









## **Thank You Sponsors!**











#### **Speaker**

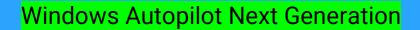


#### **Vimaldas**

**Microsoft Sr Support Escalation Engineer** 



https://in.linkedin.com/in/vimaldas-changarath-4b706a29





## What is Windows Autopilot device preparation

Windows Autopilot device preparation aims to simplify device deployment by delivering consistent configurations, enhancing the overall setup speed, and improving troubleshooting capabilities.



Reducing the time IT spends on deploying devices.



Reducing the infrastructure required to maintain the devices.



Maximizing ease of use for all types of end users.



Improved troubleshooting.



Near real-time deployment status and monitoring.



## Requirements

- Windows 11, version 23H2 with <u>KB5035942</u> or later.
- Windows 11, version 22H2 with <u>KB5035942</u> or later.
- Microsoft Entra ID only Microsoft Entra join is supported.
- Device shouldn't be registered or added as a Windows Autopilot device if the device is registered or added as Windows Autopilot device, the Windows Autopilot profile takes precedence over the Windows Autopilot device preparation policy. If a device needs to be removed as a Windows Autopilot device, see <u>Deregister a device</u>.
- For additional detailed requirements, see <u>Windows Autopilot device preparation requirements</u>.



# **End user Experience Demo**



#### Windows Autopilot device preparation vs. Windows Autopilot

Feature	Windows Autopilot device preparation	Windows Autopilot
Features	<ul> <li>Support for Government Community Cloud High (GCCH) and Department of Defense (DoD) environments.</li> <li>Faster, more consistent provisioning experience.</li> <li>Near real-time monitoring and troubleshooting info.</li> </ul>	<ul> <li>Support for multiple device types (<u>HoloLens</u>, <u>Teams Meeting Room</u>).</li> <li>Many customization options for the provisioning experience.</li> </ul>
Supported modes	• <u>User-driven</u> .	<ul> <li><u>User-driven</u>.</li> <li><u>Pre-provisioned</u>.</li> <li><u>Self-deploying</u>.</li> <li><u>Existing devices</u>.</li> </ul>
Join types supported	Microsoft Entra join.	<ul> <li>Microsoft Entra join.</li> <li>Microsoft Entra hybrid join.</li> </ul>
Device registration required?	• No.	• Yes.
What do admins need to configure?	<ul> <li>Windows Autopilot device preparation policy.</li> <li>Device security group with Intune Provisioning Client as owner.</li> </ul>	<ul> <li>Windows Autopilot deployment profile.</li> <li>Enrollment Status Page (ESP).</li> </ul>
What configurations can be delivered during provisioning?	<ul> <li>Device-based only during the out-of-box experience (OOBE).</li> <li>Up to 10 essential applications (line-of-business (LOB), Win32, Microsoft Store, Microsoft 365).</li> <li>Up to 10 essential PowerShell scripts.</li> </ul>	<ul> <li>Device-based during device ESP.</li> <li>User-based during user ESP.</li> <li>Any number of applications.</li> </ul>
Reporting & troubleshooting	<ul> <li>Windows Autopilot device preparation deployment report:</li> <li>Shows all Windows Autopilot device preparation deployments.</li> <li>More data available.</li> <li>Near real-time.</li> </ul>	<ul> <li>Windows Autopilot deployment report:</li> <li>Only shows Windows Autopilot registered devices.</li> <li>Not real-time.</li> </ul>
Supports LOB and Win32 applications in same deployment?	• Yes.	• No.
Supported versions of Windows	<ul> <li>Windows 11, version 23H2 with <u>KB5035942</u> or later.</li> <li>Windows 11, version 22H2 with <u>KB5035942</u> or later.</li> </ul>	<ul> <li>All <u>currently supported</u> versions of Windows 11 General Availability Channel.</li> <li>All <u>currently supported</u> versions of Windows 10 General Availability Channel.</li> </ul>



#htmdcommunity

@htmdcommunity

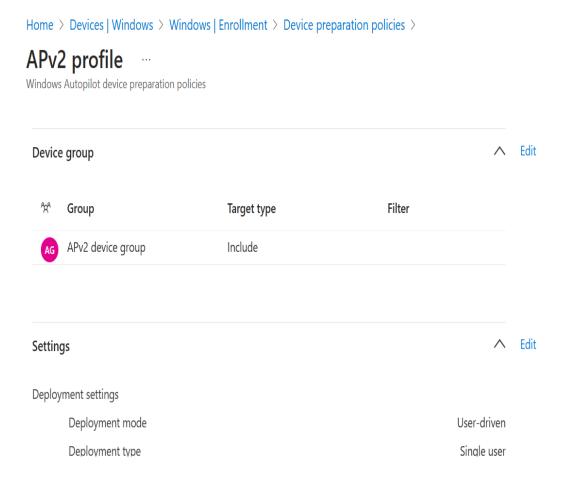
# Why Windows Autopilot device preparation

#### Top 3

- 1, No hardware hash harvesting and import Required
- 2, Enrolment Time Grouping approach
- 3, Troubleshooting and Reporting



## **Enrolment Time Grouping approach**



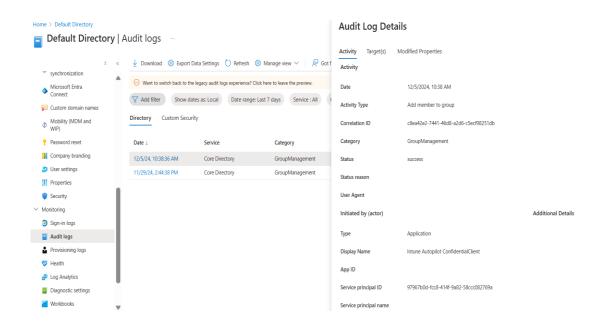
With Enrollment Time Grouping, when a user authenticates into a device, the device is added to a predefined device security group during enrollment.

Applications, scripts, and policies assigned to the device group are then deployed to the device.

Direct assignment of devices to the device group allows the applications, scripts, and policies assigned to the device group to deploy quicker and more efficiently versus when using a dynamic device group



#### **Enrolment Time Grouping admin configuration Demo**

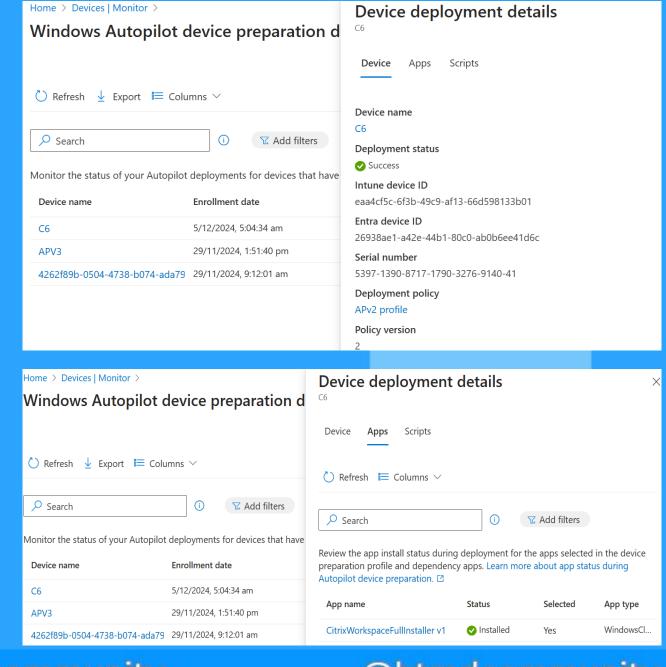


- Add owners by select the service principal Intune Provisioning Client with Appld of f1346770-5b25-470b-88bdd5744ab7952c. Alternatively, use the Search bar to search for and select Intune Provisioning Client.
- If the Appld of f1346770-5b25-470b-88bd-d5744ab7952c isn't available either in the list of objects or when searching, See <a href="Mailto:Adding the Intune Provisioning Client service principal">Adding the Intune Provisioning Client service principal</a>.



# Troubleshooting and Reporting

- Easily track which devices went through Autopilot.
- Track status and deployment phase for each device in near real-time.
- Each device has the following details in the monitoring report:
- Device details.
- Profile name and version.
- Deployment status details.
- Apps applied with status.
- Scripts applied with status.





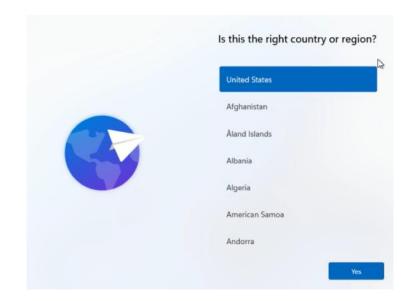
## **Admin Flow Configurations Demo**

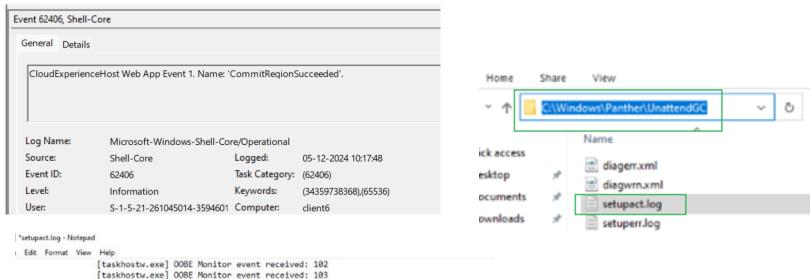


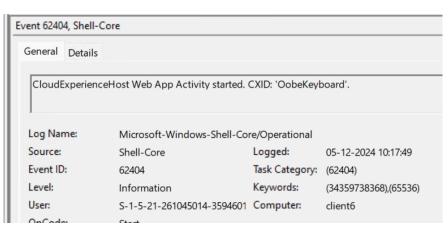
# Work flow and Troubleshooting Stages 1 to 10

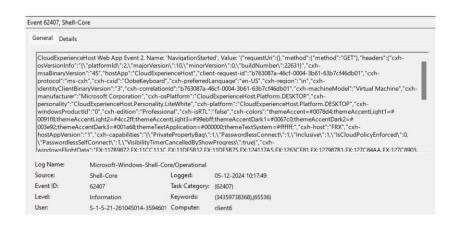


## Stage 1: Select Region, Keyboard









[CloudExperienceHostBroker.exe] Calling SetUserLanguages for paired locale en-IN [CloudExperienceHostBroker.exe] Start copy locale settings for "en-IN" to default/

Example : Geographical location identifier 113 refer to India

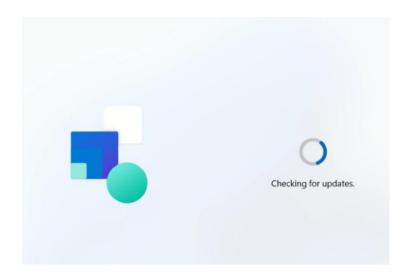
For more details refer: <u>Table of</u> Geographical Locations - Win32

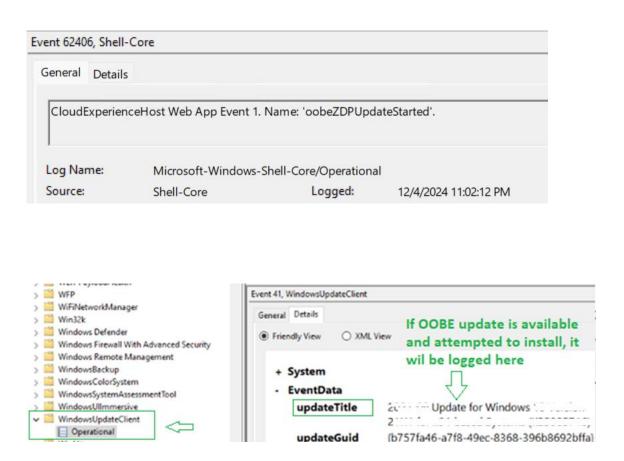
apps | Microsoft Docs



[taskhostw.exe] OOBE Monitor event received: 104 [CloudExperienceHostBroker.exe] CommitRegion 113

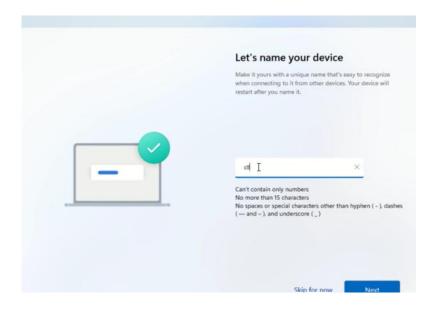
## Stage 2: Zero-day patch / Update



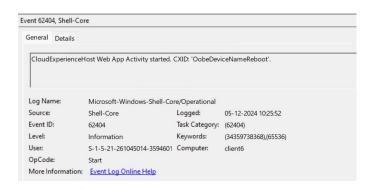




## **Stage 3 : Device rename**

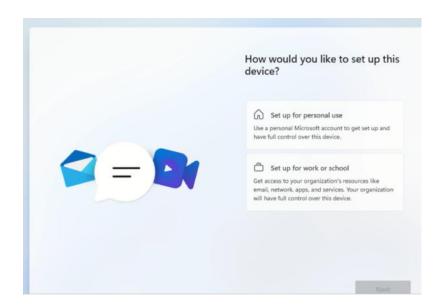


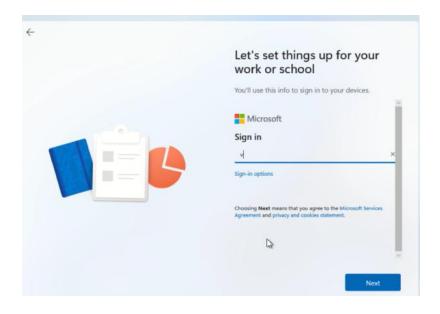






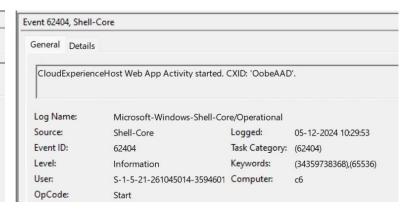
## **Stage 4: Azure authentication**





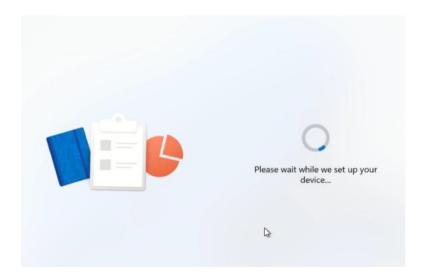


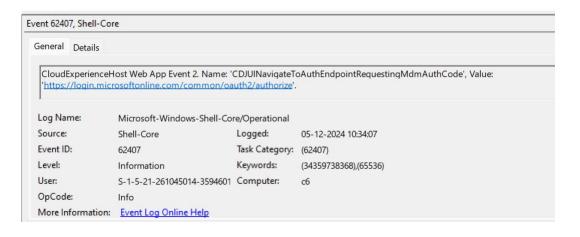


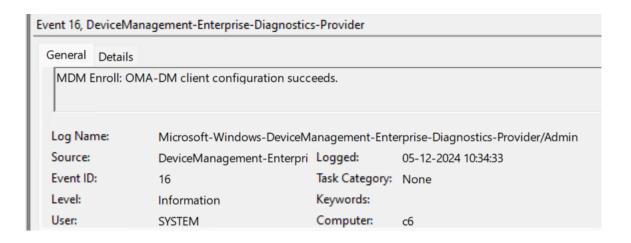


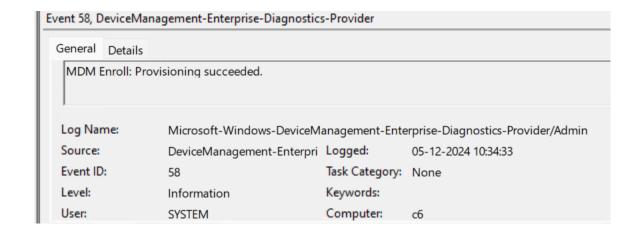


## **Stage 5: MDM Enrollment**



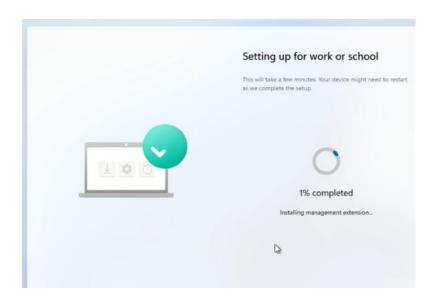








## Stage 6: IME download





```
[HKEY_LOCAL_MACHINE\software\microsoft\enterprisedesktopappmanagement\S-0-0-00-0000000000-0000000000-000\MSI\{cba65a74-26e2-4b1b-8b6b-ebae830719ce}]
   "DownloadInstall"="InProgress"
   "ProductCode"="{cba65a74-26e2-4b1b-8b6b-ebae830719ce}"
   "ProductVersion"="1.85.104.0"
   "CreationTime"=QWORD:1db4583fd63327e
   "ActionType"=DWORD:00000001
   "Status"=DWORD:00000046
   "JobStatusReport"=DWORD:00000001
   "LastError"=DWORD:00000000
   "BITSJobId"="d6251f3d-5361-4694-bebc-9d3db8d206e4"
   "DownloadLocation"=""
   "DownloadUrlList"=MULTI_SZ:"https://euprodimedatasec.azureedge.net/IntuneWindowsAgent.msi"
   "CurrentDownloadUrlIndex"=DWORD:00000001
   "CurrentDownloadUrl"="https://euprodimedatasec.azureedge.net/IntuneWindowsAgent.msi"
   "FileHash"="29a270737e453265c190c3efee1edfa036ba94c55ddad7c8bb48c8638d98607c"
   "CommandLine"=""
   "AssignmentType"=DWORD:00000001
   "EnforcementStartTime"=QWORD:1db45840311f2f7
   "EnforcementTimeout"=DWORD:0000001e
   "EnforcementRetryIndex"=DWORD:00000001
   "EnforcementRetryCount"=DWORD:00000005
   "EnforcementRetryInterval"=DWORD:00000003
   "LocuRI"="./Device/Vendor/MSFT/EnterpriseDesktopAppManagement/MSI/{cba65a74-26e2-4b1b-8b6b-ebae830719ce}/DownloadInstall"
   "ServerAccountID"="
```



## Cont. .. Stage 6: IME download

#### Setting up for work or school

This will take a few minutes. Your device might need to restart as we complete the setup.



10% completed

Installing required apps and policies for your organization... [HKEY LOCAL MACHINE\software\microsoft\provisioning\AutopilotSettings]

"AgilityProductName"="Windows.Autopilot.amd64"

"AllowedTimeDriftDeltaMinutes"=DWORD:00000005

"AutopilotDiagnosticsCurrentVersion"="1.0.0"

"AutopilotDiagnosticsOutputMocked"=DWORD:00000000

"ConciergeMsaTicketUri"="https://dds.microsoft.com"

"ConciergeUri"="https://cs.dds.microsoft.com/command/device/PersonalDeviceBootstrapPolicies"

"DdsZtdMsaTicketUri"="https://ztd.dds.microsoft.com"

"DdsZtdUri"="https://ztd.dds.microsoft.com/ztd/device/AutopilotDeviceBootstrapPolicies"

"ProfileUsingProcMon"=DWORD:00000000

"TpmAikTaskMaxTimeoutMilliseconds"=DWORD:0000ea60

"TpmNgcWaitDelayMilliseconds"=DWORD:000003e8

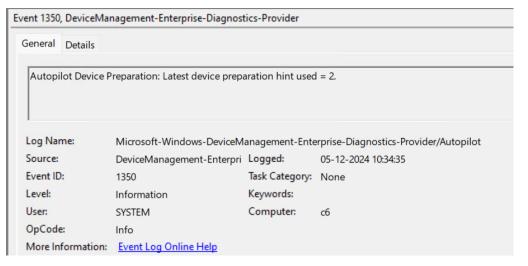
"UseRefactoredEsp"="True"

"DppHeartbeatMaxFailures"=DWORD:0000000a

"DppHeartbeatMilliseconds"=DWORD:000009c4

"DisableAutopilotAgilityProductVersionTelemetry"=DWORD:0000001

"AutopilotDevicePrepHint"=DWORD:00000002





## Stage 7: IME Install

#### Setting up for work or school

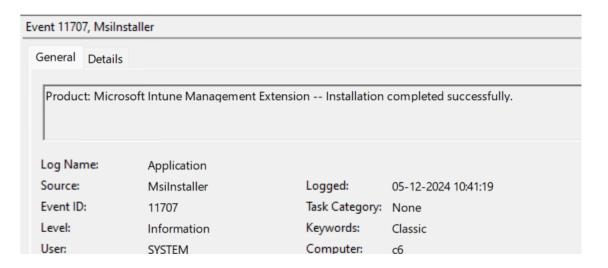
This will take a few minutes. Your device might need to restart as we complete the setup.



10% completed

Installing required apps and policies for your organization...

**AutopilotDevicePrepHint** 3 - IME installed and moving to next stage



[HKEY\_LOCAL\_MACHINE\software\microsoft\provisioning\AutopilotSettings]



<sup>&</sup>quot;AgilityProductName"="Windows.Autopilot.amd64"

<sup>&</sup>quot;AllowedTimeDriftDeltaMinutes"=DWORD:00000005

<sup>&</sup>quot;AutopilotDiagnosticsCurrentVersion"="1.0.0"

<sup>&</sup>quot;AutopilotDiagnosticsOutputMocked"=DWORD:00000000

<sup>&</sup>quot;ConciergeMsaTicketUri"="https://dds.microsoft.com"

<sup>&</sup>quot;ConciergeUri"="https://cs.dds.microsoft.com/command/device/PersonalDeviceBootstrapPolicies"

<sup>&</sup>quot;DdsZtdMsaTicketUri"="https://ztd.dds.microsoft.com"

<sup>&</sup>quot;DdsZtdUri"="https://ztd.dds.microsoft.com/ztd/device/AutopilotDeviceBootstrapPolicies"

<sup>&</sup>quot;ProfileUsingProcMon"=DWORD:00000000

<sup>&</sup>quot;TpmAikTaskMaxTimeoutMilliseconds"=DWORD:0000ea60

<sup>&</sup>quot;TpmNgcWaitDelayMilliseconds"=DWORD:000003e8

<sup>&</sup>quot;UseRefactoredEsp"="True"

<sup>&</sup>quot;DppHeartbeatMaxFailures"=DWORD:0000000a

<sup>&</sup>quot;DppHeartbeatMilliseconds"=DWORD:000009c4

<sup>&</sup>quot;DisableAutopilotAgilityProductVersionTelemetry"=DWORD:00000001

<sup>&</sup>quot;AutopilotDevicePrepHint"=DWORD:00000003

#### Cont....

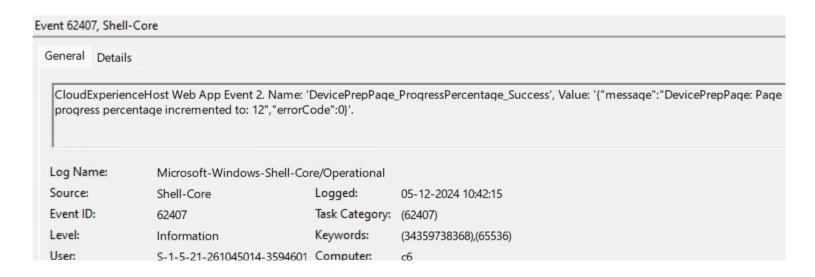
#### Setting up for work or school

This will take a few minutes. Your device might need to restart as we complete the setup.



12% completed

Installing required apps and policies for your organization...





## **Stage 8: Providers**

#### Setting up for work or school

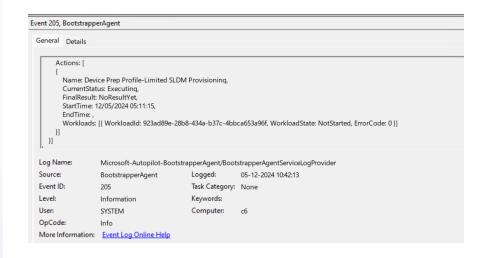
This will take a few minutes. Your device might need to restart as we complete the setup.



13% completed

Installing required apps and policies for your organization...

- SLDM Provider: Process LOB and policy
- PowerShell Scripts Provider: Process Scripts
- Win32Apps Provider: Process win32 apps



[HKEY LOCAL MACHINE\software\microsoft\provisioni ng\AutopilotSettings\DevicePreparation\MDMProvider] "MdmAgentInstalled"=DWORD:00000000 "FirstInvocationDone"="True" "Id"="1c31c6a6-1516-41df-8657-5351b09c23a7"

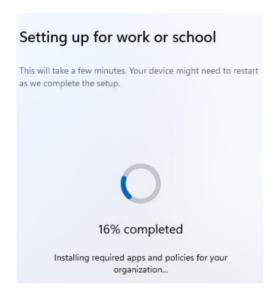
"FriendlyName"="SLDM Provider"

"StartTimeInUtc"="2024-12-05T05:11:15.2691889Z"

"Status"="Provisioning in Progress"



#### Stage 8.1: SLDM Providers processing LOB and policy



[HKEY\_LOCAL\_MACHINE\software\microsoft\provisionin g\AutopilotSettings\DevicePreparation\MDMProvider]

"MdmAgentInstalled"=DWORD:00000000

"FirstInvocationDone"="True"

"Id"="1c31c6a6-1516-41df-8657-5351b09c23a7"

"FriendlyName"="SLDM Provider"

"StartTimeInUtc"="2024-12-05T05:11:15.2691889Z"

"Status"="Provisioning Complete"

**AutopilotDevicePrepHint** 4 - SLDM provider installed and moving to next stage

[HKEY\_LOCAL\_MACHINE\software\microsoft\provisioning\AutopilotSettings]

- "AgilityProductName"="Windows.Autopilot.amd64"
- "AllowedTimeDriftDeltaMinutes"=DWORD:00000005
- "AutopilotDiagnosticsCurrentVersion"="1.0.0"
- "AutopilotDiagnosticsOutputMocked"=DWORD:00000000
- "ConciergeMsaTicketUri"="https://dds.microsoft.com"

"ConciergeUri"="https://cs.dds.microsoft.com/command/device/PersonalDeviceBootstrapPolicies"

- "DdsZtdMsaTicketUri"="https://ztd.dds.microsoft.com"
- "DdsZtdUri"="https://ztd.dds.microsoft.com/ztd/device/AutopilotDeviceBootstrapPolicies"
- "ProfileUsingProcMon"=DWORD:00000000
- "TpmAikTaskMaxTimeoutMilliseconds"=DWORD:0000ea60
- "TpmNgcWaitDelayMilliseconds"=DWORD:000003e8
- "UseRefactoredEsp"="True"
- "DppHeartbeatMaxFailures"=DWORD:0000000a
- "DppHeartbeatMilliseconds"=DWORD:000009c4
- "DisableAutopilotAgilityProductVersionTelemetry"=DWORD:00000001
- "AutopilotDevicePrepHint"=DWORD:00000004



#### Stage 8.2: PowerShell Scripts and Win32Apps provider

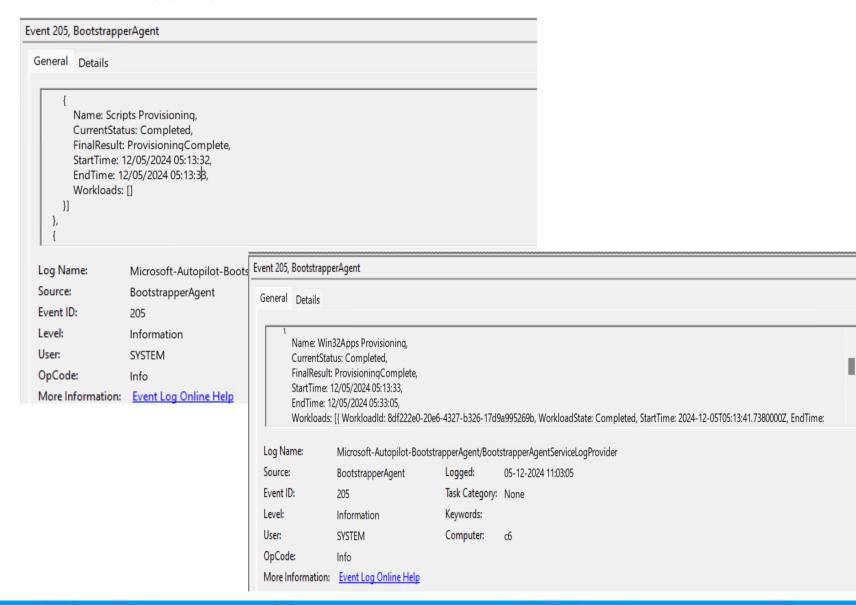
#### Setting up for work or school

This will take a few minutes. Your device might need to rest as we complete the setup.



44% completed

Installing required apps and policies for your organization...





#### Stage 9 : Setup complete



#### Required setup is complete

The apps and settings your organization requires have been installed. You can start using your computer.

Your device might continue to receive more apps and settings from your organization.

Log Name:

Event 62407, Shell-Core

General Details

Microsoft-Windows-Shell-Core/Operational

'{"message":"DevicePrepPage: Provisioning has completed.","errorCode":0}'.

Source:

Shell-Core

Information

Logged:

CloudExperienceHost Web App Event 2. Name: 'DevicePrepPage\_AgentProvisioningProgress\_ProvisioningComplete', Value:

05-12-2024 11:03:08

Event ID:

62407

Task Category: (62407) Keywords: (343597

(34359738368),(65536)

Level: User:

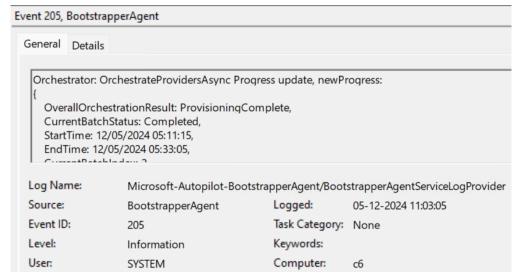
S-1-5-21-261045014-3594601 Computer:

с6

Next

#### AutopilotDevicePrepHint 0 indicate provisioning completed

IME
manages
overall
provisioning
and
orchestrate
these
providers



[HKEY\_LOCAL\_MACHINE\software\microsoft\provisioning\AutopilotSettings]

"AgilityProductName"="Windows.Autopilot.amd64"

"AllowedTimeDriftDeltaMinutes"=DWORD:00000005

"AutopilotDiagnosticsCurrentVersion"="1.0.0"

"AutopilotDiagnosticsOutputMocked"=DWORD:0000000

"ConciergeMsaTicketUri"="https://dds.microsoft.com"

"Concierge Uri" = "https://cs.dds.microsoft.com/command/device/Personal Device Bootstrap Policies"

"DdsZtdMsaTicketUri"="https://ztd.dds.microsoft.com"

"DdsZtdUri"="https://ztd.dds.microsoft.com/ztd/device/AutopilotDeviceBootstrapPolicies"

"ProfileUsingProcMon"=DWORD:00000000

"TpmAikTaskMaxTimeoutMilliseconds"=DWORD:0000ea60

"TpmNgcWaitDelayMilliseconds"=DWORD:000003e8

"UseRefactoredEsp"="True"

"DppHeartbeatMaxFailures"=DWORD:0000000a

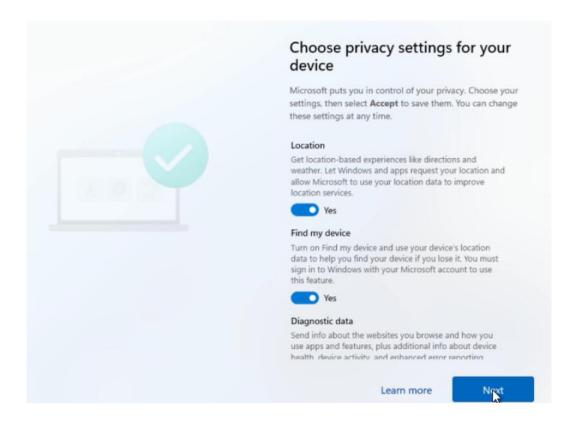
"DppHeartbeatMilliseconds"=DWORD:000009c4

"DisableAutopilotAgilityProductVersionTelemetry"=DWORD:00000001

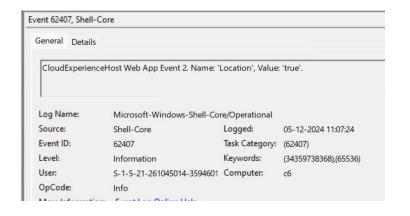
"AutopilotDevicePrepHint"=DWORD:00000000



## Stage 10: Privacy setting









## **User logged in to Desktop**



