

MDM Bulk Enrollment Intune

AUTHOR

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ABSTRACT

This document provides information about Bulk Enrollment to MDM.

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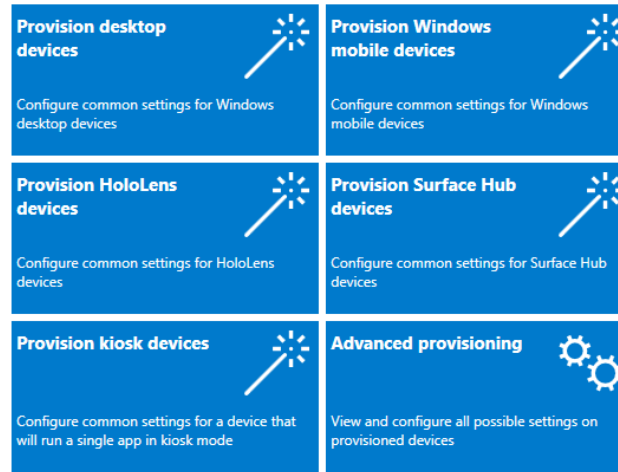
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Creating Provisioning Package MDM Bulk Enrollment

1. Open Windows Configuration Designer from either the Start screen or Start menu search, type **'Windows Imaging and Configuration Designer'** and open the application.

Windows ICD makes it easy to build and flash a Windows image, create provisioning p

Create



2. Click **Provision Surface Hub devices**.

3. Name your project and click Finish.

New project
×

Enter project details

Name:

Project folder:

Description:

4. We will find the Configure Setting.

Skip the Add Application, Add Certificate and Configure Proxy Setting.

5. Select "**Setup Device Admins**" and Type the Name and generate the Bulk Token, To enroll the device in **Azure Active Directory**.

Steps

Add applications

Add certificates

Configure proxy settings

Set up device admins

Enroll in device management

Add a configuration file

Finish

Set up device admins

Admin credentials are required to use the Settings app on Surface Hub. Choose a method for setting up device admins

☐ Use Active Directory
 ☒ Use Azure Active Directory
 ☐ Use a local admin account

Join Surface Hub to your Azure AD tenant to allow global administrators and other specified admins to use the Settings app. You'll need to get a bulk token for Surface Hub to join your Azure AD tenant.

Friendly name for Bulk Token *

MDM Bulk Token

Expiration date for bulk token *

01/11/2019

Sign in to get bulk token *

Get Bulk Token

Note: Here we are using Azure Active Directory for setting Device Admins. This gets the bulk token from Azure AD which is **valid for maximum of 30 days**.

- For MDM Enrollment, we will have to provide some details
- Finish the wizard. This will create the PPKG file.

Steps

Add applications

Add certificates

Configure proxy settings

Set up device admins

Enroll in device management

Add a configuration file

Finish

Summary

Add applications

Set up device admins

Bulk Token Name

Bulk Token Expiry Date

HAMDMv2

"2020-08-23T06:37:42.677Z"

Protect your package

Protect the contents of your package by specifying a password. The password length must be 8-16 characters.

☒ No

You are ready to create the package!

Create

- Again, Open Windows Configuration Designer from either the Start screen or Start menu search, type 'Windows Imaging and Configuration Designer' and open the application.

Start page

MDM

MDM1

mdm

Project_23

Windows ICD makes it easy to build and flash a Windows image, create provisioning p

Create

Provision desktop devices

Configure common settings for Windows desktop devices

Provision Windows mobile devices

Configure common settings for Windows mobile devices

Provision HoloLens devices

Configure common settings for HoloLens devices

Provision Surface Hub devices

Configure common settings for Surface Hub devices

Provision kiosk devices

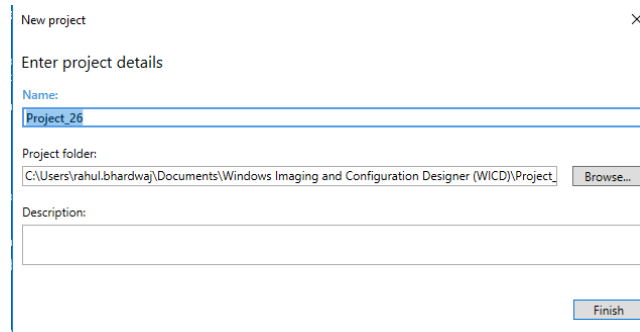
Configure common settings for a device that will run a single app in kiosk mode

Advanced provisioning

View and configure all possible settings on provisioned devices

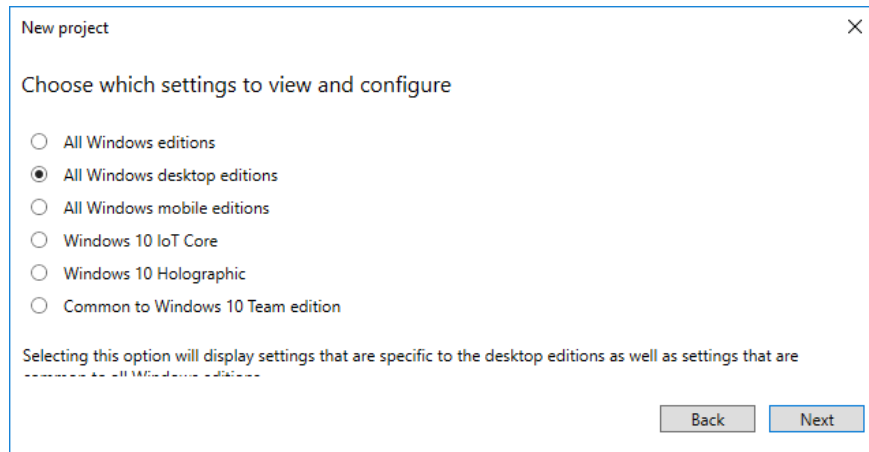
9. Click on Advanced Provisioning.

10. Name your project and click Finish.



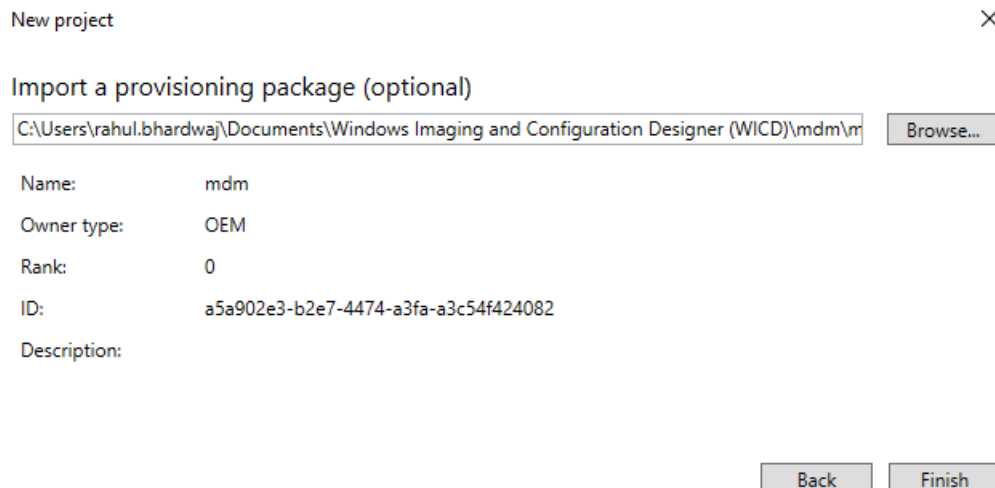
The screenshot shows a 'New project' dialog box with the title bar 'New project' and a close button 'X'. The main heading is 'Enter project details'. It contains three input fields: 'Name:' with the text 'Project_26', 'Project folder:' with the path 'C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer (WICD)\Project_' and a 'Browse...' button, and 'Description:' which is empty. A 'Finish' button is at the bottom right.

11. Choose “All Windows Desktop Edition” and Click on Next



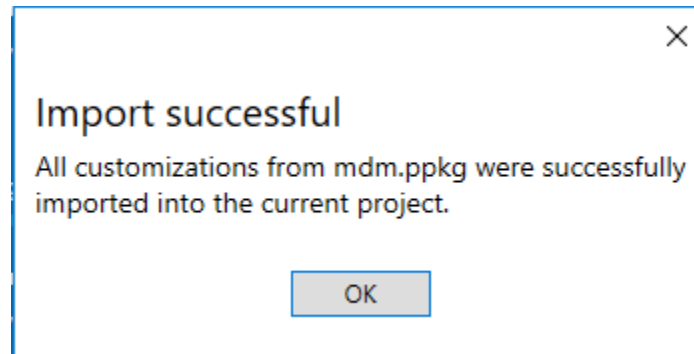
The screenshot shows a 'New project' dialog box with the title bar 'New project' and a close button 'X'. The main heading is 'Choose which settings to view and configure'. It lists six radio button options: 'All Windows editions', 'All Windows desktop editions' (which is selected), 'All Windows mobile editions', 'Windows 10 IoT Core', 'Windows 10 Holographic', and 'Common to Windows 10 Team edition'. Below the options is a text block: 'Selecting this option will display settings that are specific to the desktop editions as well as settings that are common to all Windows editions'. At the bottom right are 'Back' and 'Next' buttons.

12. Import the PPKG file which we had created in the above using “Provision Surface Hub devices” and Click on Finish.

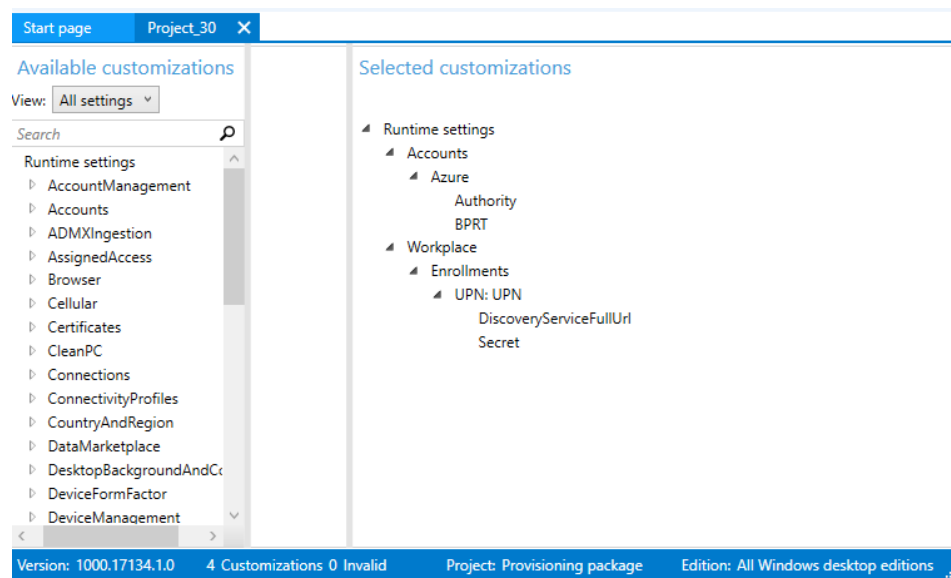


The screenshot shows a 'New project' dialog box with the title bar 'New project' and a close button 'X'. The main heading is 'Import a provisioning package (optional)'. It features a text box with the path 'C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer (WICD)\mdm\m' and a 'Browse...' button. Below this are several fields: 'Name:' with value 'mdm', 'Owner type:' with value 'OEM', 'Rank:' with value '0', 'ID:' with value 'a5a902e3-b2e7-4474-a3fa-a3c54f424082', and an empty 'Description:' field. At the bottom right are 'Back' and 'Finish' buttons.

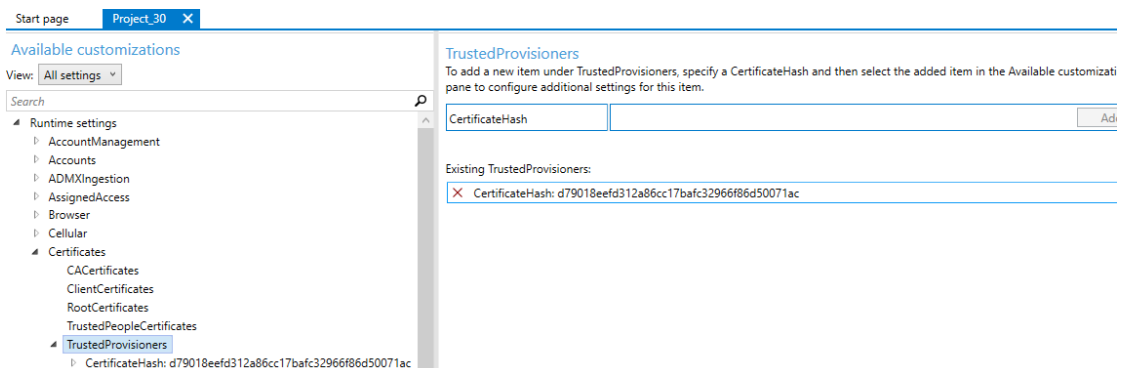
13. After Click on Finish we will get a POP for the PPKG file is imported successfully.



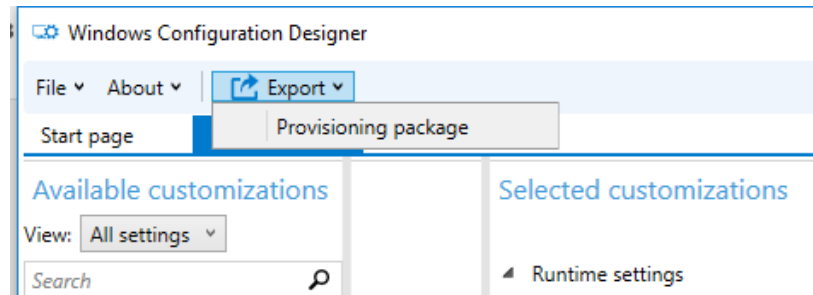
14. We can see what customization we had done in the "Provision Surface Hub devices"



15. A Trusted Provisioning Package is created by providing the copied certificate hash from the certificate & provide the local path of the .cer file of that certificate.
The .cer file can be generated from the mmc console.



16. After Verifying, click on Export the PPKG file and select “Provisioning Package”.



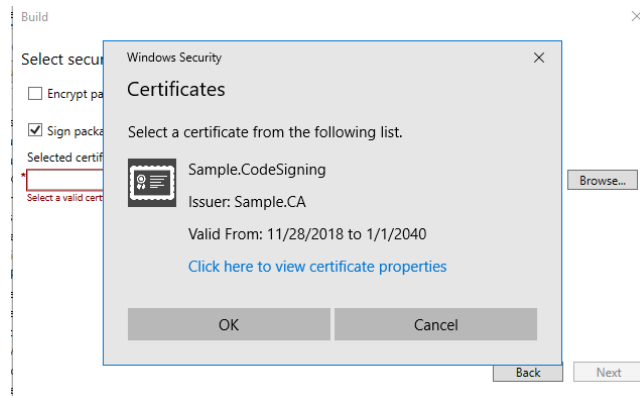
17. After Selecting “Provisioning Package” we will Get another pop up. We will change the owner to IT Admin and Click on Next.

A screenshot of a 'Build' dialog box titled 'Describe the provisioning package'. It contains several input fields: 'Name' with the value 'Project_30', 'ID' with the value '300aeea6-1abd-4268-8480-fff1fd2bed07', 'Version (in Major.Minor format)' with the value '1.0', 'Owner' with a dropdown menu showing 'IT Admin', and 'Rank (between 0 - 99)' with the value '0'. A 'Next' button is located at the bottom right.

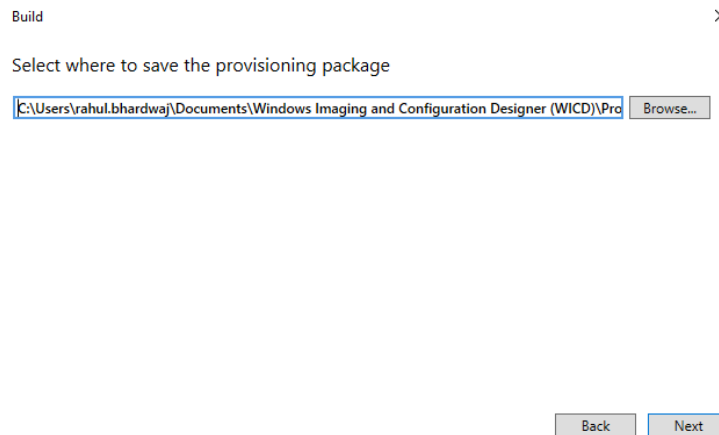
18. For Silent installation of PPKG file we will choose Sign Package with Certificate and Browse for the Trusted Root CA Certificate which will be Provides by the AD Administrator.

A screenshot of a 'Build' dialog box titled 'Select security details for the provisioning package'. It contains two checkboxes: 'Encrypt package' (unchecked) and 'Sign package' (checked). Below the checkboxes is a 'Selected certificate:' label and an empty text box. A 'Browse...' button is to the right of the text box. A red error message 'Select a valid certificate' is visible below the text box. At the bottom, there are 'Back' and 'Next' buttons.

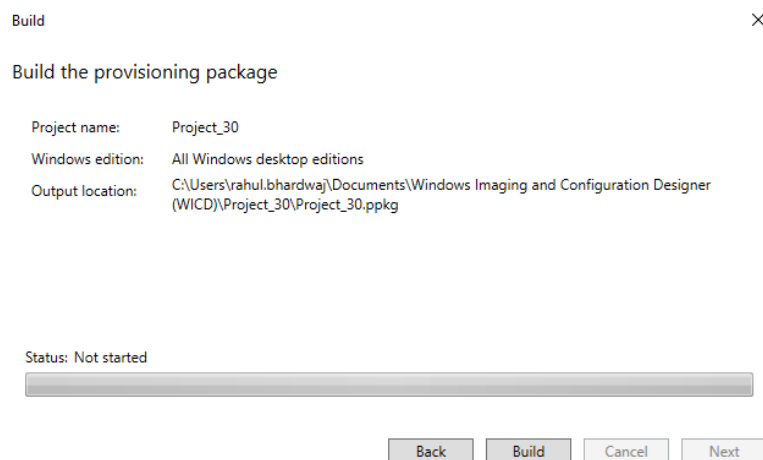
19. After Clicking on Browse we will get the trusted Root CA Certificate. Select the certificate and click on Next. (This certificate will be provided from ADFS server)



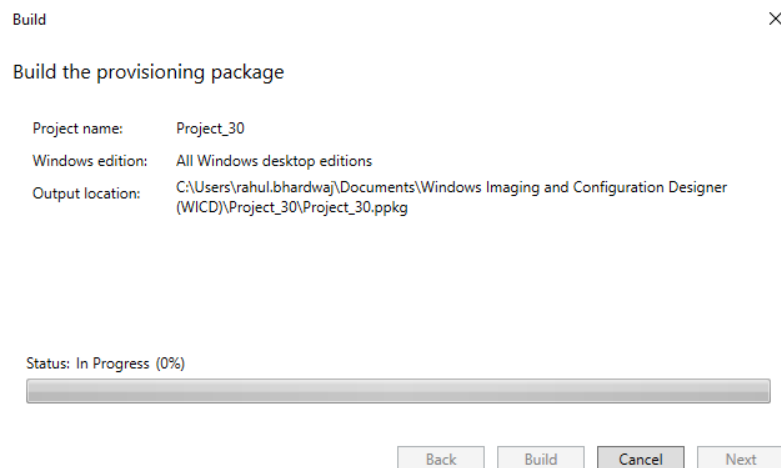
20. Browse the Path where we want to save the PPKG File and Click on Next.



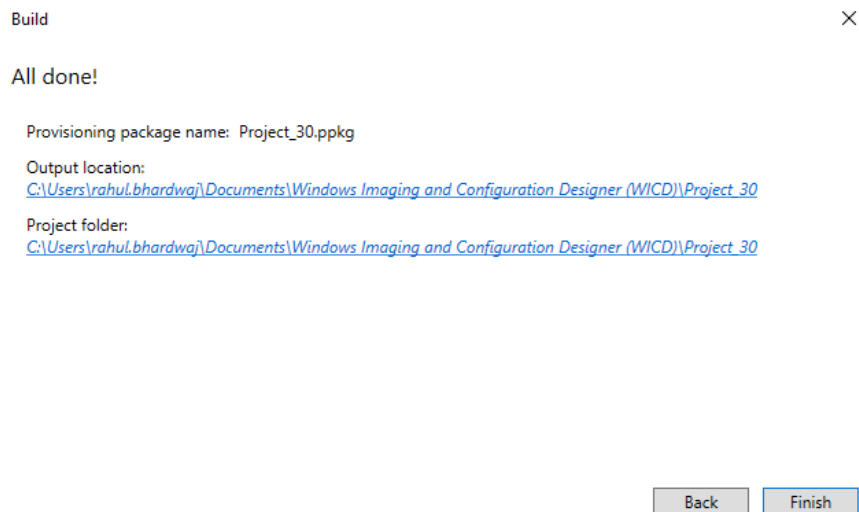
21. Click On build.



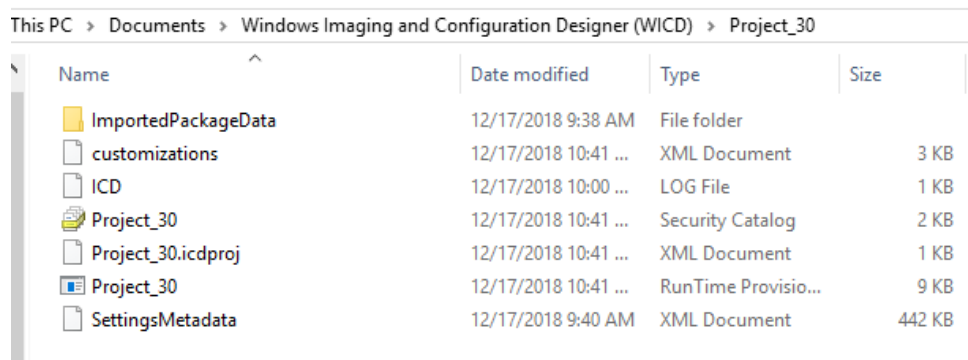
22. After clicking in Build, we will see that PPKG file is start Building.



23. PPKG file is Build.



24. When we click on Output Location we can see the where PPKG file is build.



25. Go to WCD and Click on Finish.

Build

×

All done!

Provisioning package name: Project_30.ppkg

Output location:

[C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer \(WICD\)\Project 30](C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer (WICD)\Project 30)

Project folder:

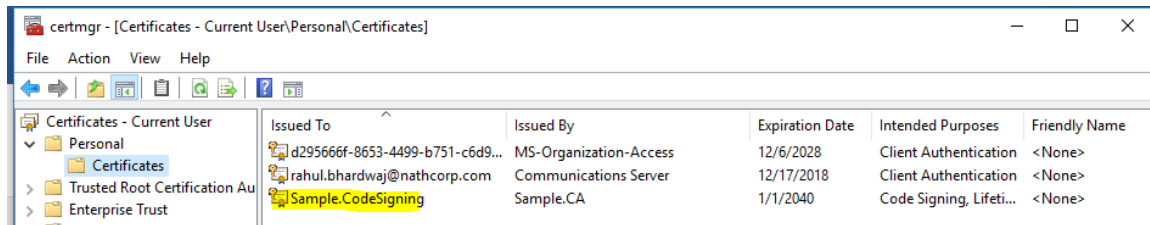
[C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer \(WICD\)\Project 30](C:\Users\rahul.bhardwaj\Documents\Windows Imaging and Configuration Designer (WICD)\Project 30)

Back

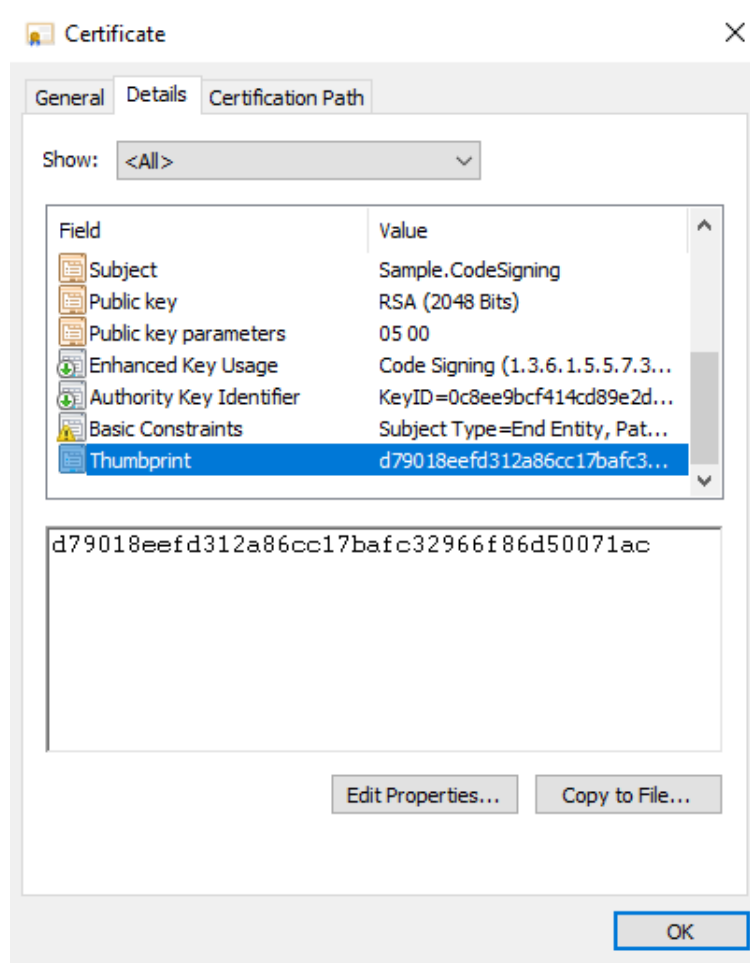
Finish

Install Provisioning package silently

1. Prepare a Windows 10, installed WCD on it.
2. Issued a code signing certificate from ADCS server & issued to the Client machine, installed it under current user → Personal & Trusted root CA(I had created .cer using makecer tool)

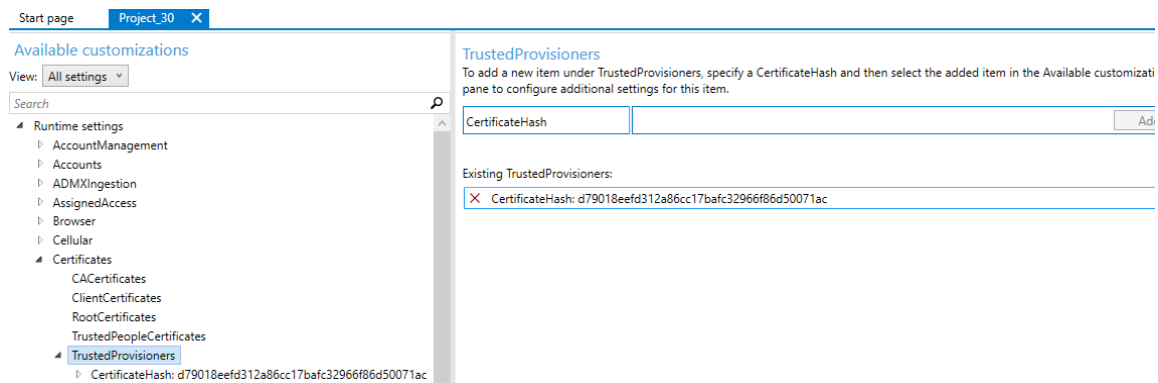


3. Open the certificate, copy the thumbprint. (certificate Hash)

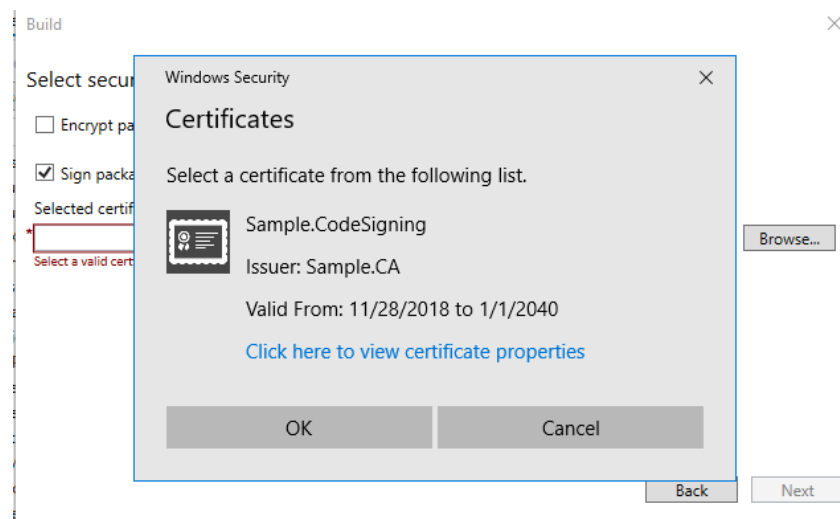


4. In WCD console, A Trusted Provisioning Package is created by providing the copied certificate hash from the certificate & provide the local path of the .cer file of that certificate.

The .cer file can be generated from the mmc console.



5. Now, signed the PPKG with the certificate.



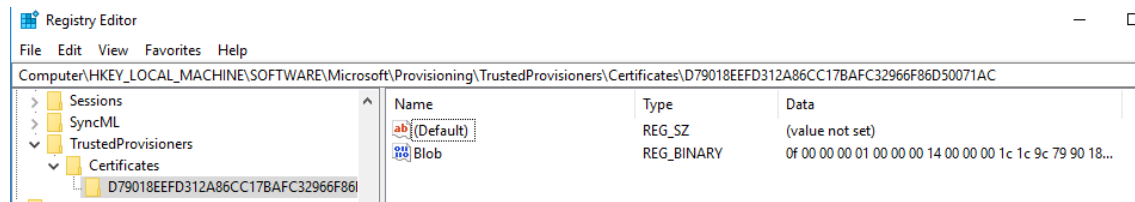
6. The trusted provisioner PPKG generated in the shown location



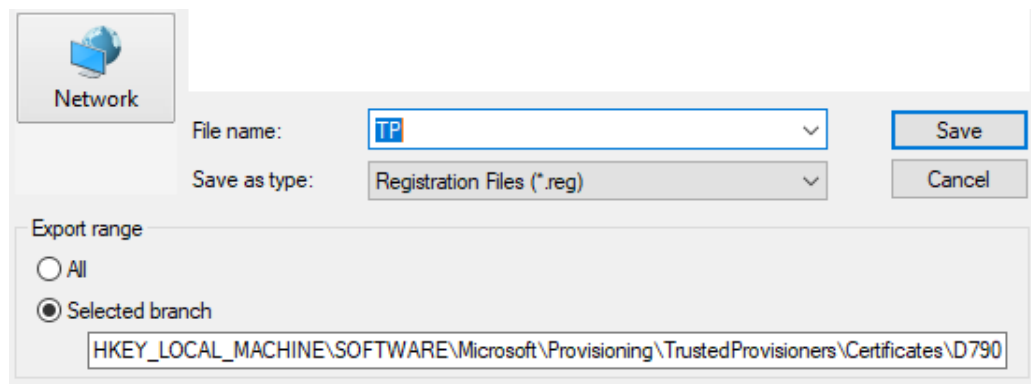
7. Installed that PPKG by double clicking & clicking on yes when it gives prompt.

8. The installed PPKG made the following changes in the registry-
HKLM\software\Microsoft\Provisioning\TrustedProvisioners

The hash value of the provisioning certificate must appear under certificates.



9. Export the registry setting for the trusted provisioners & saved it as .reg file to use as a trusted provisioner instead of the PPKG.



10. Registry will look like: -

```
Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Provisioning\TrustedProvisioners]

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Provisioning\TrustedProvisioners\Certificates]

[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Provisioning\TrustedProvisioners\Certificates\D79018EEFD312A86CC17BAFC32966F86D50071AC]
"Blob"=hex:0f,00,00,00,01,00,00,00,14,00,00,00,1c,9c,79,90,18,bc,cb,9e,54,\
1a,f3,b7,c5,83,c6,c0,0d,08,17,03,00,00,00,01,00,00,00,14,00,00,00,d7,90,18,\
ee,fd,31,2a,86,cc,17,ba,fc,32,96,6f,86,d5,00,71,ac,20,00,00,00,01,00,00,00,\
2f,03,00,00,30,82,03,2b,30,82,02,17,a0,03,02,01,02,02,10,4e,99,b8,ed,cb,70,\
51,91,4a,ef,d5,e1,5f,1c,8d,79,30,09,06,05,2b,0e,03,02,1d,05,00,30,14,31,12,\
30,10,06,03,55,04,03,13,09,53,61,6d,70,6c,65,2e,43,41,30,1e,17,0d,31,38,31,\
31,32,38,30,36,32,31,34,32,5a,17,0d,33,39,31,32,33,31,32,33,35,39,35,39,5a,\
30,1d,31,1b,30,19,06,03,55,04,03,13,12,53,61,6d,70,6c,65,2e,43,6f,64,65,53,\
69,67,6e,69,6e,67,30,82,01,22,30,0d,06,09,2a,86,48,86,f7,0d,01,01,01,05,00,\
03,82,01,0f,00,30,82,01,0a,02,82,01,01,00,d2,83,40,a6,c0,79,0e,5e,46,02,8b,\
c1,48,9b,a2,a1,05,5f,7d,08,de,82,30,1d,8d,64,d3,d2,3b,43,96,c3,a9,d6,d1,6a,\
c4,10,06,d5,c0,d5,7f,43,2e,55,74,a6,67,d1,ca,07,db,82,cb,45,64,61,77,1e,c7,\
ca,ac,8a,8e,84,9a,28,55,c0,24,cc,44,07,b8,7c,37,fe,f4,ce,ee,7b,ca,2e,85,bf,\
a3,d7,09,08,d8,d4,0a,d4,c3,b9,89,a9,18,73,66,5a,0a,a0,86,7c,7a,e6,c5,b4,1b,\
```

Creating Application Which Will be Pushed by Intune

I. Before Application is created the File will look like: -

Name	Date modified	Type	Size
MDM	12/14/2018 18:54	File folder	
cmd	11/28/2018 20:06	Windows Batch File	1 KB
install	12/14/2018 18:59	Windows Batch File	1 KB
mdm	12/14/2018 18:06	Security Catalog	2 KB
mdm	12/14/2018 18:06	RunTime Provisio...	9 KB
mdm	11/28/2018 11:50	Registration Entries	7 KB
mdm	12/14/2018 13:22	XML File	4 KB
mdmv	7/26/2018 12:42	VBScript Script File	1 KB
SettingsMetadata	12/14/2018 18:03	XML File	442 KB
Uninstall-IntuneClient	5/30/2018 05:15	Windows PowerS...	2 KB

II. We will Run Install.batch file.

What the Batch file do: -

- It will Uninstall the Intune Legacy Client.
- It will import the Registry for Silent installation of PPKG file.
- It will Create a Task Scheduler for Running the PPKG file after restart of the Device.
- Last line after uninstallation of Legacy it will restart, so that the PPKG file run on the device.

```
Rem Uninstall legacy Intune
cmd /c taskkill /f /im cltui.exe
PowerShell.exe -ExecutionPolicy Bypass "c:\nathcorp\MDM\Uninstall-IntuneClient.ps1"

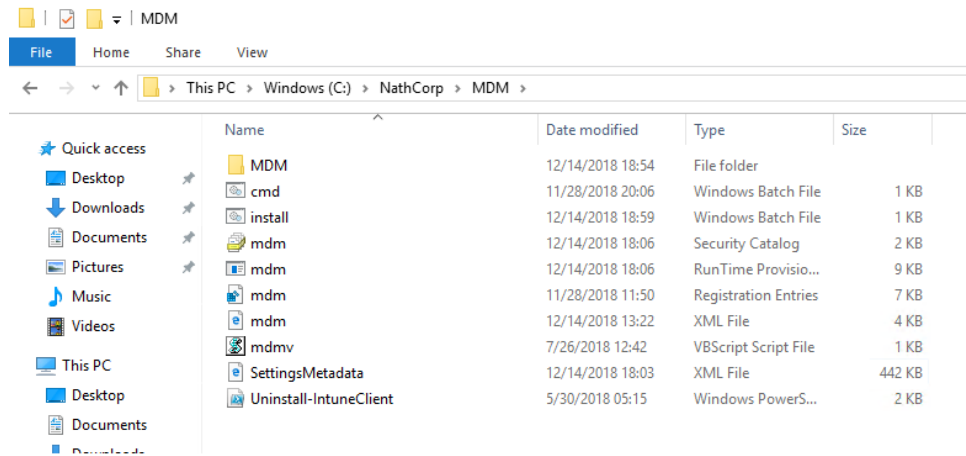
Rem Create Scheduler for MDM enrollment
cmd /c regedit.exe /s "C:\NathCorp\MDM\mdm.reg"
cmd /c schtasks /create /xml "c:\Nathcorp\MDM\mdm.xml" /TN "mdm"

Rem Custom Restart Notifications
cmd /c schtasks.exe /Create /XML "c:\nathcorp\MDM\CustomRestart.xml" /tn CustomRestart
cmd /c schtasks /Run /TN customrestart
TIMEOUT /T 10
cmd /c schtasks /delete /tn "CustomRestart" /f
```

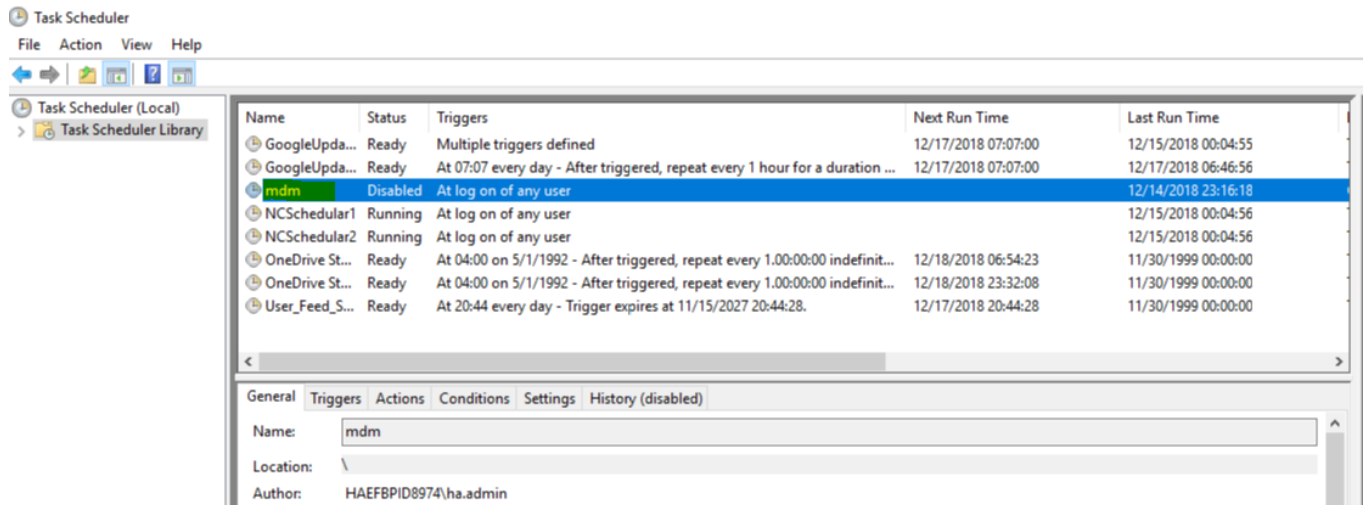
III. Create the Application using WinRAR.

Name	Date modified	Type	Size
InstallMDM	12/15/2018 12:32 ...	Application	340 KB
uninstall	12/15/2018 12:45 DM	Application	2 527 KB

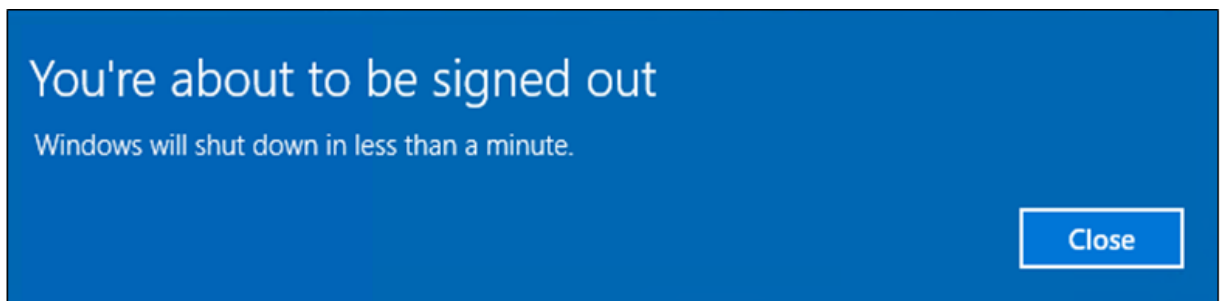
- IV. Create the Package in the Legacy Intune, deploy it to the windows 10 device.
- V. The file will be Extracted under Nathcorp Folder



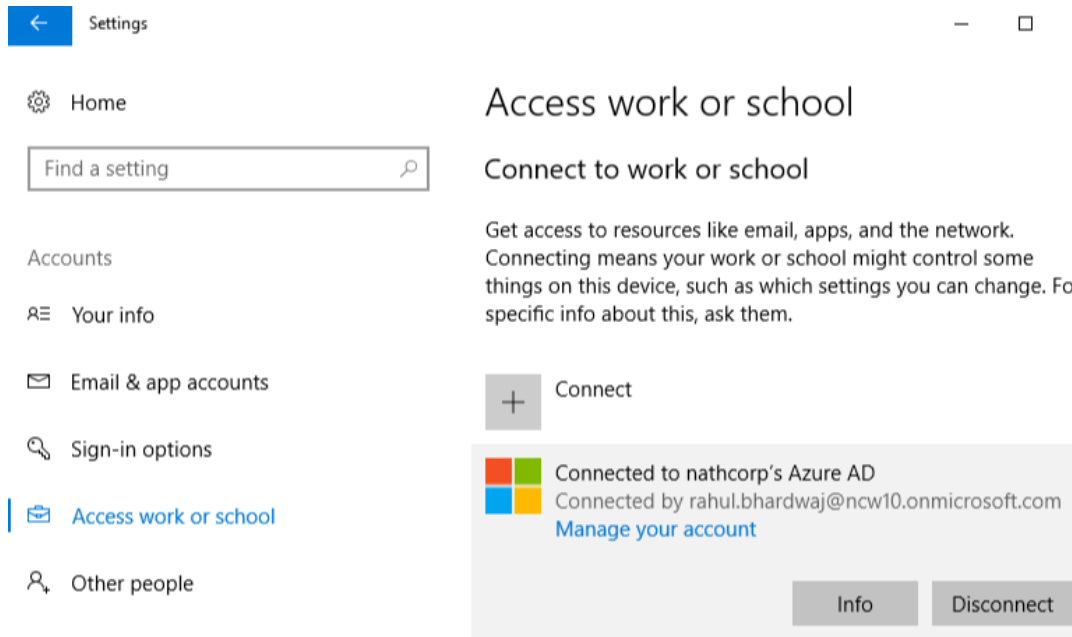
- VI. Install.batch will run & give a Pop up after 5-10 sec that your device will be restarted in 45 min.
- VII. After this we can verify that One Task Scheduler is created (Name- mdm).



- VIII. After the PPKG file is install. We will get a pop-up that the device will be signed out in a minute.



IX. After Restart we can verify in the setting -> Account -> Access work or school.



X. We can also verify it from Azure Portal. Under. Home -> Microsoft Intune -> Devices -> Azure AD Devices.
Because the device is Enroll using PPKG file show in the owner it is showing Package.

Home > Microsoft Intune > Devices - Azure AD devices

Devices - Azure AD devices

Microsoft Intune

Search (Ctrl+/)

Columns Refresh Enable Disable Delete Manage

Date Range: All Enabled: All

Apply

Search by name or device ID

5 items (5 Devices)

NAME	ENABLED	OS	VERSION	JOIN TYPE	OWNER	MDM	COMPLIANT	REGISTERED
DESKTOP-HJS8...	Yes	Windo...	10.0.150...	Azure AD join...	package...	Microso...	Yes	12/5/2018, 3:58:37 ...
NC2LW10RB1	Yes	Windo...	10.0.171...	Azure AD join...	package...	None	N/A	12/12/2018, 5:10:25...
DESKTOP-BINK...	Yes	Windo...	10.0.150...	Azure AD join...	package...	Microso...	N/A	11/29/2018, 12:52:2...
WINDOWS-DIU...	Yes	Windo...	10.0.150...	Azure AD join...	package...	Microso...	Yes	12/15/2018, 3:42:0...