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Managing the Transition to Windows 11

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BigFix is Windows 11 ready!

- KB0087327 – Detailed System Requirements updated to reflect Win11 support
- Console, Agent & Relay in v10.0.4 is supported in Win11
- Feature upgrade content is available
- Patch content is available

Table 5. Windows - Summary

Operating system	Hardware	Bitness	Product minimum	Supported				Notes
				Server	Console	Agent	Relay	
Windows 11 Enterprise	x86-64	64-Exploit, 64-Tolerate	10.0.4	No	Yes	Yes	Yes	The highest version of Windows 11 supported by the Agent is 21H2. The highest version of Windows 11 supported by the Relay is 21H2. The highest version of Windows 11 supported by the Console is 21H2.
Windows 11 Pro	x86-64	64-Exploit, 64-Tolerate	10.0.4	No	Yes	Yes	Yes	The highest version of Windows 11 supported by the Agent is 21H2. The highest version of Windows 11 supported by the Relay is 21H2. The highest version of Windows 11 supported by the Console is 21H2.
Windows 11 IoT Enterprise	x86-64	64-Tolerate	10.0.4	No	No	Yes	No	The highest version of Windows 11 supported by the Agent is 21H2.
Windows 11 Education	x86-64	64-Exploit, 64-Tolerate	10.0.4	No	Yes	Yes	Yes	The highest version of Windows 11 supported by the Agent is 21H2. The highest version of Windows 11 supported by the Relay is 21H2. The highest version of Windows 11 supported by the Console is 21H2.

Source: https://support.hcltechsw.com/csm?id=kb_article&sysparm_article=KB0087327



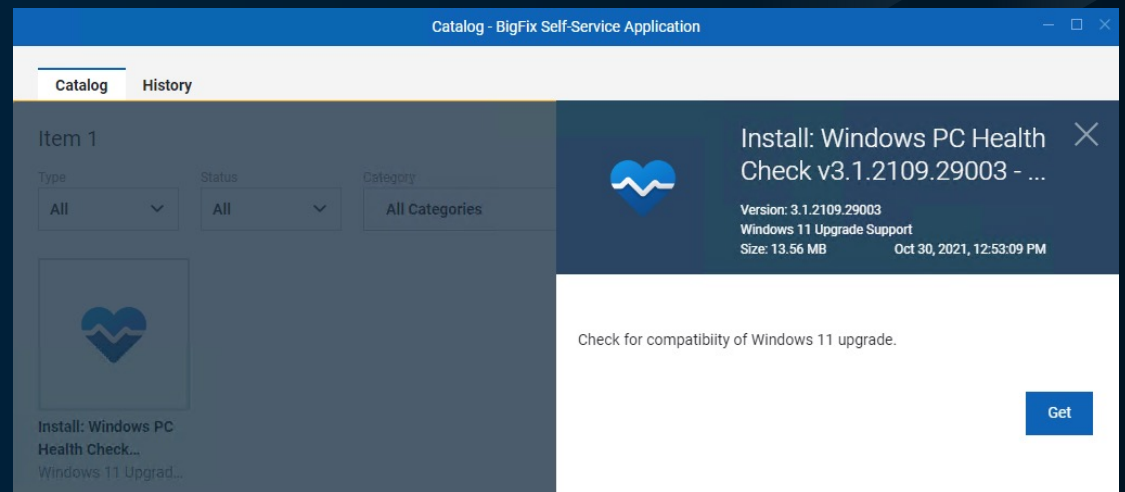
Windows 11 System Requirements

- Must be running Windows 10 version 2004 or later to upgrade.
- Processor: 1 gigahertz (GHz) or faster with 2 or more cores on a 64-bit processor
- RAM: 4 GB
- Storage: 64 GB or larger storage device
- System firmware: UEFI, Secure Boot capable
- TPM: Trusted Platform Module version 2.0
- Graphics card: Compatible with DirectX 12 or later with WDDM 2.0 driver
- Display: High definition (720p) display that is greater than 9" diagonally

Source: <https://www.microsoft.com/en-us/windows/windows-11-specifications>

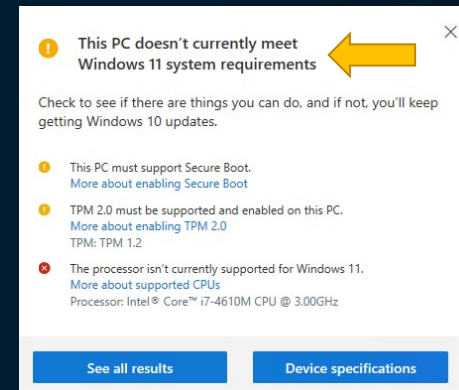
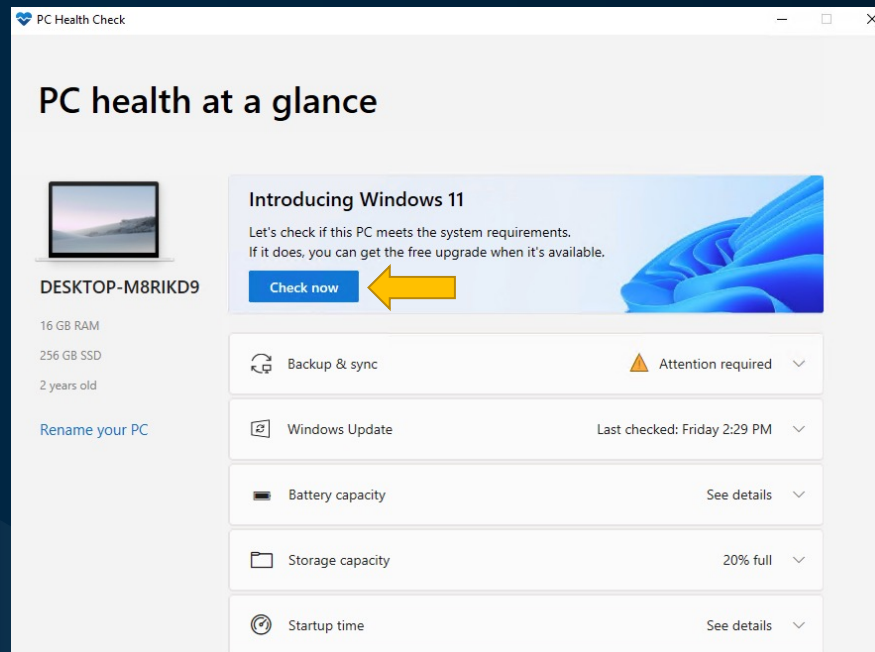
Plan for Windows 11

- Determine eligibility and assess current endpoints
- Microsoft provides the Windows PC Health Check app
- Example deployment of the app via Self-Service Application.
- The app automatically starts upon install on the targeted endpoint.



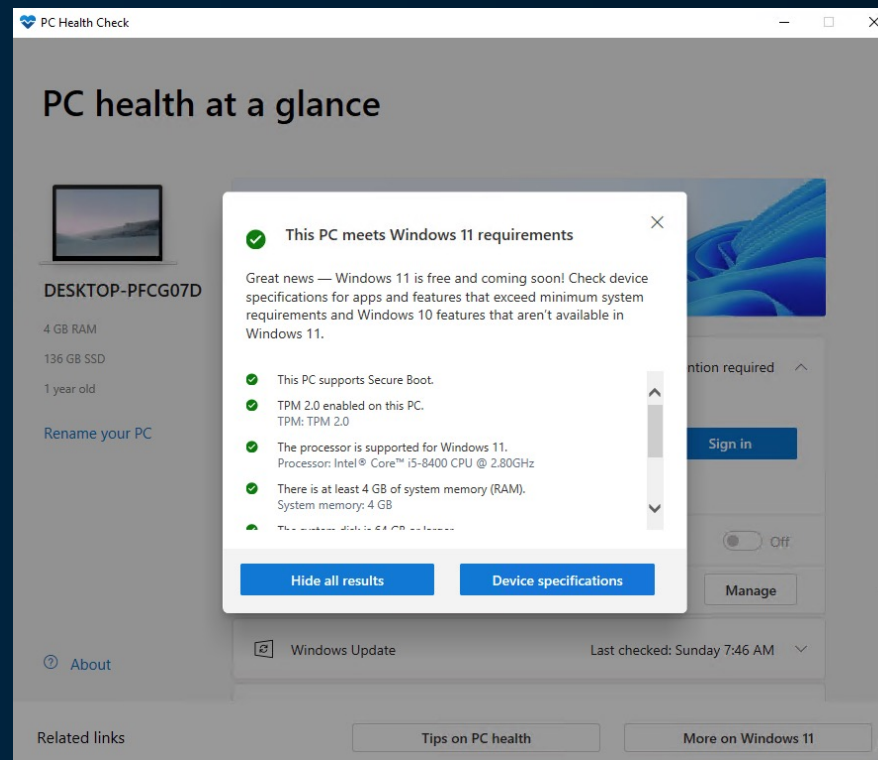
Plan for Windows 11

- Windows PC Health Check app available via <https://aka.ms/GetPCHealthCheckApp>



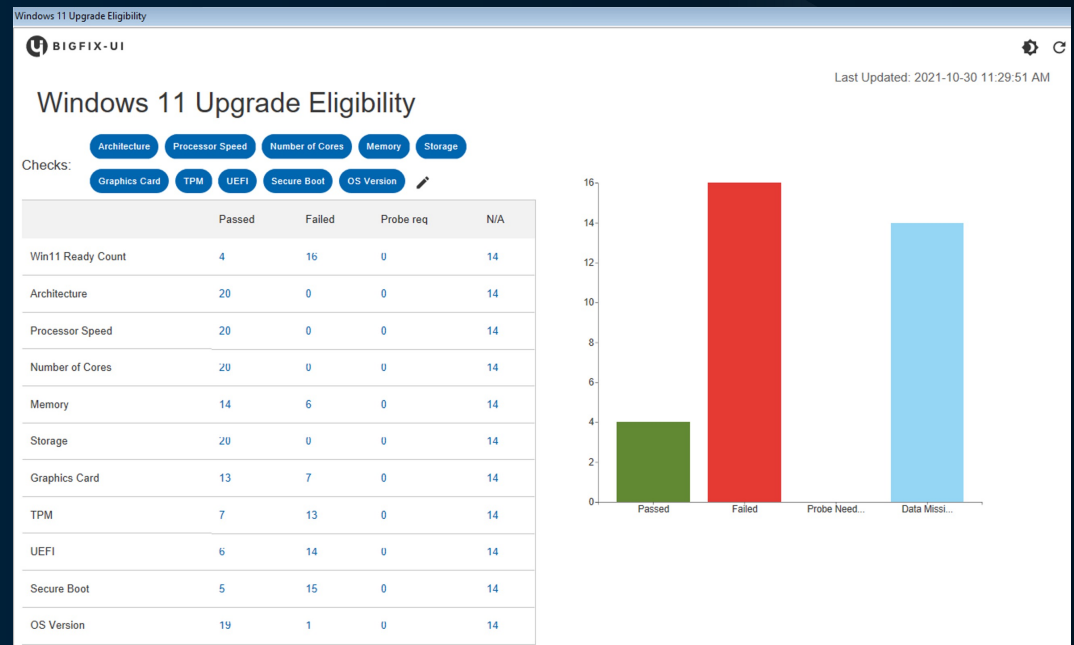
Plan for Windows 11

- Windows PC Health Check app available via <https://aka.ms/GetPCHealthCheckApp>



Plan for Windows 11

- BigFix has made available a dashboard, analysis, task and web report to assist with you Win11 assessment.
- Example Dashboard – Windows 11 Upgrade Eligibility



Plan for Windows 11

- Available dashboard, analysis, task and web report to assist.
- Example Analysis – Windows 11 Upgrade Eligibility Information

Analysis: Windows 11 Upgrade Eligibility Information - BigFix Console

Activate Deactivate Edit Export Hide Locally Hide Globally Remove

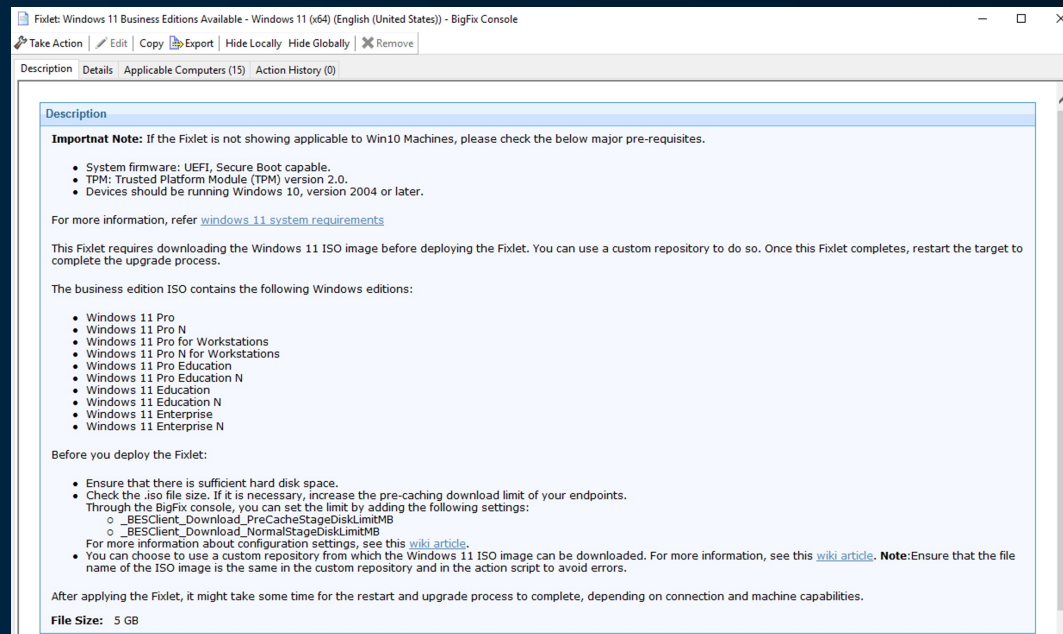
Description Details Results Applicable Computers (20)

View as list

Co...	OS Architecture	Processor Spee...	Processor Core...	Memory Check	Storage Check	Video Card Memory C...	TPM 2.0 Check	UEFI State Check	Secure Boot State Check	OS Version Check
B...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
C...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
D...	PASS	PASS	PASS	FAIL - Current memory in MB: 4014	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
D...	PASS	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
D...	PASS	PASS	PASS	FAIL - Current memory in MB: 4094	PASS	FAIL - Issues: WDDM 1.3	PASS	PASS	PASS	PASS
F...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
F...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
F...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
F...	PASS	PASS	PASS	PASS	PASS	FAIL - Issues: WDDM 1.3	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
G...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
H...	PASS	PASS	PASS	FAIL - Current memory in MB: 4029	PASS	FAIL - Issues: WDDM 1.1	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
H...	PASS	PASS	PASS	FAIL - Current memory in MB: 4029	PASS	FAIL - Issues: WDDM 1.1	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
L...	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
M...	PASS	PASS	PASS	PASS	PASS	FAIL - Issues: WDDM 1.2	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
M...	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
O...	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
R...	PASS	PASS	PASS	PASS	PASS	PASS	FAIL - TPM not visible in wmi	PASS	FAIL - Secure Boot Disabled	FAIL - Current Version: 1809
S...	PASS	PASS	PASS	FAIL - Current memory in MB: 3993	PASS	FAIL - Issues: WDDM 1.2	FAIL - TPM not visible in wmi	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS
U...	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
X...	PASS	PASS	PASS	FAIL - Current memory in MB: 4054	PASS	FAIL - Issues: WDDM 1.2	PASS	FAIL - BIOS boot mode	FAIL - Secure Boot Disabled	PASS

Deploy Windows 11 In-place Feature Upgrade

- 25 x Fixlets in the Patches for Windows site for each supported system language
- Fixlets & Tasks >> Fixlets Only >> By Site >> Patches for Windows >> By Category >> Upgrade



Fixlet: Windows 11 Business Editions Available - Windows 11 (x64) (English (United States)) - BigFix Console

Take Action | Edit | Copy | Export | Hide Locally | Hide Globally | Remove

Description | Details | Applicable Computers (15) | Action History (0)

Description

Important Note: If the Fixlet is not showing applicable to Win10 Machines, please check the below major pre-requisites.

- System firmware: UEFI, Secure Boot capable.
- TPM: Trusted Platform Module (TPM) version 2.0.
- Devices should be running Windows 10, version 2004 or later.

For more information, refer [windows 11 system requirements](#)

This Fixlet requires downloading the Windows 11 ISO image before deploying the Fixlet. You can use a custom repository to do so. Once this Fixlet completes, restart the target to complete the upgrade process.

The business edition ISO contains the following Windows editions:

- Windows 11 Pro
- Windows 11 Pro N
- Windows 11 Pro for Workstations
- Windows 11 Pro N for Workstations
- Windows 11 Pro Education
- Windows 11 Pro Education N
- Windows 11 Education
- Windows 11 Education N
- Windows 11 Enterprise
- Windows 11 Enterprise N

Before you deploy the Fixlet:

- Ensure that there is sufficient hard disk space.
- Check the .iso file size. If it is necessary, increase the pre-caching download limit of your endpoints. Through the BigFix console, you can set the limit by adding the following settings:
 - _BESClient_Download_PreCacheStageDiskLimitMB
 - _BESClient_Download_NormalStageDiskLimitMB
- For more information about configuration settings, see this [wiki article](#).
- You can choose to use a custom repository from which the Windows 11 ISO image can be downloaded. For more information, see this [wiki article](#). **Note:** Ensure that the file name of the ISO image is the same in the custom repository and in the action script to avoid errors.

After applying the Fixlet, it might take some time for the restart and upgrade process to complete, depending on connection and machine capabilities.

File Size: 5 GB

Deploy Windows 11 In-place Feature Upgrade

- Recommended client settings on the endpoint:
- `_BESClient_Windows_EnableFeatureUpgrade_log = 1`
 - Additional log files will remain on the endpoint in `C:\win11_upgrade_temp`
- `_BESClient_Download_PreCacheStageDiskLimitMB = 6144`
- `_BESClient_Download_NormalStageDiskLimitMB = 6144`
 - Allows the endpoint to pre-cache the ISO file or normal staging of the ISO file
- The ISO file must be downloaded from Microsoft and manually cached on the BigFix Root Server.
- Alternative method is to configure a custom repository setting directing the endpoint to download the ISO file from another source. See task # 43 – “Set or Update Custom Repository Setting (Windows)” in the Patching Support site.

Documentation: <https://bigfix-wiki.hcltechsw.com/wikis/home?lang=en-us#!/wiki/BigFix%20Wiki/page/Using%20the%20Custom%20Repository%20Setting%20feature>

Documentation: https://help.hcltechsw.com/bigfix/10.0/patch/Patch/Patch_Windows/c_using_the_custom_repository_setting_feature.html

Deploy Windows 11 In-place Feature Upgrade

Windows 11 (business editions), version 21H2

Info Keys

Windows 11 (business editions) (x64) - DVD (English)

For this multi-edition business media, use a product key specific to the edition in the list you want to activate.

This multi-edition Business media includes the following editions:

- Windows 11 Pro
- Windows 11 Pro N
- Windows 11 Pro for Workstations
- Windows 11 Pro N for Workstations
- Windows 11 Pro Education
- Windows 11 Pro Education N
- Windows 11 Education
- Windows 11 Education N
- Windows 11 Enterprise
- Windows 11 Enterprise N

Note: Not all devices running Windows 10 are eligible to receive a Windows 11 upgrade. See the [Windows 11 device specifications](#) for upgrade requirements and supported features. Certain features require additional hardware.

Installing Windows 11 media on a PC that does not meet the Windows 11 minimum system requirements is not recommended and may result in compatibility issues. If you proceed with installing Windows 11 on a PC that does not meet the requirements, that PC will no longer be supported and won't be entitled to receive updates. Damages to the PC due to lack of compatibility aren't covered under the manufacturer warranty.

Released: 04/Oct/2021

SHA256: 6939B236E6976F6EEAEA045DE805801F312700300C8359D17C0ABF31B35371E3

File name: en-us_windows_11_business_editions_x64_dvd_3a304c08.iso

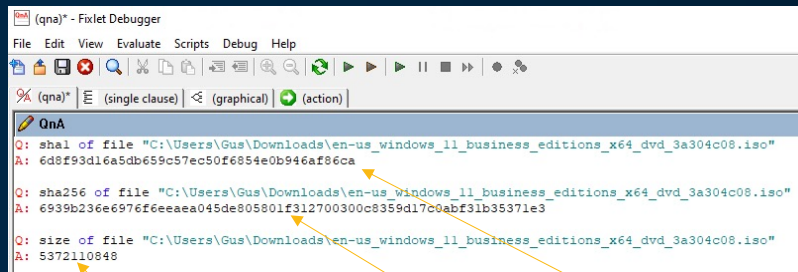
```
Fixlet: Windows 11 Business Editions Available - Windows 11 (x64) (English (United States))
Take Action | Edit | Copy | Export | Hide Locally | Hide Globally | Remove

Description Details Applicable Computers (15) Action History (0)

Action1
Script Type BigFix Action Script

begin prefetch block
if ((free space of drive of windows folder)/(1024*1024*1024) > 5 )
add prefetch item name en-us_windows_11_business_editions_x64_dvd_3a304c08.iso sha1=6D8F93D16A5DB659C57EC50F6854E0B946AF86CA
size=5372110848 url=(value of setting " BESClient AllowCustomRepoDownloads" of client | "http://MANUAL BES CACHING REQUIRED/")
en-us_windows_11_business_editions_x64_dvd_3a304c08.iso sha256=6939B236E6976F6EEAEA045DE805801F312700300C8359D17C0ABF31B35371E3
end prefetch block
```

Deploy Windows 11 In-place Feature Upgrade

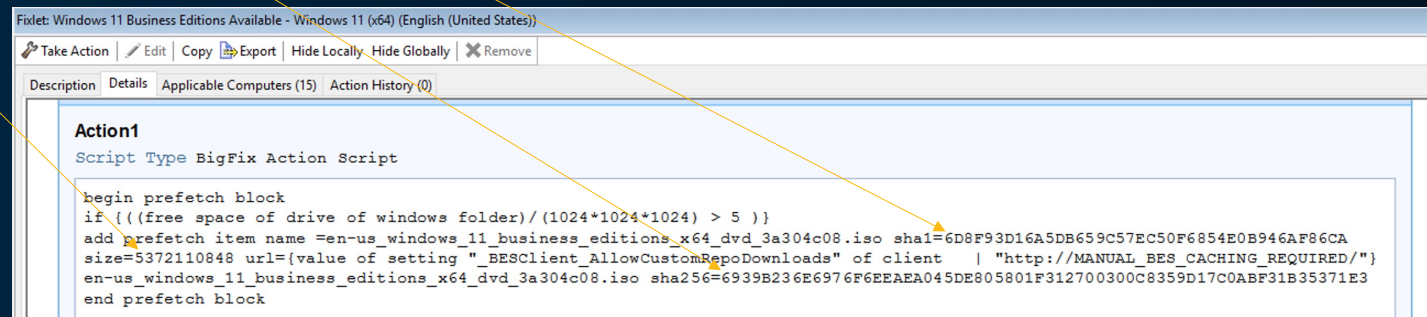


```
Q: sha1 of file "C:\Users\Gus\Downloads\en-us_windows_11_business_editions_x64_dvd_3a304c08.iso"
A: 6d8f93d16a5db659c57ec50f6854e0b946af86ca

Q: sha256 of file "C:\Users\Gus\Downloads\en-us_windows_11_business_editions_x64_dvd_3a304c08.iso"
A: 6939b236e6976f6eeaea045de805801f312700300c8359d17c0abf31b35371e3

Q: size of file "C:\Users\Gus\Downloads\en-us_windows_11_business_editions_x64_dvd_3a304c08.iso"
A: 5372110848
```

- Rename downloaded ISO file to the sha1 value and place in the \BES Server\wwwrootbes\bfmirror\downloads\sha1 directory.
- In this example, the file was:
en-us_windows_11_business_editions_x64_dvd_3a304c08.iso
and it was renamed to:
6d8f93d16a5db659c57ec50f6854e0b946af86ca



```
begin prefetch block
if {((free space of drive of windows folder)/(1024*1024*1024) > 5 )}
add prefetch item name =en-us_windows_11_business_editions_x64_dvd_3a304c08.iso sha1=6D8F93D16A5DB659C57EC50F6854E0B946AF86CA
size=5372110848 url={value of setting "_BESClient_AllowCustomRepoDownloads" of client | "http://MANUAL_BES_CACHING_REQUIRED/"}
en-us_windows_11_business_editions_x64_dvd_3a304c08.iso sha256=6939B236E6976F6EEAEA045DE805801F312700300C8359D17C0ABF31B35371E3
end prefetch block
```

Deploy Windows 11 In-place Feature Upgrade

- Can we use an updated ISO file that includes the October update or updated ISO in the future?
Absolutely! Simply create a custom copy of the existing fixlet and modify the ISO file name (3 locations), file size value, sha1 value and sha256 value. For example:

```
Fixlet: Custom - Windows 11 Business Editions Available - Windows 11 (x64) (English (United States)) - October 2021 Update
Take Action | Edit | Copy | Export | Hide Locally | Hide Globally | Remove
Description | Details | Applicable Computers (4) | Action History (0)
Action1
Script Type BigFix Action Script
begin prefetch block
if {(free space of drive of windows folder)/(1024*1024*1024) > 5 }
add prefetch item name =en-us windows 11 business editions version 21h2 updated october 2021 x64 dvd 320e70b4.iso
sha1=5335c5e9e9996603c6c8fc01449b849dda16f47d size=5378758656 url={value of setting "_BESClient_AllowCustomRepoDownloads"
of client | "http://MANUAL_BES_CACHING_REQUIRED/"}en-
us windows 11 business editions version 21h2 updated october 2021 x64 dvd 320e70b4.iso
sha256=fee99f44a5f2307979ae12ecb4a21909d21f9589f87542d5ed74a4bb2c13d839
end prefetch block

parameter "workISO" = "{pathname of client folder of current site & "\\_Download\en-
us windows 11 business editions version 21h2 updated october 2021 x64 dvd 320e70b4.iso}"
continue if {exists file (parameter "workISO")}
```

OS Deployment Support for Windows 11

- OS Deployment (Part of BigFix Lifecycle) allows you to image/reimage/provision your Windows and Linux Endpoints
- For Windows 10 systems that are Windows 11 – compatible:
 - Perform a fresh install (not an upgrade) of Windows 11 on an endpoint
 - Capture user settings, to apply after installing Windows
 - Recover and re-provision assets within the company
- For Windows 10 systems that are not Windows 11 – compatible:
 - De-commission computers.
 - Re-claim licenses
 - Provision devices for sale/disposal

OS Deployment Support

- Re-provisioning devices, MDT Bundle Creator supports Windows 11
- Fresh install, Windows 11 ISO supported
- NOTE: if re-provisioning assets, check readiness reports first, then use report results to target compatible endpoints

The image shows two overlapping windows from the MDT Bundle Creator application. The top window, titled "Install MDT Bundle Creator", displays the following information:

- The following combination of tools will be installed:
 - MDT Bundle Creator
 - WADK 10 build 22000 (21H2) and MDT build 8456
 - This combination produces WinPE 10 build 22000 (21H2) based bundles
- Supported Operating Systems**
The bundle creator will generate bundles that can be used to deploy the following operating systems:
 - Windows XP
 - Windows Vista
 - Windows 7
 - Windows 8
 - Windows 8.1
 - Windows 10/11
 - Windows 2003
 - Windows 2008
 - Windows 2008 R2
 - Windows 2012
 - Windows 2012 R2
 - Windows Server
- The Bundle Creator installation may require the following additional prerequisite software. By using this installation program you are implicitly accepting the license agreements for this software.
- You will not be prompted to accept the new licenses. To view the individual license agreement statements, click on the links below.
- The licenses for these Microsoft products are included in their respective product installers.
 - [.NET Framework License](#)
 - [WADK 10 Build 22000 \(21H2\) License](#)
 - [MDT build 8456 License](#)
- I have read and agree to the license statements

The bottom window, titled "Import Image", shows the following information:

- Import Image**
- The image is now uploading in the background
- Select an image to import: specify the path or the path or file or to map a network drive.**
- Windows format image (.wim)
- Linux captured image (.lim)
- Installation Media (.iso)
- Installation Media folder (uncompressed .iso)
- Path: F:\BigFix Enterprise\BES Server\wwwroot\bes\manual
- Check the information below and choose whether to continue or not**

OS	Windows 11
Display Version	21H2
OS Version	10.0.22000.258
Architecture	X64
Size on Disk	4.32GB
Editions List	Windows 11 Home Windows 11 Home N Windows 11 Home Single Language Windows 11 Education Windows 11 Education N Windows 11 Pro Windows 11 Pro N

- Buttons: Upload, Analyze, Close

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OS Deployment Support

- Use Windows 11 WIM just as you use Windows 10
 - Import image or ISO
 - Pre-cache on OSD Server(s)
 - Deploy to target Computers

OS Deployment - Image Library

Image Library

This dashboard allows you to upload images that have been captured with the capture dashboard, or create images from installation media. You can manage the images here and delete or pre-cache as needed. You can copy profiles, templates, driver bindings and targeting rules from a reference image to another compatible image images that can be sent to bare metal servers.

Image Library

Import Image

Copy Settings from...

Deploy to Computer...

Pre-Cache

Delete

Image Name ↕	OS Version ↕	Origin ↕	Partitions ↕	Date Captured ↕	Image File Size ↕	Size on Disk ↕
Win10x64R2009_1633536658.wim	Windows 10 x64 B19043.928 (2009)	Setup	1	Wed, 06 Oct 2021 12:10:58 AM	4.45 GB	4.45 GB
Win11x64D21H2_1635999467.wim	Windows 11 x64 B22000.258 (21H2)	Setup	1	Thu, 04 Nov 2021 00:17:47 AM	4.32 GB	4.32 GB

Other Forward-Looking Support for Windows 11

- BigFix Inventory – support for Windows 11 in Q4 release (December target)
- Virtual Endpoint Manager – Offline Patching, VM creation from ISO
- Others (for example, SWD Wizard, Patch Policies) TBD, and to be announced.
- Other solutions readiness, or questions about compatibility, contact us!
- BigFix Compliance – supported currently, BETA versions of Compliance Checklists for Win 11

BigFix Resources & Contacts



SCAN ME

www.BigFix.com

offerings | features | resources | schedule demo



SCAN ME

support.BigFix.com

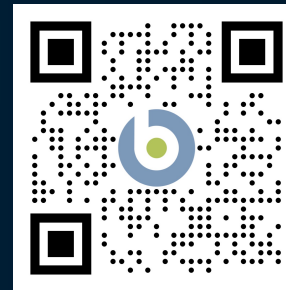
support | events | publications
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Products | github.com/bigfix | developer



Gus Richart
BigFix Dedicated Engineer
Accelerated Value Program (AVP)



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