

# Minimum OS version for enrolling Apple devices via ADE

## What

MDM servers have the ability to enforce a minimum operating system version on enrolling devices when using Automated Device Enrollment (ADE). This feature was added in [FileWave version 15.1.0](#) for macOS 14.0 Sonoma and iOS/iPadOS 17.0. Apple does not support this feature on older versions of macOS or iOS/iPadOS.

## When/Why

Minimum OS version allows to ensure that devices are on the necessary OS version before being put into production. The MDM will send a JSON 403 response when the device requests the enrollment profile. If the minimum operating system version is needed, the user will be guided through a process of updating the device. Restarts will be performed automatically. Once completed, the device returns to Setup Assistant and the user can finish the enrollment and setup process.

## How

With FileWave 15.1.0 support of minimum OS version was added. To specify minimum OS versions open DEP profile and go to Options → Requirements section. There are separate fields for macOS and iOS / iPadOS minimum OS versions.

DEP Profile

Profile Name

A human-readable name for the profile.

test

Url

The URL of the MDM server.

https://localhost:20443/ios/dep\_enrollment

Information

Options

Setup Assistant

Account

Anchor Certs

Supervising Certs

Options

☒ Do not allow user to skip enrollment step
 

Requires device to enroll in MDM before completing setup

☐ Custom Enrollment
 

Available for iOS 13+ and macOS 10.15+

WARNING: IDP server not configured!

☒ Supervise
 

Enable supervision

Unsupervised DEP devices are deprecated as of iOS 12+

☐ Is MDM removable
 

Allows unenrollment

☒ Allow pairing
 

Enable the iOS device to be paired with a Mac

☐ Automatic Advance
 

Automatic advance through the Apple TV or macOS 11+ setup assistant

Shared iPad options

☐ Enable Shared iPad
 

Device will be configured as Shared iPad. Devices that do not meet requirements ignore the option.

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Number of Users

Sets the maximum number of users that can use a shared iPad, based on the storage capacity. If greater than the maximum possible number of users supported on the device, the device will be configured with the maximum possible number of users instead.  
 As of iPadOS 13.4, the maximum number of users will always be 32 ; the number of resident users can be set here or later with Command Policy Profile.

Requirements

Minimum OS version

The minimum OS version that the enrolling device is required to install, e.g. 17.1. A supplemental version identifier can be included, e.g. 17.1 (a).  
 Available for macOS 14+ and iOS / iPadOS 17+

WARNING: The OS version must match the version format used by Apple and be installable on the device otherwise enrollment will fail.

☒ macOS
 

14.1 (a)

☒ iOS / iPadOS
 

17.1 (a)

Cancel

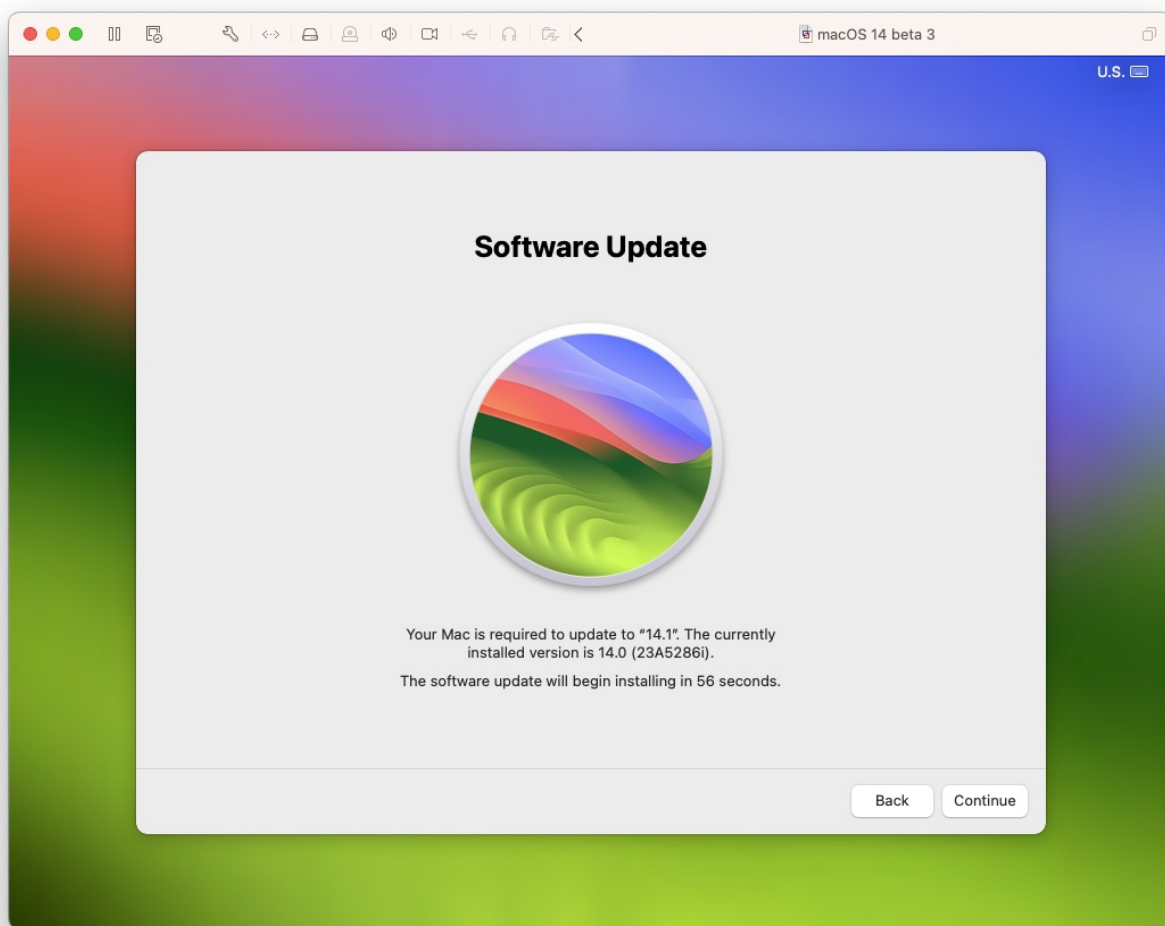
OK

The supplemental version identifiers can be specified in addition to standard MAJOR.MINOR.PATCH format (for example “17.1 (a)”).

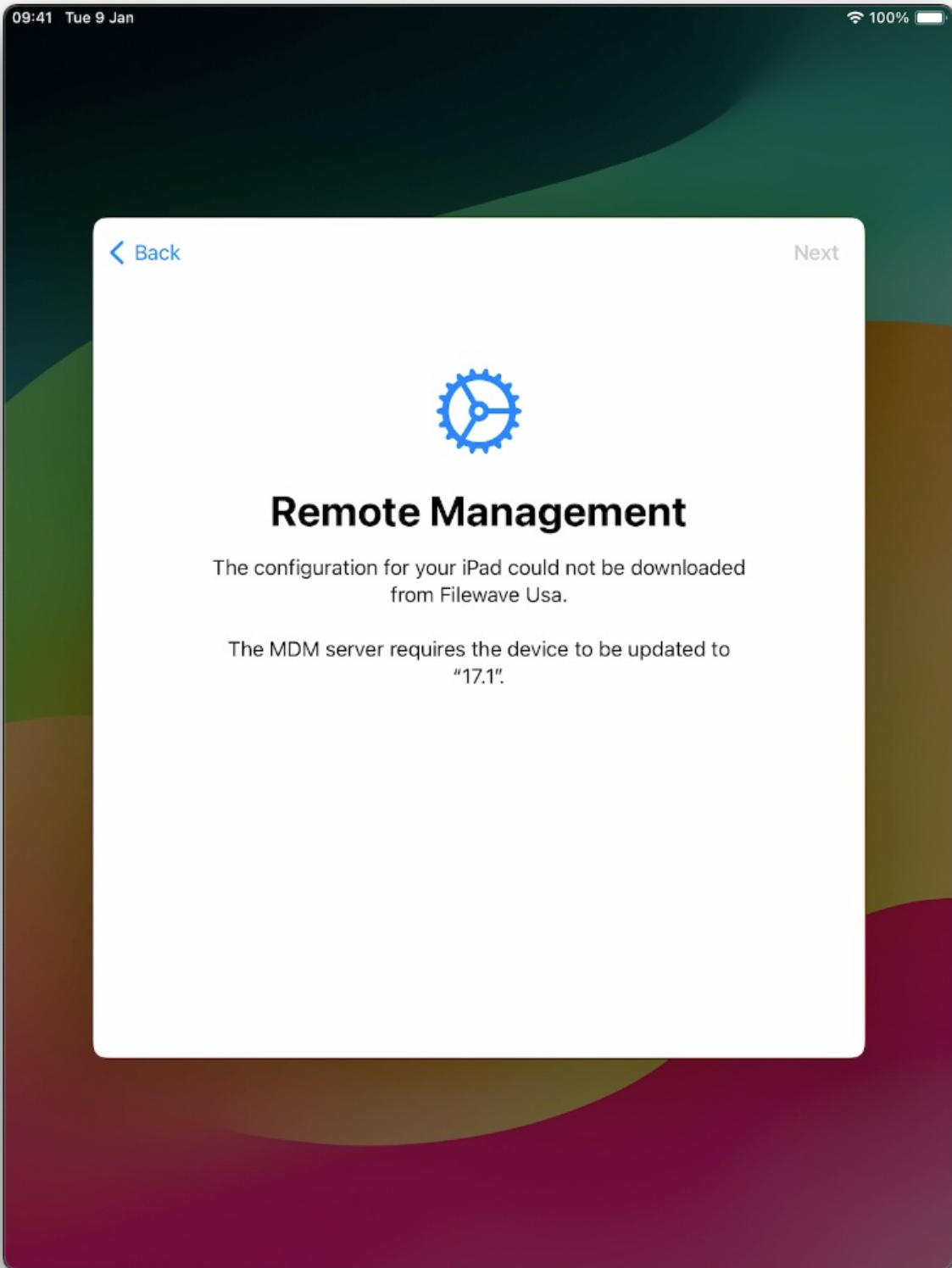
## What is displayed on the device?

When minimum OS version is requested by MDM server specific dialog appears on the device.

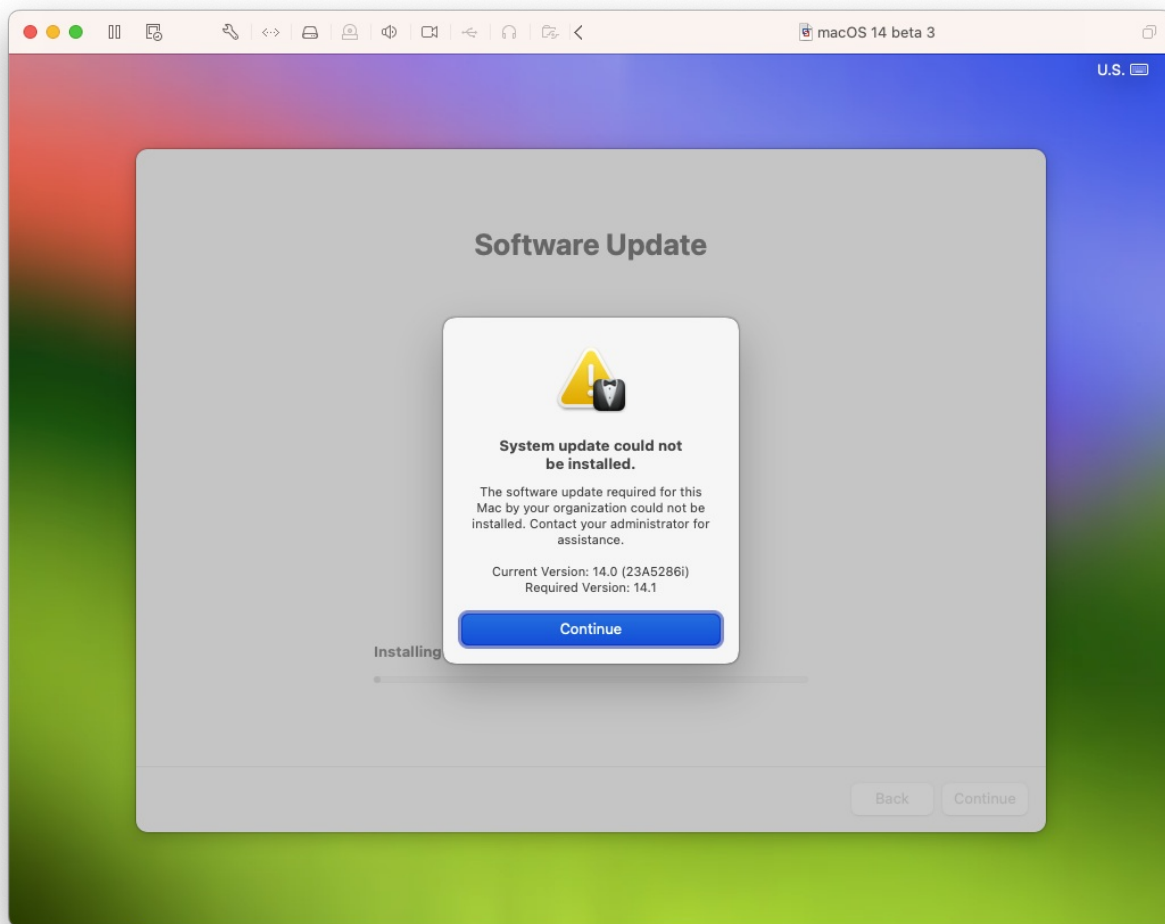
For macOS:



For iPadOS:



If macOS device cannot install requested OS version next dialog appears:



On iPadOS there is no specific dialog in this case, just “Next” button is grey and no way to pass.

## Related Content

- [Automated Device Enrollment \(ADE\)](#)

## Digging Deeper

`MachineInfo` from the device is parsed on server side during DEP profile handling. If it contains `MDM_CAN_REQUEST_SOFTWARE_UPDATE` flag and it's True, the specified minimum OS version from DEP profile is compared with `OS_VERSION` from `MachineInfo` according to the device type (macOS or iOS/iPadOS). Software update request is sent to the device by MDM server in 2 cases:

1. If current OS version is less than minimum OS version
2. If current OS version equals minimum OS version but current supplemental version identifier is less than required supplemental version identifier.

The software update request from the server looks like 403 JSON response with next body:

```
{
  "code": "com.apple.softwareupdate.required",
  "details": {"OSVersion": <minimum OS version> }
}
```

In this case enrollment is interrupted by dialogs mentioned above.

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