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Signing and De-signing Profiles, and You!



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My name is Darren Wallace and I'm a Systems Engineer for dataJAR
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Why sign a profile?

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Firstly, why sign a profile?

1) Protect the contents from tampering

1) If you sign a profile, and it is tampered on the way to the device, it will invalidate the profile and will refuse to install

2) Protect the contents from tampering (management server)

1) Some management solutions will try to be helpful and convert an uploading profile into the GUI options, which signing will prevent (wait for the demo later)

Note: Signing prevents tampering, NOT inspection, so it shouldn't be used to hide sensitive data (such as wifi passwords!)

Why de-sign a profile?

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Why the need to de-sign the profile:

- 1) Investigate new profile keys
 - 1) By de-signing the profile, you can review the contents and see any new profile keys that may have been added
- 2) Reuse
 - 1) By decrypting profiles, you can store them in plain text (even in Git), allowing them to be reused in other management solutions
- 3) Troubleshooting
 - 1) Sometimes it's good to see a profile decrypted in order to confirm that the Keys you have set are actually the same as what ends up on the client device/s

How to sign a profile?

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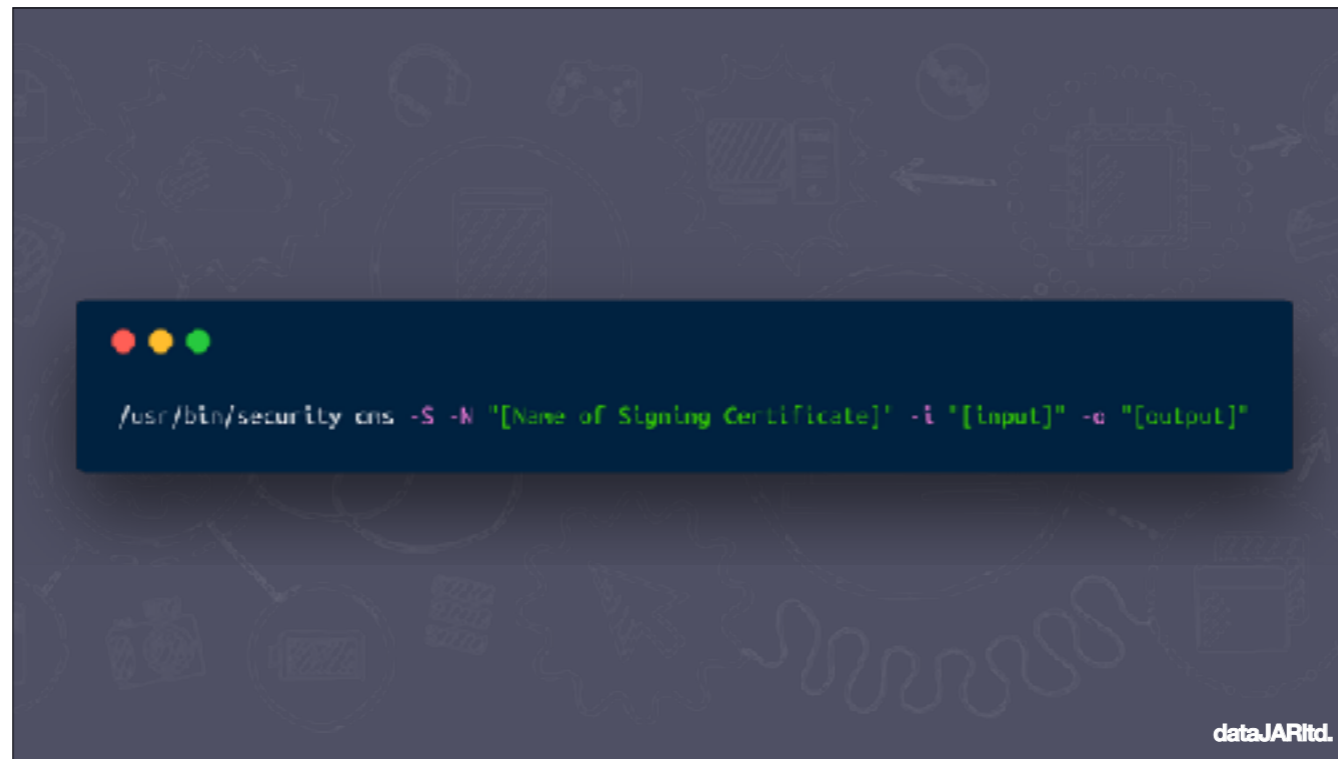
So, how do we sign a profile?

We need to use a specific type of certificate called a signing certificate

These can be created / obtained in a number of ways:

- Manually through Keychain Assistant
- Automatically when installing and configuring Apple Server
- From the Apple Developer portal with a paid Developer account (The recommended option)
- For Jamf Pro customers, you can get a certificate signed by the Jamf Pro Server's built in CA

The last two options should ensure the signing is trusted by your client devices.



So, replace the "Name of Signing Certificate" with the common name of your cert
replace 'input' with the path to your profile
replace 'output' with the new path and / or name of the profile, once signed

How to de-sign a profile?

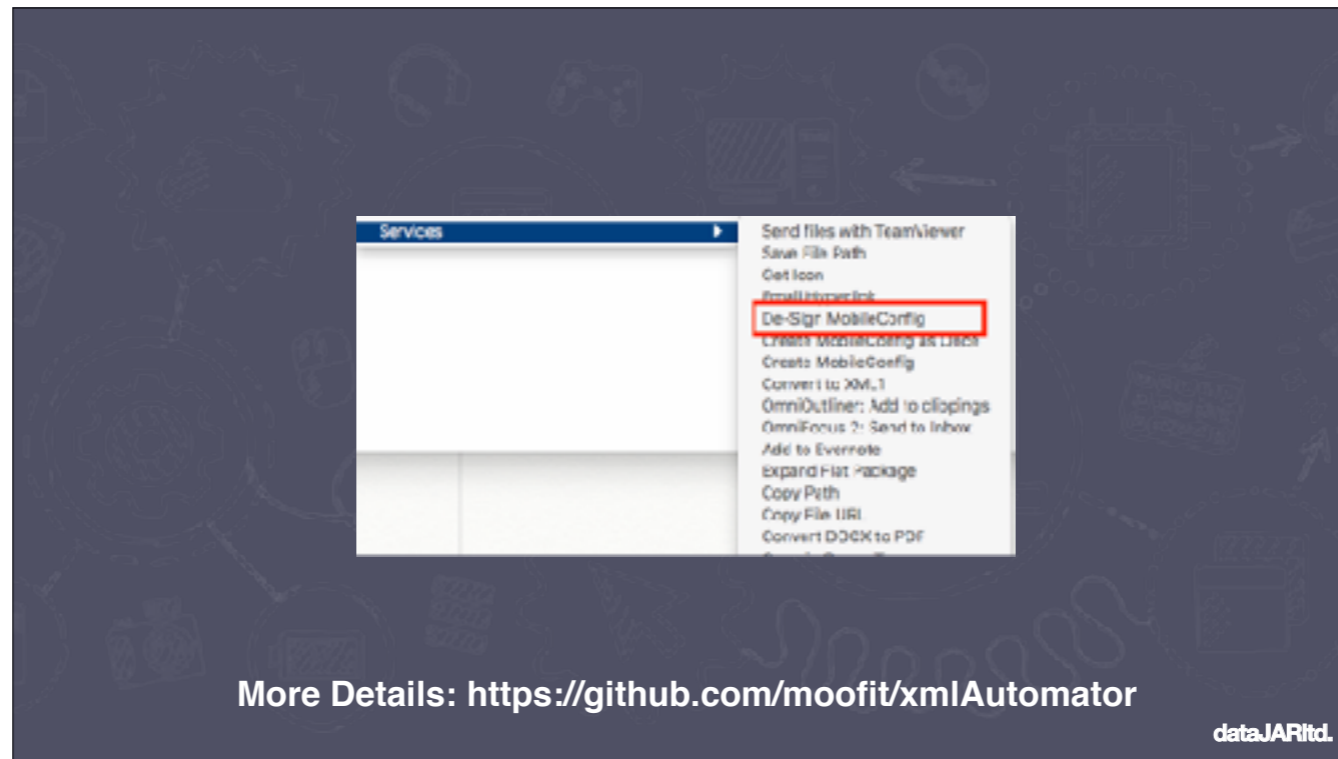
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And, how do we de-sign a profile?

We will need to first removing the signing and then, as the formatting can be a little off, we'll need to format it



There's your two commands. Again replace 'input' with the path to your profile
replace 'output' with the new path and / or name of the profile, once de-signed

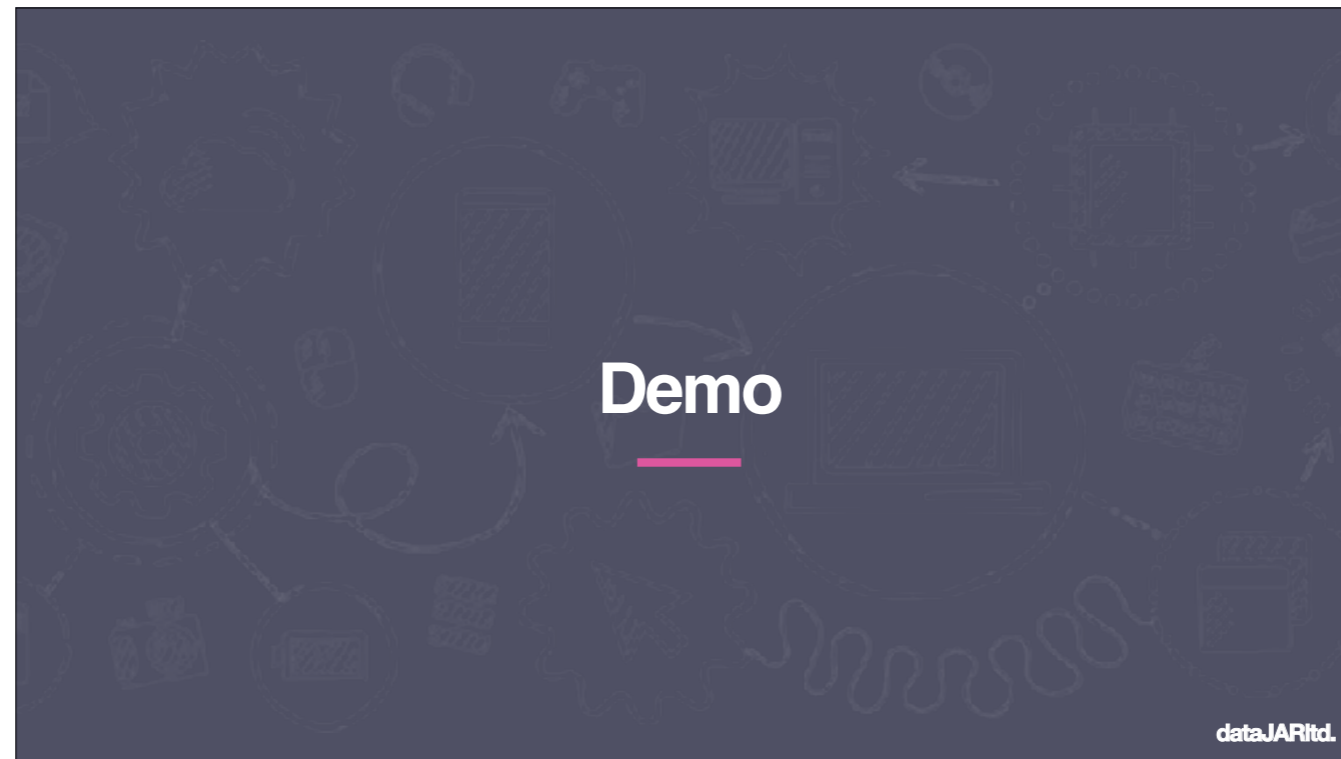


More Details: <https://github.com/moofit/xmlAutomator>

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As you can see, remembering those commands is a bit of a pain.

Thankfully Dave Acland of Moof IT wrote a nice right-click service to de-sign profiles easily



Demo Time!

- Security profile
 - create, download and show issue with camera disabled.
- Finder profile
 - download JAmf one
 - De-sign
 - Show all the options set
 - Install and show effect
 - Remove
 - Edit contents to only add Hard Drive to desktop
 - Upload to JSS
 - show GUI
 - download and install to show its borken
 - De-sign and show contents
 - Repair, sign and add
 - Download and install to show fine,
 - De-sign and show fine



We can add signing to profiles to prevent tampering, both in transit and by management systems.
But it is also trivial to remove that signing, great for troubleshooting and reuse. Not great for hiding wifi passwords!



Released at the end of June, is Erik Berglund's beta Profile Creator App.
The ability to create profiles with only the keys you need



Questions

<https://dazwallace.wordpress.com/2018/07/26/profiles-and-you>

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