

# OS Patching

- [Best Practice Guide: Software Update Deployment \(16.0+\)](#)

# Best Practice Guide: Software Update Deployment (16.0+)

## What

With FileWave Version 16+, the system for patching devices with Operating system updates has been overhauled, and your current workflows likely should be as well. This article will review how you can best cleanup, reorganize, and overall simplify your patch management processes.

**Note that you want to avoid assigning Windows OS updates to pre-16.0.0 clients because they will not function correctly. You can simply add a criteria to your SmartGroup to check if the "FileWave Client Version" begins with "16." and that would protect you until you can work to upgrade all of your devices.**

**Also note that Windows OS updates from before FileWave 16 should be purged from your server to free up disk space, and because they will not function correctly. This transition from the old format to this new format should be a one-time exercise to remove the old style of Windows OS updates and ensure your clients are upgraded to FileWave 16.0 or higher.**

## When/Why

Patch management of devices in your environment is the most important thing an IT manager does in almost every single organization. FileWave 16+ does operating system patching differently than before, but we feel confident if you follow this guide, and tailor it to your environment, that you'll find the new solution much more elegant and relatively care free.

For the purposes of this document, we'll use an example of a common deployment scenario, Alpha, Beta, then Production patching. That is, a system where you first test new patches against a small set of devices (your alpha group) to ensure patches work without issue. Later, you would deploy to the larger beta group to ensure distribution is good. Only when both Alpha and Beta are good would you deploy to Production.

**In some environments, folks go straight from test to production directly for OS patching. This will work fine as well, and you can tailor the below accordingly.**

## How

This concept was discussed on [Discord](#) so you can check out this video as well as the rest of this article to get more details;

<https://www.youtube.com/embed/trfs1Zbp3Ks>

As stated above, in our example organization, we patch as follows:








1. Each Monday we evaluate newly offered patches, and if we want to deploy them to test, we assign them to our Alpha group.
2. On Wednesday of each week, if Alpha testing was good, we'll assign these same patches to the Beta group.
3. And on the following Monday, if all is still well, we assign the same patches to our Production groups.

But if we are starting from scratch, how best do we do this? We need three sets of objects to make all of the above happen. Device groups, fileset groups, and deployments.

**Note: We are using Deployments here instead of associations on purpose. Deployments maintain their settings regardless of "new" content, and are much easier to use to add device exceptions (i.e. in this test, exclude Device A)**

## Device Groups

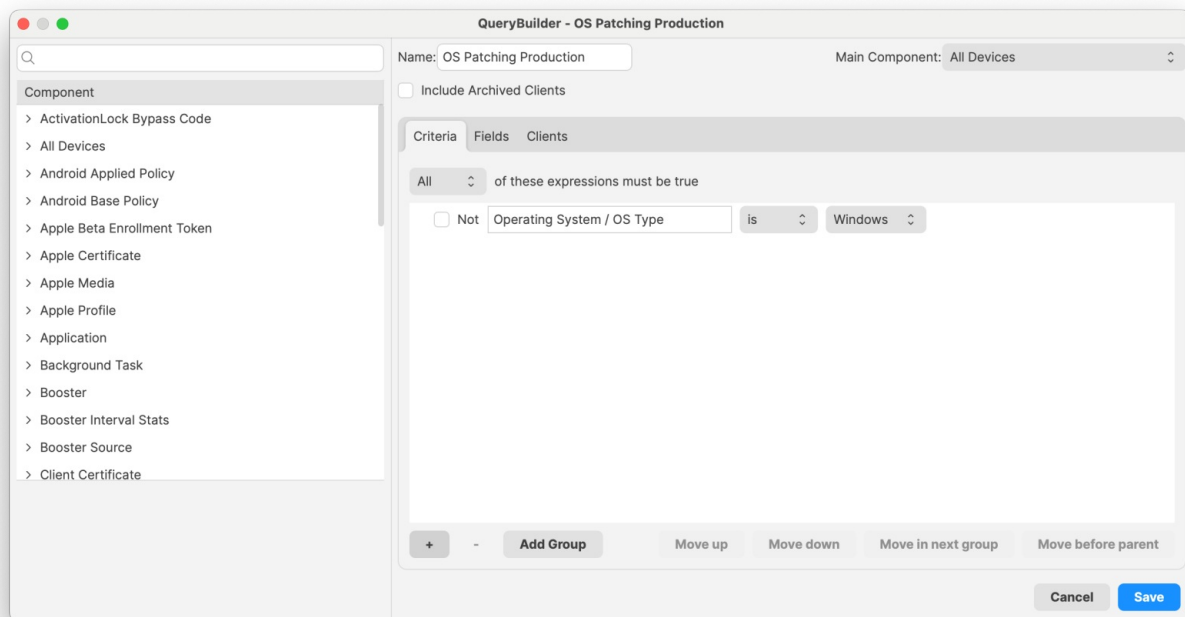
The device groups will be built like this:

- ✓  OS Patching (All Platforms)
  - >  OS Patching Alpha (Windows)
  - >  OS Patching Beta (Windows)
  - >  OS Patching Production (Windows)
  - >  OS Patching Alpha (Apple)
  - >  OS Patching Beta (Apple)
  - >  OS Patching Production (Apple)

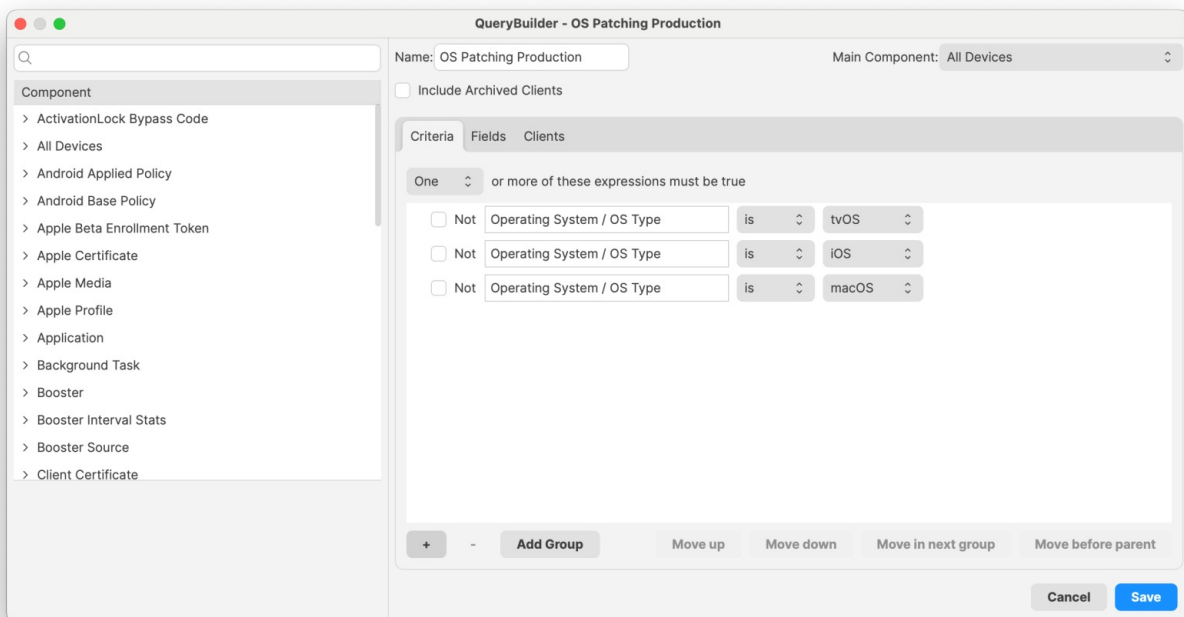
The top level group is only for organizational purposes, and includes three groups. There is a manual group for Alpha Devices and for Beta Devices (we'll put select devices in each group manually). The Production groups are smart groups based on operating systems we manage. In our case, Apple devices and Windows.

Note that once these groups are established, we will likely not need to edit them regularly. The "Production" smart group definition is shown below for Windows and then Apple. It's important for server performance to group them this way.

### OS Patching Production (Windows)






### OS Patching Production (Apple)



## Fileset Groups

FileWave Version 16+ makes bulk-creating and storing patches MUCH easier. For our example patching workflow we are going to create Fileset groups to match our device groups. Note again that we've added a top level group for organizational purposes.

- ✓  OS Patching (All Platforms)
  -  OS Patching Alpha (Apple)
  -  OS Patching Alpha (Windows)
  -  OS Patching Beta (Apple)
  -  OS Patching Beta (Windows)
  - >  OS Patching Production (Apple)
  - >  OS Patching Production (Windows)

## Deployments

Deployments are the way we'll relate the other two building blocks above. That is, we'll use deployments to relate Patches to Devices using the fileset groups and device groups we built above. Alpha patches to Alpha devices, etc. Notice that the "Beta" assignment contains both Alpha and Beta Groups...we do that because they are manual groups and we want to make sure those devices all receive the assignments. The Production deployment doesn't need that, because it is by platform and covers all devices no matter what groups they are in.

FileWave Central Admin

Update Model

New Deployment

Edit Deployment

Delete Deployment(s)

Dashboard

Clients

Filesets

Deployments

Associations

Imaging

Classroom

Search:

Name

Id

Filesets

Fileset Groups

Client or Group

6 Deployments

OS Patch

Name	Id	Filesets	Fileset Groups	Client or Group
OS Patching Alpha (Apple)	44		OS Patching Alpha (Apple)	OS Patching Alpha (Apple)
OS Patching Alpha (Windows)	41		OS Patching Alpha (Windows)	OS Patching Alpha (Windows)
OS Patching Beta (Apple)	45		OS Patching Alpha (Apple), OS Patching Beta (Apple)	OS Patching Beta (Apple)
OS Patching Beta (Windows)	42		OS Patching Alpha (Windows), OS Patching Beta (Windows)	OS Patching Beta (Windows)
OS Patching Production (Apple)	46		OS Patching Production (Apple)	OS Patching Production (Apple)
OS Patching Production (Windows)	40		OS Patching Production (Windows)	OS Patching Production (Windows)

Note that the assignments above are critical to the workflow, and you'll see that in the How to Use section below.

## How to Use?

Now that we have our building blocks in place, we can start patching. Let's pretend that it is Monday morning of a new week. Let's go into the Software Updates view to see what new patches are available to us:

Name	Size	Critical	Release Date	Latest Device Req...	Update ID	Installed	Missing
tvOSUpdate 18.3.1		No	3/10/2025 8:00 PM	3/16/2025 7:10 PM	gdmf-tvOSUpdate1...	0	1
tvOSUpdate 18.3		No	1/26/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-tvOSUpdate1...	0	1
tvOSUpdate 18.2.1		No	1/15/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-tvOSUpdate1...	0	1
tvOSUpdate 18.2		No	12/10/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-tvOSUpdate1...	0	1
tvOSUpdate 18.1		No	11/3/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-tvOSUpdate18.1	0	1
macOSUpdate 15.3.2		No	3/10/2025 8:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	0	2
macOSUpdate 15.3.1		No	2/9/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	0	2
macOSUpdate 15.3		No	1/26/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	0	2
macOSUpdate 15.2		No	12/10/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	0	2
macOSUpdate 15.1.1		No	11/18/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	0	2
macOSUpdate 15.1		No	11/3/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-macOSUpdat...	1	1
iPadOSUpdate 18.3.2		No	3/10/2025 8:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.3.1		No	2/9/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.3		No	1/26/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.2.1		No	1/5/2025 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.2		No	12/10/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.1.1		No	11/18/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 18.1		No	11/3/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 17.7.2		No	11/18/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 17.7.1		No	10/27/2024 8:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1
iPadOSUpdate 15.8.3		No	12/10/2024 7:00 PM	3/16/2025 7:10 PM	gdmf-iPadOSUpdat...	0	1

Name	Category	KB Article	Size	Critical	Release Date	Latest Device Req...	Update ID	In
Windows Malicious Software Removal Tool x64 - v5.132 (KB890830)	Update Rollups	890830	77.5 MB	No	2/11/2025 12:00 AM	3/14/2025 8:54 AM	193134c5-466d-47...	4
Update for Windows Security platform - KB5007651 (Version 10.0.27703.1006)	Definition Updates	5007651	18 MB	No	1/8/2025 12:00 AM	3/14/2025 8:54 AM	a32ca1d0-ddd4-48...	2
Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Ver...	Definition Updates	2267602	1.3 GB	No	3/16/2025 12:00 AM	3/15/2025 11:15 PM	eb877ba3-e7fd-44...	0
Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Ver...	Definition Updates	2267602	49.4 MB	No	3/14/2025 12:00 AM	3/14/2025 8:54 AM	cc78b164-10e3-43...	0
Security Intelligence Update for Microsoft Defender Antivirus - KB2267602 (Ver...	Definition Updates	2267602	1.2 GB	No	2/17/2025 12:00 AM	2/17/2025 5:00 PM	4ab932c6-e16b-48...	1
Realtek Semiconductor Corp. - MTD - 4/20/2018 12:00:00 AM - 10.0.16299.21304	Drivers		1.8 MB	No	4/20/2018 12:00 AM	3/15/2025 11:15 PM	b7e83605-7445-4f...	0
Microsoft .NET Framework 4.8.1 for Windows 11 for x64 (KB5011048)	Feature Packs	5011048	67.7 MB	No	10/20/2023 3:00 AM	2/17/2025 10:38 AM	af1d73cc-85b7-41b...	0
Lenovo Ltd. - Firmware - 1.0.0.75	Drivers		4.7 MB	No	5/15/2024 12:00 AM	3/15/2025 11:15 PM	1f591620-e056-484...	0
Lenovo - System - 1.6716.42	Drivers		640.7 kB	No	3/1/2020 12:00 AM	3/15/2025 11:15 PM	7c98d59c-171b-422...	0
Intel Corporation - Display - 2/28/2018 12:00:00 AM - 23.20.16.4973	Drivers		233.8 MB	No	4/10/2018 12:00 AM	3/15/2025 11:15 PM	20737c52-d637-4c...	0
INTEL - System - 7/12/2016 12:00:00 AM - 10.11.33	Drivers		54 kB	No	9/10/2018 12:00 AM	3/15/2025 11:15 PM	85130756-0d4c-40...	0
Intel - System - 4/12/2017 12:00:00 AM - 14.28.47.630	Drivers		1.5 MB	No	3/24/2018 12:00 AM	3/15/2025 11:15 PM	a226903b-7e47-4e...	0
Hewlett-Packard - Other hardware, Printer - Null Print - HP Officejet Pro 8620	Drivers		21.5 MB	No	9/17/2018 12:00 AM	3/15/2025 11:15 PM	e47c958d-abea-44...	0
Broadcom Inc. - System - 9.8.28.0	Drivers		63.4 kB	No	3/8/2025 12:00 AM	3/14/2025 8:54 AM	66575c06-99ca-45...	0
Broadcom Inc. - System - 9.8.18.1	Drivers		62.7 kB	No	10/23/2024 12:00 AM	2/17/2025 2:33 PM	7a31ed63-6ecb-4c...	1
Broadcom Inc. - Display - 9.17.9.4	Drivers		28.3 MB	No	1/21/2025 12:00 AM	3/14/2025 8:54 AM	0be073ee-d3ba-43...	2
2025-01 Cumulative Update Preview for .NET Framework 3.5, 4.8 and 4.8.1 for Wind...	Updates	5050593	75.4 MB	No	1/28/2025 12:00 AM	3/15/2025 11:15 PM	8a99b47a-15bb-4f...	0
2025-01 Cumulative Update Preview for .NET Framework 3.5 and 4.8.1 for Wind...	Updates	5050578	72.3 MB	No	1/28/2025 12:00 AM	2/17/2025 10:21 AM	22101c49-e792-417...	0
2024-10 Update for Windows 11 for x64-based Systems (KB5001716)	Updates	5001716	833.9 kB	No	10/10/2024 3:00 AM	2/17/2025 10:38 AM	e57b968b-7b97-4a...	0
2023-10 Update for Windows 11 for x64-based Systems (KB4023057)	Critical Updates	4023057	3.2 MB	Yes	10/26/2023 3:00 AM	2/17/2025 10:38 AM	d9881110-c66f-418...	0
2023-10 Cumulative Update for Windows 11 for x64-based Systems (KB5031358)	Security Updates	5031358	122 GB	No	10/10/2023 3:00 AM	2/17/2025 10:38 AM	d0f33c4d-8b6a-4c4...	0
2023-10 Cumulative Update for .NET Framework 3.5, 4.8 and 4.8.1 for Windows ...	Updates	5031225	65.4 MB	No	10/10/2023 3:00 AM	2/17/2025 10:38 AM	0d7acca7-4f27-42f...	0

And in our environment it is a lot of patches indeed, since it is the first time we are setting up the mechanism. But don't worry, it is now easy to create everything at once, and there are several filters to help you. Examples:

- Requested Only filter is used to only show patches requested by devices in your environment...you'll likely always have this turned on
- Platform filter can be used to toggle between Apple and Windows patch views
- Fileset Status Filter: "No Fileset"...we can use this filter to ONLY show us patches we haven't "created" yet...we'll likely use this one all the time in our workflow
- Categories can be used to narrow down to Critical, Security or other patch categories

Let's assume for now though that "we want to patch everything".

## Patch Creation (Alpha)

Because we always start with our Alpha groups, that is the Fileset group location we'll use every Monday (and any other time we create new patch Filesets). Creating the Filesets couldn't be simpler...we'll just select them all, right-click, choose create, and then choose the destination (our Alpha Fileset groups)



Note that we put ALL patches for Windows in the same Windows Fileset group, and all Apple patches in the Apple Fileset group...that is on purpose. As soon as we update model, all "Alpha" patches for all "Alpha" devices will be assigned, and start to deploy...it's as easy as that.

### Patch Assignment (Beta and Production)

Because we always start with our Alpha group, we never have to "create" patches for the Beta testers or Production users. On our "Wednesday" Beta testing the ONLY thing we have to do is MOVE the filesets from our Alpha Fileset Group to our Beta Fileset Group. And the following Monday we'll move patches from Beta to Production. Job well done.

### Tracking Progress

And, when evaluating how your patching is going, remember there is a new view for any individual software update where you can see assignment (and results) from all devices.

Device Name	ID	Update Status	Fileset Status	Status Date	Rollout Plan	Last Report Date
Win11-22H2	46006	Installed	Unassigned			3/14/2025 8:54 AM
WIN11-21H2P	46308	Missing	Unassigned			2/17/2025 10:38 AM
pn-WIN11-23H2	46297	Missing	Unassigned			2/17/2025 10:21 AM
pn-win11	46286	Installed	Unassigned			2/17/2025 10:42 AM

### Windows BIOS/UEFI Firmware and Driver Updates

The latest Windows Software Update filesets now include BIOS/UEFI firmware updates from certain OEM vendors (e.g., Dell, HP, Lenovo). While these updates may appear alongside OS patches, please be careful when deploying.

The latest Windows Software Update filesets now also includes third-party driver updates, such as those for monitors, audio devices, and peripheral hardware. While these updates can improve compatibility and stability, they often have the following impact:

- Many of these drivers require a reboot to complete installation.
- Automatic deployment may result in unexpected restarts, potentially disrupting end-user workflows.

To maintain a smooth user experience and prevent unplanned reboots, you may want to deploy driver updates via Self-Service Kiosk

instead of automatic enforcement.

## Related Content

- [OS Software Updates](#)