Intune Driver & BIOS Control

- **Jan Ketil Skanke**
- Principal Cloud Architect @ CloudWay
- Twitter @JankeSkanke
- MVP / MCT

- **Maurice Daly**
- Senior Cloud Architect @ CloudWay
- Twitter @modaly_it
- MVP / MCT

NORDIC – VIRTUAL SUMMIT –
#NVSummit2021

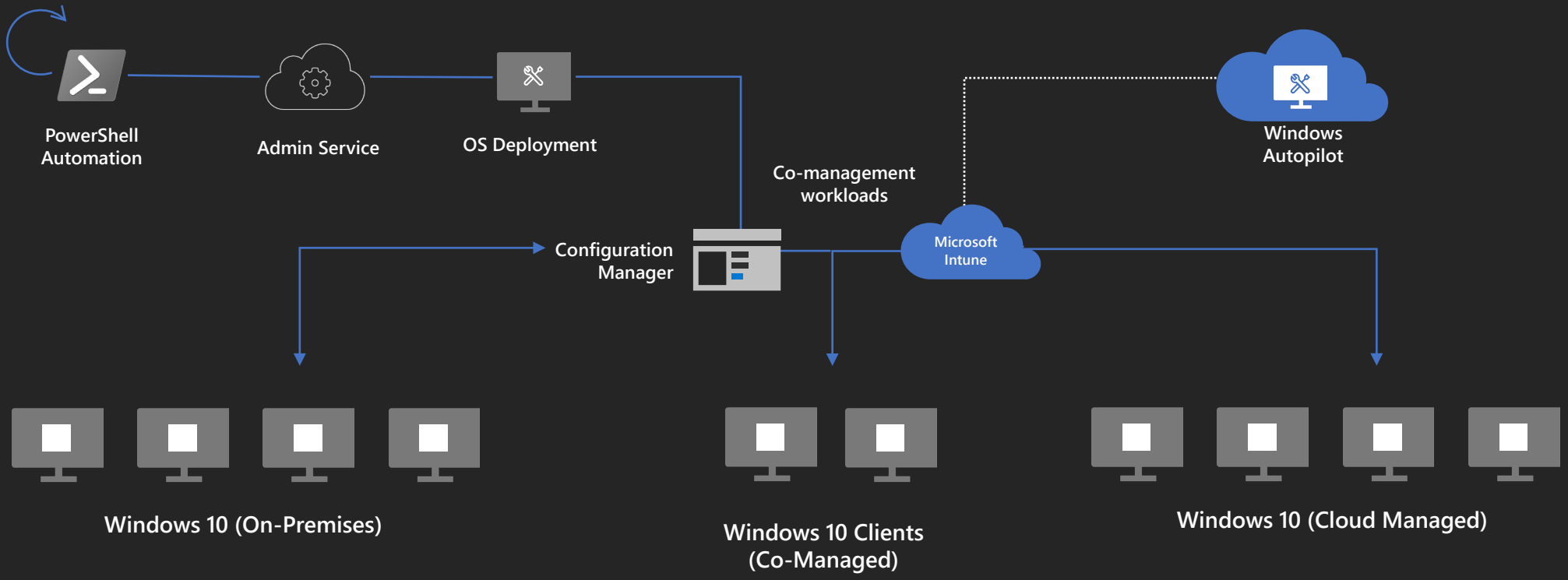
In the beginning

The Challenges of moving to “modern”

- Decades old processes are often hard to let go of
- Internal blockers from staff
- Comparing like for like and focusing on the missing components
- The “it won’t work” approach

Let us understand the differences first, and work around them, and show you some cool stuff

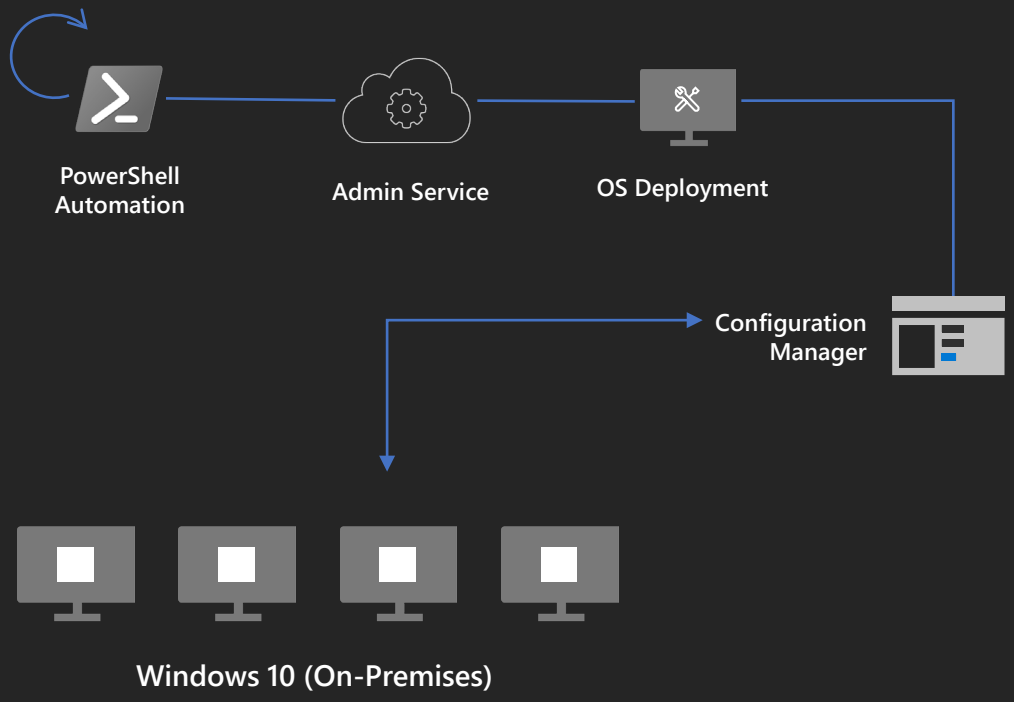
Traditional Processes vs Modern Processes



Traditional OSD (ConfigMgr) Overview

NORDIC
– VIRTUAL SUMMIT –

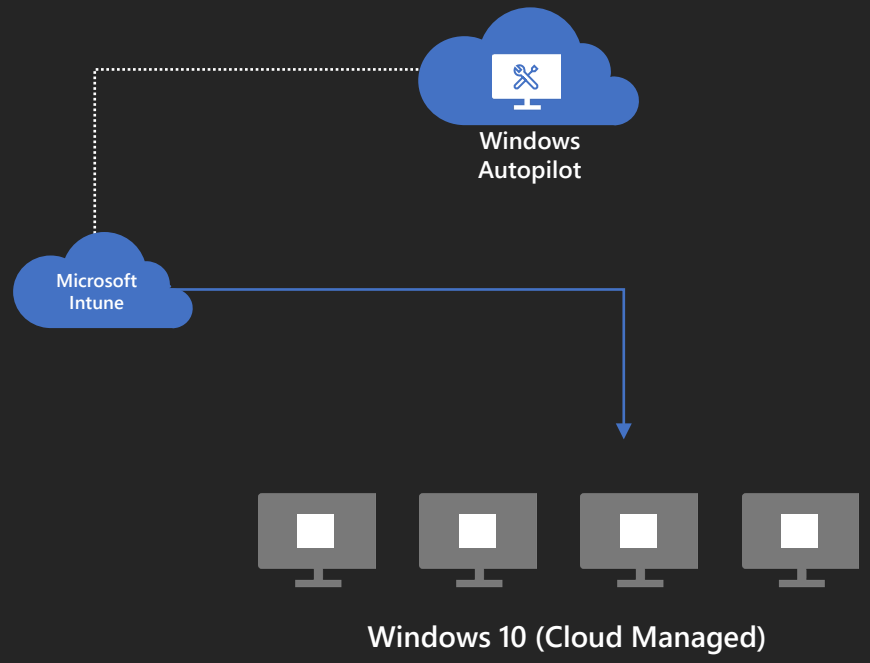
- OS Deployment
  - Traditional method
  - Admin Service
  - Custom Web Service
  - Custom Front Ends
  - PowerShell
- Post OS Maintenance
  - PowerShell
  - OEM Software



Intune Management Overview

NORDIC
– VIRTUAL SUMMIT –

- Windows Autopilot
  - Win32 Apps
  - PowerShell
- Post Deployment
  - How to control driver and firmware updates post provisioning?
  - OEM software solutions?
  - Microsoft solutions (coming)



The Challenge We Face Today

- Organisations have had to make big shifts in the way they manage devices
  - Home workers are now the norm
  - The desire to use Intune managed devices has seen massive growth due to this
- IT departments which to maintain the status quo
  - Provide the business with like for like functionality
  - Automate as much as possible
  - Port existing automation processes as much as possible

Give me all the laptops

NORDIC
– VIRTUAL SUMMIT –

The challenge of supporting multiple vendors

- Due to the pandemic, a single vendor choice is something we no longer have the luxury of
- The traditional OS deployment model is being evaluated
- Can Windows Autopilot serve the needs of the organisation?

“Make IT happen” – no excuses!

OEM Solutions for Intune devices

NORDIC
– VIRTUAL SUMMIT –

- Most OEM's provide solutions, not all are equal….

Microsoft

Built in support for driver and firmware updates through WUfB

Lenovo

Lenovo System Update

DELL

Dell Command Update

hp

HP Tech Pulse | CMSL

HP Solutions for Intune devices

NORDIC
– VIRTUAL SUMMIT –

HP Client Management Script Library
How to do things the right way

HP CMSL PowerShell Module

- Install the CMSL from the PowerShell Gallery
  - Install-Module –Name HPCMSL*

    The NuGet Package Provider needs to be updated
    The PowerShellGet module needs to be updated

  - Automate driver and BIOS updates via PowerShell
    This sounds a bit more familiar

NORDIC
– VIRTUAL SUMMIT –

Demo

Install and Maintain the HP CMSL Module (Proactive Remediations)

[Manage HP Bios Updates with Proactive Remediations - Part 1 (msendpointmgr.com)]

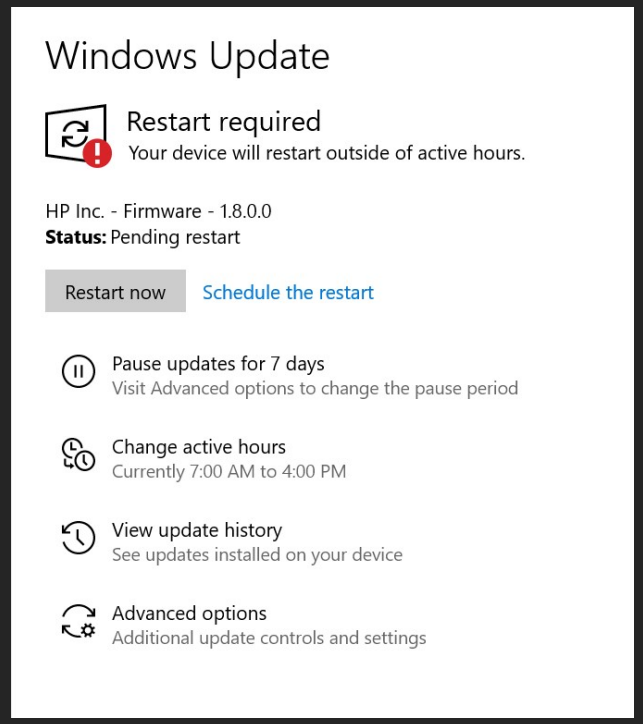
HP Windows Update Voodoo

NORDIC
— VIRTUAL SUMMIT —

- Support for firmware updates through the normal update process
- Leverages a mechanism built into the Unified Extensible Firmware Interface (UEFI) standard called UEFI Capsule
- Worried? Need to disable this?

Set-HPBIOSSettingValue -Name "Native OS Firmware Update Service" -Value "Disable"

h10032.www1.hp.com/ctg/Manual/c06696094

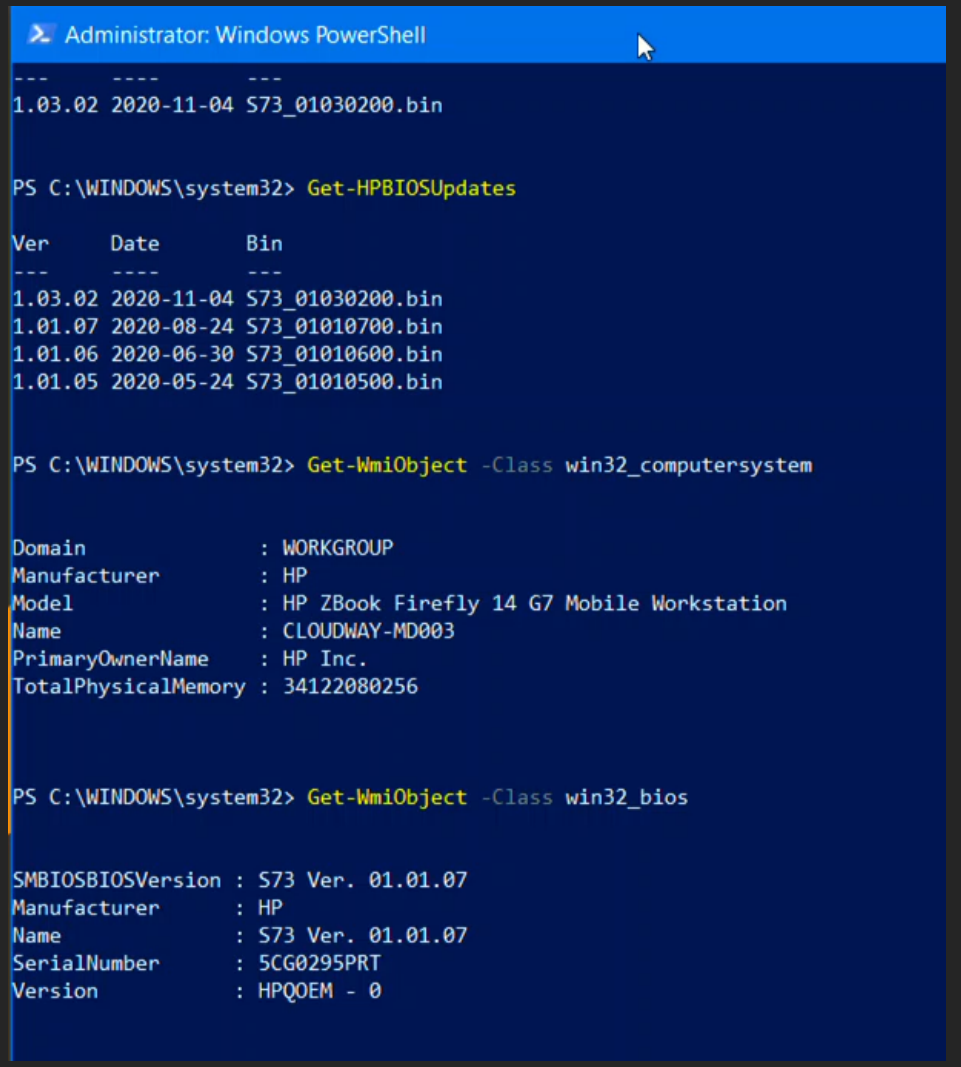


Building an OEM scripted solution

NORDIC
– VIRTUAL SUMMIT –

- Upgrade the HP BIOS
  - Get-HPBIOSUpdates
    - List all available updates
  - Get-HPBIOSUpdates –Flash
    - Update system to the latest BIOS release
- Install all SoftPaqs
  - Get-SoftPaqList | Get-SoftPaq –Action Install
    - Download, extract, and install the latest drivers

Easy right!?..



Demo

Running the CMSL

NORDIC
– VIRTUAL SUMMIT –

Proceed with Caution

Control Is Good

Driver and BIOS / Firmware updates can have undesired results

- Administrative Control / Phased Upgrades
  - Providing a controlled method for testing upgrades is key to many organisations
  - It verifies stability prior to mass deployment
  - Consistent experience as we have today with Configuration Manager

NORDIC
– VIRTUAL SUMMIT –

Demo

Modern BIOS Management - Intune BIOS Control

Driver Automation Tool V7

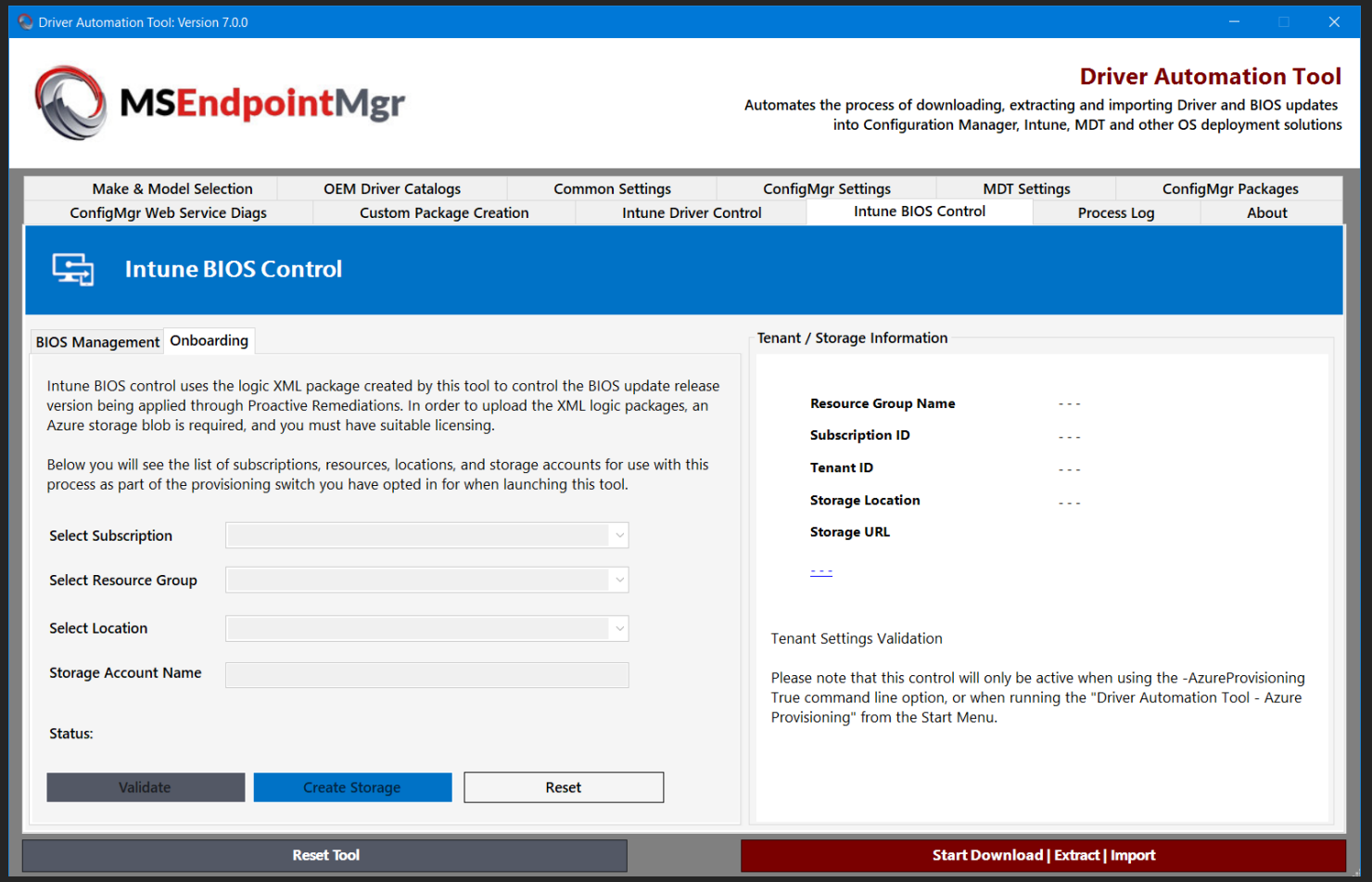
NORDIC
— VIRTUAL SUMMIT —

New Features

- Intune XML control support
- Intune Only mode
- Intune XML control support
- Azure storage blob creation (Provisioning mode)
- Azure storage blob uploads (XML & packages)
- Automatic updating

In Progress

- Win32 driver packages

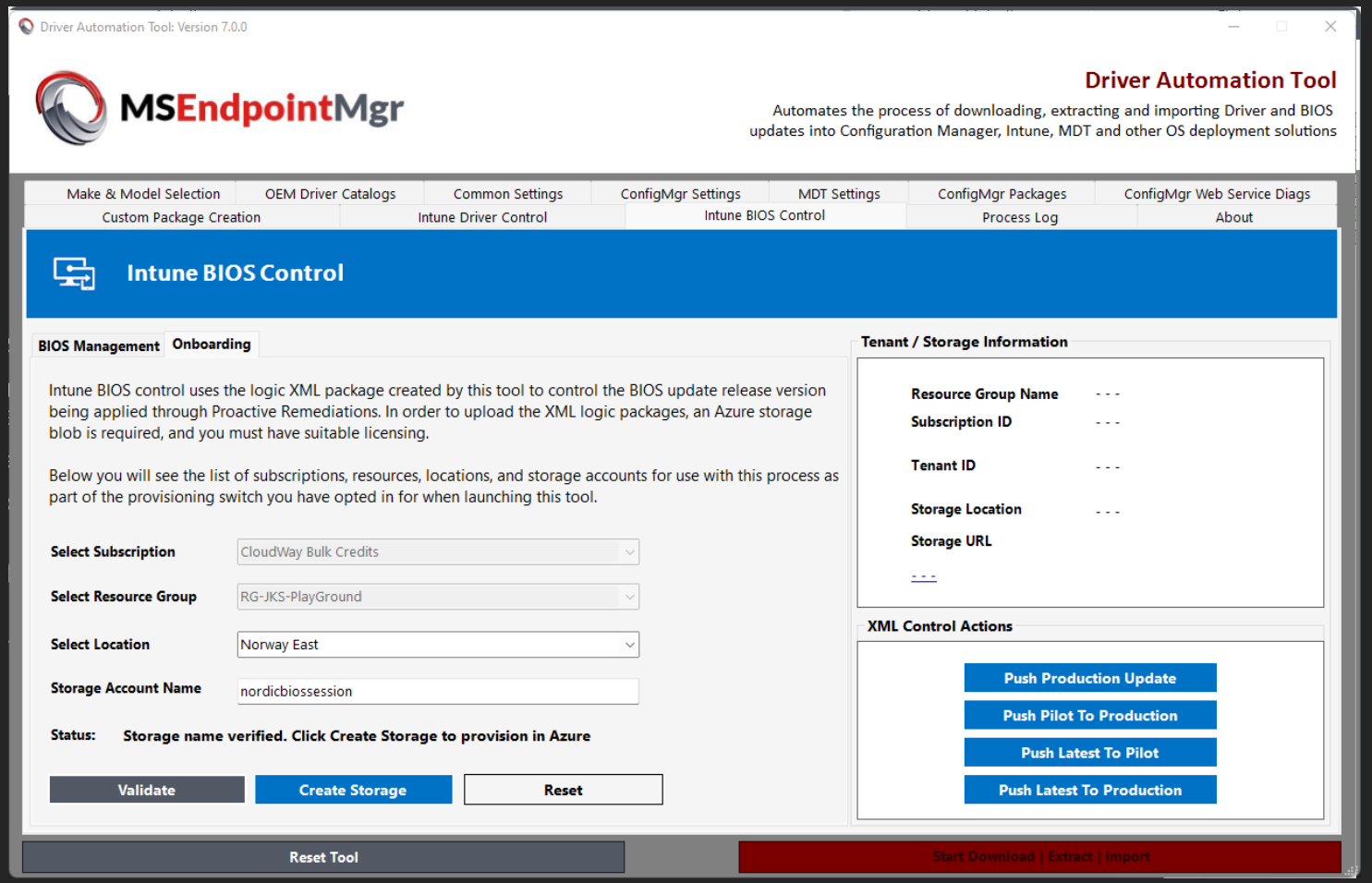


Driver Automation Tool V7

NORDIC
— VIRTUAL SUMMIT —

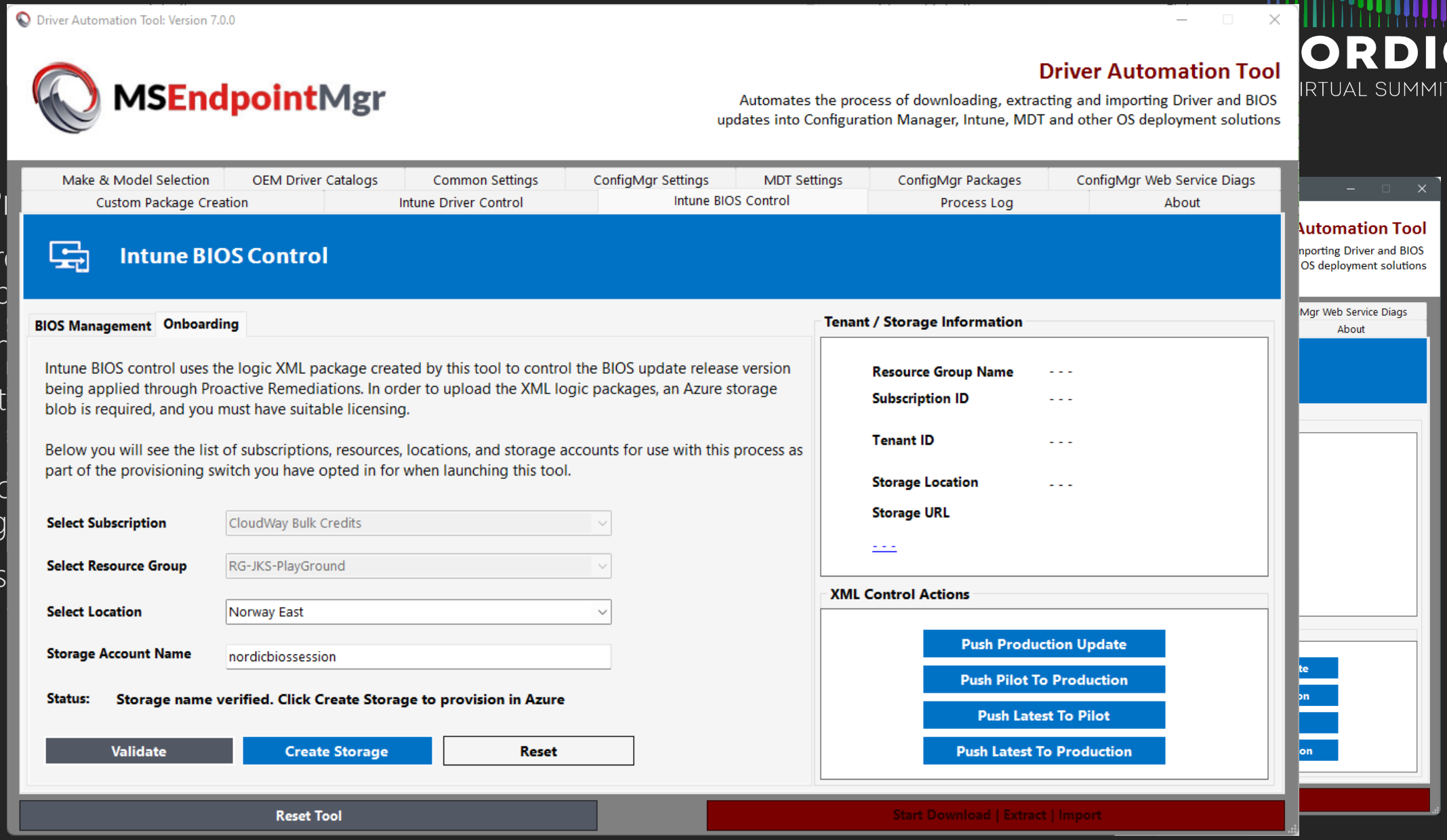
Azure Provisioning Mode

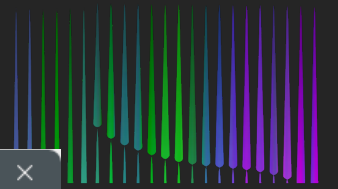
- Requires an Azure Subscription and available resource group
- Region selectable in the UI
- Validation of the storage account name
- Creation of the storage account through the UI
- Details stamped in the registry for future use



Azure Pr

- Requir
  availab
- Regior
- Validat
  name
- Creatic
  throug
- Details
  future





Azure Pi

- Requir
  availab
- Regior
- Validat
  name
- Creatic
  throug
- Details
  future

Driver Automation Tool: Version 7.0.0

MSEndpointMgr

Driver Automation Tool

Automates the process of downloading, extracting and importing Driver and BIOS updates into Configuration Manager, Intune, MDT and other OS deployment solutions

Make & Model Selection | OEM Driver Catalogs | Common Settings | ConfigMgr Settings | MDT Settings | ConfigMgr Packages | ConfigMgr Web Service Diags

Custom Package Creation | Intune Driver Control | Intune BIOS Control | Process Log | About

Intune BIOS Control

BIOS Management | Onboarding

Intune BIOS control uses the logic XML package created by this tool to control the BIOS update release version being applied through Proactive Remediations. In order to upload the XML logic packages, an Azure storage blob is required, and you must have suitable licensing.

Below you will see the list of subscriptions, resources, locations, and storage accounts for use with this process as part of the provisioning switch you have opted in for when launching this tool.

Select Subscription CloudWay Bulk Credits

Select Resource Group RG-JKS-PlayGround

Select Location Norway East

Storage Account Name nordicbiossession

Status: Creating Azure storage.. Please wait..

Validate | Create Storage | Reset

Tenant / Storage Information

Resource Group Name - - -

Subscription ID - - -

Tenant ID - - -

Storage Location - - -

Storage URL

- - -

XML Control Actions

Push Production Update

Push Pilot To Production

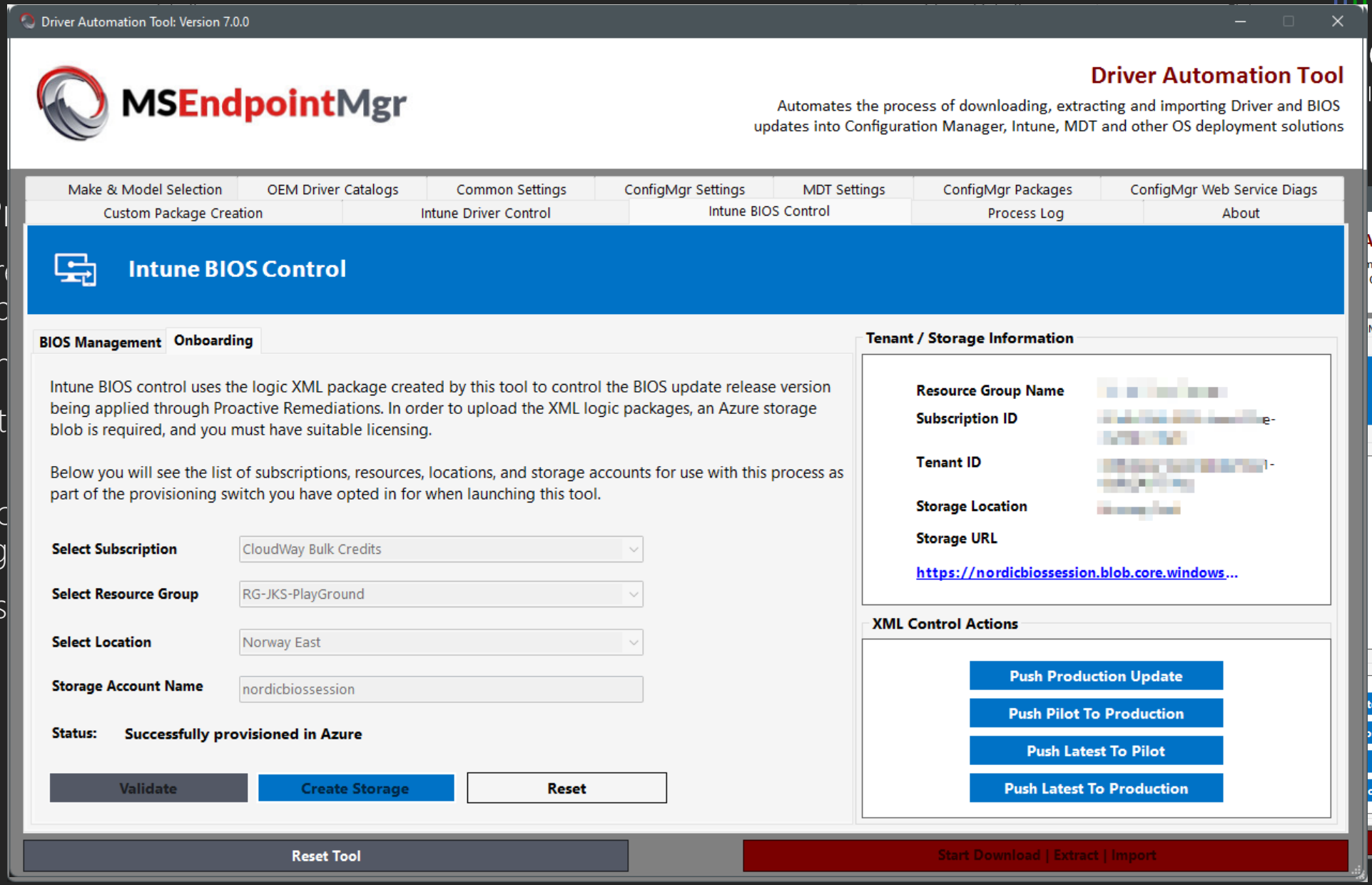
Push Latest To Pilot

Push Latest To Production

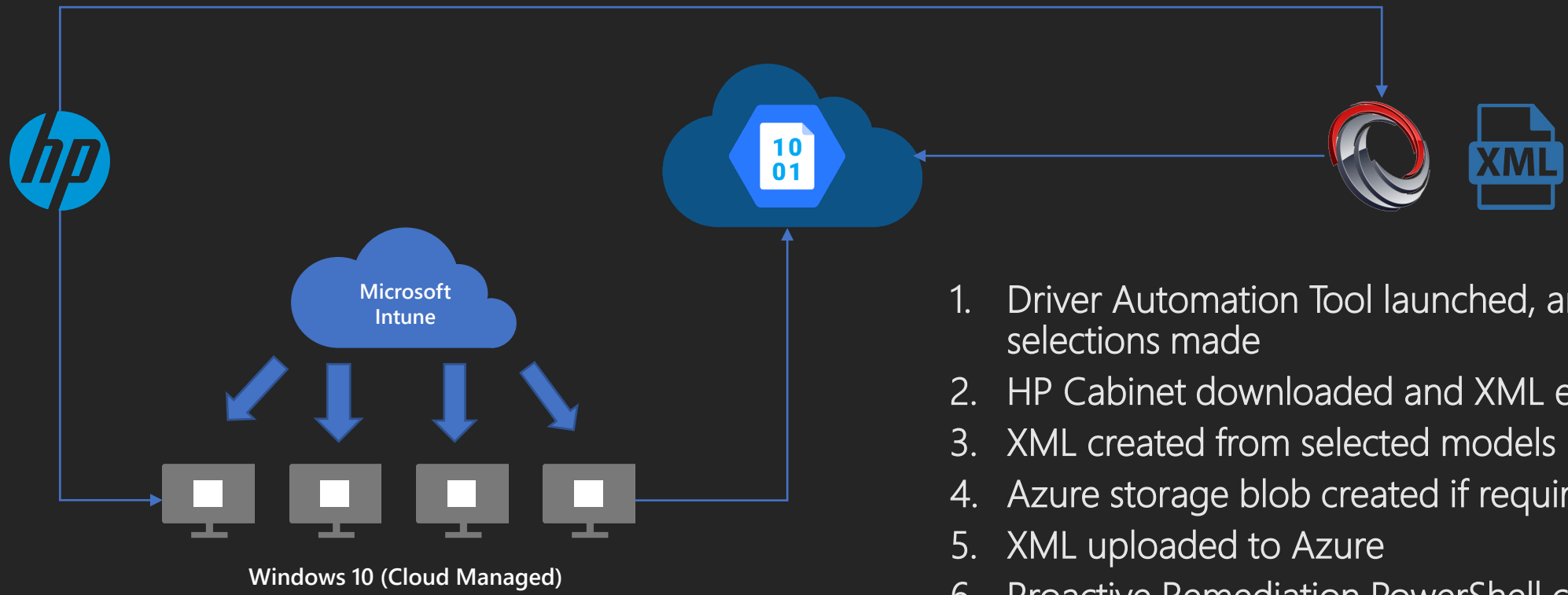
Reset Tool | Start Download | Extract | Import

Azure Pi

- Requir
  availab
- Regior
- Validat
  name
- Creatic
  throug
- Details
  future

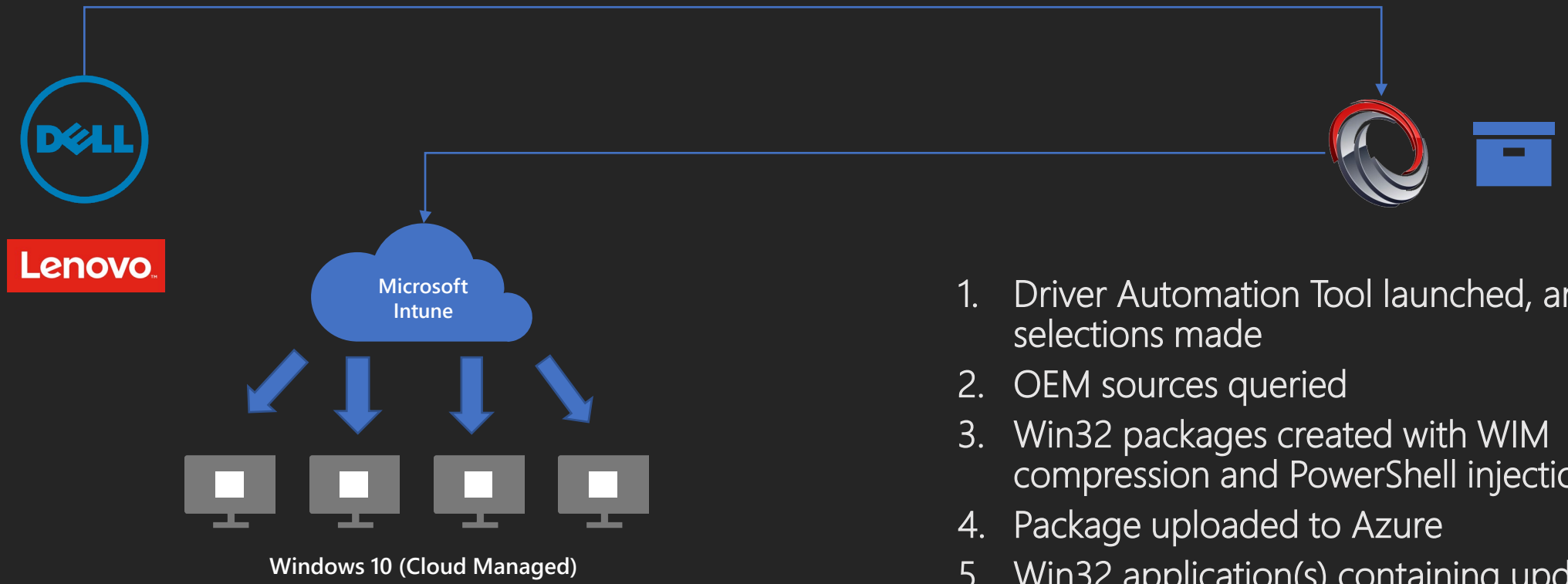


Intune Driver & BIOS Control Workflow



1. Driver Automation Tool launched, and selections made
2. HP Cabinet downloaded and XML extracted
3. XML created from selected models
4. Azure storage blob created if required
5. XML uploaded to Azure
6. Proactive Remediation PowerShell checks XML in Azure, and uses version information to update targeted systems
7. Updates are downloaded and installed via CMSL from HP

In Progress.. Dell & Lenovo Support



1. Driver Automation Tool launched, and selections made
2. OEM sources queried
3. Win32 packages created with WIM compression and PowerShell injection script
4. Package uploaded to Azure
5. Win32 application(s) containing updated drivers / firmware targeted at devices
6. Win32 package downloaded and installed

NORDIC
– VIRTUAL SUMMIT –

Demo

Driver Automation Tool V7

Intune BIOS Control (Beta)

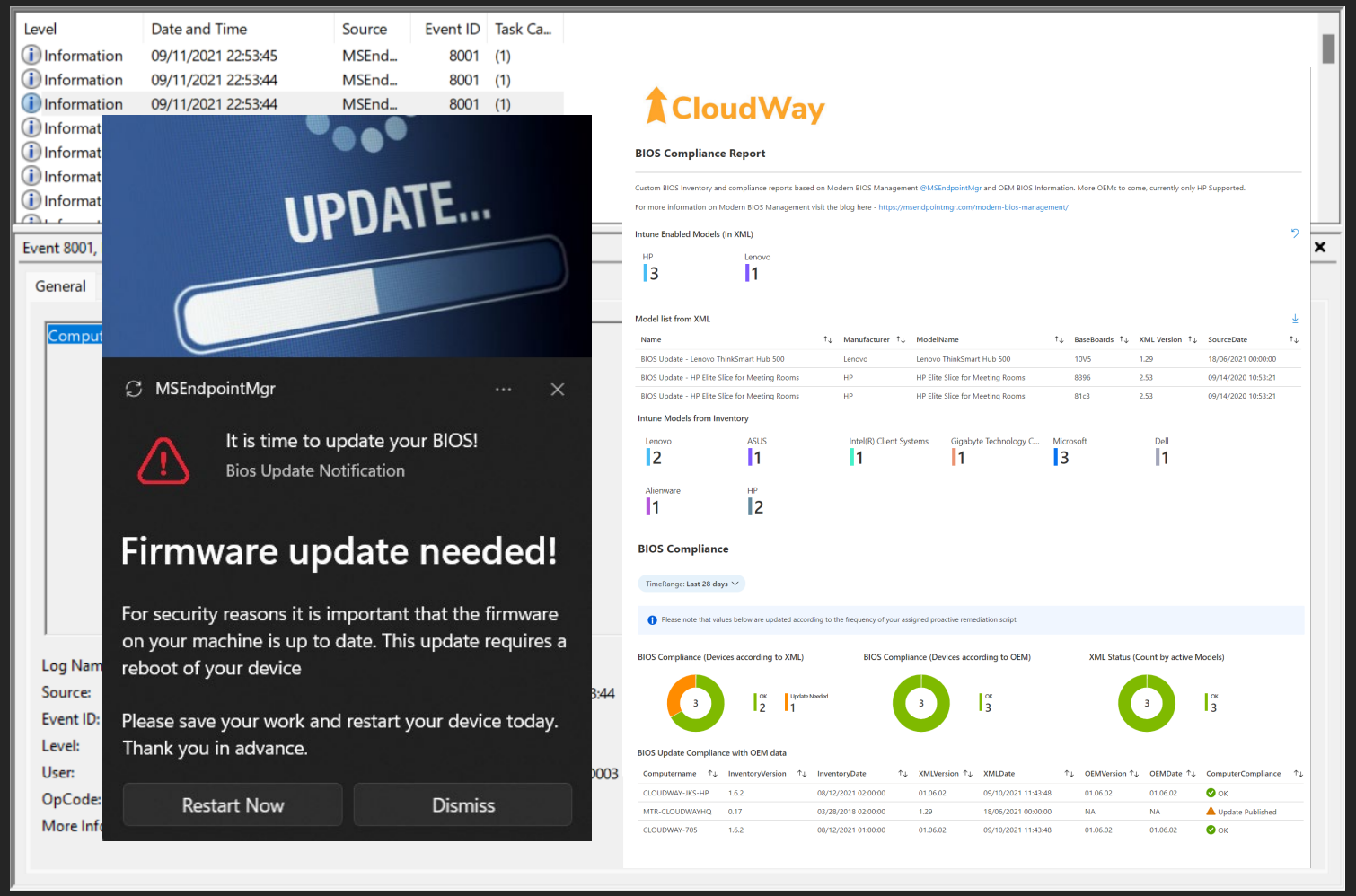
NORDIC
— VIRTUAL SUMMIT —

Framework

- Driver Automation Tool
- Proactive Remediation Scripts
- Log Analytics Workbook
- Event viewer logging
- User toast notifications with corporate branding option

In Progress

- Multivendor support*
- Azure key vault storage*
- Win32 driver packages



Intune BIOS Control (Beta)

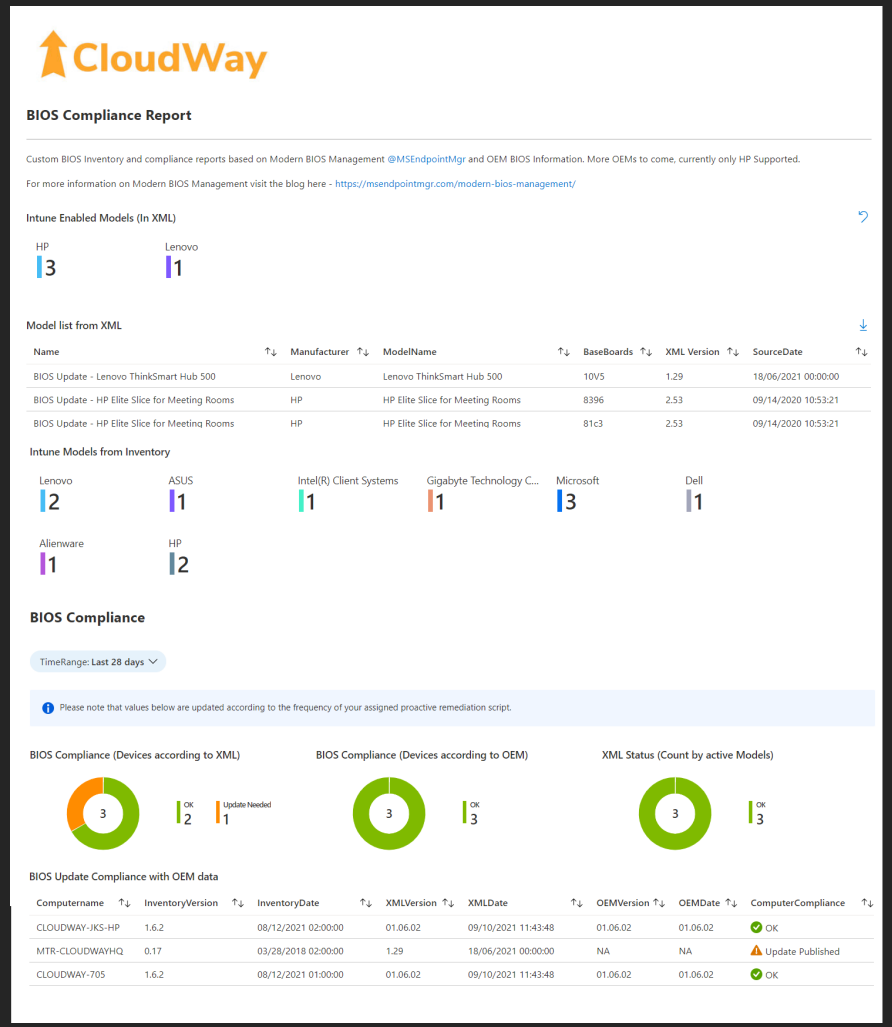
NORDIC
— VIRTUAL SUMMIT —

Framework

- Driver Automation Tool
- Proactive Remediation Scripts
- Log Analytics Workbook
- Event viewer logging
- User toast notifications with corporate branding option

In Progress

- Multivendor support*
- Azure key vault storage*
- Win32 driver packages



BIOS Update - Lenovo ThinkSmart Hub 500	Lenovo	Lenovo ThinkSmart Hub 500	10V5	1.29	18/06/2021 00:00:00
BIOS Update - HP Elite Slice for Meeting Rooms	HP	HP Elite Slice for Meeting Rooms	8396	2.53	09/14/2020 10:53:21
BIOS Update - HP Elite Slice for Meeting Rooms	HP	HP Elite Slice for Meeting Rooms	81c3	2.53	09/14/2020 10:53:21

Intune Models from Inventory

Lenovo	ASUS	Intel(R) Client Systems	Gigabyte Technology C...	Microsoft	Dell
2	1	1	1	3	1

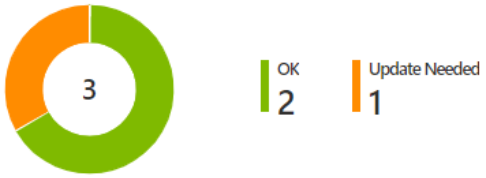
Alienware	HP
1	2

BIOS Compliance

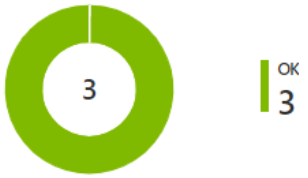
TimeRange: **Last 28 days**

Please note that values below are updated according to the frequency of your assigned proactive remediation script.

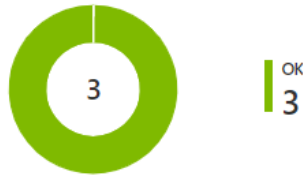
BIOS Compliance (Devices according to XML)



BIOS Compliance (Devices according to OEM)



XML Status (Count by active Models)



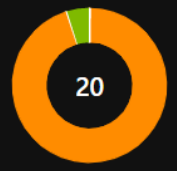
BIOS Update Compliance with OEM data

Computername	InventoryVersion	InventoryDate	XMLVersion	XMLDate	OEMVersion	OEMDate	ComputerCompliance
CLOUDWAY-JKS-HP	1.6.2	08/12/2021 02:00:00	01.06.02	09/10/2021 11:43:48	01.06.02	01.06.02	OK
MTR-CLOUDWAYHQ	0.17	03/28/2018 02:00:00	1.29	18/06/2021 00:00:00	NA	NA	Update Published
CLOUDWAY-705	1.6.2	08/12/2021 01:00:00	01.06.02	09/10/2021 11:43:48	01.06.02	01.06.02	OK

Search resources, services, and docs (G+/)

og | Workbooks | BIOS Update Compliance

Workbooks | Edit | Help | Auto refresh: Off



Update available from OEM
19

OK
1

Search

Time	Status	Computer	O...	Model	OEM	OEM Version	Computer BIOS Date	Comp
11/11/2021, 9:07:31 AM	Update available from OEM		HP	HP EliteBook 850 G5	8/4/2021, 2:00:00 AM	01.17.00	9/12/2018, 4:00:00 AM	1.4.0
11/11/2021, 8:30:17 AM	Update available from OEM		HP	HP EliteBook x360 1030 G3	8/4/2021, 2:00:00 AM	01.17.00	10/16/2019, 4:00:00 AM	1.9.1
11/11/2021, 8:30:18 AM	Update available from OEM		HP	HP EliteBook x360 1030 G3	8/4/2021, 2:00:00 AM	01.17.00	7/28/2020, 4:00:00 AM	1.12.0
11/11/2021, 8:30:18 AM	Update available from OEM		HP	HP Elite Dragonfly	7/26/2021, 2:00:00 AM	01.10.01	8/3/2020, 4:00:00 AM	1.6.0
11/11/2021, 8:30:21 AM	Update available from OEM		HP	HP EliteBook x360 1030 G4	7/29/2021, 2:00:00 AM	01.10.01	8/3/2020, 4:00:00 AM	1.6.0
11/11/2021, 6:35:22 AM	Update available from OEM		HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
11/11/2021, 8:30:28 AM	Update available from OEM		HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
11/11/2021, 10:20:30 AM	Update available from OEM		HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
11/11/2021, 9:08:33 AM	Update available from OEM		HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	11/5/2020, 2:00:00 AM	1.3.2
11/11/2021, 8:51:27 AM	Update available from OEM		HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	11/5/2020, 2:00:00 AM	1.3.2
11/11/2021, 8:30:55 AM	Update available from OEM		HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	1/5/2021, 2:00:00 AM	1.4.1
11/11/2021, 8:30:17 AM	Update available from OEM		HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	1/5/2021, 2:00:00 AM	1.4.1
11/10/2021, 2:55:25 PM	Update available from OEM		HP	HP EliteBook x360 1030 G4	7/29/2021, 2:00:00 AM	01.10.01	4/22/2021, 4:00:00 AM	1.9.0
11/10/2021, 3:36:04 PM	Update available from OEM		HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	4/26/2021, 4:00:00 AM	1.5.0

mputer	O...	Model	OEM	OEM Version	Computer BIOS Date	Comp
[redacted]	HP	HP EliteBook 850 G5	8/4/2021, 2:00:00 AM	01.17.00	9/12/2018, 4:00:00 AM	1.4.0
[redacted]	HP	HP EliteBook x360 1030 G3	8/4/2021, 2:00:00 AM	01.17.00	10/16/2019, 4:00:00 AM	1.9.1
[redacted]	HP	HP EliteBook x360 1030 G3	8/4/2021, 2:00:00 AM	01.17.00	7/28/2020, 4:00:00 AM	1.12.0
[redacted]	HP	HP Elite Dragonfly	7/26/2021, 2:00:00 AM	01.10.01	8/3/2020, 4:00:00 AM	1.6.0
[redacted]	HP	HP EliteBook x360 1030 G4	7/29/2021, 2:00:00 AM	01.10.01	8/3/2020, 4:00:00 AM	1.6.0
[redacted]	HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
[redacted]	HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
[redacted]	HP	HP EliteBook 840 G7 Notebook PC	8/5/2021, 2:00:00 AM	01.06.01	11/4/2020, 2:00:00 AM	1.3.2
[redacted]	HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	11/5/2020, 2:00:00 AM	1.3.2
[redacted]	HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	11/5/2020, 2:00:00 AM	1.3.2
[redacted]	HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	1/5/2021, 2:00:00 AM	1.4.1
[redacted]	HP	HP EliteBook x360 1030 G7 Notebook PC	7/26/2021, 2:00:00 AM	01.06.00	1/5/2021, 2:00:00 AM	1.4.1
[redacted]	HP	HP EliteBook x360 1030 G4	7/29/2021, 2:00:00 AM	01.10.01	4/22/2021, 4:00:00 AM	1.9.0

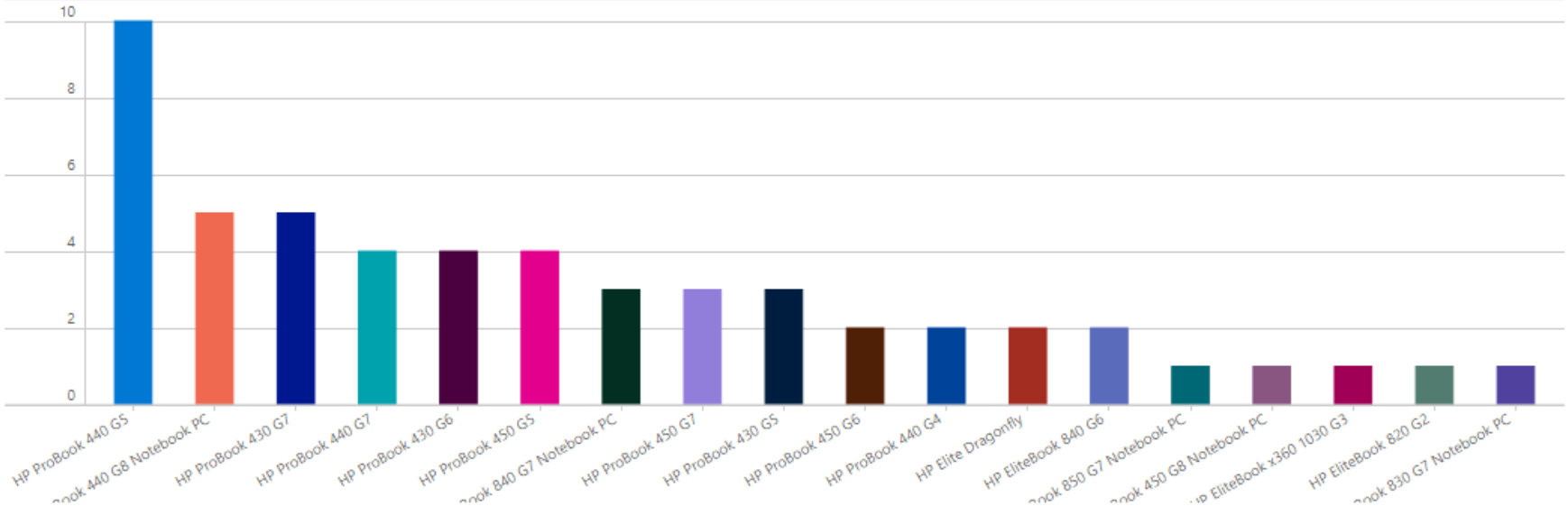
Intune BIOS Control (Beta)

NORDIC
– VIRTUAL SUMMIT –

BIOS Report

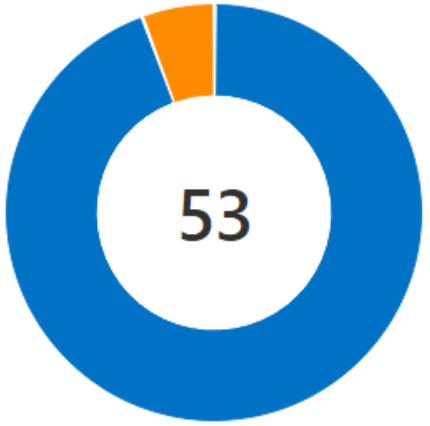
TimeRange: Last 48 hours

Models in Production



HP ProBook 440 G5	HP ProBook 440 G8 Note...	HP ProBook 430 G7	HP ProBook 440 G7	HP ProBook 430 G6	HP ProBook 450 G5	HP EliteBook 840 G7 Note...	HP ProBook 450 G7
10	5	5	4	4	4	3	3

BIOS Status all devices



Update available from OEM
50

OK
3

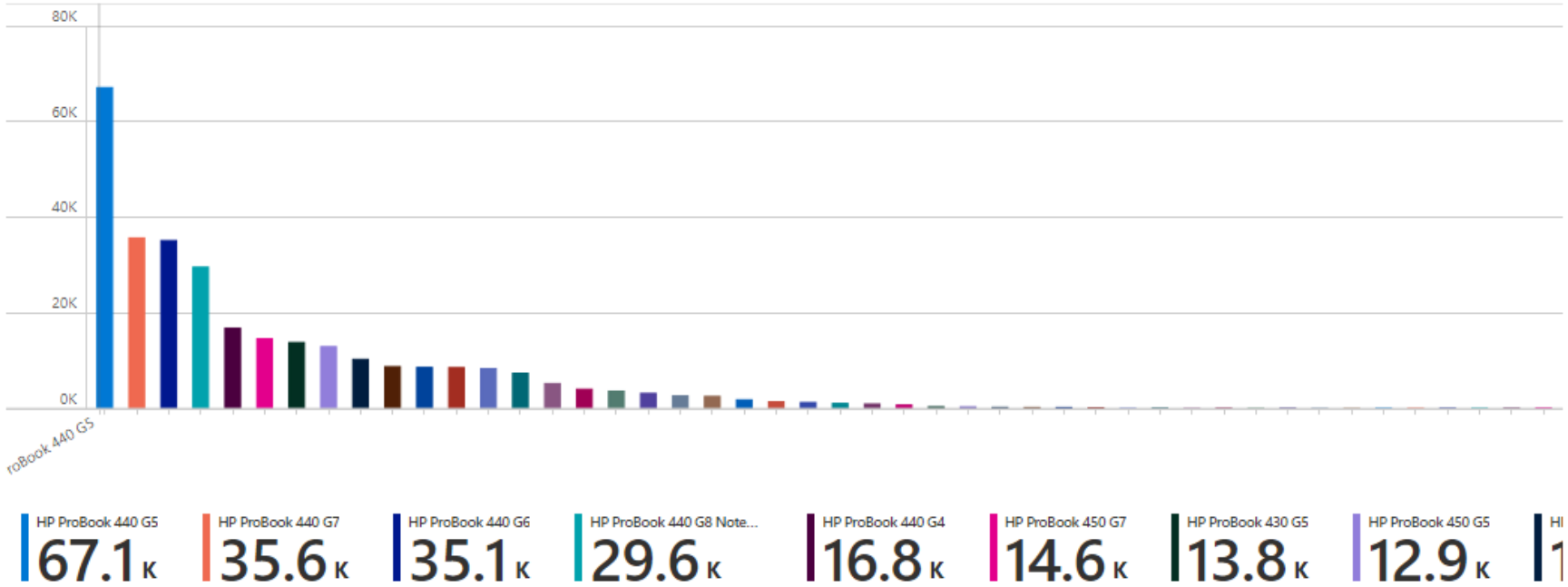
Intune BIOS Control (Beta)

NORDIC
– VIRTUAL SUMMIT –

BIOS Report

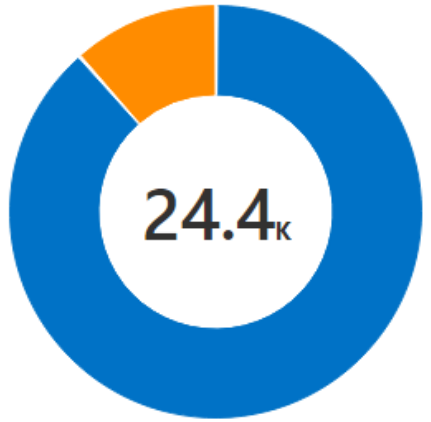
TimeRange: Last 90 days

Models in Production



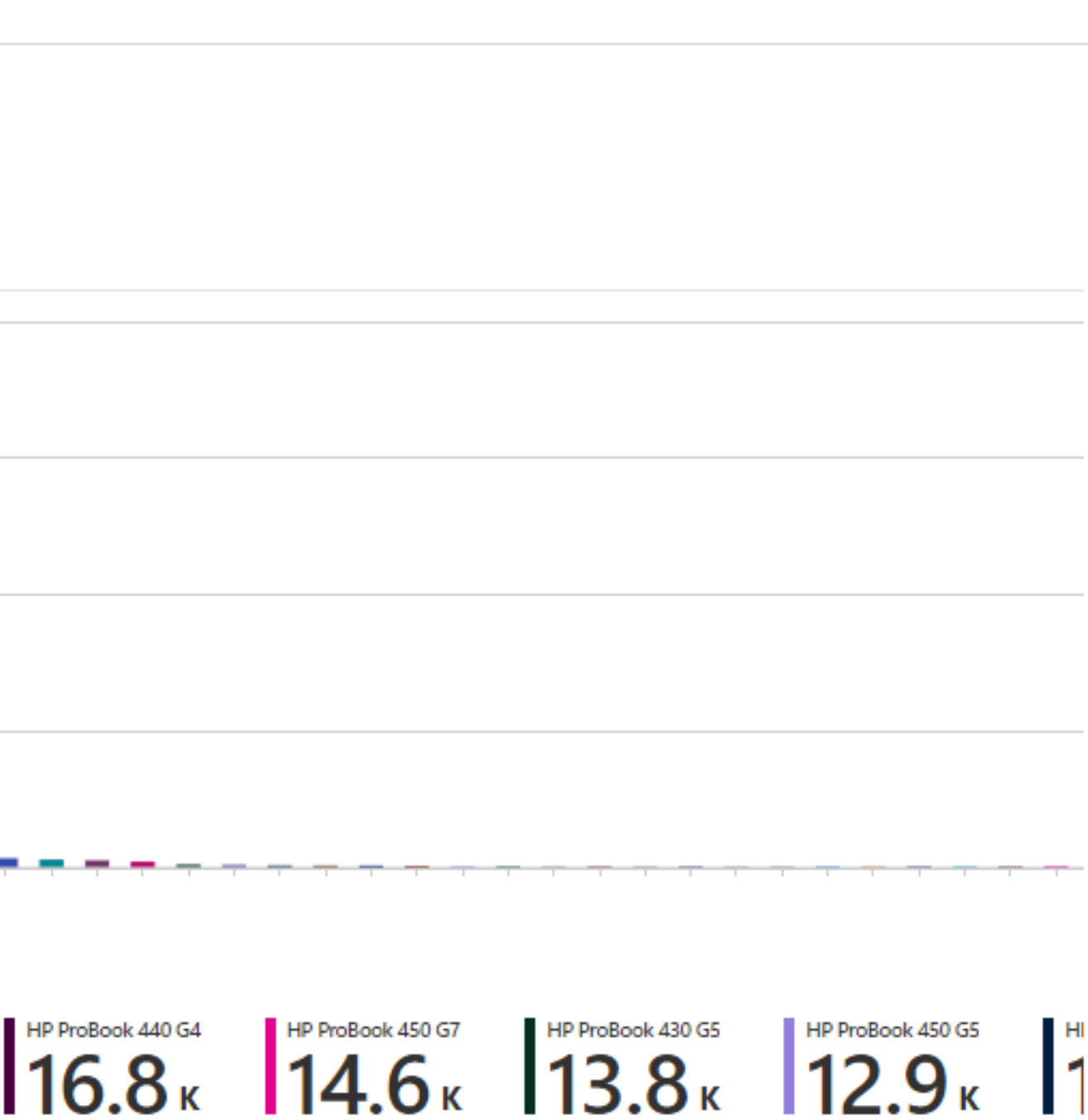
HP ProBook 440 G5	HP ProBook 440 G7	HP ProBook 440 G6	HP ProBook 440 G8 Note...	HP ProBook 440 G4	HP ProBook 450 G7	HP ProBook 430 G5	HP ProBook 450 G5	HI
67.1 K	35.6 K	35.1 K	29.6 K	16.8 K	14.6 K	13.8 K	12.9 K	1

BIOS Status all devices



Update available from OEM
21.6 K

OK
2.81 K



HP ProBook 440 G4
16.8 K

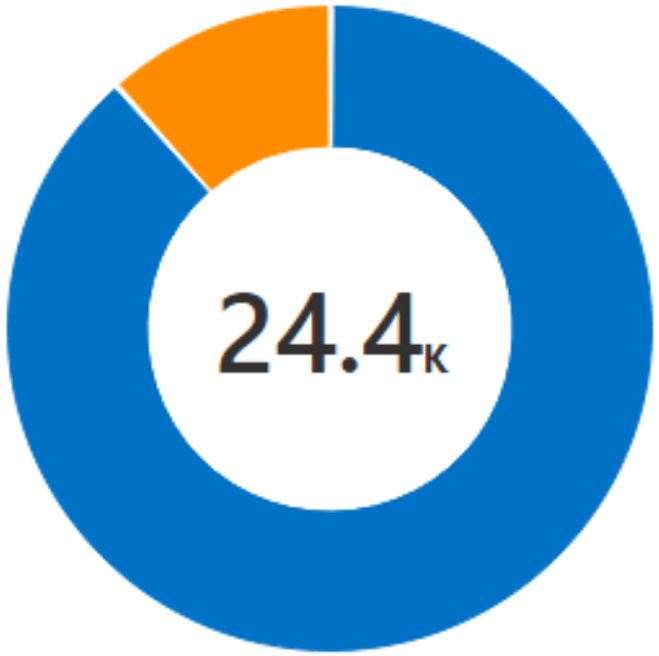
HP ProBook 450 G7
14.6 K

HP ProBook 430 G5
13.8 K

HP ProBook 450 G5
12.9 K

HI
1

BIOS Status all devices



Update available from OEM
21.6 K

OK
2.81 K

Intune BIOS Control (Beta)

NORDIC
— VIRTUAL SUMMIT —

Device BIOS Compliance

Search

Model_s	InventoryVersion	InventoryDate	OEMVersion	OEMDate	ComputerOEMUpdateStatus	SystemSKU_s
HP ProBook 440 G8 Notebook PC	1.6.3	08/26/2021 02:00:00	01.06.04	01.06.04	Update available from OEM	87E0
HP ProBook 440 G8 Notebook PC	1.4.1	05/26/2021 02:00:00	01.06.04	01.06.04	Update available from OEM	87E0
HP ProBook 440 G5	1.3.0	07/20/2018 02:00:00	01.17.00	01.17.00	Update available from OEM	837B
HP ProBook 440 G5	1.12.0	07/29/2020 02:00:00	01.17.00	01.17.00	Update available from OEM	837B
HP ProBook 430 G7	1.3.1	03/02/2020 01:00:00	01.10.00	01.10.00	Update available from OEM	869B
HP ProBook 430 G7	1.3.1	03/02/2020 01:00:00	01.10.00	01.10.00	Update available from OEM	869B
HP ProBook 430 G7	1.3.1	03/02/2020 01:00:00	01.10.00	01.10.00	Update available from OEM	869B
HP ProBook 450 G7	1.7.2	10/29/2020 01:00:00	01.10.00	01.10.00	Update available from OEM	86A0
HP EliteBook 840 G6	1.3.4	11/06/2019 01:00:00	01.10.01	01.10.01	Update available from OEM	8549
HP EliteBook 820 G2	1.4	02/24/2015 01:00:00	01.31	01.31	Update available from OEM	225A
HP EliteBook 840 G7 Notebook PC	1.3.2	11/04/2020 01:00:00	01.06.01	01.06.01	Update available from OEM	8723

NORDIC
– VIRTUAL SUMMIT –

Demo

Intune BIOS Control

Intune BIOS Control (Beta)

NORDIC
– VIRTUAL SUMMIT –

Beta Release Information

- Blog to be published on the MSEndpointMgr.com blog on **Monday 15th of November**
- Driver Automation Tool V7, Proactive Remedation Scripts, and Log Analytics Workbook JSON will be made available at the same time
- Initially ONLY for HP, but Dell to follow by the end of November, and Lenovo in December

Coming in early 2022

- Multivendor support
- Azure key vault storage
- Win32 driver packages

Thank you!

NORDIC
– VIRTUAL SUMMIT –

- Jan Ketil Skanke
- @JankeSkanke
- janketil@msendpointmgr.com

- Maurice Daly
- @modaly_it
- maurice@msendpointmgr.com

Modern Management User Group Norway
#MMUGNO

MSEndpointMgr.com
#MSEndpointMgr

System Center User Group Sweden
#SCUGSE

System Center User Group Finland
#SCUGFI

System Center User Group Denmark
#SCUGDK