

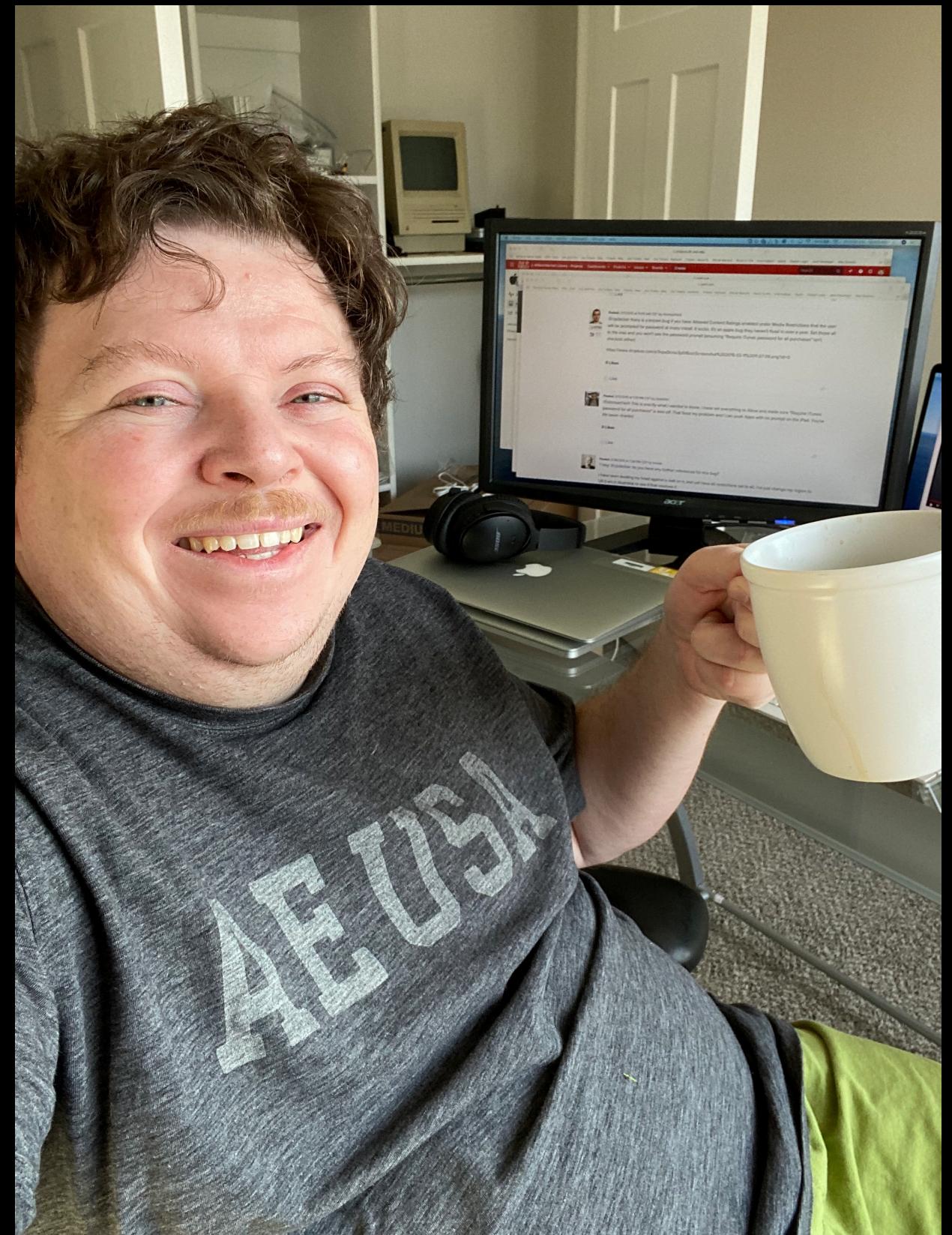
Software Updates with a Nudge

Topher Nadauld - KDInfoTech

Topher Nadauld

KDInfoTech

- 13 years of Mac Management Experience
- 6 years in Jamf Pro
- Previously with the University of Utah
- Specializing in Zero Touch deployment and automation
- Hippos are my favorite animal
- Find me on MacAdmins Slack at @tophernadauld



Software Updates

- Provide updates to
 - Vulnerabilities / Security Patches
 - Features
 - OS improvements



In a perfect world...

However, we are not

- Device Compliance
 - Staff
 - Kiosk/Digital Displays
 - Lab Computers



Software Update Notifications

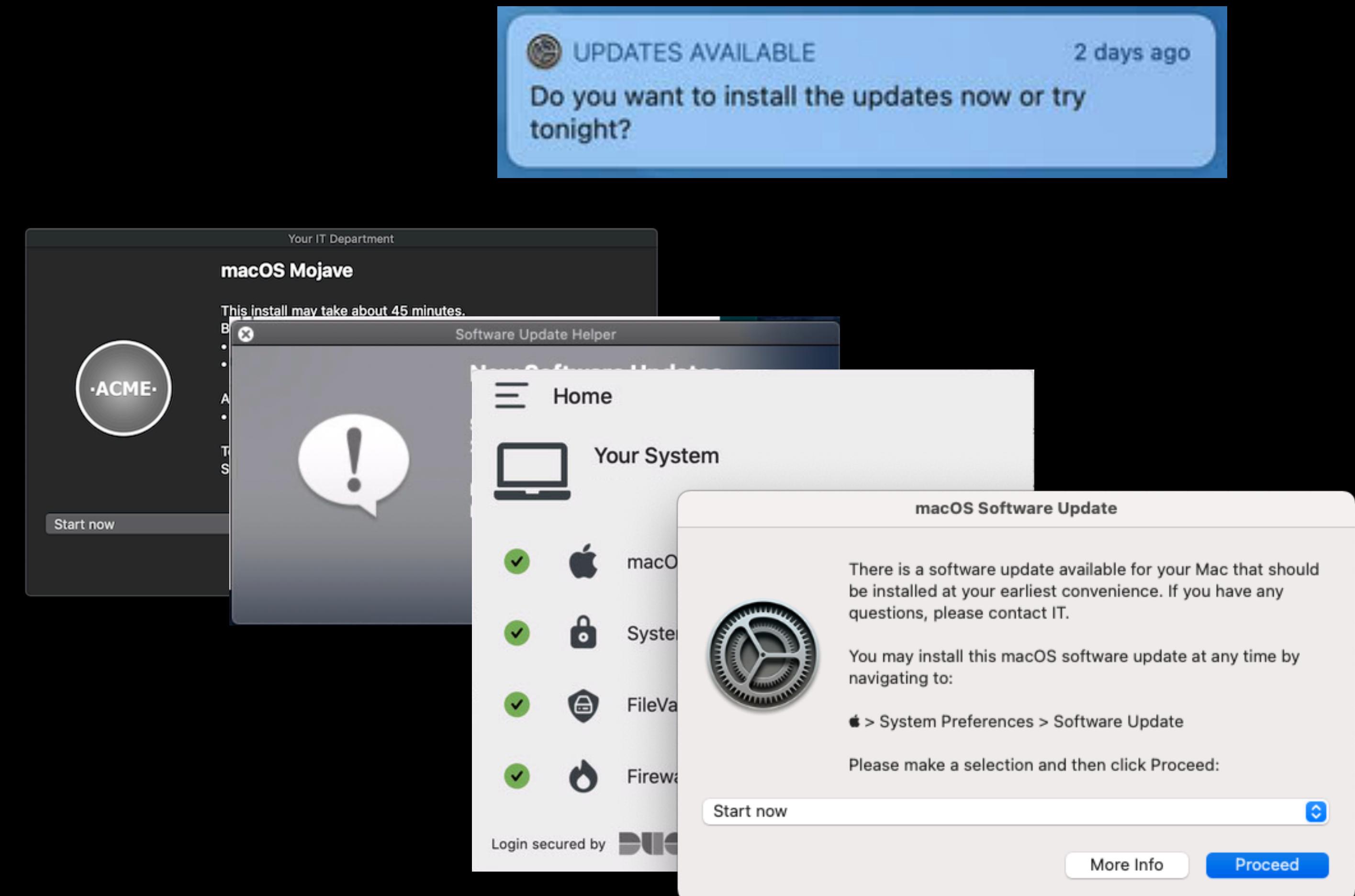
Requirements

- Visible
- Customizable
- Update Deadlines
- Informative
- Can be Forceful



Software Update Notifications

- Apple Notification
 - Banner Style
- 3rd Party
 - UEX
 - Jamf Helper / Script
 - Duo
 - Email





Nudge

75%

Updated within 2 weeks

Nudge

- Created by Erik Gomez
- 2 versions
 - Swift
 - Python
- Features
 - Date Datelines
 - Timers to Increase Nagging
 - Branding
 - Configuration Profile





Required OS Version:

11.5.1

Current OS Version:

11.4

Days Remaining To Update:

1

Deferred Count:

2

More Info

Your device requires a software update

A friendly reminder from your local IT team

Your device will restart during this update

Updates can be 1 GB and take around 30 minutes to complete

Update Device

A fully up-to-date device is required to ensure that IT can accurately protect your device.

To begin the update, simply click on the Update Device button and follow the provided steps.

If you do not update your device, you may lose access to some items necessary for your day-to-day tasks.

Please update the computer within the number of days remaining or it will start automatically.

I understand



Required OS Version:	11.5.1
Current OS Version:	11.4
Days Remaining To Update:	0
Deferred Count:	30

More Info

Your device requires a software update

A friendly reminder from your local IT team

Your device will restart during this update

Updates can be 1 GB and take around 30 minutes to complete

Update Device

A fully up-to-date device is required to ensure that IT can accurately protect your device.

To begin the update, simply click on the Update Device button and follow the provided steps.

If you do not update your device, you may lose access to some items necessary for your day-to-day tasks.

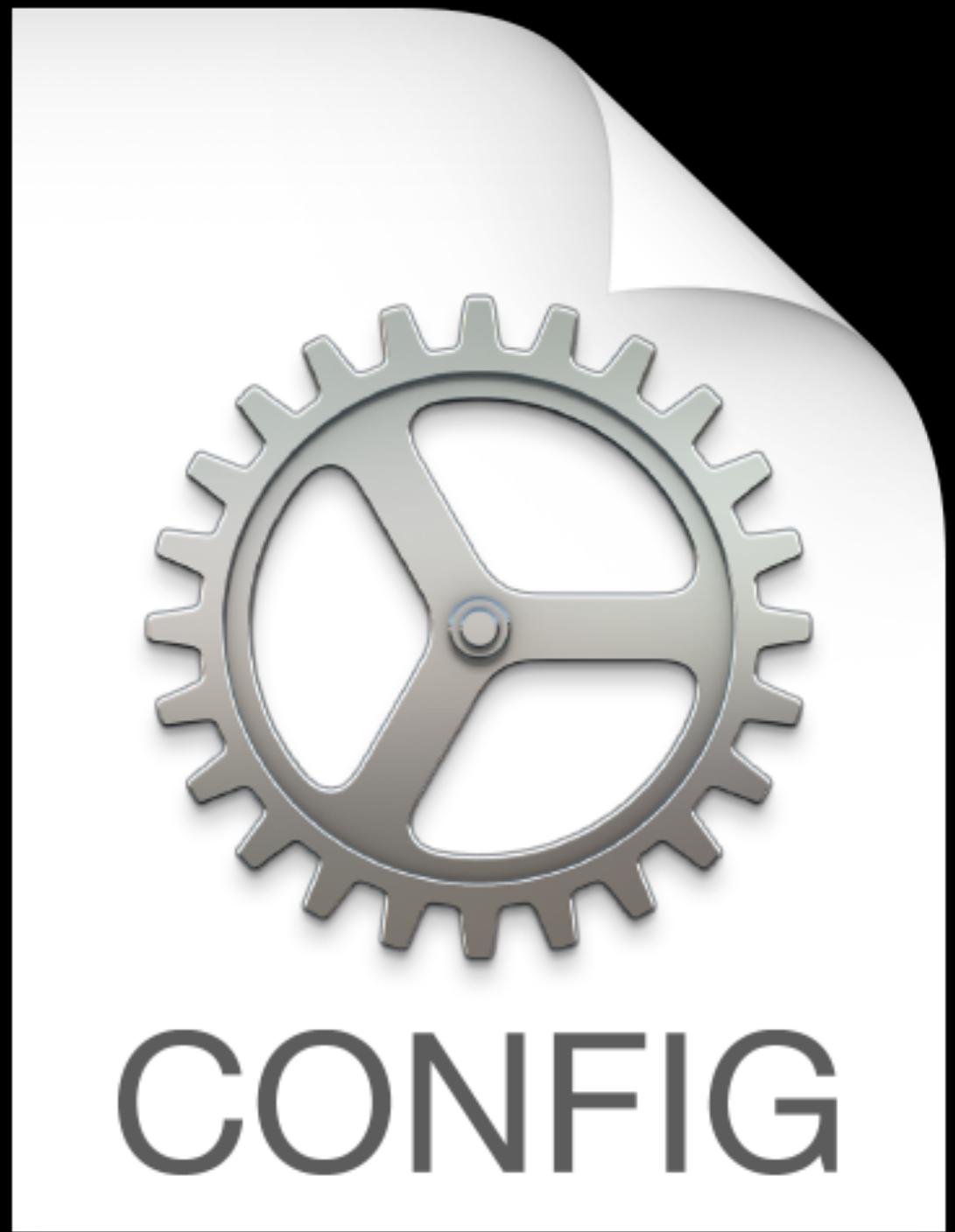
Please update the computer within the number of days remaining or it will start automatically.



Notify Window Setup

Configuration Profile Settings

- Creation of a Configuration Profile
 - Jamf Pro JSON Schema
 - Example Mobile Config
 - Plist creation and upload



Notify Window Setup

Configuration Profile Settings

Default

```
<key>aboutUpdateURLs</key>
<array>
  <dict>
    <key>_language</key>
    <string>en</string>
    <key>aboutUpdateURL</key>
    <string>https://support.apple.com/en-us/HT211896#macos1121</string>
  </dict>
```

Current Nudge Configuration

```
<key>aboutUpdateURLs</key>
<array>
  <dict>
    <key>_language</key>
    <string>en</string>
    <key>aboutUpdateURL</key>
    <string>https://support.apple.com/en-us/HT211896#macos1151</string>
  </dict>
```

Notify Window Setup

Configuration Profile Settings

Default

```
<key>majorUpgradeAppPath</key>
<string>/Applications/Install macOS Big Sur.app</string>
<key>requiredInstallationDate</key>
<date>2021-02-28T00:00Z</date>
<key>requiredMinimumOSVersion</key>
<string>11.5.1</string>
<key>targetedOSVersions</key>
<array>
  <string>11.0</string>
  <string>11.0.1</string>
  <string>11.1</string>
  <string>11.2</string>
  <string>11.2.1</string>
  <string>11.2.2</string>
  <string>11.2.3</string>
  <string>11.3</string>
  <string>11.3.1</string>
  <string>11.4</string>
  <string>11.5</string>
</array>
</array>
```

Current Nudge Configuration

```
<key>majorUpgradeAppPath</key>
<string>/Applications/Install macOS Big Sur.app</string>
<key>requiredInstallationDate</key>
<date>2021-09-18T23:04:32Z</date>
<key>requiredMinimumOSVersion</key>
<string>11.6</string>
<key>targetedOSVersions</key>
<array>
  <string>11.0</string>
  <string>11.0.1</string>
  <string>11.1</string>
  <string>11.2</string>
  <string>11.2.1</string>
  <string>11.2.2</string>
  <string>11.2.3</string>
  <string>11.3</string>
  <string>11.3.1</string>
  <string>11.4</string>
  <string>11.5</string>
  <string>11.5.1</string>
  <string>11.5.2</string>
```

Notify Window Setup

Configuration Profile Settings

Default

```
<key>fallbackLanguage</key>
<string>en</string>
<key>forceFallbackLanguage</key>
<false/>
<key>forceScreenShotIcon</key>
<false/>
<key>iconDarkPath</key>
<string>/somewhere/logoDark.png</string>
<key>iconLightPath</key>
<string>/somewhere/logoLight.png</string>
<key>screenShotDarkPath</key>
<string>/somewhere/screenShotDark.png</string>
<key>screenShotLightPath</key>
<string>/somewhere/screenShotLight.png</string>
<key>simpleMode</key>
<false/>
<key>singleQuitButton</key>
<false/>
```

Current Nudge Configuration

```
<key>fallbackLanguage</key>
<string>en</string>
<key>forceFallbackLanguage</key>
<false/>
<key>iconDarkPath</key>
<string>/Library/Management/G_Logo_Velvet_alpha.png</string>
<key>iconLightPath</key>
<string>/Library/Management/G_Logo_Velvet_alpha.png</string>
```

Notify Window Setup

Configuration Profile Settings

Default

```
<key>_language</key>
<string>en</string>
<key>actionButtonText</key>
<string>Update Device</string>
<key>informationButtonText</key>
<string>More Info</string>
<key>mainContentHeader</key>
<string>Your device will restart during this update</string>
<key>mainContentNote</key>
<string>Important Notes</string>
<key>mainContentSubHeader</key>
<string>Updates can take around 30 minutes to complete</string>
<key>mainContentText</key>
<string>A fully up-to-date device is required to ensure that IT can accurately protect your device.
```

If you do not update your device, you may lose access to some items necessary for your day-to-day tasks.

To begin the update, simply click on the Update Device button and follow the provided steps.</string>

```
<key>mainHeader</key>
<string>Your device requires a security update</string>
<key>primaryQuitButtonText</key>
<string>Later</string>
<key>secondaryQuitButtonText</key>
<string>I understand</string>
<key>subHeader</key>
<string>A friendly reminder from your local IT team</string>
```

Current Nudge Configuration

```
<key>_language</key>
<string>en</string>
<key>actionButtonText</key>
<string>Update Device</string>
<key>informationButtonText</key>
<string>More Info</string>
<key>mainContentHeader</key>
<string>Your device will restart during this update</string>
<key>mainContentNote</key>
<string></string>
<key>mainContentSubHeader</key>
<string>Updates can be 3 GB and take around 60 minutes to complete</string>
<key>mainContentText</key>
<string>'</string>
```

A fully up-to-date device is required to ensure that IT can accurately protect your device.

To begin the update, simply click on the Update Device button and follow the provided steps.

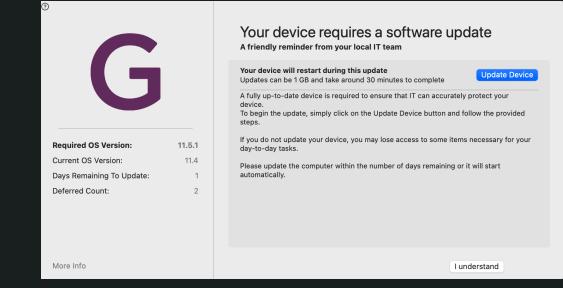
If you do not update your device, you may lose access to some items necessary for your day-to-day tasks.

Please update the computer within the number of days remaining or it will start automatically.

```
</string>
<key>mainHeader</key>
<string>Your device requires a software update</string>
<key>primaryQuitButtonText</key>
<string>Later</string>
<key>secondaryQuitButtonText</key>
<string>I understand</string>
<key>subHeader</key>
<string>A friendly reminder from your local IT team</string>
```

September 2021

< Today >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	Sep 1	2	3	4
5	6	7	8	9	10	11
12		13	 CONFIG	14		15
16	17	18	19	20	21	22
23	24	25		26	27	28
29	30	Oct 1	2			

Timer Setup

Configuration Profile Settings

Default

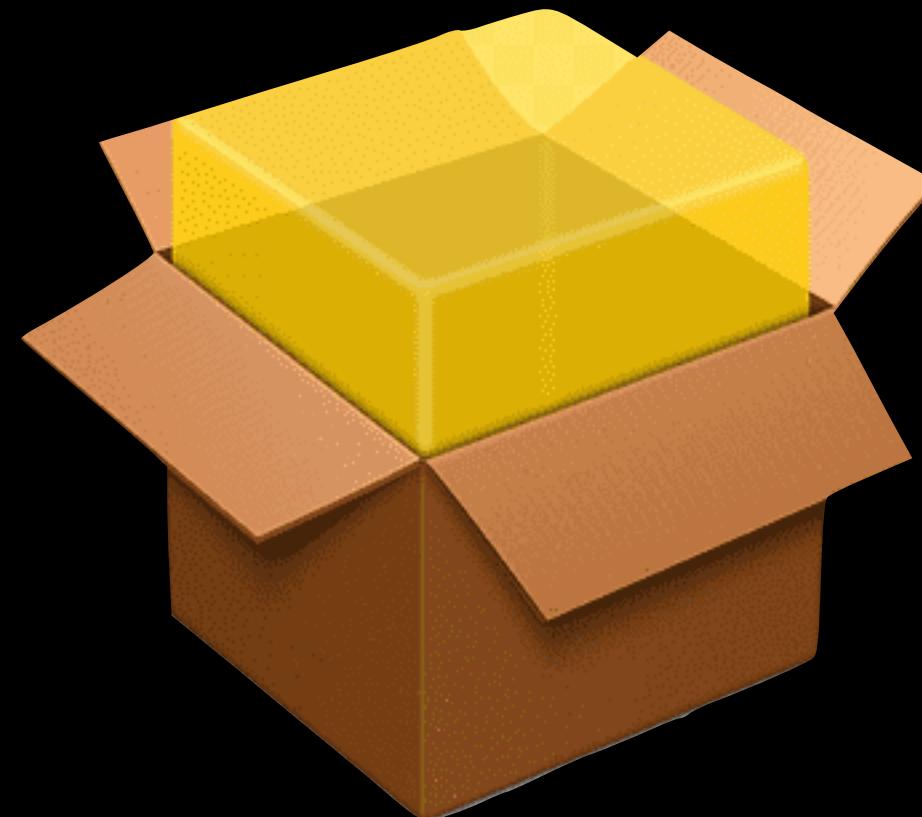
```
<dict>
  <key>allowedDeferrals</key>
  <integer>1000000</integer>
  <key>allowedDeferralsUntilForcedSecondaryQuitButton</key>
  <integer>14</integer>
  <key>approachingRefreshCycle</key>
  <integer>6000</integer>
  <key>approachingWindowTime</key>
  <integer>72</integer>
  <key>elapsedRefreshCycle</key>
  <integer>300</integer>
  <key>imminentRefreshCycle</key>
  <integer>600</integer>
  <key>imminentWindowTime</key>
  <integer>24</integer>
  <key>initialRefreshCycle</key>
  <integer>18000</integer>
  <key>maxRandomDelayInSeconds</key>
  <integer>1200</integer>
  <key>noTimers</key>
  <false/>
  <key>nudgeRefreshCycle</key>
  <integer>60</integer>
  <key>randomDelay</key>
  <false/>
```

Current Nudge Configuration

```
<dict>
  <key>allowedDeferrals</key>
  <integer>1000000</integer>
  <key>allowedDeferralsUntilForcedSecondaryQuitButton</key>
  <integer>14</integer>
  <key>approachingRefreshCycle</key>
  <integer>600</integer>
  <key>approachingWindowTime</key>
  <integer>72</integer>
  <key>elapsedRefreshCycle</key>
  <integer>600</integer>
  <key>imminentRefeshCycle</key>
  <integer>600</integer>
  <key>imminentWindowTime</key>
  <integer>25</integer>
  <key>initialRefreshCycle</key>
  <integer>18000</integer>
```

Installation Materials

- Configuration Profile
- Jamf Pro Policy
 - Load LaunchAgent script
 - 4 Packages
 - Nudge Application
 - LaunchAgent
 - Branding
 - Logger (Optional)



Jamf Pro Policy

← Install Nudge

Options Scope Self Service User Interaction



General



Packages
3 Packages



Scripts
2 Scripts



Recurring Check-in

At the recurring check-in frequency configured in Jamf Pro



Custom

At a custom event

Custom Event

Custom event to use to initiate the policy. For an iBeacon region change event, use "beaconStateChange"

base_config

Execution Frequency

Frequency at which to run the policy

Once per computer



Automatically re-run policy on failure

Retry Event

Event to use to re-run the policy

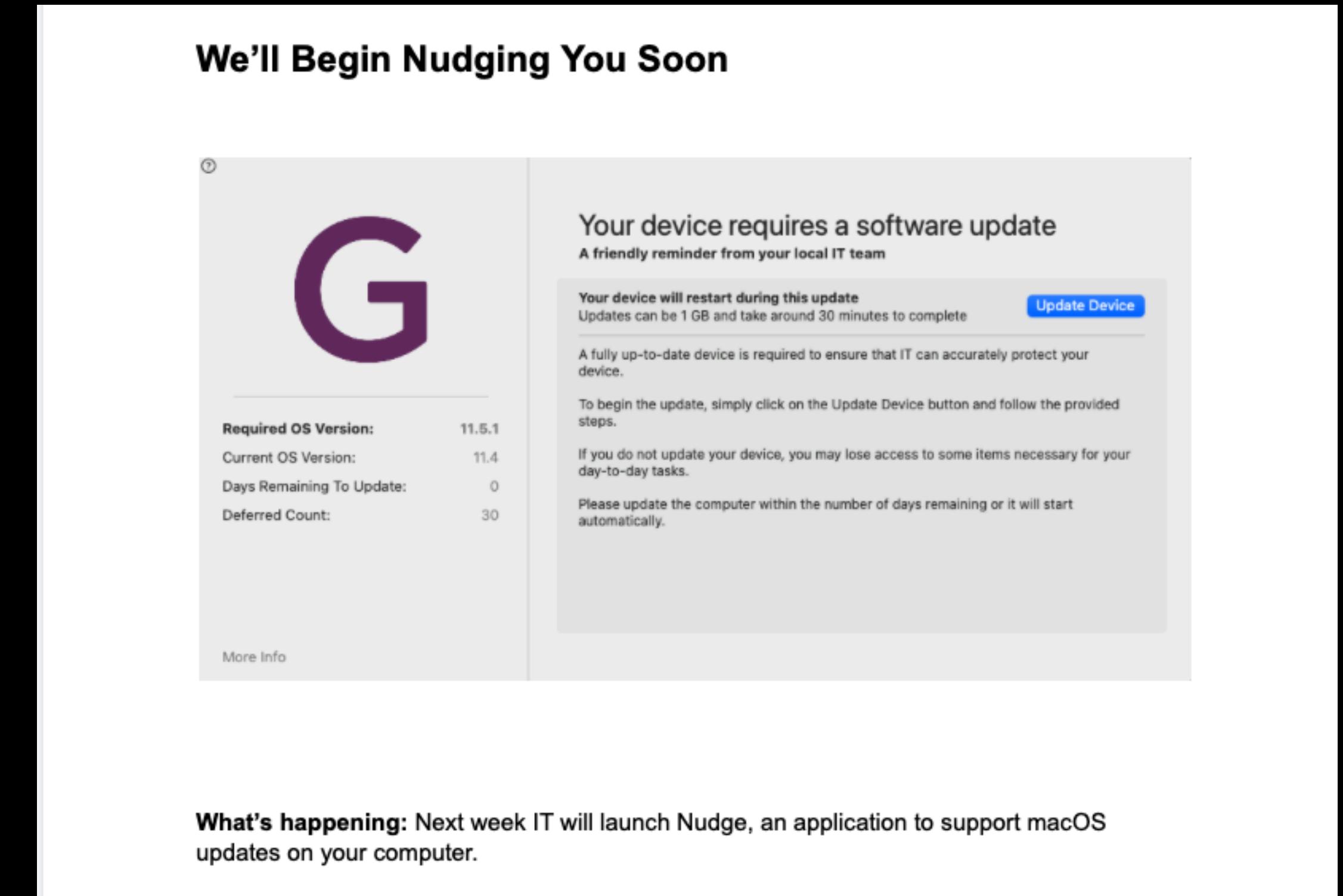
On next recurring check-in

Retry Attempts

3

Communication

- Company Communication about Nudge
 - Slack
 - Emails
- On-Site Help during dateline day
- Upgrade Assistance



Nudge Resources

- GitHub Page and Wiki
 - <https://github.com/macadmins/nudge/wiki>
- MacAdmins Slack
 - #nudge
- Flat Package Building
 - https://matthew-brett.github.io/docosx/flat_packages.html

Q&A