. Log into Smart Client using FFKI partner account credentials.



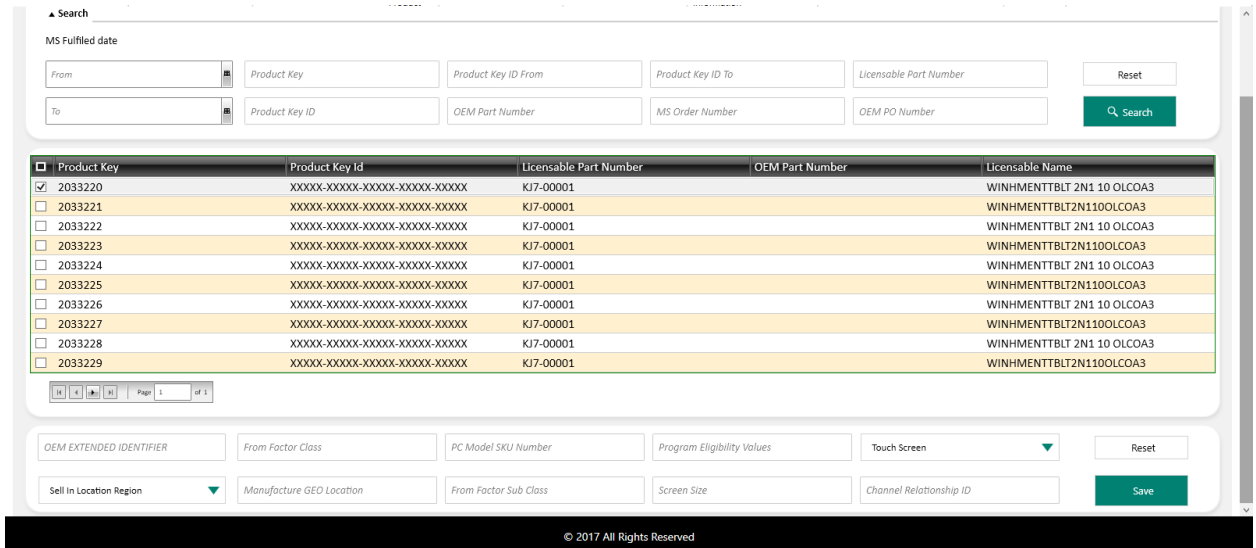
2. FFKI Partner will see the below Dashboard screen after logging into the Smart Client.



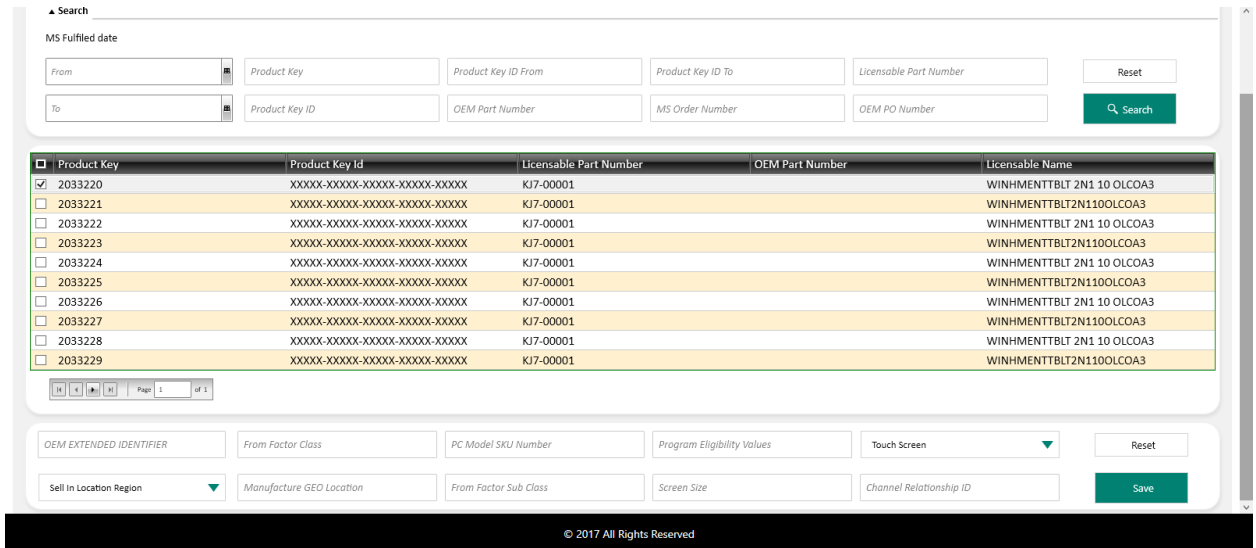
3. After clicking the “Dashboard” button, FFKI partner clicks on the Update OHR Button as shown in the below screen.



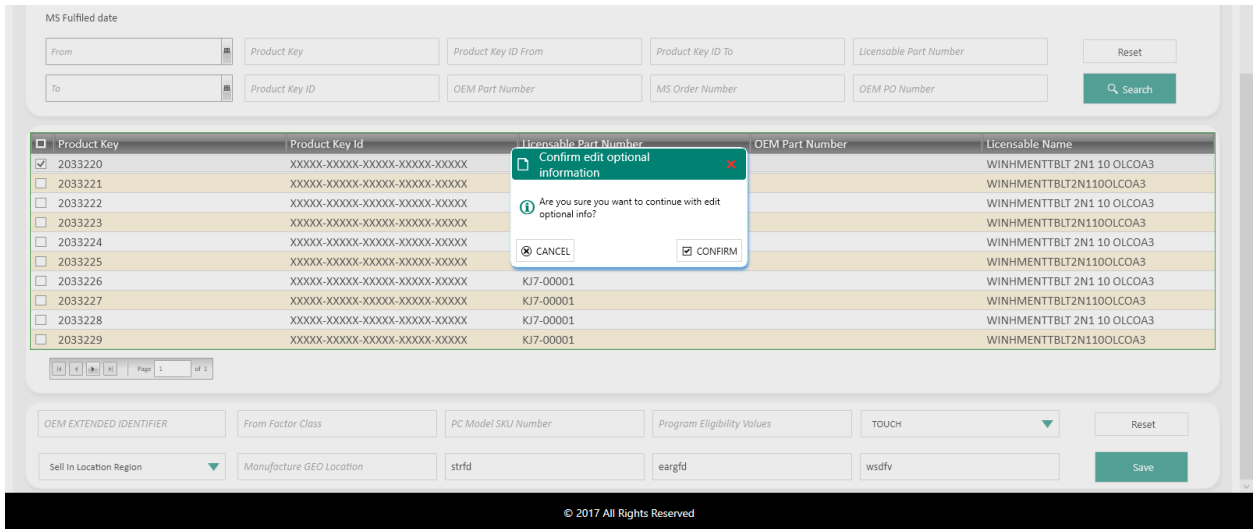
4. After clicking the Edit Optional Info button, the below screen will appear indicating a list of keys whose OHR data can be updated.



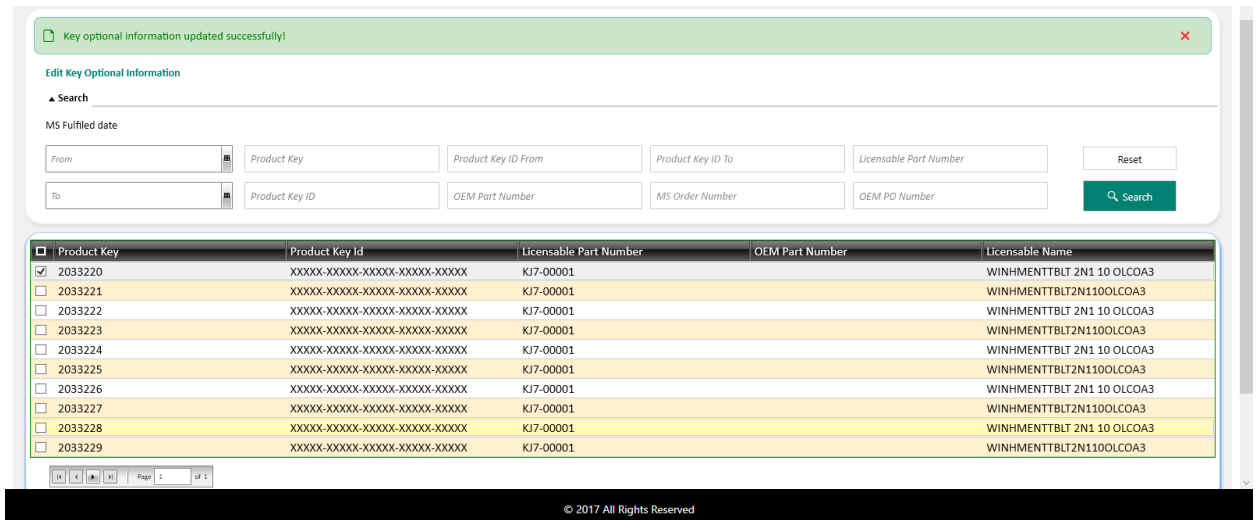
5. Partner can select the keys whose OHR data they want to update. After entering the OHR information, click on SAVE button.



6. Once partner clicks the Save button, a confirmation window will pop up to confirm your selection. Click CONFIRM.



- Once the keys OHR info is edited, a “Key optional Information updated successfully.” message will briefly pop up in the green highlighted banner or a “Key optional Information updated failed.” message will briefly pop up in the red highlighted banner.



MDOS Smart Client User Manual

FFKI_FFKI_Test_Aamir_Microsoft Agreement 5000043726

Keys Count
79500 Total 79335 Fulfilled 0 Returned 0 Activation Enabled

PROD
 Environment

Key optional information updated failed!
✕

[Edit Key Optional Information](#)
▼ Search

| <input type="checkbox"/> | Product Key | Product Key Id | Licensable Part Number | OEM Part Number | Licensable Name |
|-------------------------------------|-------------|-------------------------------|------------------------|-----------------|----------------------------|
| <input type="checkbox"/> | 2033220 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> | 2033221 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT2N110OLCOA3 |
| <input type="checkbox"/> | 2033222 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> | 2033223 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT2N110OLCOA3 |
| <input checked="" type="checkbox"/> | 2033224 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> | 2033225 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT2N110OLCOA3 |
| <input type="checkbox"/> | 2033226 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> | 2033227 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT2N110OLCOA3 |
| <input type="checkbox"/> | 2033228 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT 2N1 10 OLCOA3 |
| <input type="checkbox"/> | 2033229 | XXXXX-XXXXX-XXXXX-XXXXX-XXXXX | KJ7-00001 | | WINHMENTTBLT2N110OLCOA3 |

Page 1 of 1

OEM EXTENDED IDENTIFIER

From Factor Class

PC Model SKU Number

Program Eligibility Values

Touch Screen

Reset

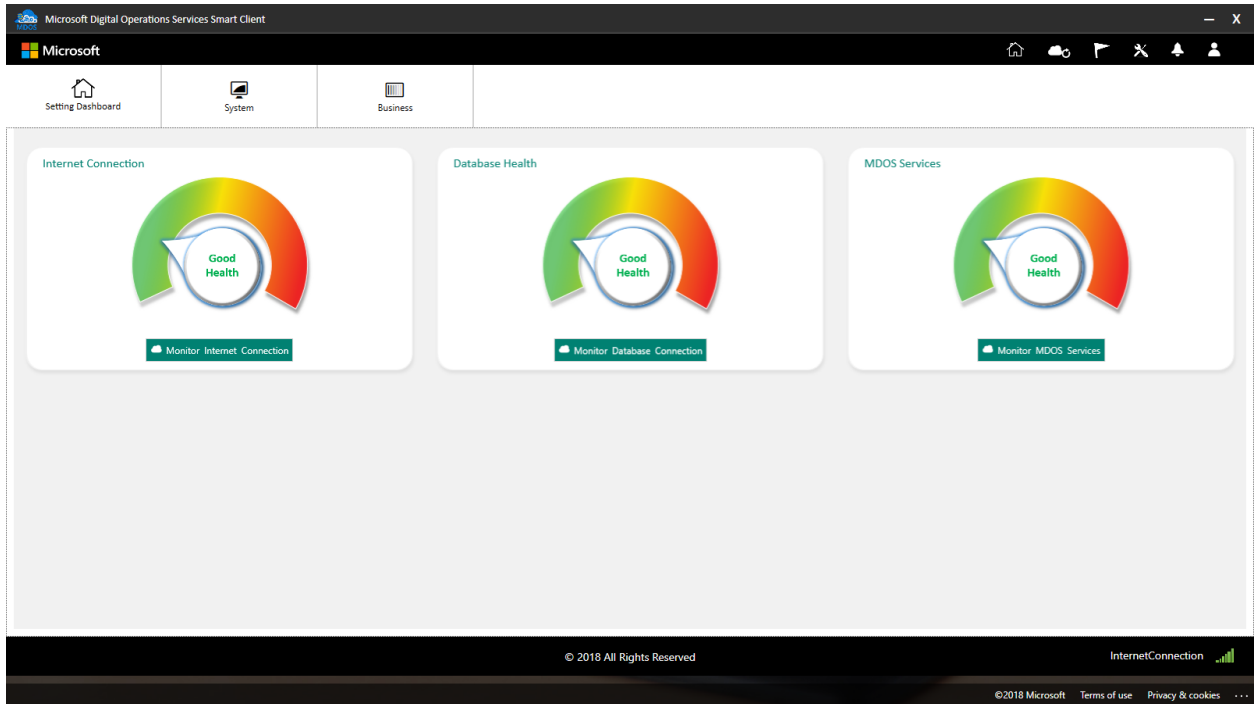
© 2017 All Rights Reserved

SECTION 7. SETTINGS

7.1 SETTINGS DASHBOARD

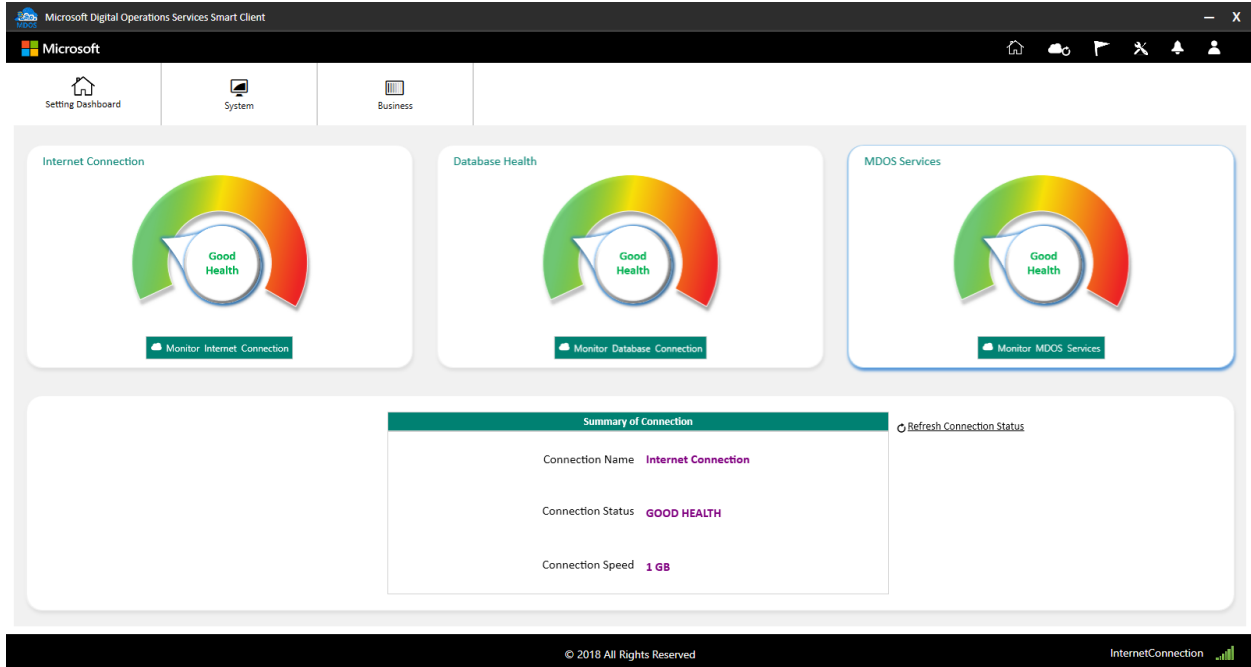
Instruction:

Settings dashboard will provide the health report of the SC application, partners can identify the internet connection, database and MDOS services health from this screen



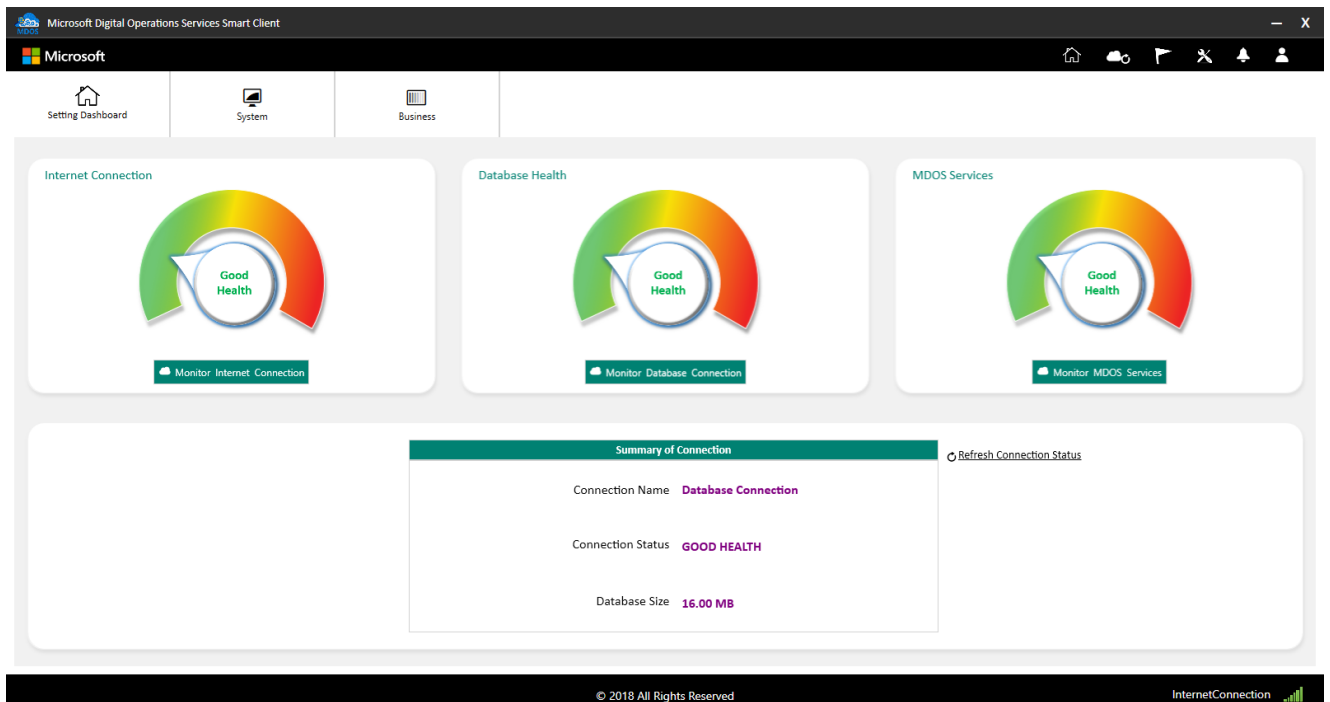
Internet connection

Monitor Internet connection displays connection name, connection status and connection speed of the internet connection which is currently used by the machine.



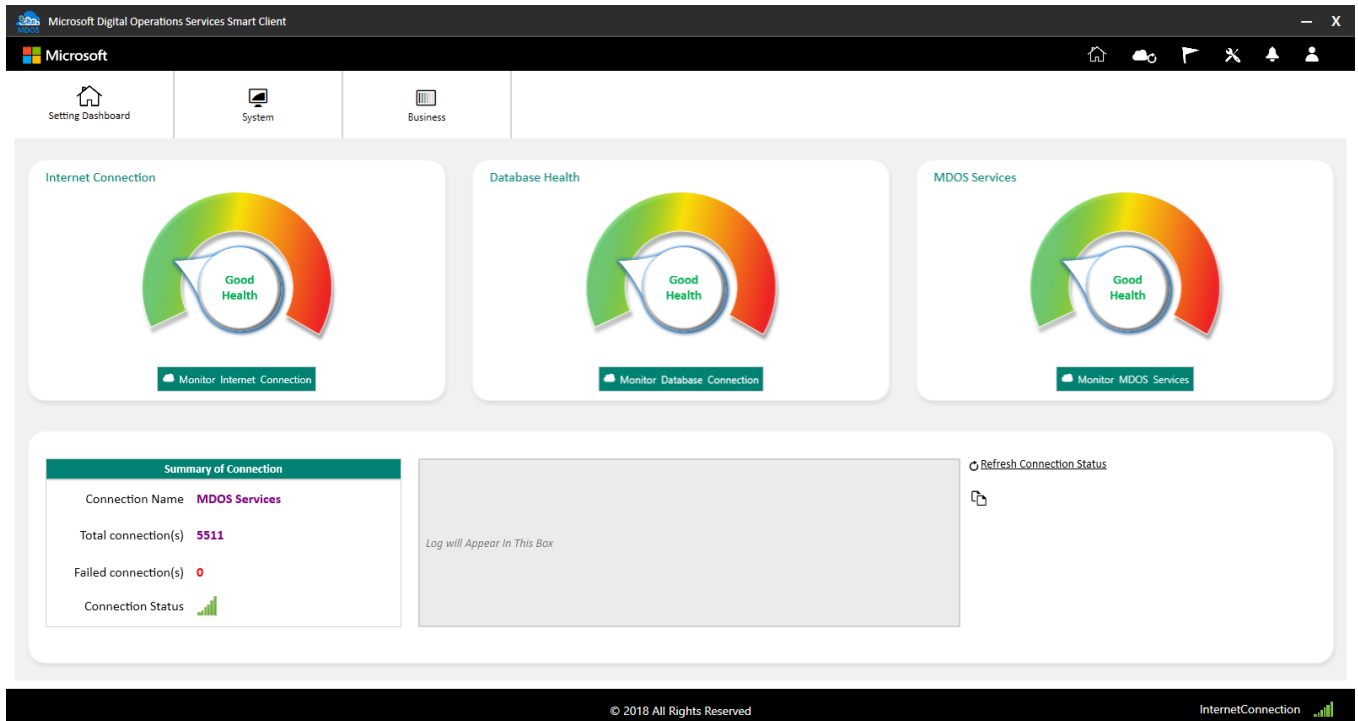
Database Connection

Monitor Database connection displays connection name, connection status and the size of database in the current machine.



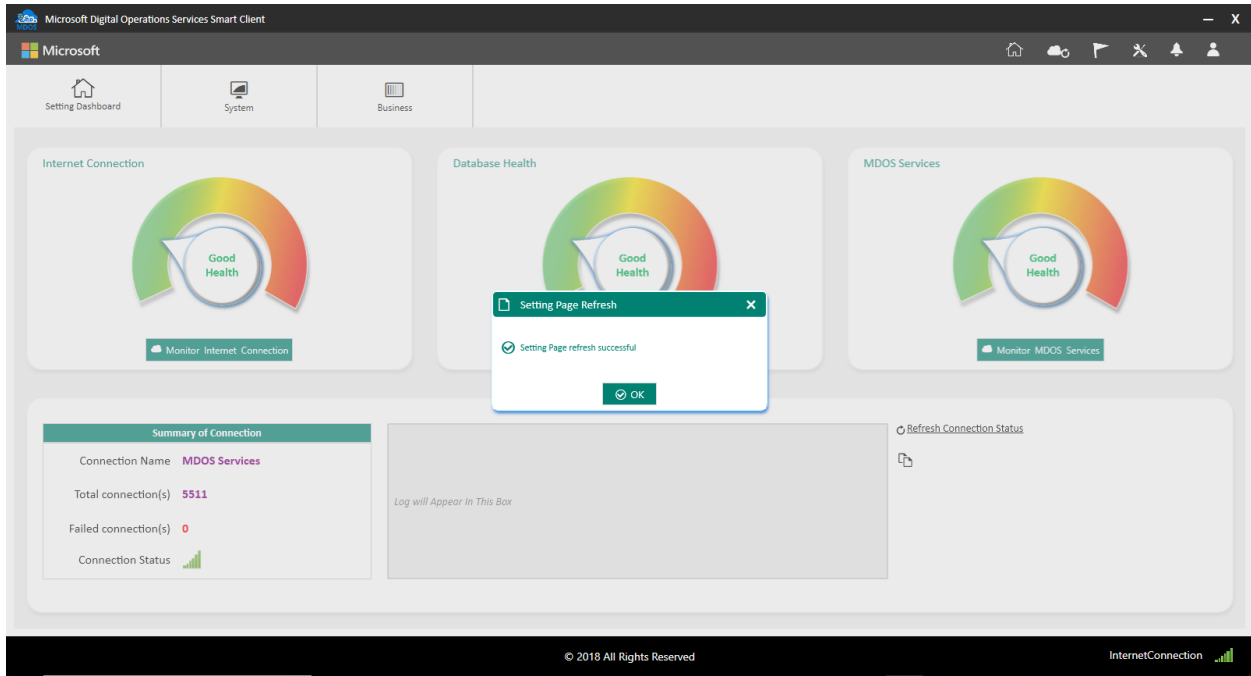
MDOS Services

Monitor MDOS services displays connection name, total number of connections made with MDOS services, failed connections and connection status in MDOS SC.



Note:

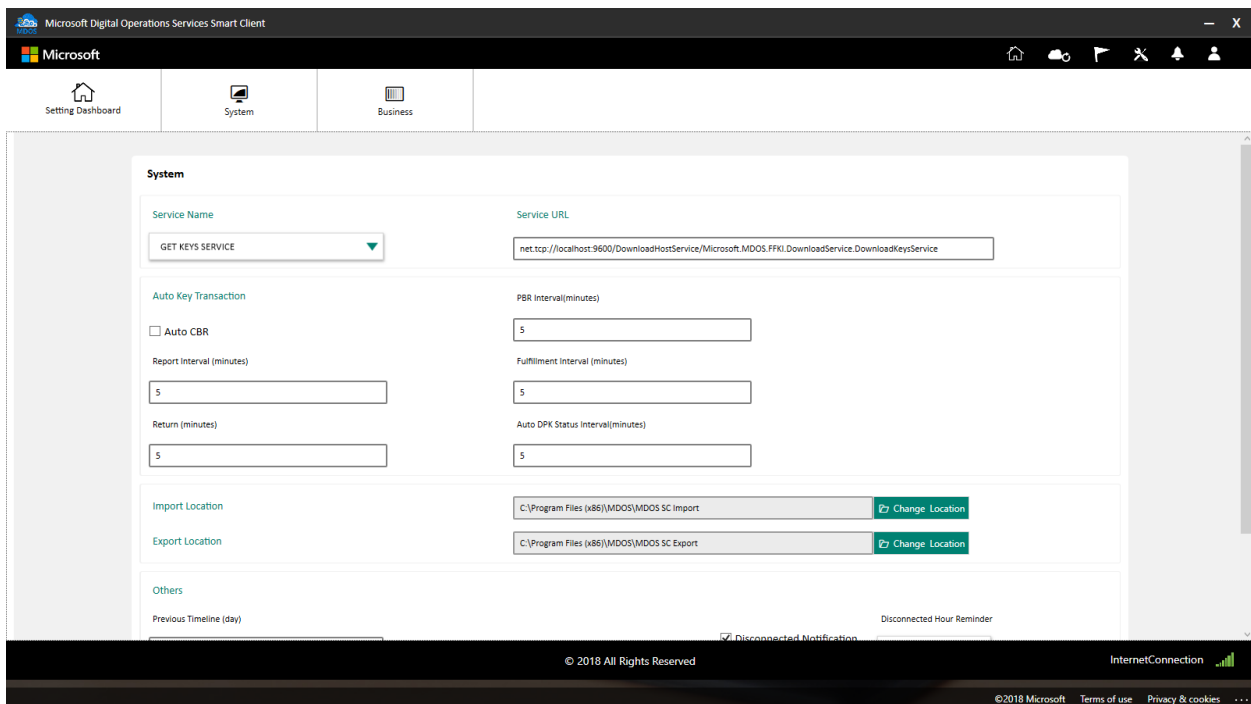
You can use refresh connection status option to refresh the connection data. Once the connection setting refreshed successfully, it will show confirmation message.



7.2 SYSTEM SETTING

Instruction:

System settings screen will allow the partner to configure the key transaction time intervals, configure the export and import location, configure the disconnection notification reminders etc.



Service Name and URL

This field shows the service name and the URL along with the port number used to connect the service. This contains the fulfillment service (Get keys), Return and CBR key service.

System

| | |
|---|--|
| <p>Service Name</p> <div style="border: 1px solid #ccc; padding: 2px;">GET KEYS SERVICE ▼</div> | <p>Service URL</p> <div style="border: 1px solid #ccc; padding: 2px;">net.tcp://localhost:9600/DownloadHostService/Microsoft.MDOS.FFKI.DownloadService.DownloadKeysService</div> |
|---|--|

| | |
|--|---|
| <p>Service Name</p> <div style="border: 1px solid #ccc; padding: 2px;">RETURN KEYS SERVICE ▼</div> | <p>Service URL</p> <div style="border: 1px solid #ccc; padding: 2px;">net.tcp://localhost:9603/ReturnServiceHost/Microsoft.MDOS.FFKI.ReturnService.ReturnKeys</div> |
|--|---|

System

| | |
|---|--|
| <p>Service Name</p> <div style="border: 1px solid #ccc; padding: 2px;">CBR KEYS SERVICE ▼</div> | <p>Service URL</p> <div style="border: 1px solid #ccc; padding: 2px;">net.tcp://localhost:9602/CBRReportService/Microsoft.MDOS.FFKI.ReportService.CBRReportService</div> |
|---|--|

Auto Key Transaction

Auto Key Transaction

| | |
|---|--|
| <p><input type="checkbox"/> Auto CBR</p> <p>Report Interval (minutes)</p> <div style="border: 1px solid #ccc; padding: 2px; width: 100%;">50</div> <p>Return (minutes)</p> <div style="border: 1px solid #ccc; padding: 2px; width: 100%;">10</div> | <p>PBR Interval(minutes)</p> <div style="border: 1px solid #ccc; padding: 2px; width: 100%;">10</div> <p>Fulfillment Interval (minutes)</p> <div style="border: 1px solid #ccc; padding: 2px; width: 100%;">10</div> <p>Auto DPK Status Interval(minutes)</p> <div style="border: 1px solid #ccc; padding: 2px; width: 100%;">10</div> |
|---|--|

1. Auto CBR

Auto submit CBR (Computer Build Report) functionality allows automatic CBR submission to the up-level partners. Check the box to select AUTO SUBMIT CBR to turn on automated submission for the CBR.

2. Report interval

Sets the report interval (in minutes). It will run report key service at regular interval of time which is configured by the partner. The minimum time interval partner can set up is 5 minutes whereas there is no limit for maximum.

3. Return interval

Sets the return interval (in minutes). It will run return key service at regular interval of time which is configured by the partner. The minimum allowed time is 5 minutes whereas there is no limit for maximum.

4. PBR interval

Sets the PBR interval (in minutes). It will run bundle key service at regular interval of time which is configured by the partner. The minimum allowed time is 5 minutes whereas there is no limit for maximum.

5. Fulfillment Interval

Sets the fulfillment interval (in minutes). It will run key fulfillment service at regular interval of time which is configured by the partner. The minimum allowed time is 5 minutes whereas there is no limit for maximum.

6. Auto DPK Status Interval

Sets the DPK time interval (in minutes). It will run DPK sync service at regular interval of time which is configured by the partner. The minimum allowed time is 5 minutes whereas there is no limit for maximum.

7. Import and Export location

This option allows the partner to configure the default location where the export and import keys can be stored as XML files in the machine.

| | | |
|-----------------|------------------|-----------------|
| Import Location | D:\MDOSSC_Import | Change Location |
| Export Location | D:\MDOSSC_Export | Change Location |

8. Others

a. Previous timeline day

Set the day after which you will get reminder if the key status is not changed during this interval. If the key status remains same and exceeds the time line, it will show reminder.

b. Disconnected Hour reminder

This option allows to set the reminder hour in disconnected mode. If the application is not connected to internet (offline) and exceeds the reminder hour, it will show reminder message to the partner.

Others

Previous Timeline (day)

Disconnected Notification

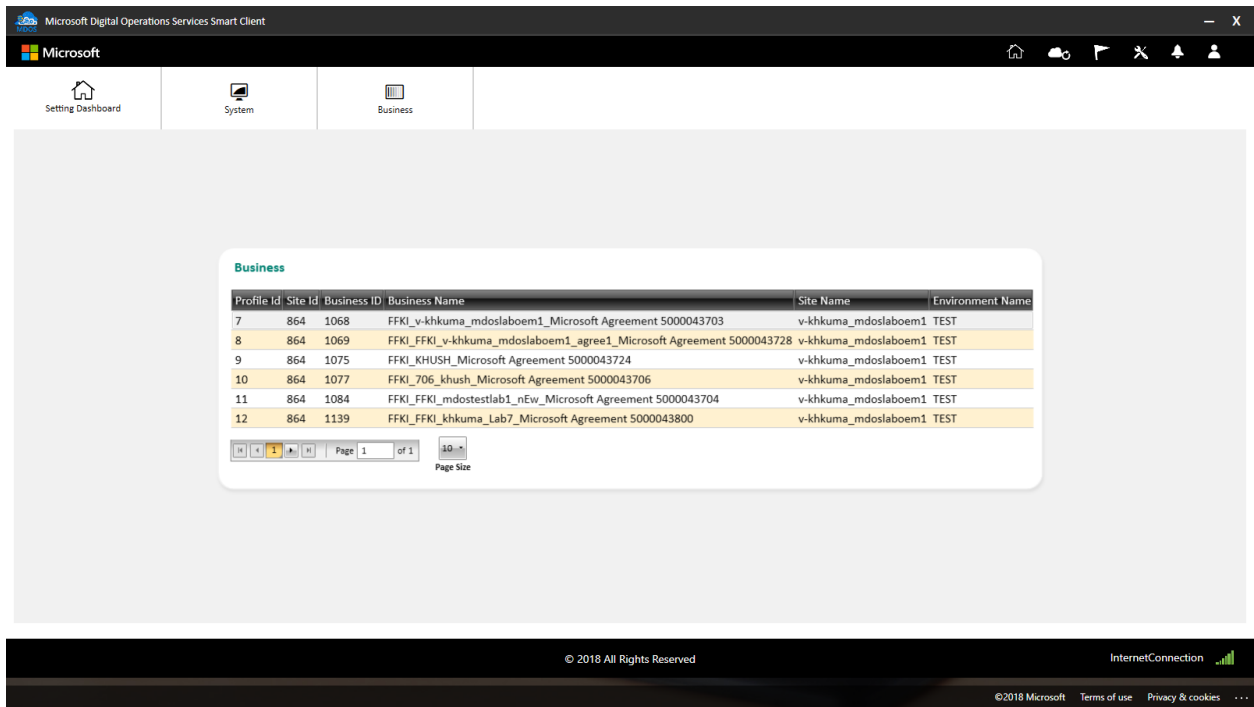
Disconnected Hour Reminder

7.3 BUSINESS SETTING

Instruction:

Business setting is used to display all the currently added business in MDOS FFKI SC.

Partner can perform key operations with all the business which is reflecting under this setting page.



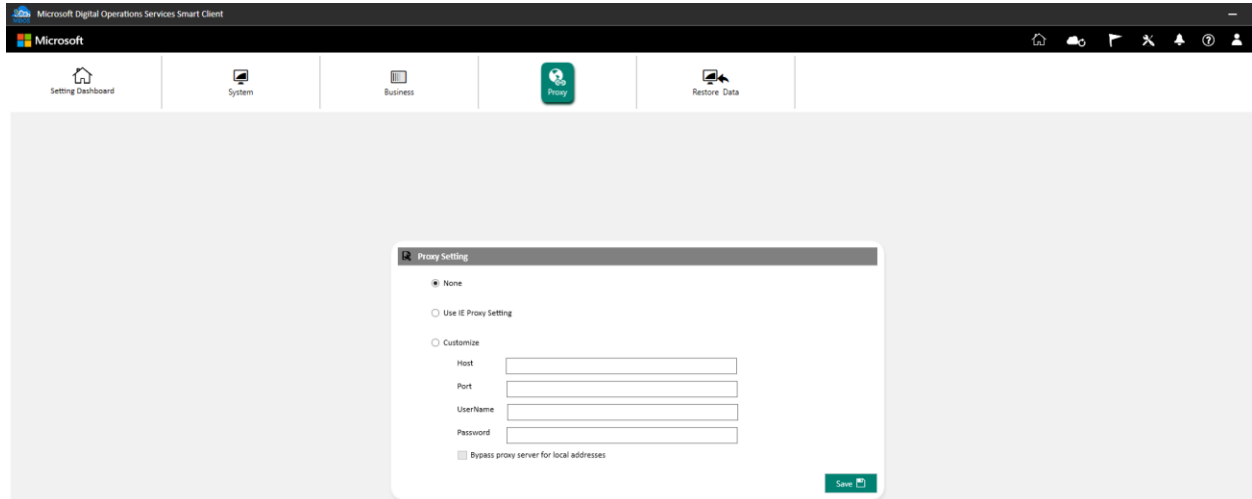
7.4 PROXY SETTING

Instruction:

This functionality allows the FFKI partners to set up the proxy in MSC to limit or open the firewall settings to the server. Partners can set up the proxy using the below 3 options,

- **None:** Select this option to open network access systems (With free internet access).

- **Use IE Proxy setting:** Partner can choose this option if they have a special proxy setting which allows to use system browser cache to bypass firewall settings.
- **Customize:** This is completely customized option where partner can set host and port details along with special user credentials using which they can access the internet/MDOS services.



7.5 DATABASE RESTORE

Instruction:

This functionality allows the FFKI partners to restore the data in MSC in case of server or machine crash. Partner can install the MSC again and submit the request to restore the data which was available before the crash so that the data will be restored.

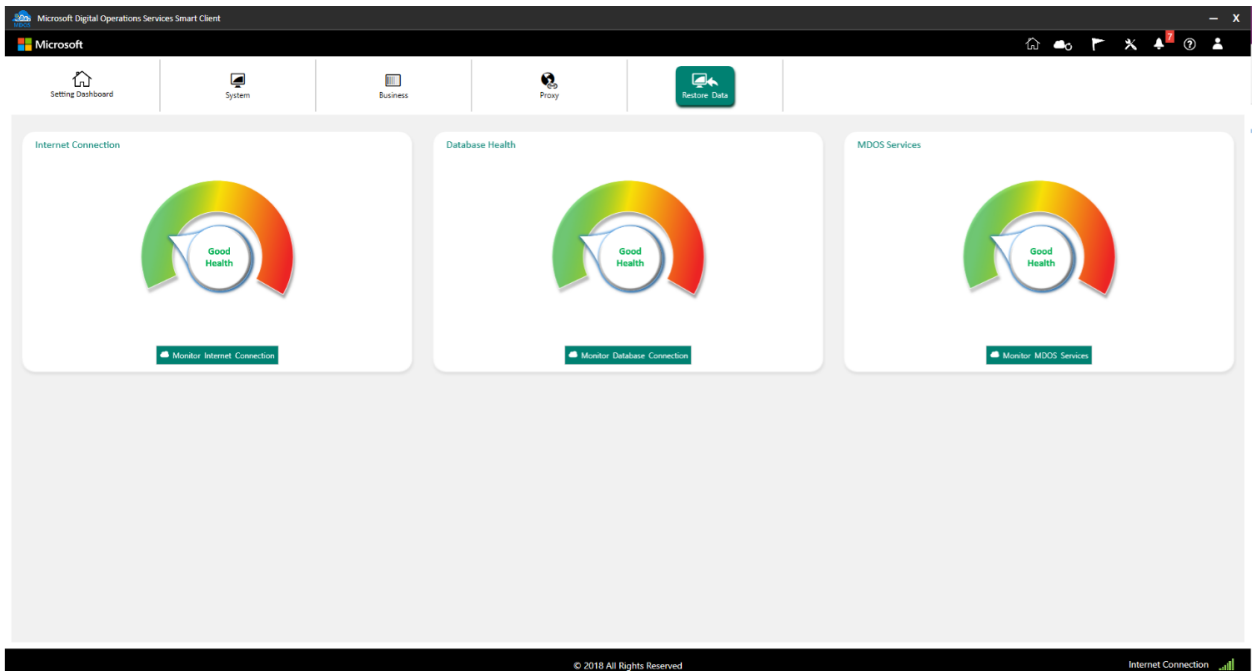
Note:

- MSC database restore feature is only available for PROD environment.
- MSC database restore can be done only for the businesses that are configured on current machine.

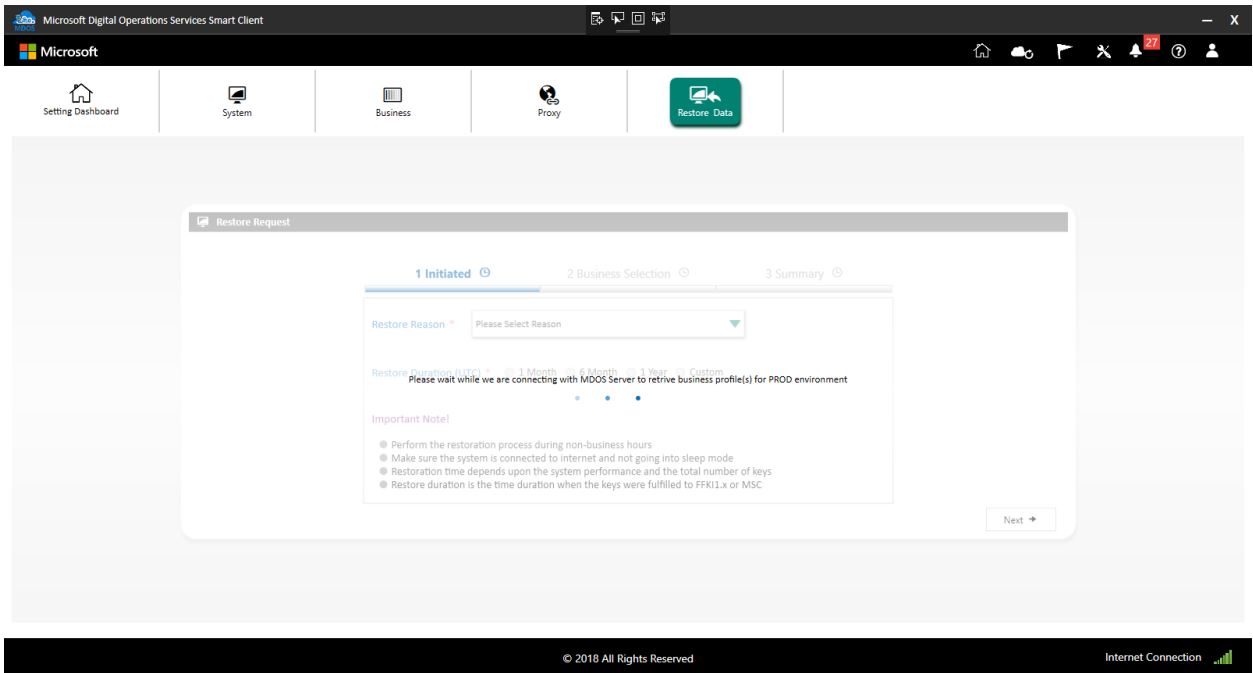
To restore the data in MSC, please follow the below steps.

Step-by-Step:

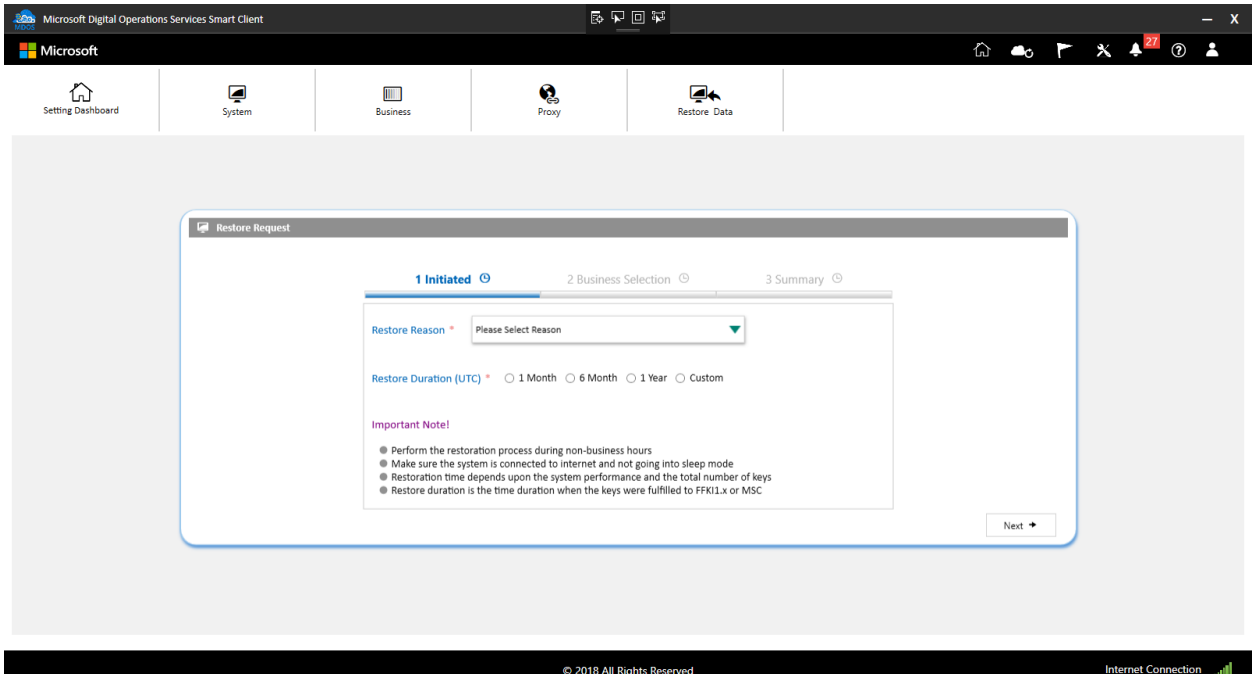
1. Click on 'Settings' icon from top navigation bar and click on 'Restore Data' tab.



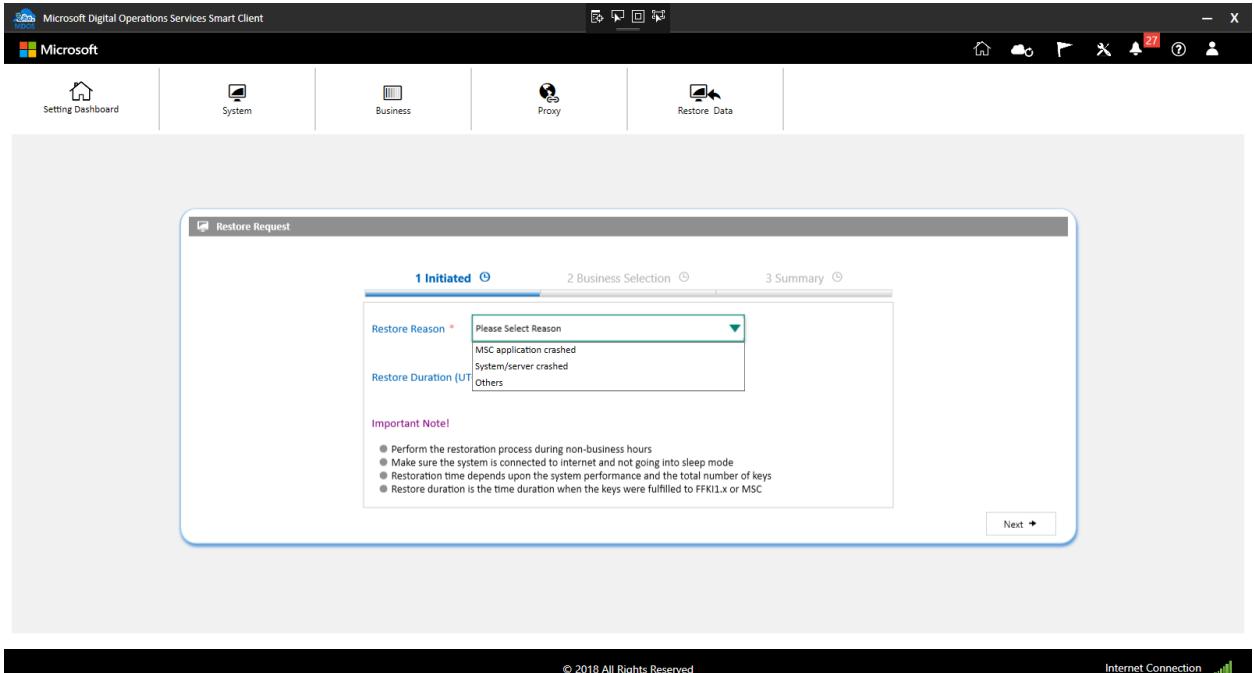
2. MSC will connect to MDOS services to fetch the business for restoration.



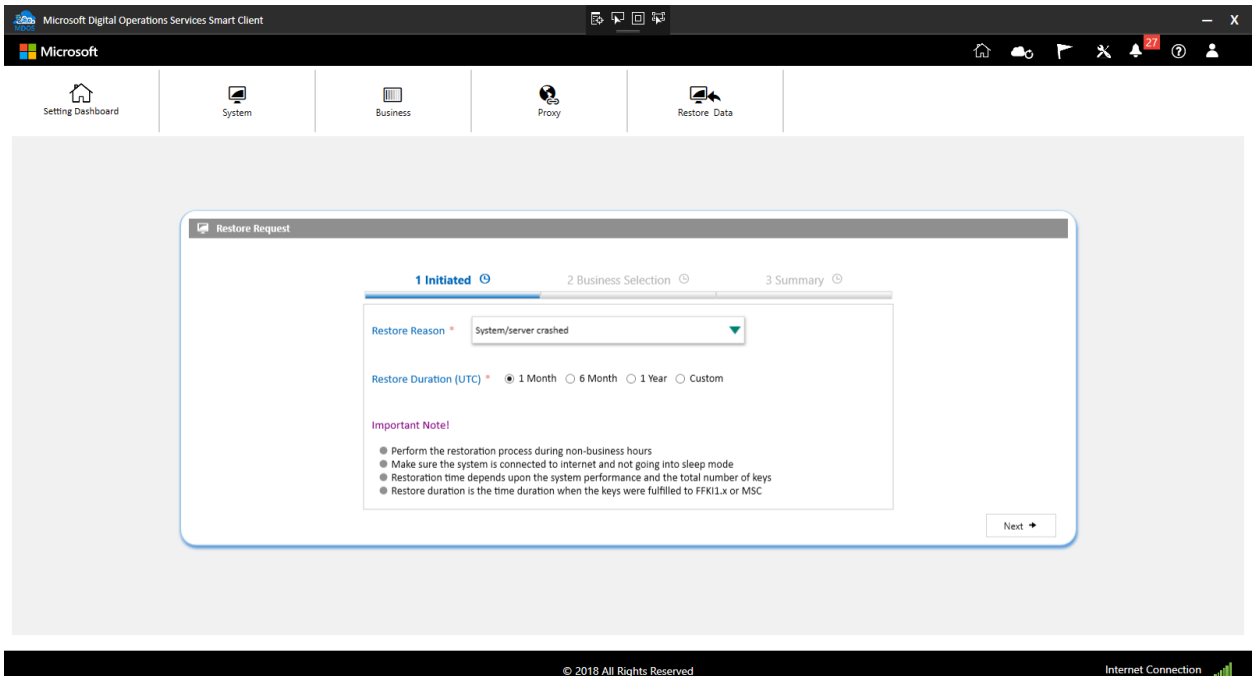
3. You will be presented with restore request screen to submit the request to restore the data.



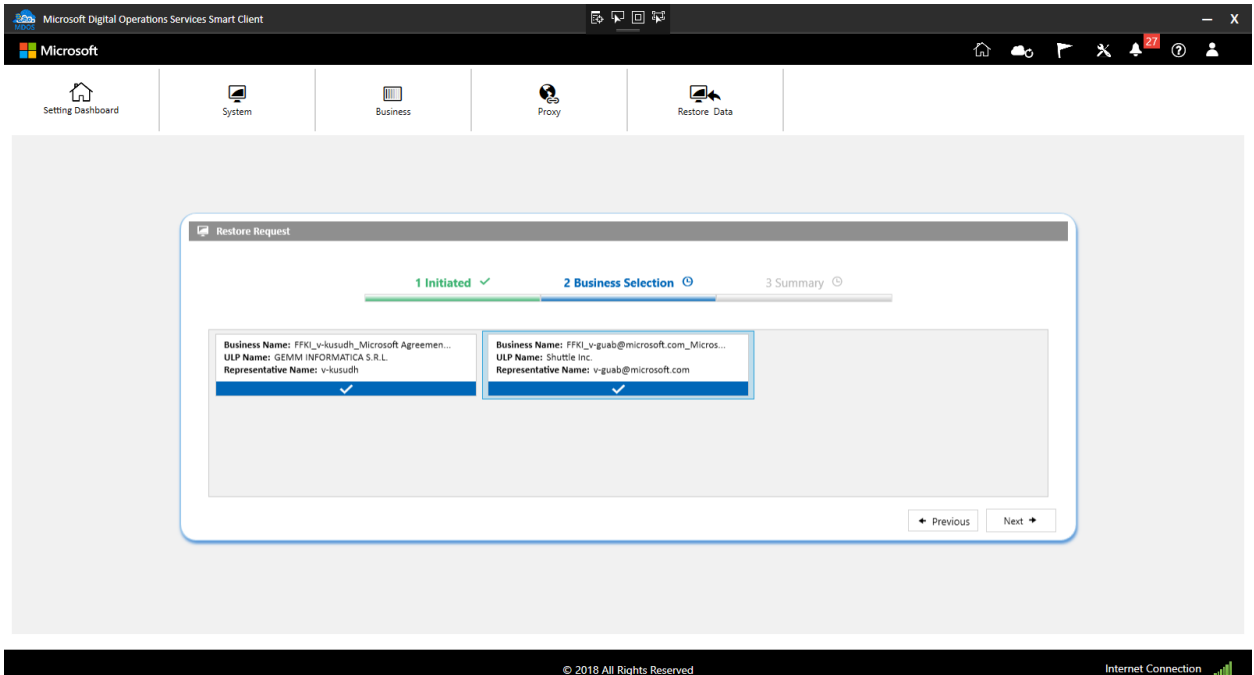
4. Please select the reason for the restoration.



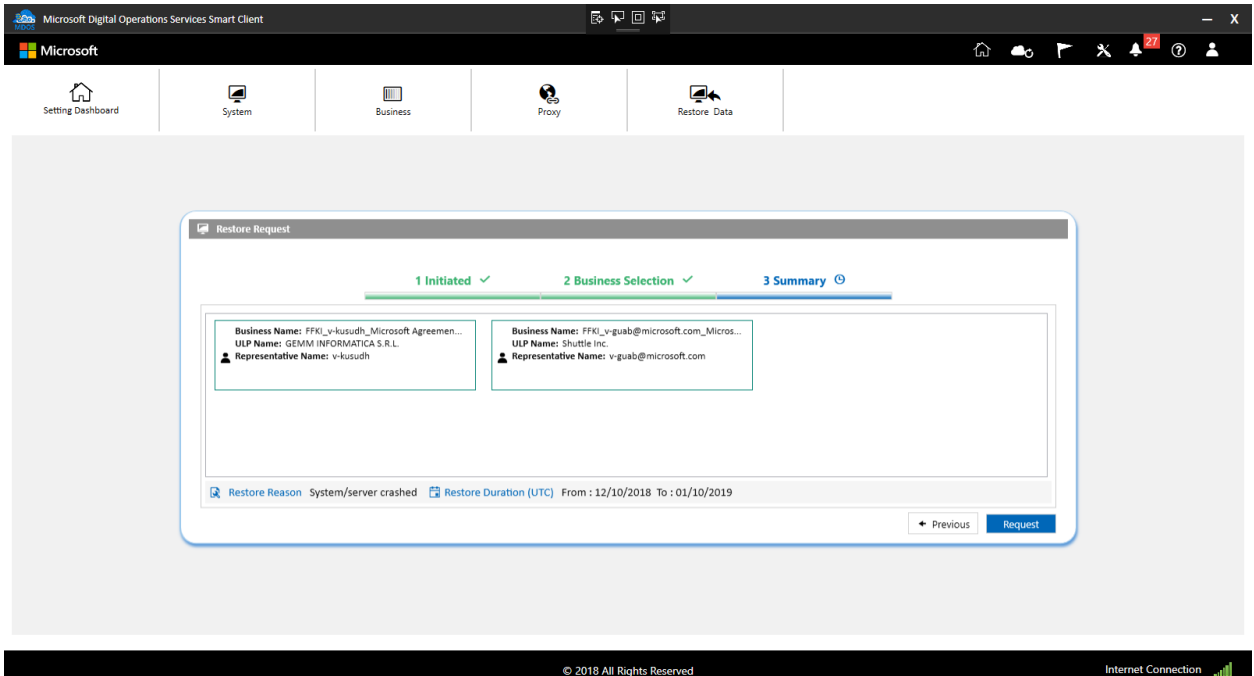
5. Please select the restore duration, this is the time where the keys are fulfilled to FFK1.x or MSC and you want to restore it. For example if the partner wants to restore all the keys that were downloaded in FFK1.x or MSC in the last 6 months, select 6 Months option and click on next button.



6. Select the business(es) for which you need to restore data and click on next button.

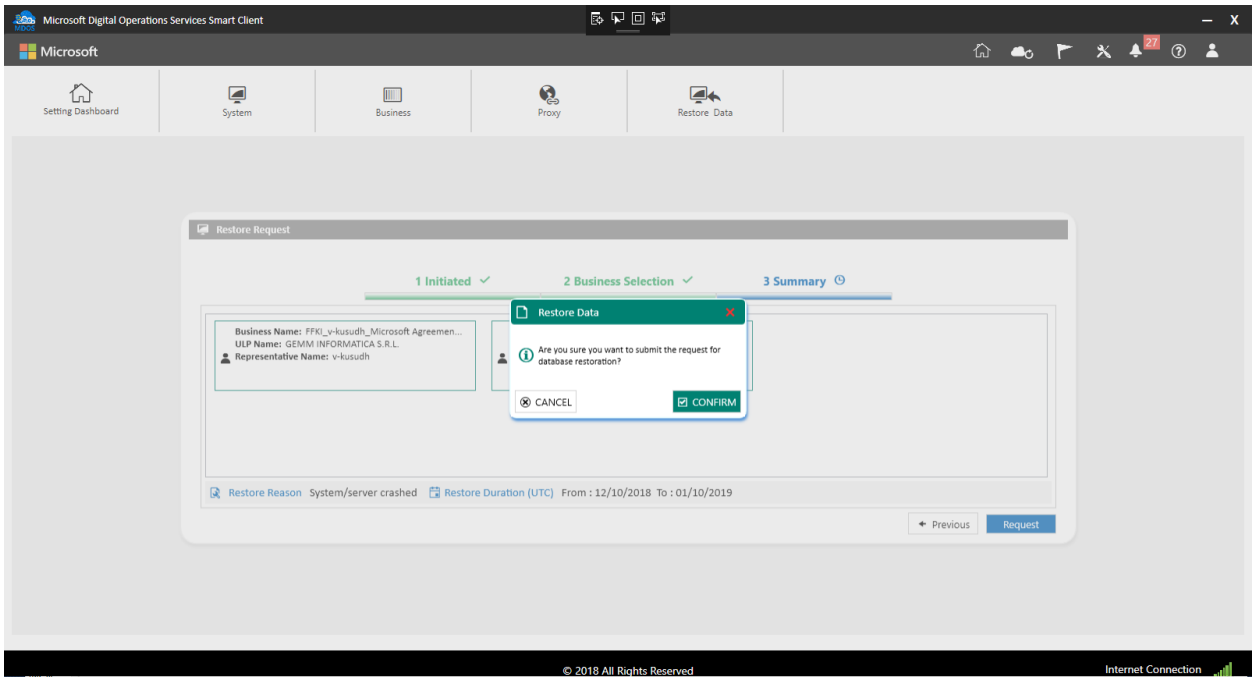


7. From the summary page, review all the information provided correctly and click on request button. In case partner need to make changes, they can go back to previous page and do the necessary changes.



8. A popup confirmation message box will appear. Click on confirm to submit restore request or click on cancel button.

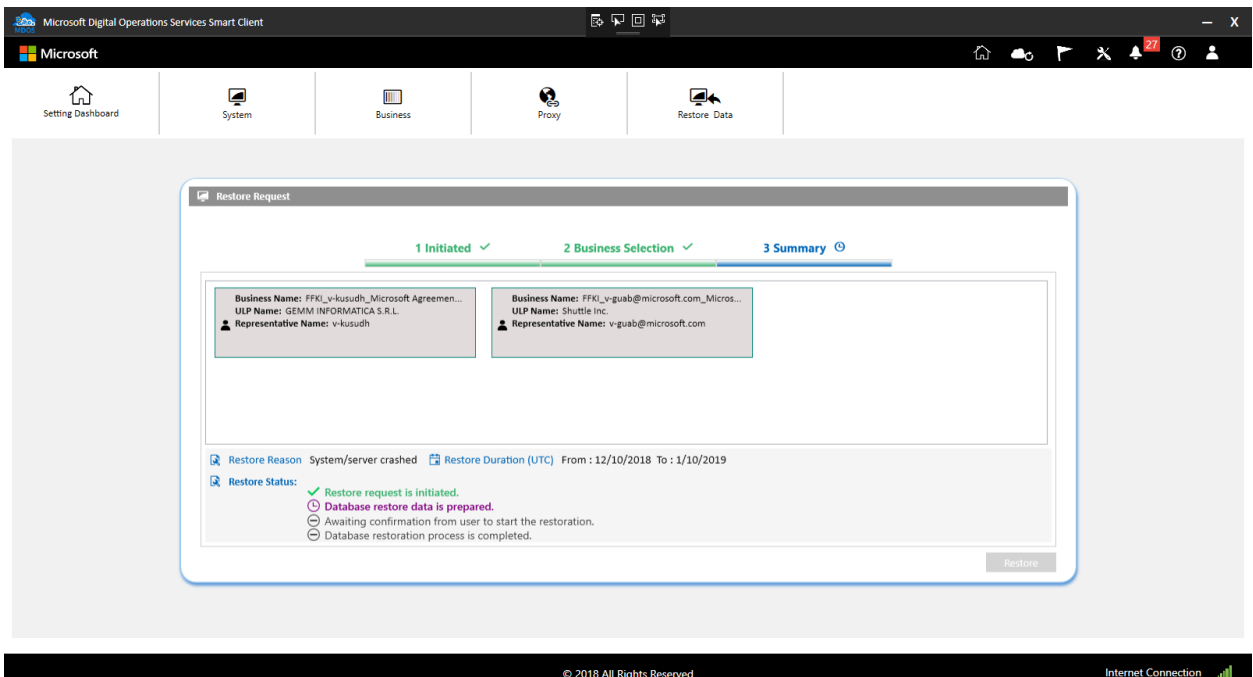
Note: Once you confirm the request, you'll not be able to make any changes till the restoration is completed.



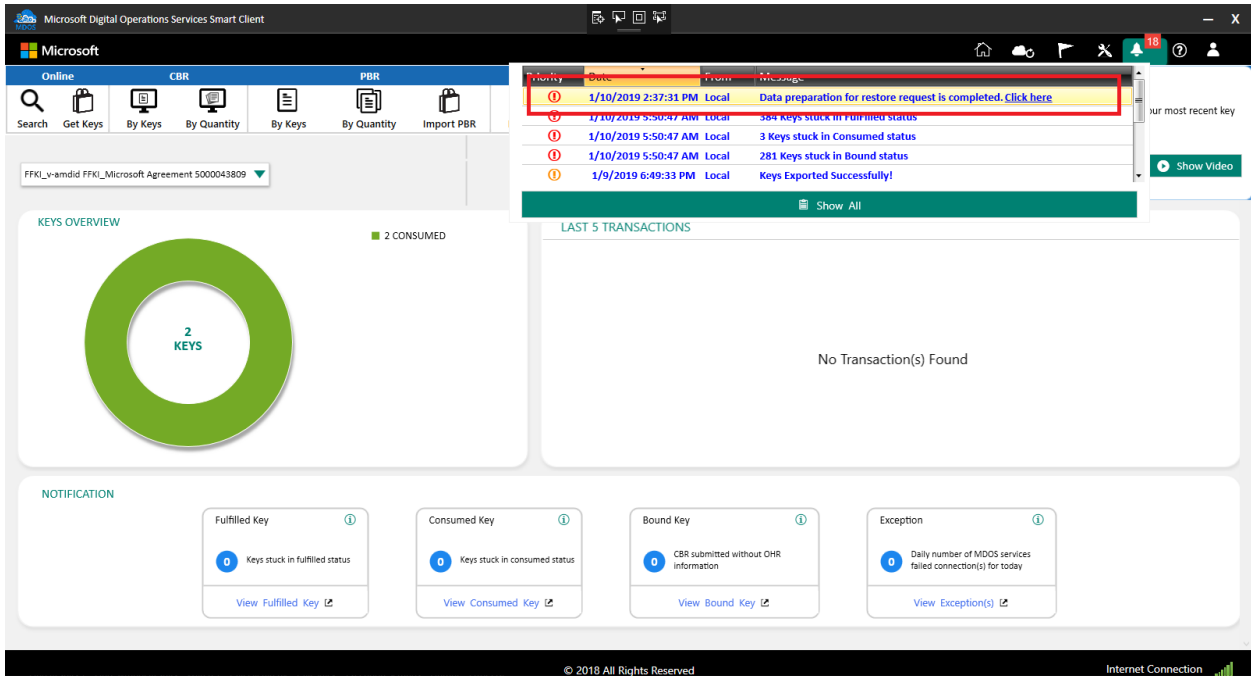
9. Once partner confirms, request will be submitted for data preparation and data backup from MDOS cloud will be in progress. Partners can see the progress in the 'Restore Status' section, 4 steps to complete the restoration.

Note: This will start the data preparation for restoration, once this is completed, partner must confirm again to start the restoration process.

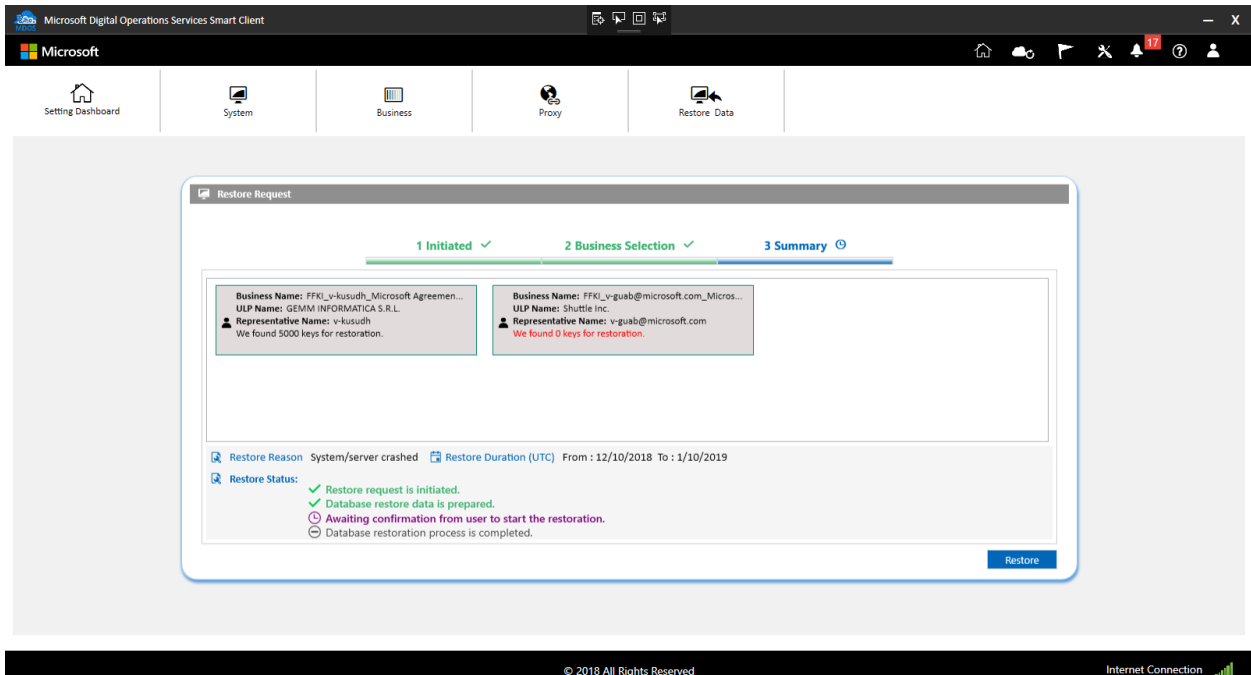
10. Status can be identified through the color of the text as below,
 - a. **Green** – Indicates the process is completed with tick mark
 - b. **Purple** – Indicates the process is in progress
 - c. **Grey** – Indicates the process is yet to start



11. Partners can still use MSC for the key's transaction while data preparation in progress. Once data preparation is completed, partner will be notified through alert message.

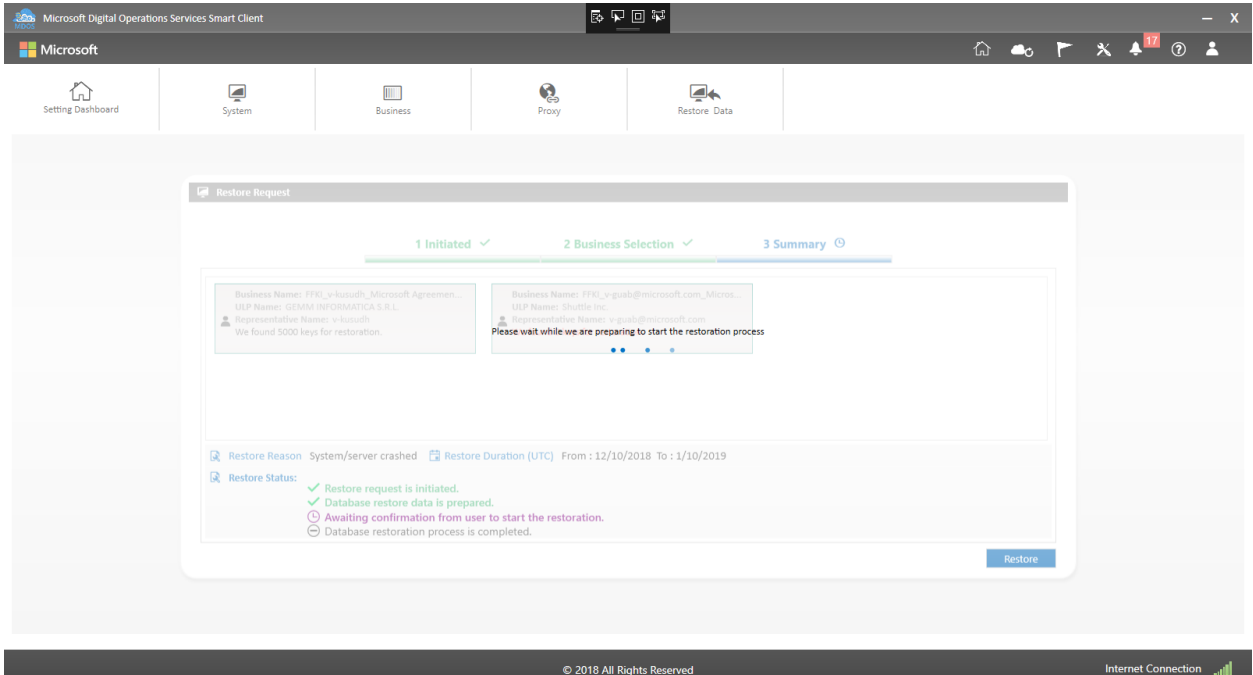
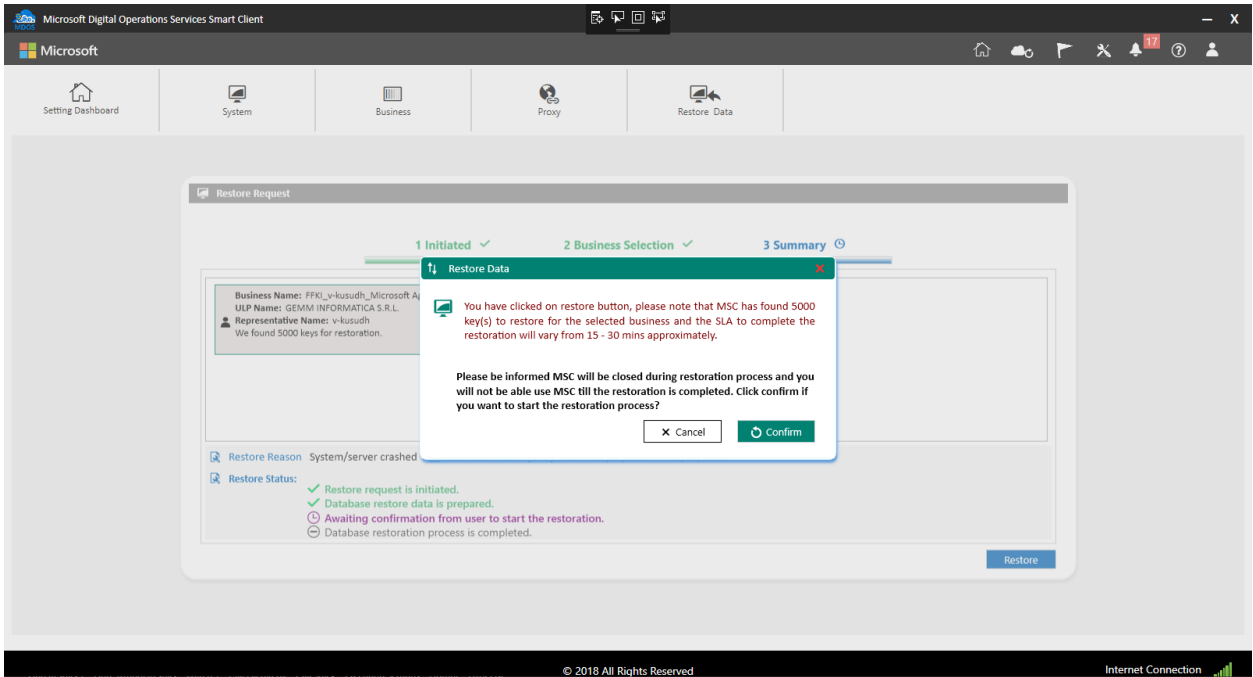


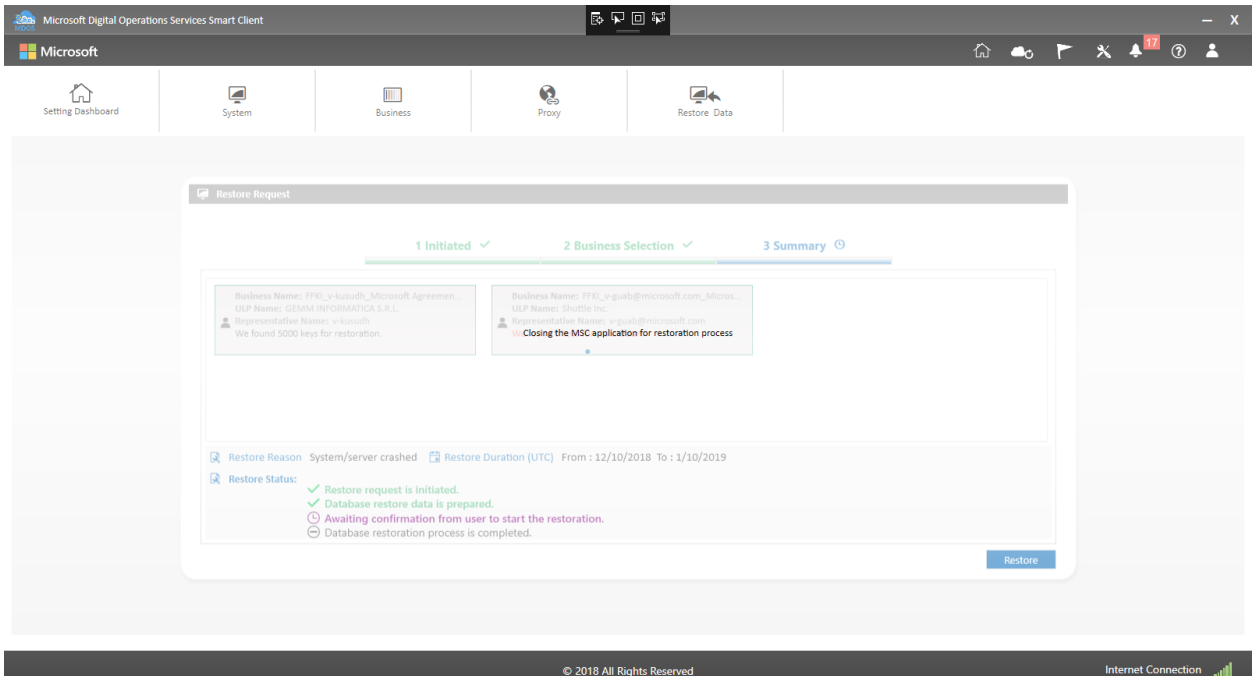
12. Partner can click the 'Click here' link or directly navigate to the data restoration page to view the total keys that will be restored for each business.



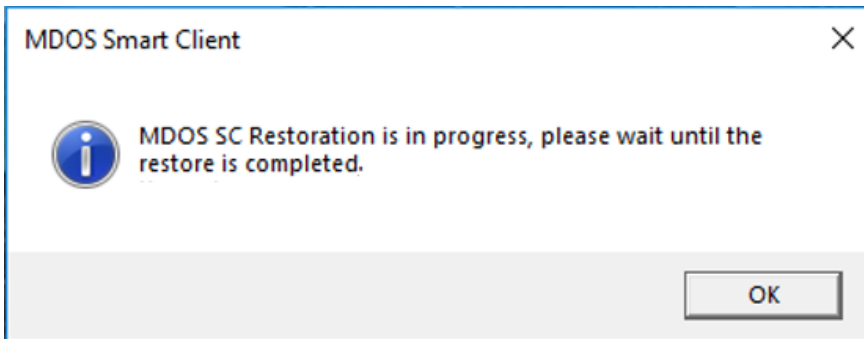
13. Click on 'Restore' button to start the restoration process. A confirmation message box will appear for the final confirmation to start the restoration process.

Note: Once partner clicks on confirm button, MSC will be closed to start the data restoration process and partner cannot use the MSC until the process is completed. Hence it is recommended to start the restoration process during non-business hours to avoid any impact to the production.

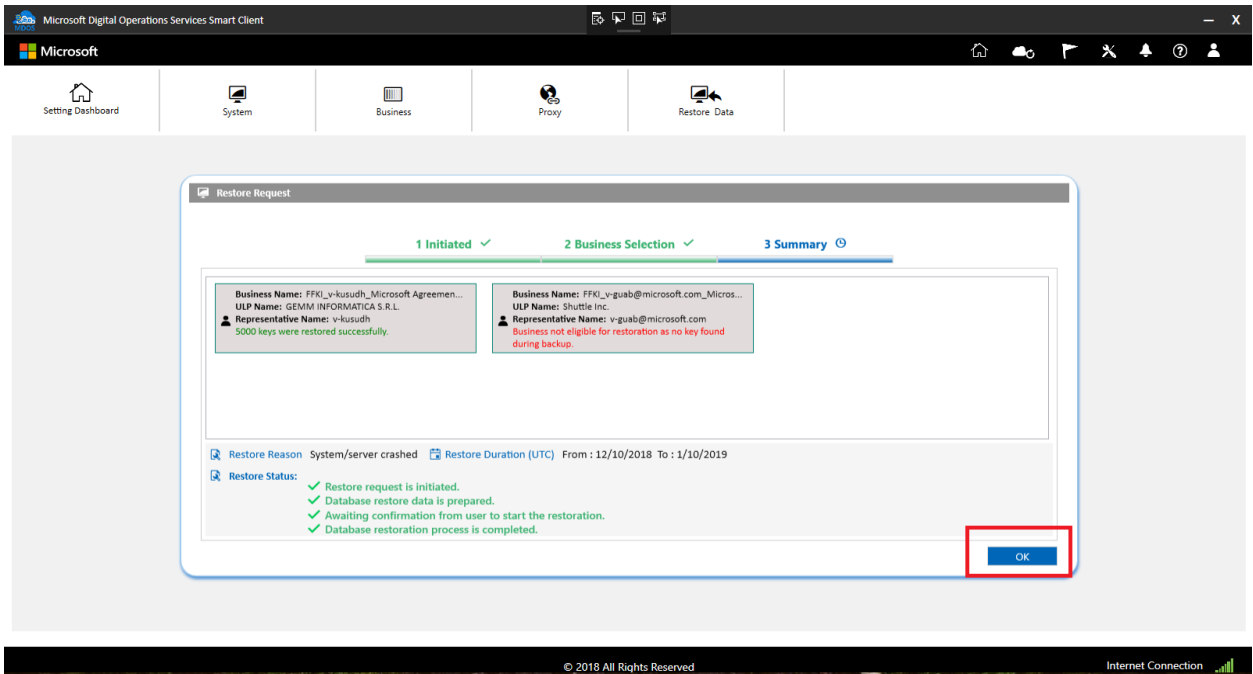




14. While restoration in progress, partners are not allowed to use MSC application and will get the below popup message if MSC application is launched during this process.



15. Partner can launch MSC after SLA mentioned during the restore confirmation to check if the restoration is completed.
16. From the restoration page, you can see the completed status of data restoration. Click on Ok button to complete the process.



17. Once restoration is complete, you can navigate to dashboard-> select the business and see the restored keys. You can now perform key operations with restored keys.

SECTION 8. ADVANCE FEATURES

8.1 MIGRATION

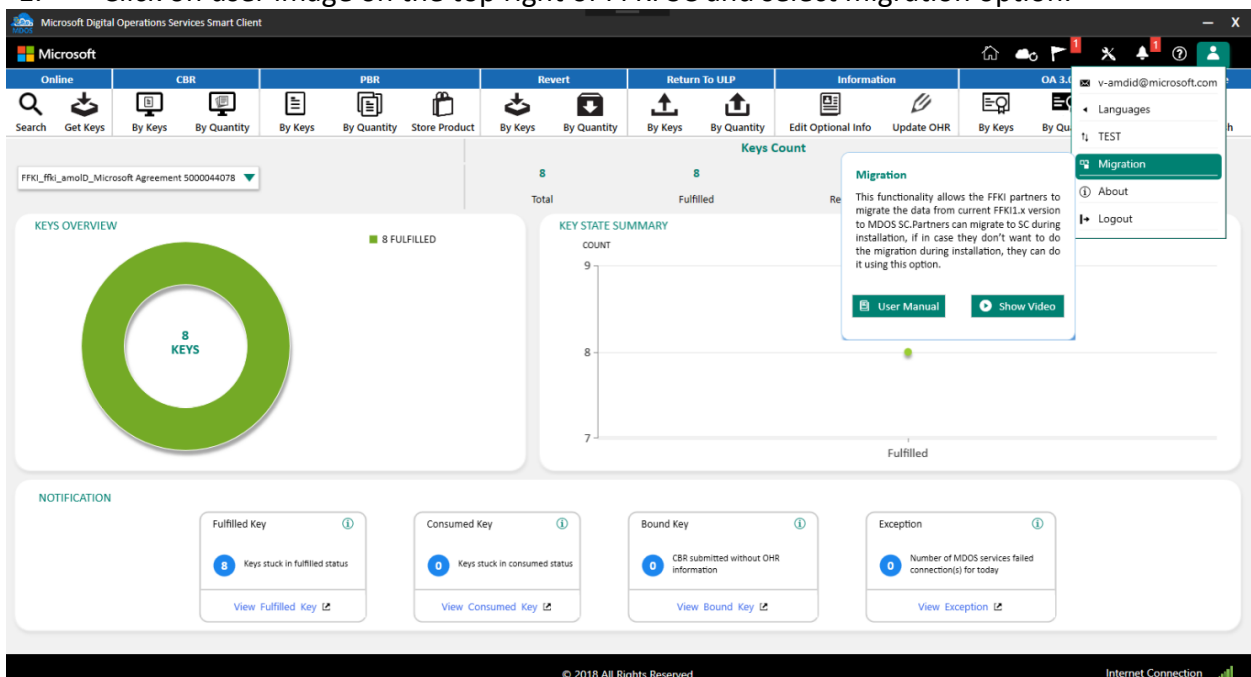
Instruction:

This functionality allows the FFKI partners to migrate the data from current FFKI1.x version to MDOS SC.

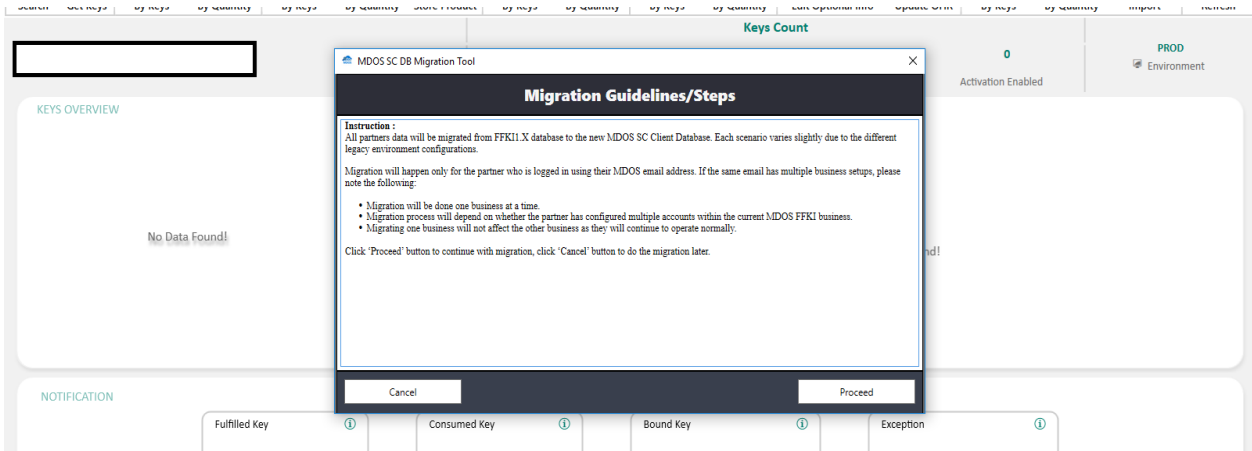
Partners can migrate to SC during installation, if in case they don't want to do the migration during installation, they can do it using this option.

Step-by-step:

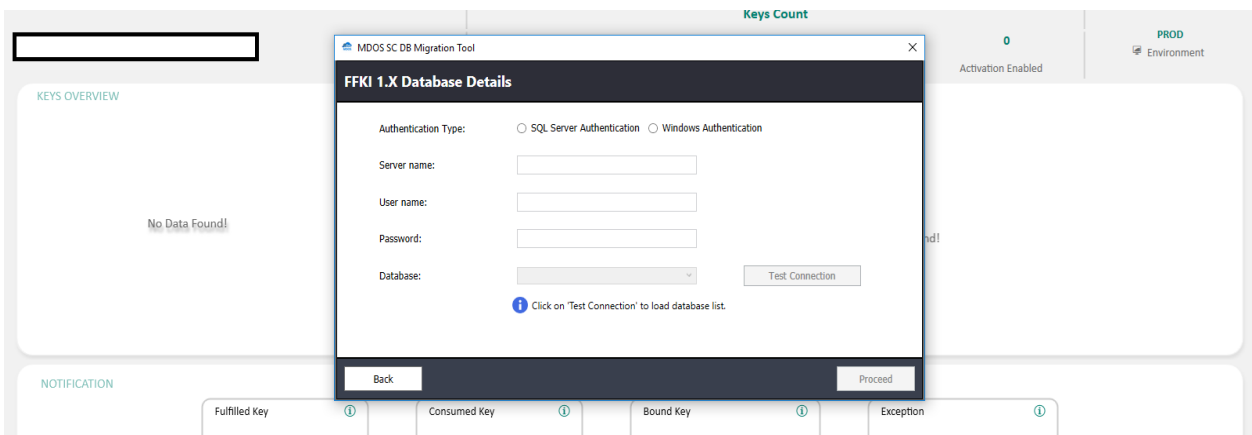
1. Click on user image on the top right of FFKI SC and select migration option.



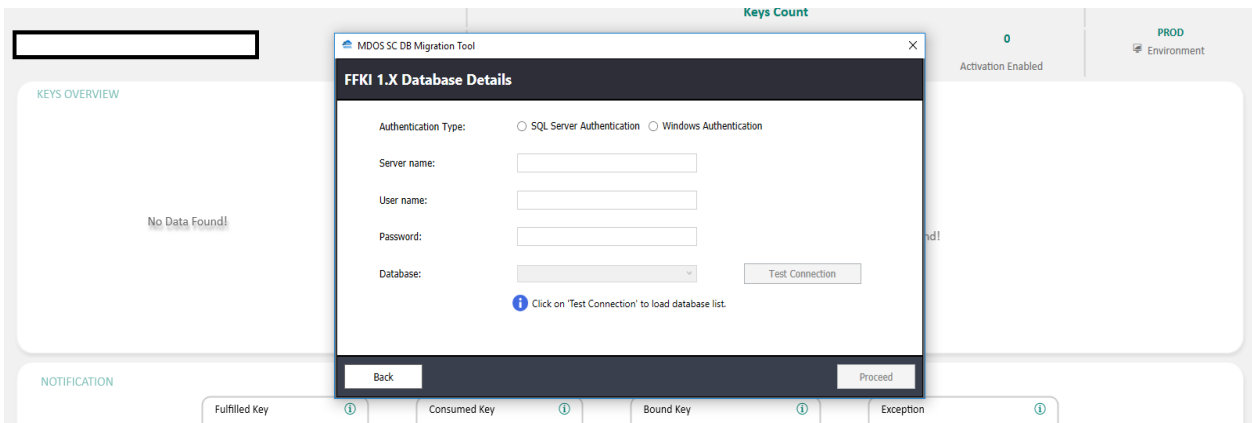
2. Migration window will pop out with migration guidelines, click on proceed button.

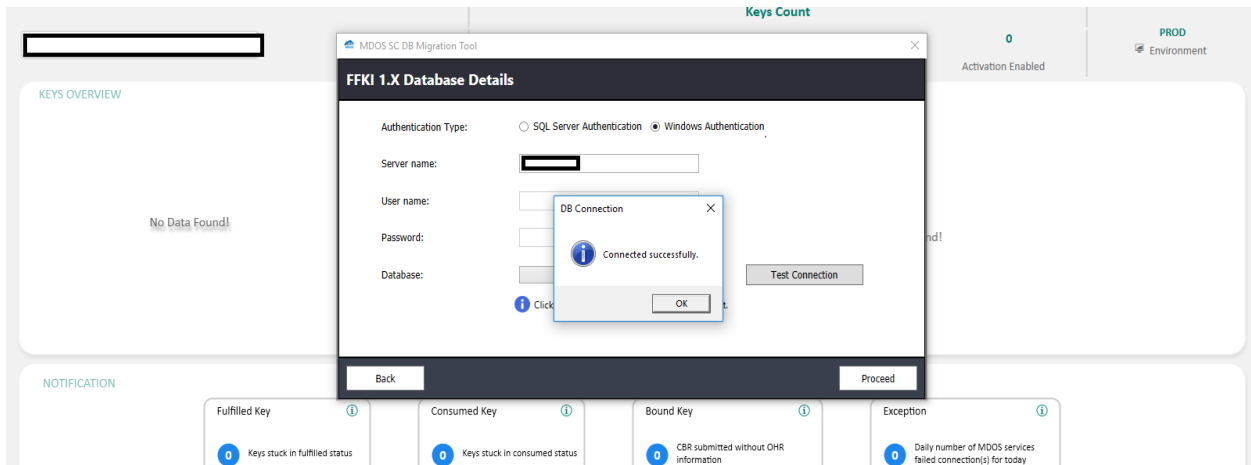


3. Partner will be show the connection setup page from where the database need to be migrated.

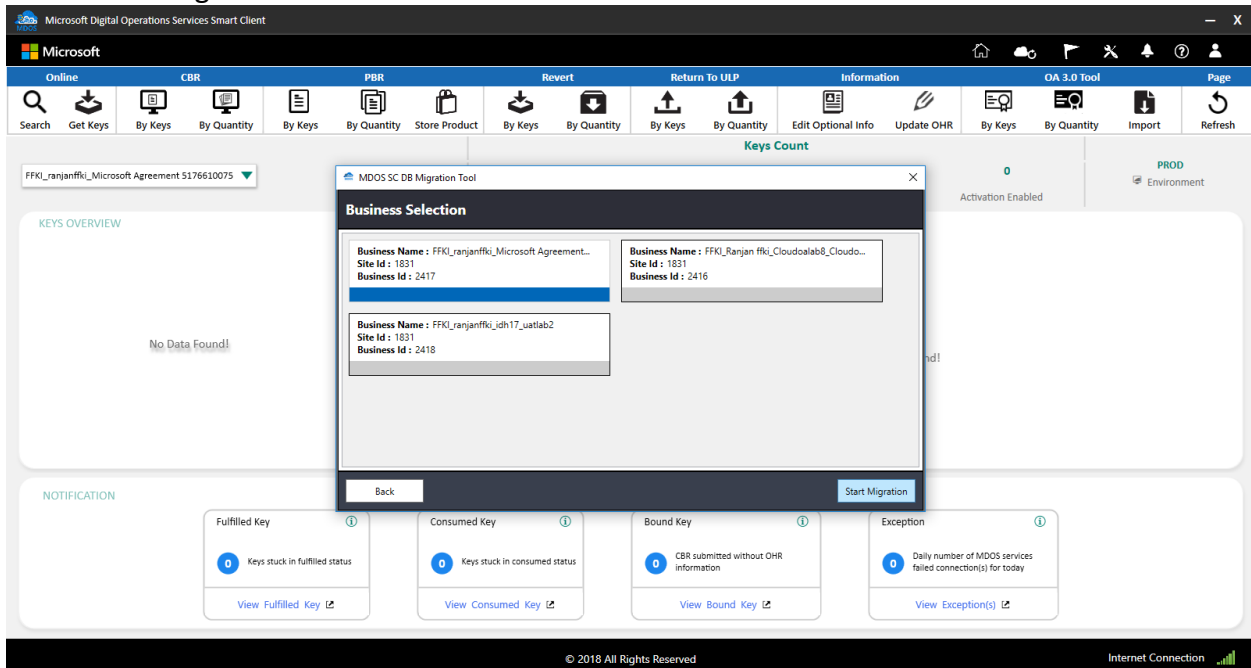


4. Select Windows / SQL authentication and enter the database connection details and then click on test connection.

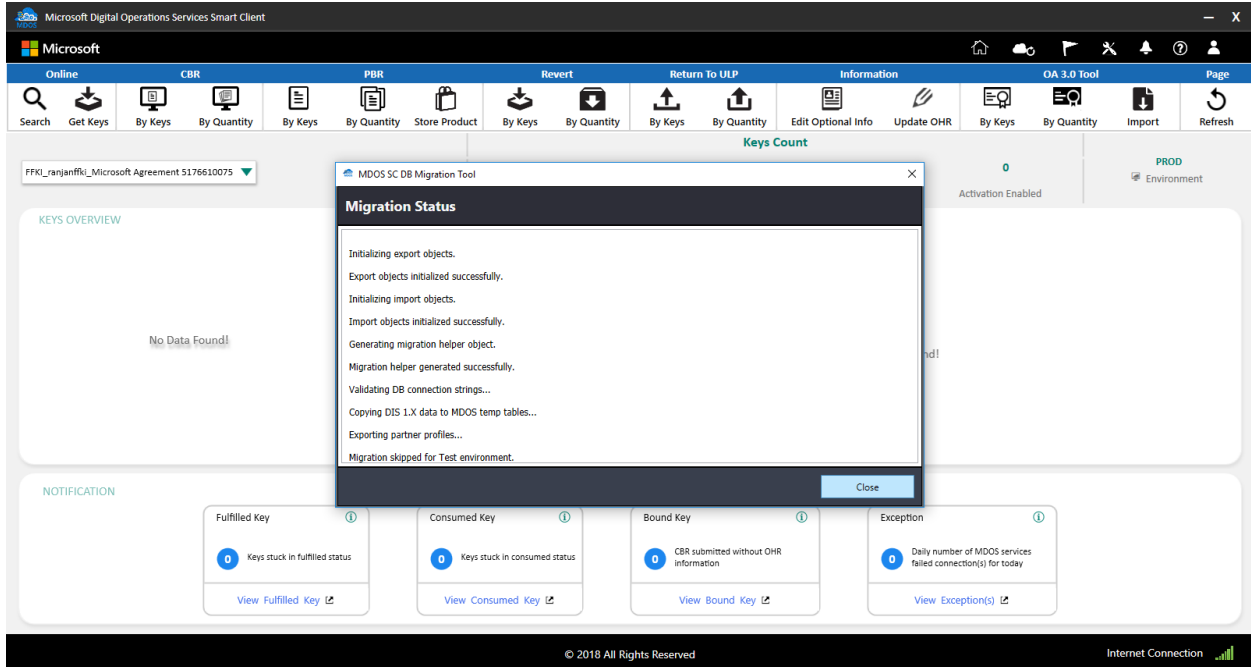




5. Once connection is tested successfully, partner can select the business from which they need to migrate.



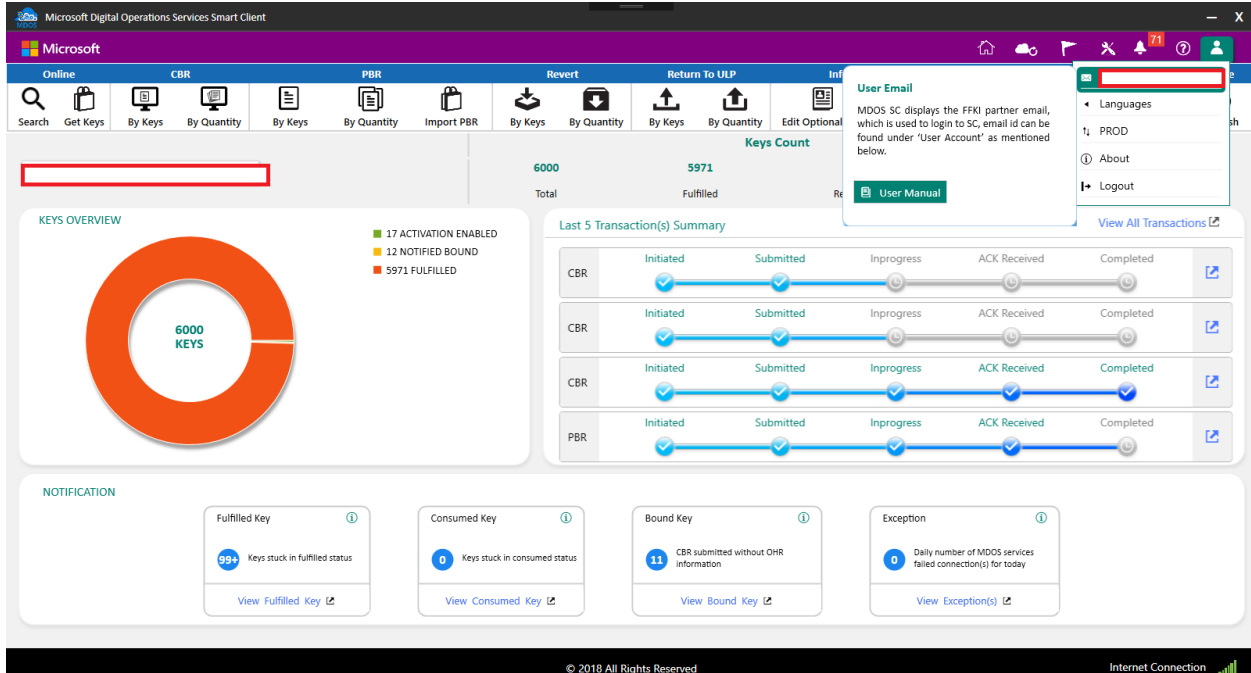
6. After selecting the business, click on **start migration** button to start data migration.



8.2 USER EMAIL

Instruction:

MDOS SC displays the FFKI partner email, which is used to login to SC, email id can be found under 'User Account' as mentioned below.

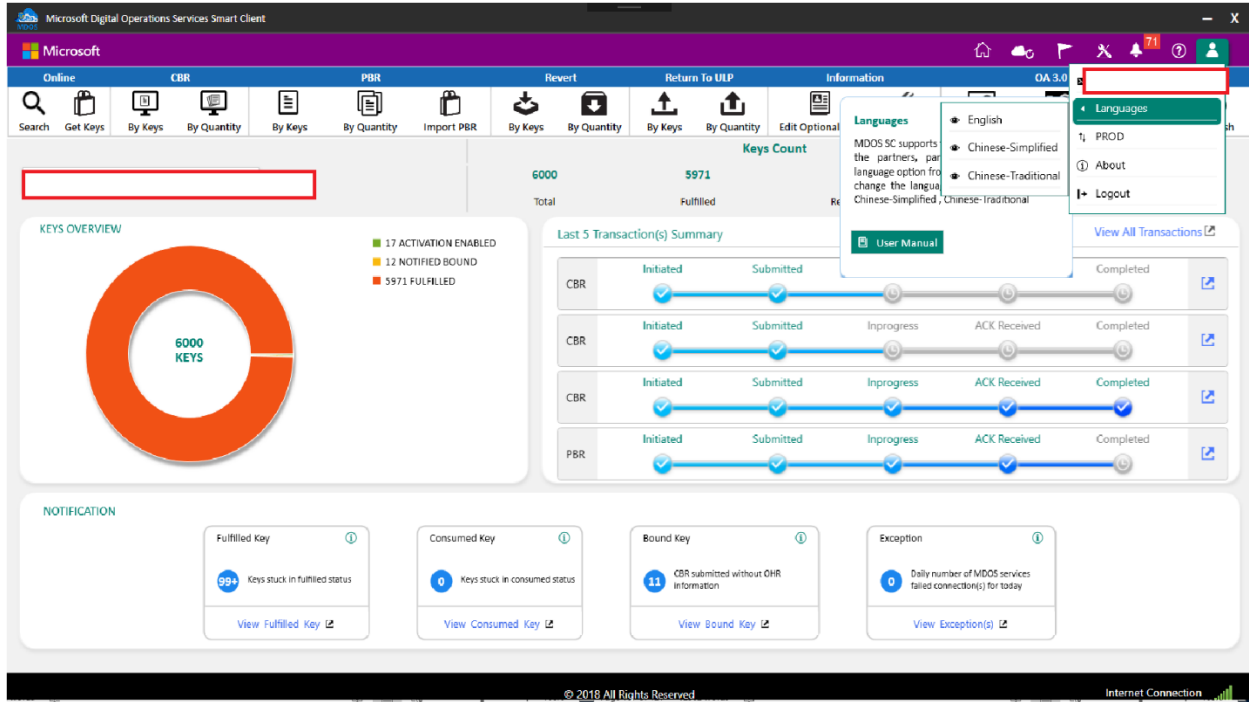


8.3 LANGUAGES SUPPORTED

Instruction:

MDOS SC supports the below languages for the partners, partner can choose the language option from the user account and change the language accordingly.

- English,
- Chinese-Simplified,
- Chinese-Traditional



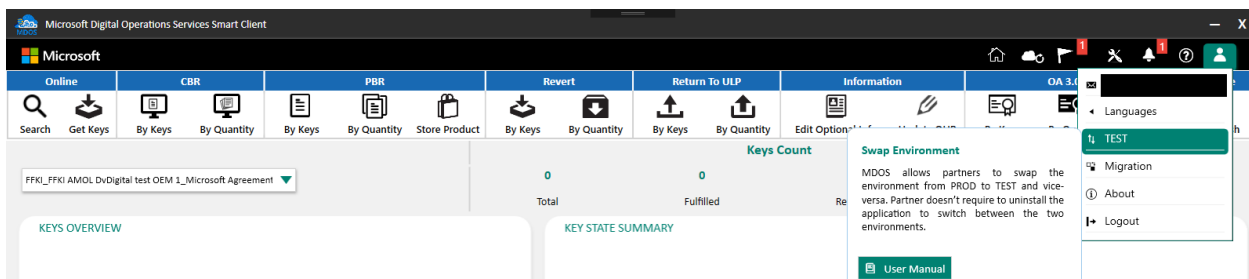
8.4 ENVIRONMENT SWITCH

Instruction:

MDOS allows partners to swap the environment from PROD to TEST and vice-versa. Partner doesn't require to uninstall the application to switch between the two environments.

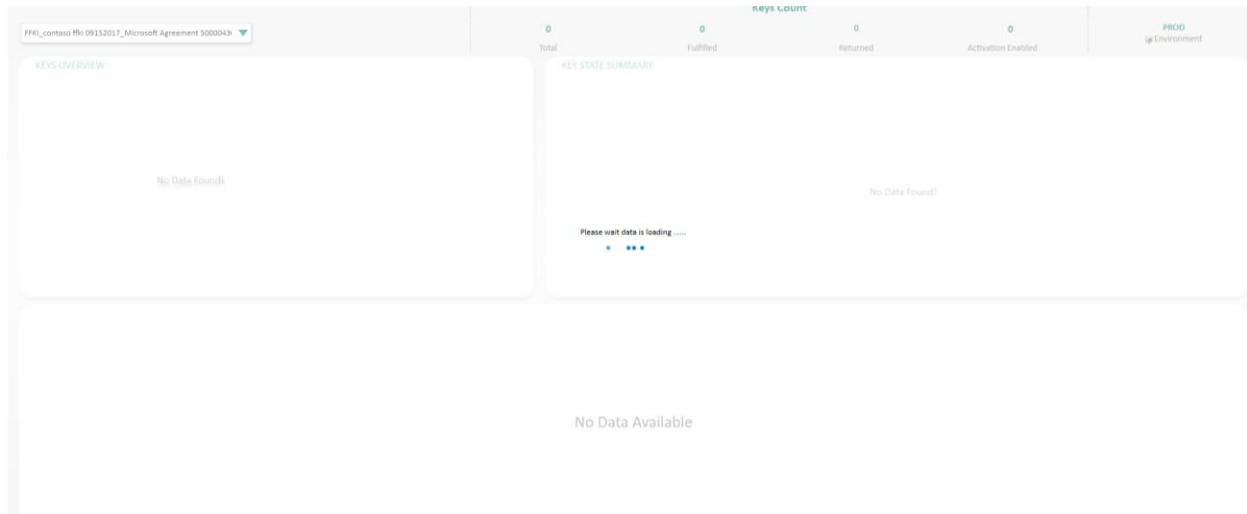
Step-by-step:

1. Click on user image on the top right of FFKI SC and select the environment (PROD/TEST).

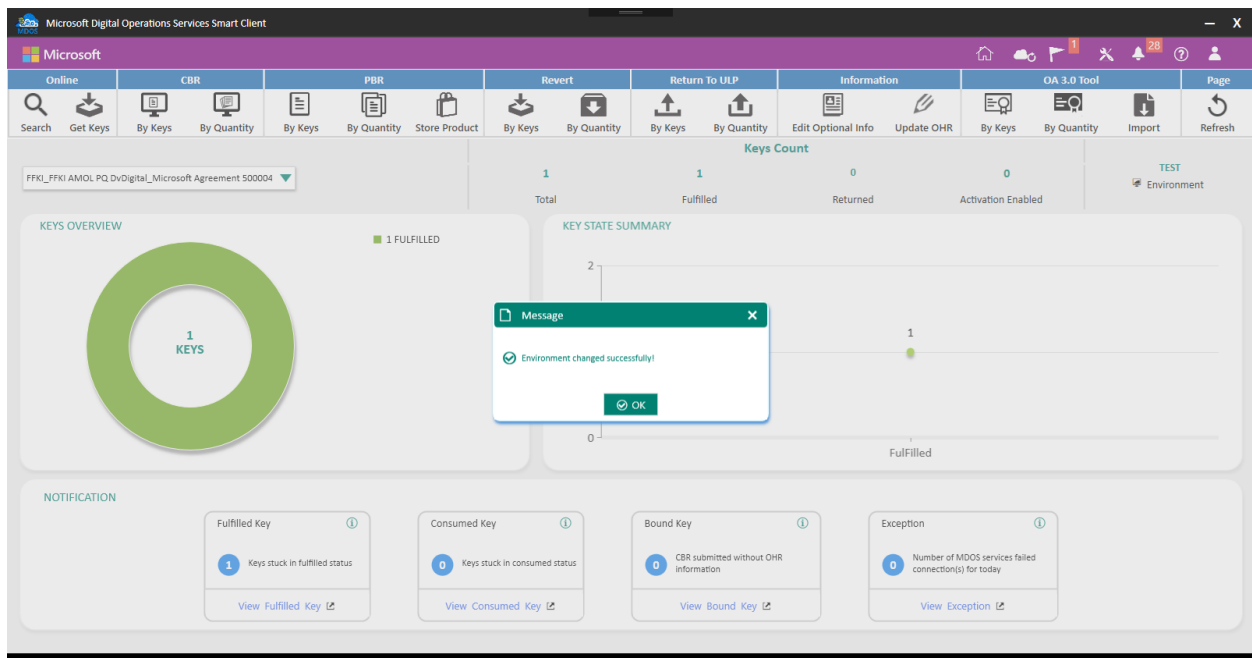


2. Once you click the option, it will switch load the PROD/TEST environment data.

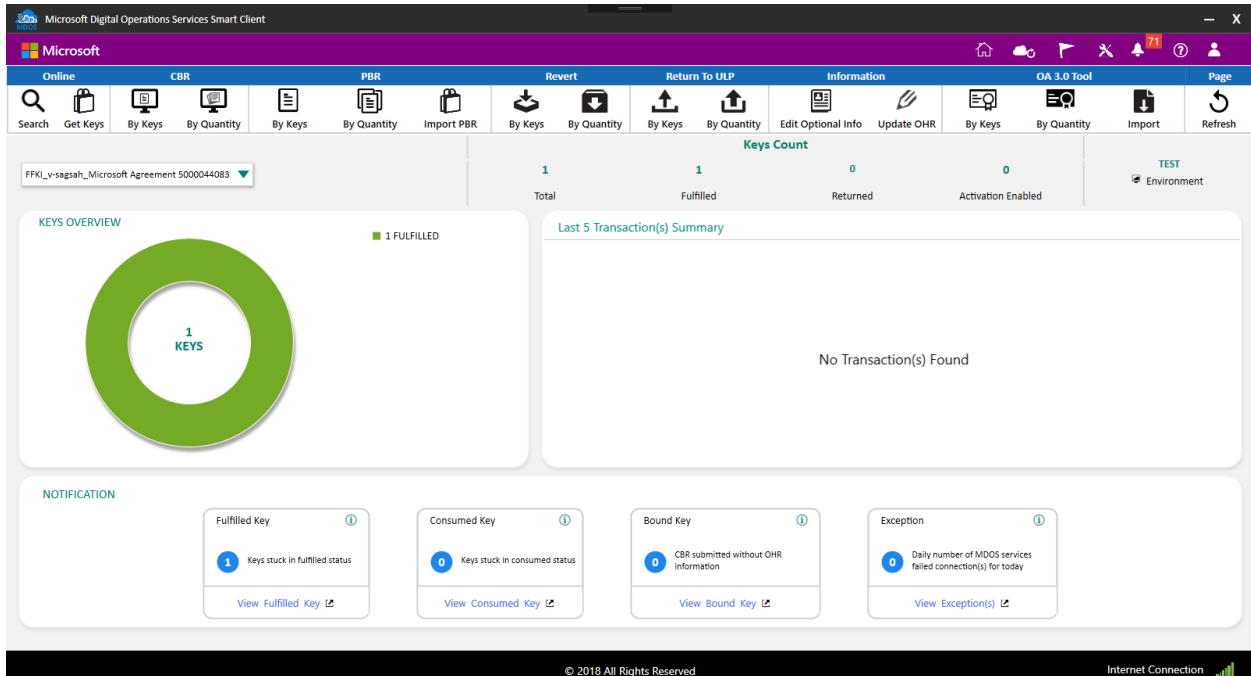
MDOS Smart Client User Manual



3. Once the environment is switch you will get confirmation popup window.



4. To differentiate between PROD and TEST environments, TEST environment ribbon will be in purple color as below compared to PROD environment which will be in black.

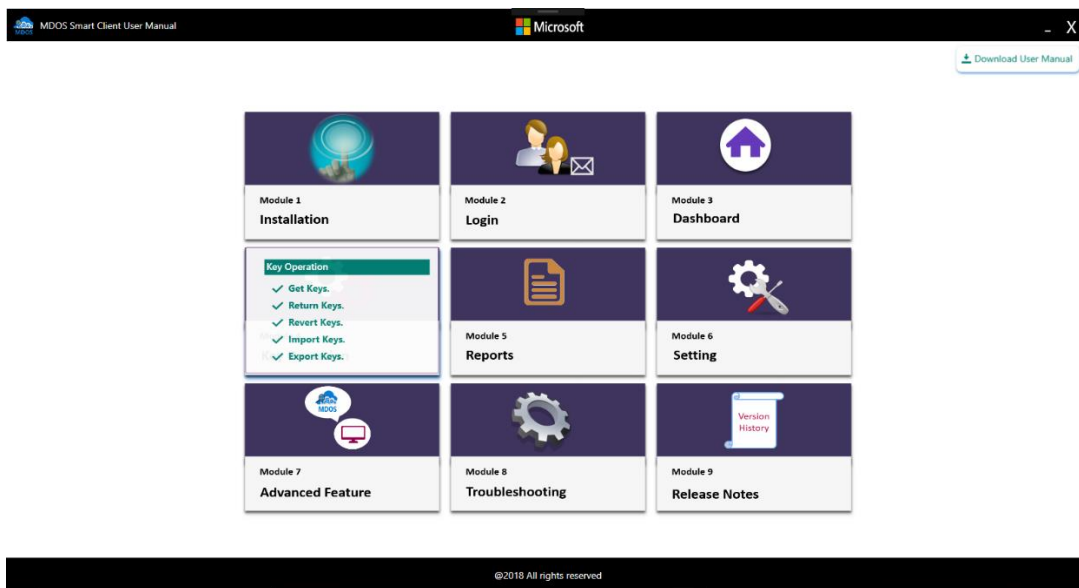


8.5 HELP

Instruction:

The help option allows the partners to understand the functionalities offered by MDOS SC.

Click on help icon to open MDOS SC user manual which will provide step by step instructions for the partners.

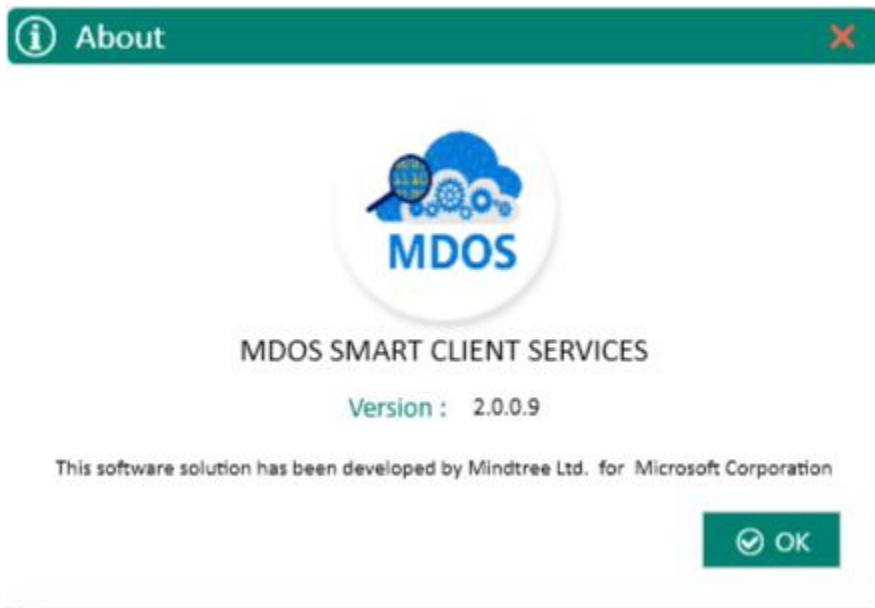
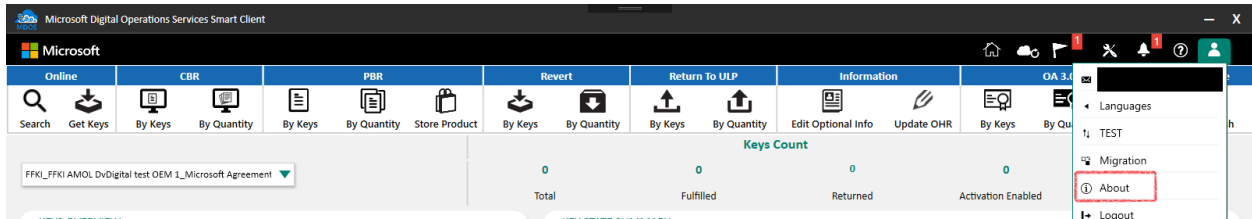


8.6 ABOUT

Instruction:

About option allows the partners to know the SC version that is currently installed in their machine.

Click on user image and 'About' option to verify the SC version installed.



8.7 INTERNET CONNECTION

Instruction:

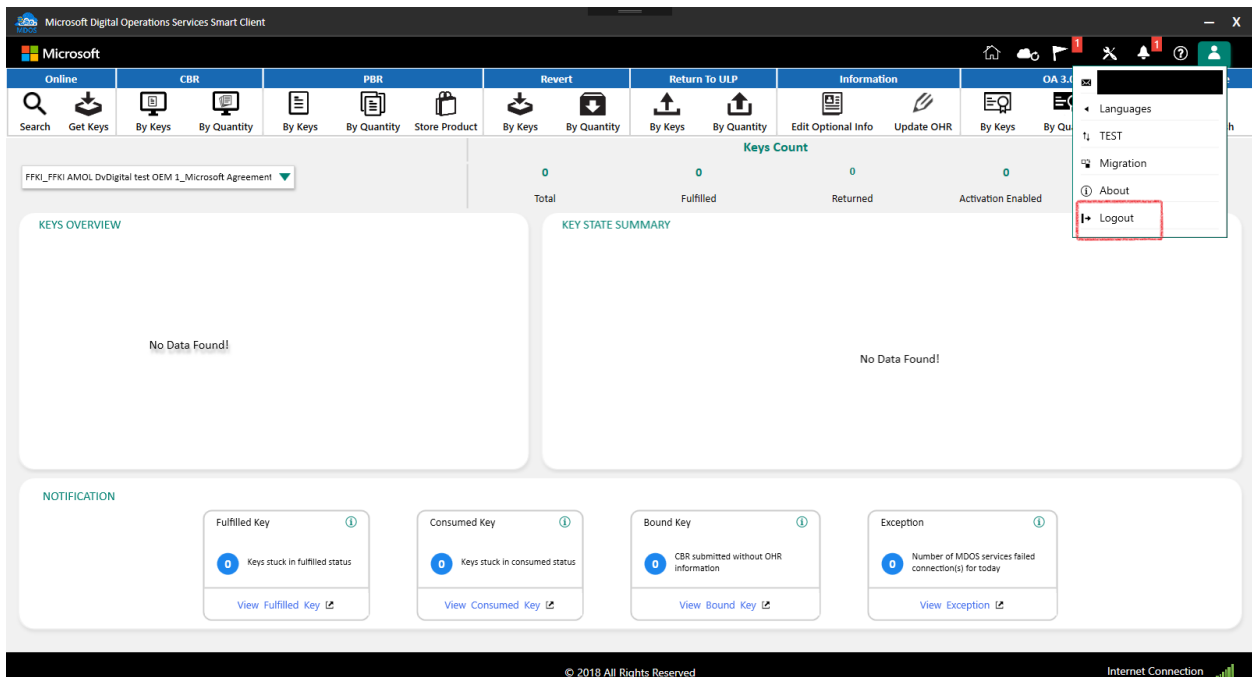
MDOS SC will display the internet connection status at the bottom of the application to let partner know if the machine is connection to internet to avoid any disruption to the services.



8.8 LOGOUT

Instruction:

In case partner logged into MDOS SC with incorrect email address or want to change the email address, partners can use the logout option available under the 'User Account' section



SECTION 9. TROUBLESHOOTING

9.1 TROUBLESHOOTING

Using the “wrench icon” option on the MDOS SC Dashboard screen, you can access information that can assist with troubleshooting in 3 areas of the product; Network connectivity and health, Database integrity and health and overall client integrity and health.

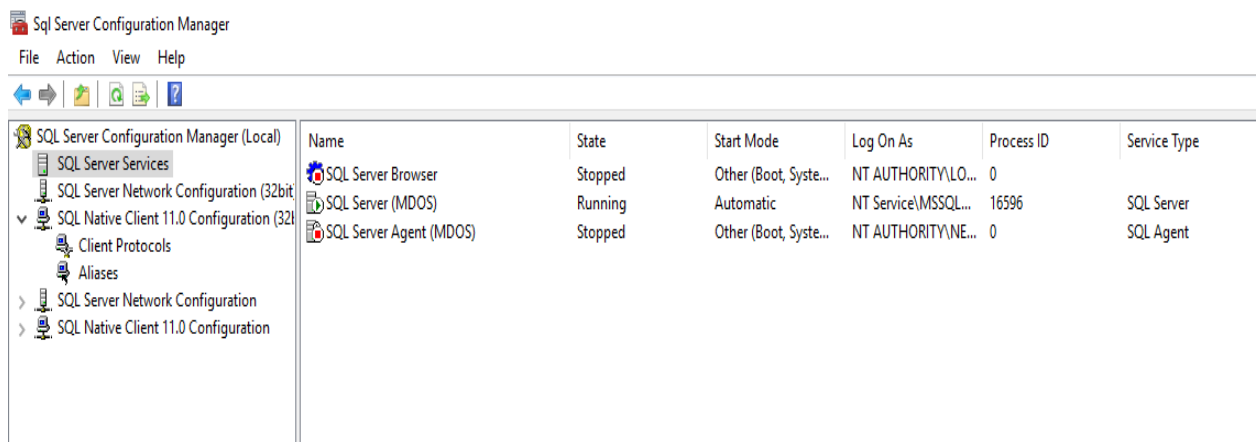
Network connectivity Troubleshooting:

If the network connection status icon is showing yellow/red, this may indicate you are having network issues that must be resolved prior to attempting to use the MDOS SC.

This can mean that your network connection is not stable, that your company may have a router that is blocking traffic from the internet, or that you are having hardware or software networking related problems. Please ensure the network connection status indicator in the MDOS SC is green before attempting to continue.

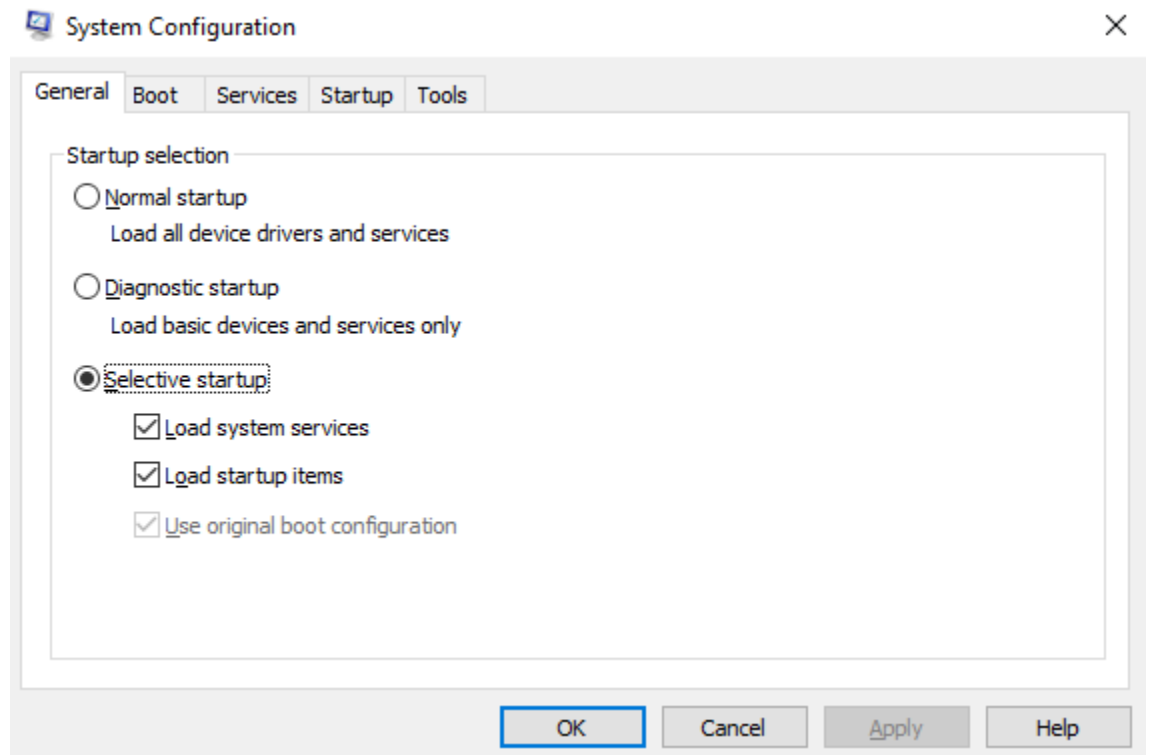
If the Database is connection shows yellow or red, this indicates that the MDOS SC client Database may be corrupt or the connection to the Database may be compromised.

If the database is located on the same machine as the MDOS SC client, but the database connection is indicating yellow or red status, you can begin to troubleshoot the MDOS Microsoft SQL Express installation and status. Launch the SQL Server Configuration manager by typing the name SQL Server Configuration manager in the Start search menu within Windows 10 or Windows Server. You can use the SQL Server Configuration Manager to troubleshoot issues relating to the SQL Express installation. To ensure the SQL Server is running successfully for MDOS SC, within the SQL Configuration Manager, click on the SQL Server Services Icon and ensure the “SQL Server (MDOS) Service is in the running state as follows:

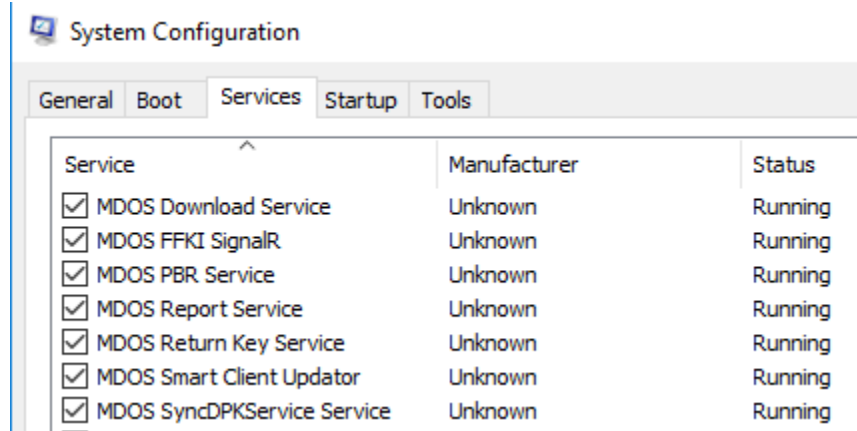


If the MDOS Services monitor is showing yellow or red status, this may indicate that the MDOS services are either not running or may be encountering an error.

If the MDOS Services Monitor indicators are yellow or red, you can check to ensure all MDOS services are showing as installed and that they are running. To do this, type the word “services” into the search window on your Windows 10 Client or Server. The following window will appear:



From this screen choose the services tab and ensure the following MDOS services are listed and that they are in the running state:



If the services for MDOS are not in the running state, or are not listed, please email msoemops@microsoft.com with this information and request support.

SECTION 10. ACRONYMS AND DEFINITIONS

10.1 ACRONYMS

| Acronym | Term | Description |
|--------------|---|---|
| BIOS | Basic Input / Output System | The BIOS is a type of firmware used to perform hardware initialization during the booting process (power-on startup) on IBM PC compatible computers, and to provide runtime services for operating systems and programs. The BIOS firmware is built into personal computers (PCs), and it is the first software they run when powered on. |
| MAT | Multiple Activation Test Key | Multiple Activation Test Key is also referred to as Test Key or TKY. |
| MBR | Mother Board Replacement | |
| MS (or MSFT) | Microsoft | Microsoft Corporation |
| MSA | Microsoft Account | A Microsoft account (MSA) enables improved personalization, provides seamless experiences across Microsoft products, and allows you to access enhanced features and settings. A Microsoft account (MSA) is an email account used to sign in to Microsoft services and is required to sign in to MDOS. (i.e. name@outlook.com, name@hotmail.com, name@msn.com). Or use an email account that is registered as an MSA (i.e. name@yahoo.com, name@gmail.com, name@qq.com, name@163.com). |
| MDOS | Microsoft Digital Operation Services | MDOS is a fully cloud based digital key distribution and entitlement service for Microsoft partners. It provides the ability to order, deploy, manage, bind, return, and recall Digital Product Keys as needed. |
| OA 3.0 | Original Equipment Manufacturer Activation 3.0 (OEM Activation 3.0) | OEM Activation 3.0 is a trusted way to uniquely bind software and service entitlements to hardware, unlocking rich opportunities across the OEM Ecosystem. |
| OHR | OEM Hardware Report | The OEM Hardware Report (OHR) generally follows the Computer Build Report (CBR) and includes additional hardware data required by Microsoft, such as model number, screen size, touch screen. Contrary to the name, |

| | | |
|-----|-------------------------------|--|
| | | the OHR is not optional, but is now required by Microsoft. (Refer to your agreement for details). |
| OPN | OEM Part Number | The number assigned by the Original Equipment Manufacturer (OEM) for a part they manufacture. |
| PBR | Product Bind Report | The Product Bind Report (PBR) is the report that is generated after keys are bound. The bind keys process links service keys (such as Office 365) with Windows keys (such as Windows 10 OS). |
| RMA | Return Material Authorization | A return merchandise authorization (RMA), return authorization (RA) or return goods authorization (RGA) is a part of the process of returning a product in order to receive a refund, replacement, or repair during the product's warranty period. |
| SKU | Stock Keeping Unit | In the field of inventory management, a stock keeping unit or SKU is a distinct type of item for sale, such as a product or service, and all attributes associated with the item type that distinguish it from other item types. |
| UI | User Interface | The user interface, in the industrial design field of human-machine interaction, is the space where interactions between humans and machines occur. The goal of this interaction is to allow effective operation and control of the machine from the human end, whilst the machine simultaneously feeds back information that aids the operators' decision-making process. |

10.2 DEFINITIONS OF KEY STATUS

Standard Keys

| Key Status | Description |
|--------------------|--|
| Fulfilled | Initial status after SC get keys from MDOS cloud |
| Consumed | After keys were used by OA3.0 tool |
| Bound | After keys were bound to hardware hash |
| Marked for Submit | After keys have been reported back to MDOS cloud |
| Activation Enabled | After keys received CBR acknowledgement from Microsoft in MDOS, SC synchronize this status from MDOS cloud |

| | |
|-------------------|---|
| Activation Denied | After keys received CBR acknowledgement of activation denied from Microsoft in MDOS, SC synchronize this status from MDOS cloud |
| Return to ULP | After keys were successfully returned to your up level partner (ULP) |

MAT Keys

| Key Status | Description |
|------------|--|
| Fulfilled | Initial status after SC get keys from MDOS cloud |

MBR Keys

| Key Status | Description |
|------------|--|
| Fulfilled | Initial status after SC get keys from MDOS cloud |

Service Keys

| Key Status | Description |
|---------------|--|
| Fulfilled | Initial status after SC get keys from MDOS cloud |
| Return to ULP | After keys were successfully returned to your up level partner (ULP) |
| Assigned | After the keys are assigned from up level partner (ULP) to FFKI |
| | |

SECTION 11. VERSION HISTORY

| Version # | Date | Details Updated |
|------------------|-------------|---|
| 1.0 | 04/20/2018 | Initial version |
| 2.0 | 05/18/2018 | New dashboard icons and notifications |
| 3.0 | 08/13/2018 | New installation screens, import PBR screens |
| 4.0 | 11/19/2018 | Live transaction changes in dashboard |
| 5.0 | 01/18/2019 | DB restore, export of MAT/MBR keys, new parameters to OA3.0 config file |
| 6.0 | 04/22/2019 | Force partner to enter password on each subsequent login, Mark as Read option to read all alerts, display count of keys in Search, proxy settings changes |