

# PIV-SSH User Guide for Windows

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## NAMS

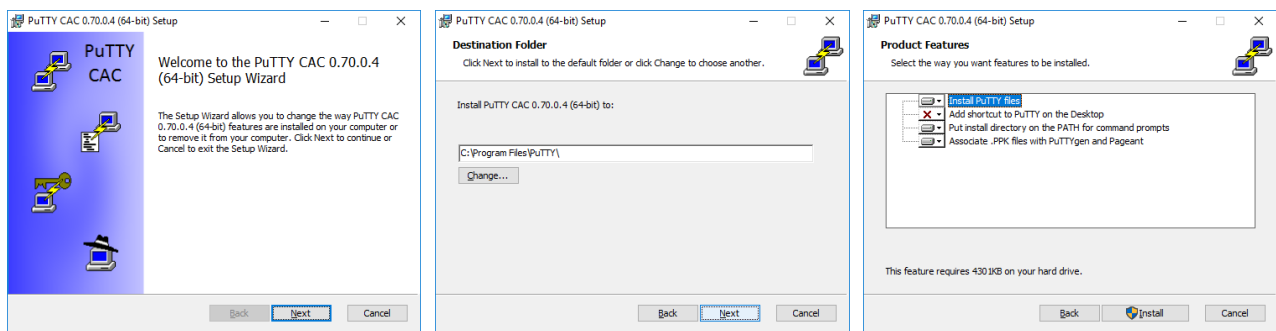
If you haven't already done so, apply for the "Public SSH Key Data Initialization Request" workflow in NAMS. This will place the public key for your PIV authentication certificate in NED (dir.nasa.gov), and is required when connecting to Linux machines over SSH with PIV enforcement. Provisioning happens overnight and will be available the next business day.

## PuTTY-CAC

Please uninstall PuTTY if it is already on your machine. You will be required to install PuTTY-CAC which allows the use of your smartcard for PIV authentication. Uninstalling PuTTY will not delete your saved sessions and that they will be available in PuTTY-CAC.

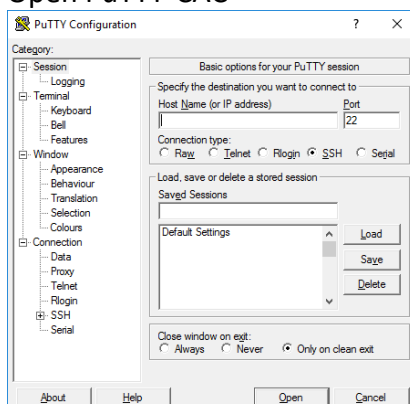
### Installing PuTTY-CAC

- 1) Download the latest version of PuTTY-CAC (MSI Installer)
  - a. <https://github.com/NoMoreFood/putty-cac/releases>
- 2) Install PuTTY-CAC



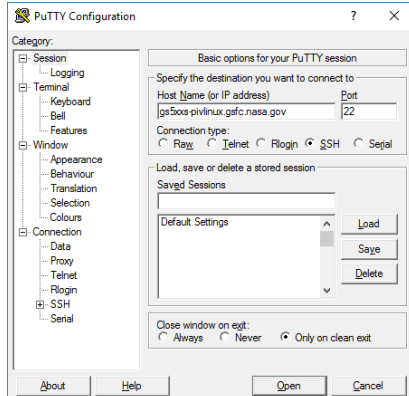
### Using PuTTY-CAC

- 1) Make sure your PIV card is in your card reader
- 2) Open PuTTY-CAC

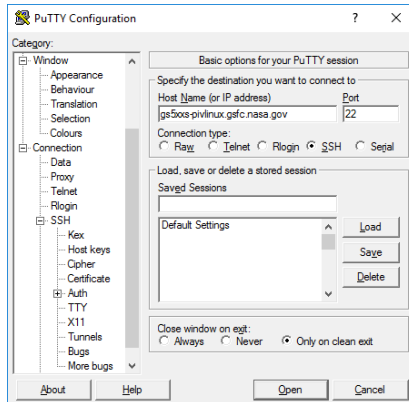


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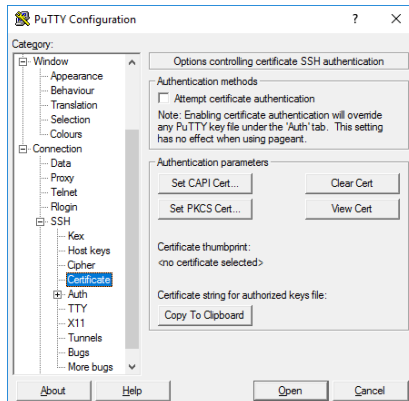
- 3) Enter the Host Name of the machine you want to connect to



- 4) Click the + next to SSH under Connection on the left hand side

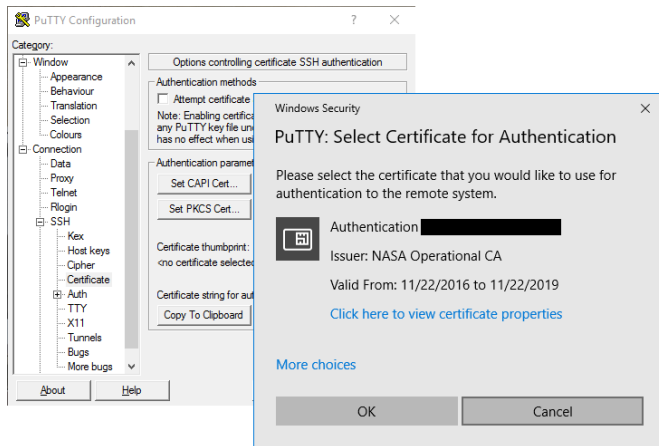


- 5) Click Certificate

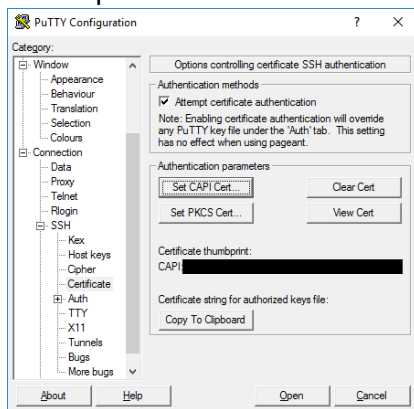


- 6) Click Set CAPI Cert and click OK on your “Authentication – Name” Certificate

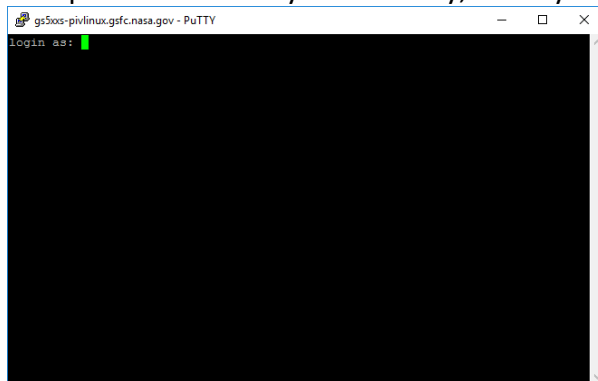
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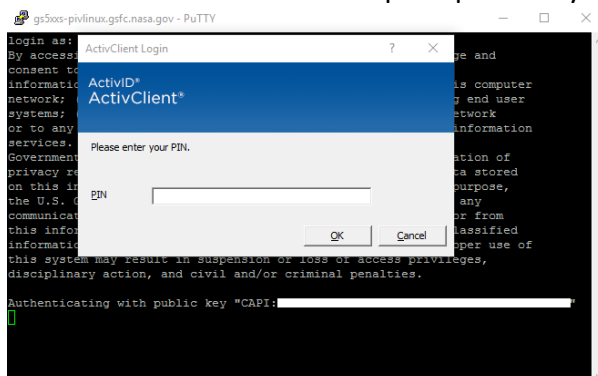
7) Click Open



8) Accept the servers key if necessary, enter your username, and hit [ENTER]



9) You'll see the banner and be prompted for your PIN - Enter your PIN and hit [ENTER]



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10) You should now be logged in!

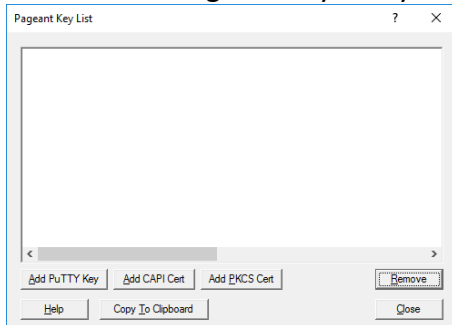
## Using Pageant

Pageant is an SSH authentication agent. It holds your private keys in memory, already decoded, so that you can use them often without needing to type a passphrase.

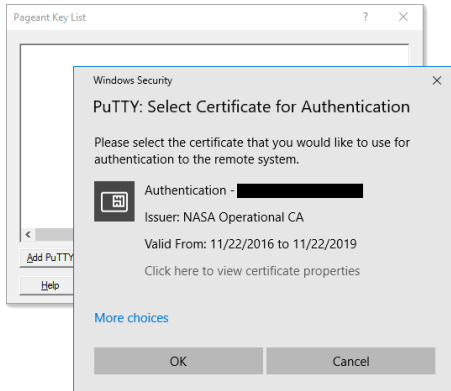
- 1) Make sure your PIV card is in your card reader
- 2) Open Pageant (it goes immediately to your system tray)



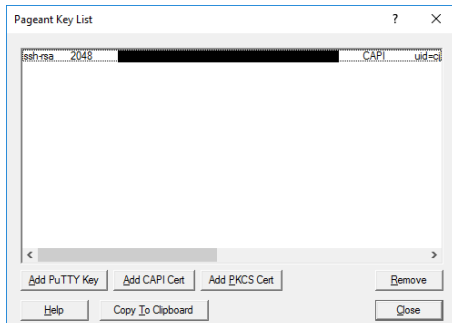
- 3) Double Click Pageant in your system tray



- 4) Click Add CAPI Cert and click OK on your "Authentication – Name" Certificate



- 5) You should now see a certificate in your key list - Click Close



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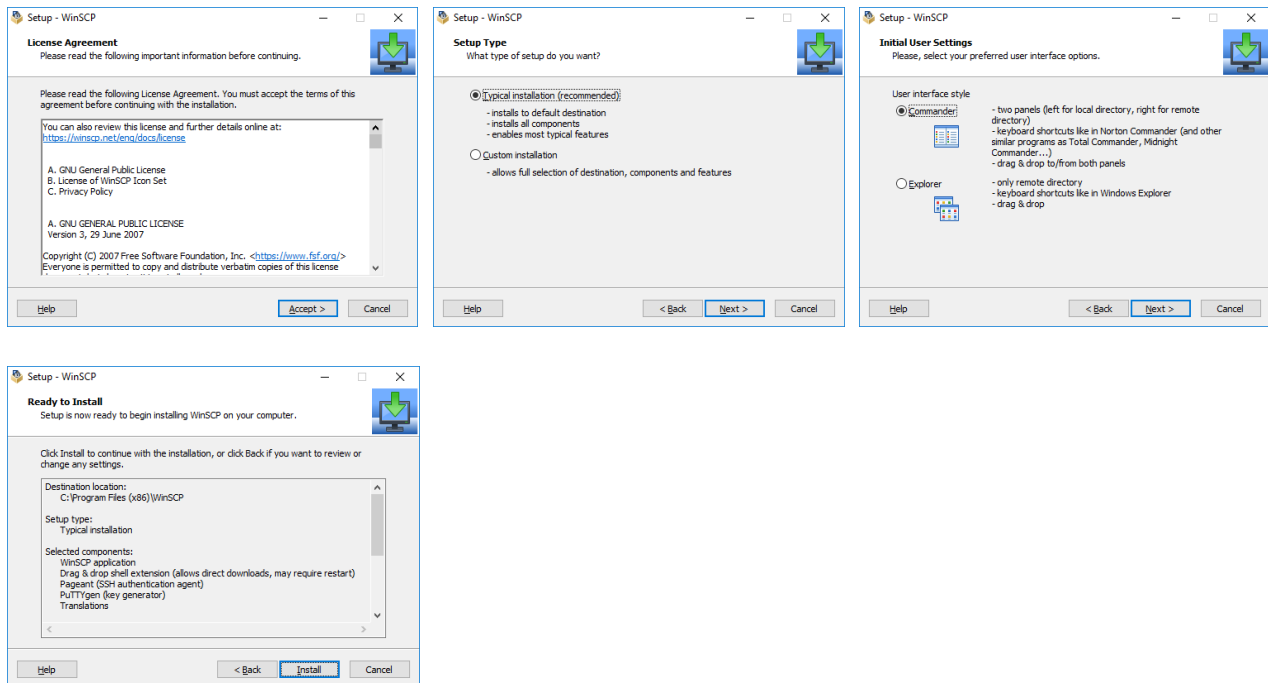
- 6) You can now use PuTTY-CAC normally as described above, but by utilizing Pageant you can skip steps 4-6 when connecting to a Linux machine.

## WinSCP

WinSCP is an open source free SFTP client, FTP client, WebDAV client, S3 client and SCP client for Windows. Its main function is file transfer between a local and a remote computer.

### Installing WinSCP

- 1) Download the latest version of WinSCP
  - a. <https://winscp.net/eng/download.php>
- 2) Install WinSCP

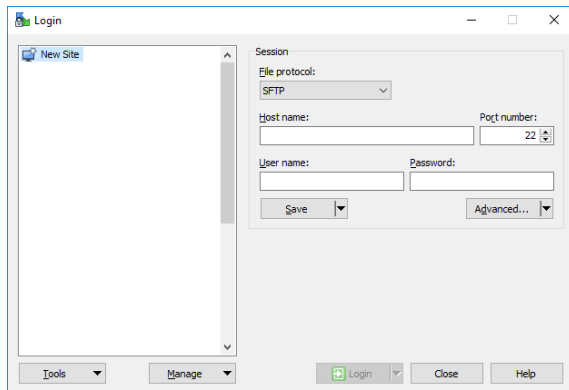


### Using WinSCP

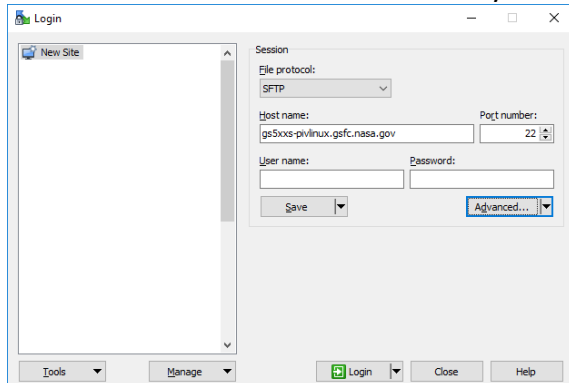
In order to use your smart card with WinSCP you'll need the assistance of Pageant (part of the PuTTY-CAC suite). Follow the instructions in the section titled **“Using Pageant”** before proceeding.

- 1) Make sure your PIV card is in your reader
- 2) Open WinSCP

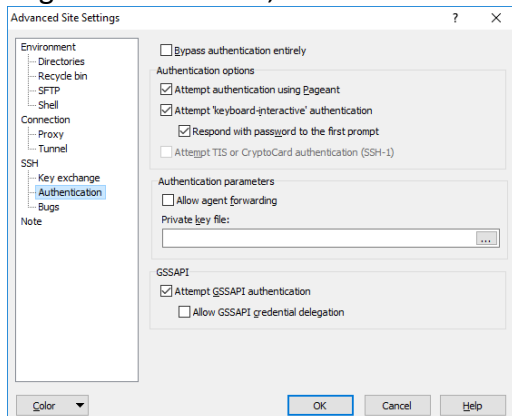
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3) Enter the Host Name of the machine you want to connect to and Click Advanced

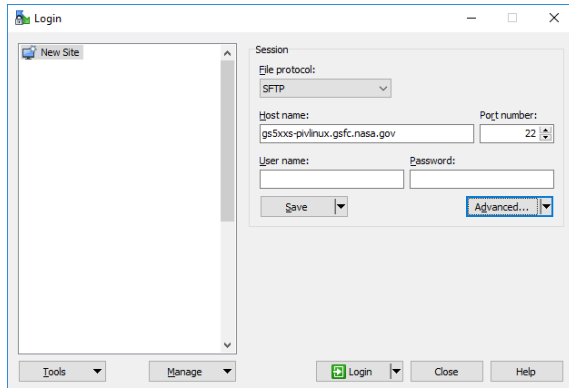


4) Select Authentication under SSH on the left hand side, make sure “Attempt authentication using Pageant” is checked, and Click OK

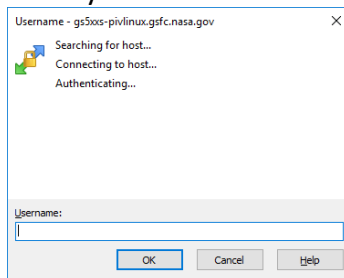


5) Click Login

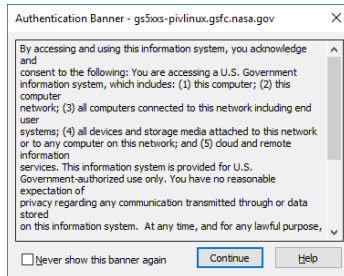
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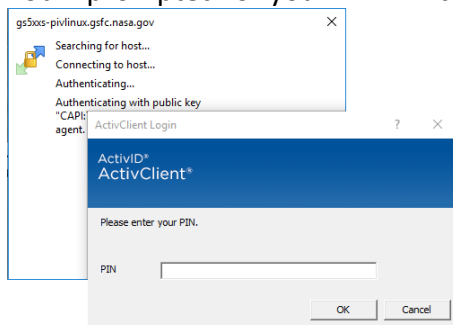
- 6) Accept the servers key if necessary
- 7) Enter your username and hit [ENTER]



- 8) You'll see the banner - hit [ENTER] or click Continue



- 9) You'll prompted for your PIN - Enter your PIN and hit [ENTER]



- 10) You should now be logged in!