

FileWave Components

In this section, we will describe the key FileWave components:

FileWave Server

The FileWave Server is the central repository hosting every file to be delivered to Clients. It consists of five processes and a web server. The first process interacts with logged-in Administrators. The second process services incoming requests from Clients and Boosters. The third process interacts with a directory server through LDAP. The fourth process communicates with Apple and Microsoft software update servers to download the current lists of available software updates. The fifth process is the Postgres database service for Inventory and MDM. Finally, the web server is the FileWave MDM Server; it handles Mobile Device Management (MDM) components. Detailed information on setting up the FileWave server is covered in Chapter 2 of this manual.

FileWave Central application

The FileWave Central application is the primary interface to the FileWave Server. The FileWave Admin displays different views that give a representation of the FileWave Server's database. These views are the Dashboard, Clients, Filesets, Associations, Imaging, optional Classroom, iOS Inventory, License Management, Boosters, and Inventory Queries views. FileWave Admin also acts as the unified management console for creating and administering FileWave administrator accounts; network imaging for the Imaging Appliance; managing Apple DEP and VPP associations; system software updates for iOS 9+, OS X (macOS) and Windows; and overall management of all devices and Filesets. Multiple instances of the FileWave Admin application can be in use at the same time with specific devices, Groups and Filesets assigned to various administrator accounts. Detailed information on configuring and using the FileWave Admin application is in Chapter 2 of this manual.

FileWave Anywhere

The FileWave Web Console is an Inventory tool designed to help with quick FileWave inventory references for specific clients in your server. Within the Web Console you will be able to view all devices currently enrolled, their Filesets, installed applications, users who have logged in, what groups they are apart of, and in the case of MDM enrolled Apple devices the command history. For more information please visit [the page linked here](#).

FileWave Client (macOS and Windows)

The FileWave Client has two processes, fwclcd and fwGUI. The first runs as a Launch Daemon on macOS and as a service on Windows. This means it runs in the background without any user interface. The client starts automatically after being installed and each time the computer boots. The fwclcd process always runs with root (Mac) or local system (Win) privileges to allow for maximum access by any management operations. The second process, fwGUI, handles user interaction with the client, such as asking the client to quit open applications and informing them of the status when activating Filesets that require rebooting. The fwGUI process is what provides the Kiosk / self-service functionality. The Imaging Virtual Server (IVS) contains a modified version of the fwclcd for reporting its status back to the FileWave Admin. Chapter 4 of this manual covers the installation and configuration of the FileWave client.

Filesets

FileWave's patented Fileset technology provides the ability to distribute applications, content, and management settings at the file level. While FileWave supports distribution of the standard .pkg and .msi packages, its capability to distribute individual files, application bundles, content, and management profiles allows for a level of granular control missing from other client management solutions. Filesets can be distributed to clients and cached for activation at a later date; a process that provides maximum scalability and control over the deployment cycle.

When a Fileset is distributed, it is protected from network outages. If there is an interruption in the transmission, FileWave will resume the distribution as soon as the network is restored. Filesets can also be modified after distribution. If any portion of the Fileset is modified by the administrator, only that specific portion of the Fileset is sent out to the associated clients. This process greatly reduces the network traffic. Another feature is the ability to deploy content and roll back to the previous version of that item if there is a problem with the deployed item. Self-healing functionality allows a Fileset to automatically repair itself if the end user deletes a portion of the payload. Chapter 5 of this manual covers the creation, configuration, distribution, and management of Filesets.

Self-service Kiosk

FileWave's self-service Kiosk provides the ability to allow end users access to content with their own device. In a BYOD deployment, you could post institutionally owned applications, documents, and updates for the end users to install at their convenience. In most of the deployment models, you can assign custom application sets to Groups as needed. Users do not need to be local administrators in order to install applications or content. End users can be provided with new applications, updates, documents, and other key content needed. The end user also has the option of un-installing that same content to free up space as needed. Use and configuration of the Kiosk is covered in Chapter 4.

Booster

The FileWave Booster is designed to act as a Fileset caching device for computer clients assigned to it as well as as to handle all Client-Server communications. Unlimited Boosters are allowed, regardless of license count or type. The FileWave Boosters allow administrators to increase the speed and scale of the Server's distribution of Filesets to Clients as well as offloading the overhead for constantly opening sockets for Client communications. When a set of Clients are connected to a Booster, their total network load on the Server will be roughly equivalent to a single Client connecting directly to the Server from that location. The use of Boosters can benefit remote sites with bandwidth constraints by providing a focused, local target for Clients as well as a single point of distribution from upstream.

Boosters are designed to work with Windows, OS X (macOS), and Android clients. iOS clients do not have the ability to use a Booster for cached Filesets, but they can utilize a Mac caching server, part of macOS that runs just fine on a Mac mini.

Imaging Virtual Server (IVS)

The FileWave Imaging Virtual Server is a standalone Linux container (Debian) that you can download from the [Downloads](#) page and run on any device that supports a Virtual Machine application, such as VMware™. The IVS provides NetBoot and PXEboot services. Storage for network images for Mac and Windows, as well as Windows Drivers images is now on the FileWave server. FileWave Admin provides the management console for associating network images with designated client computers.

Dashboard

FileWave provides an integrated Dashboard displaying a snapshot of the current status of the FileWave infrastructure. The Dashboard can be "torn off" to run on a separate display, and you can copy the URL of the Dashboard to provide to another systems administrator for viewing on their own device, including on a tablet. The information posted includes the status of all major services, such as DEP, VPP, and LDAP; account sync status; server performance status; and server licenses; plus much more.

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