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# Rubin Onboarding and Offboarding Procedure

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ITTN-045

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## Abstract

This ITTN was created to document the procedure of requesting access to the various services located at the summit.

## Change Record

Version	Date	Description	Owner name
1	2021-04-12	Unreleased.	Cristian Silva
2	2021-05-01	First Draft	Diego Tapia
3	2021-05-27	Second Draft	Cristian Silva
4	2021-05-31	Third Draft	Diego Tapia
5	2021-06-15	Nublado details	Frossie Economou
6	2021-06-29	First Release	Cristian Silva
7	2024-07-12	SQuaRE services update	Ivan Gonzalez
7	2024-11-22	Added Offboarding and re-structured services	Cristian Silva

*Document source location:* <https://github.com/lstt-it/ittn-045>

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# Rubin Onboarding and Offboarding Procedure

## 1 Introduction

The access to servers and services of the summit are managed by several backends.

To access Rubin services, please refer to the section Access to Rubin Services

The access to Wifi at the Summit is controlled by domain credentials. To request Domain Credentials please refer to Requesting Domain Credentials.

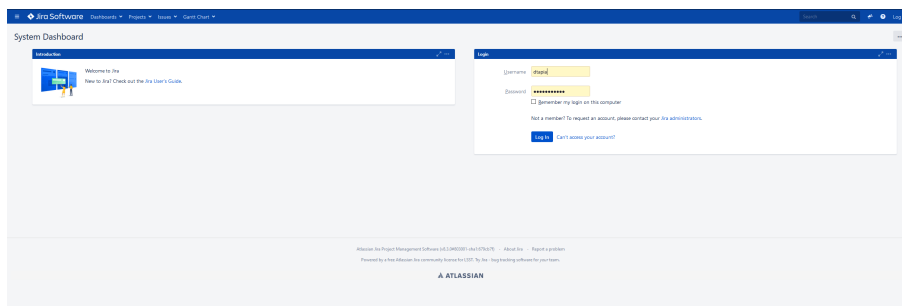
## 2 Onboarding

### 2.1 Requesting a Summit Account

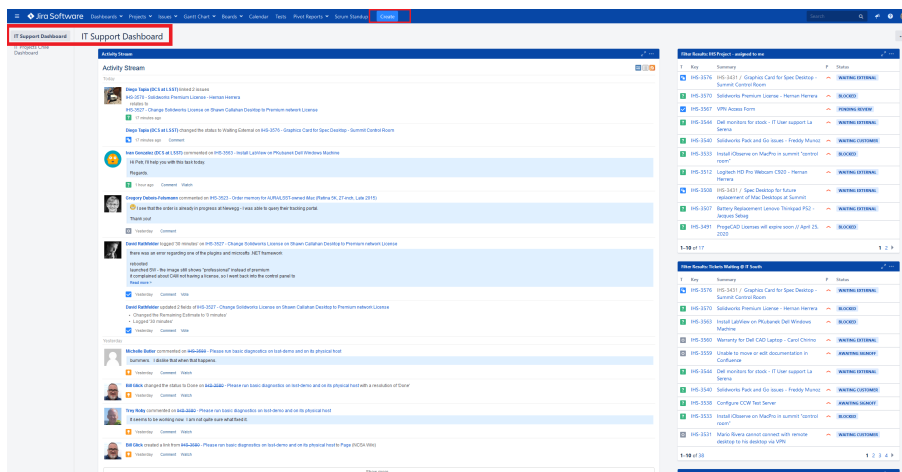
To request a Summit account, it is necessary to create a Service Request ticket inside the IT User Support Dashboard. This ticket is usually created by the manager of the user needing the account.

Please check the example below.

Head over to <https://rubinobs.atlassian.net/> and log in with your domain account credentials.



Once logged in the user will be prompted with the following windows if not similar. Before creating the ticket, it is required for the user to check that he is in the proper dashboard for this particular case the IT Support Dashboard



On the ticket creation window fill out the template using the information provided below:

- Project: IT Helpdesk Support (IHS)
- Issue Type: Service Request
- Summary: Onboarding <user>
- Component: AAA
- Description: <description>

<user>: Name of the user to onboard.

<description>: Use the following template:

- First and Last Name: .....
- SSH Public Key: .....
- Email Address: .....
- Services: list needed services from Rubin Services

Once all the information is filled out, select the Create option located at the bottom to create the ticket inside IHS IT Support Dashboard.

Once the account has been created and the services have been provisioned, the user will be contacted via the email provided in the ticket. The user will then need to change the password of the account created. Instructions to change the password will be sent via email.

If you have any questions or concerns please contact #devops-team in Rubin Observatory's Slack workspace



## 2.2 Rubin Services

The following services can be requested:

- RSP for Summit, includes:
  - Chronograf
  - Nublado
- RSP for La Serena
  - Chronograf
  - Nublado
- ArgoCD for Summit
- LOVE
- Standard baremetal access for Camera Subsystems (LSSTCam, ComCam, Auxtel)
- Sudo access for Camera Subsystems (LSSTCam, ComCam, Auxtel)
- Kubernetes access for Summit
- Kubernetes access for Base
- Kubernetes access for Tucson
- TTS access
- BTS access
- 1Password vault (vaults must be specified)
- Dev access for TTS, includes
  - ArgoCD
  - K8s
  - 1Password vault
- Dev access for BTS, includes
  - ArgoCD

- K8s
- 1Password vault

Follow instructions in ITTN-045, and file a single IHS ticket to request access to the service(s) needed.

Access to some systems must have prior authorization by systems owners.

For security reasons, 2FA is used in VPN and some services, but they are independent. For example, if you need to access Summit RSP you must create a 2FA entry and to access Base RSP you will also need to create a separate 2FA that is independent of the Summit RSP entry. When you log in for the first time to one of these services you will be able to configure your 2FA token.

Resources details of each site can be found in the following links

- a) TTS.
- b) BTS.
- c) Summit.

## 2.3 Access to Github Organizations

- a) Isst-it (docker-compose-ops-repo, explicitly).
  - File an IHS ticket
- b) Isst-ts (argocd-csc scripts).
  - Submit and Email or Slack request to Rob Bovill (rbovill@lsst.org).

## 2.4 Requesting Domain Credentials

To request Domain Account Credentials, it is required that an Onboarding form is filled out by the manager or supervisor in charge at Onboarding Form. Once the onboarding form is

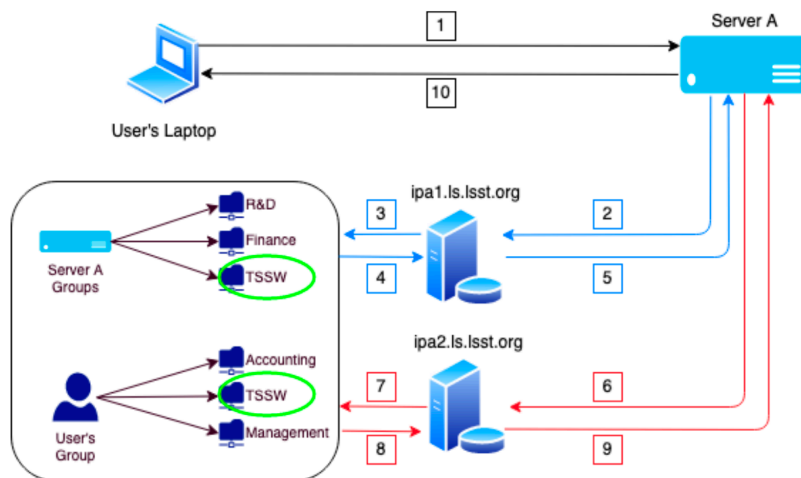
filled out and submitted with the information requested, IT North will process the credentials and will contact the person requesting the access.

### 3 Rubin Server Authentication

All Rubin Observatory's servers are set to authenticate through FreeIPA and Asymmetric Cryptography through Secure Shell (ssh), and all other mechanisms are blocked. This means, all local accounts and password authentication are not allowed, so once the servers are admitted to IT's network and infrastructure, all previous local accounts, passwords, permissions, users and groups IDs (uid and gid).

When a new user arrives, or a user that does not yet have credentials, it is requested to create a RIC (Request for IPA Credentials) following the instructions above.

Then, comes an important part of the process: setting and creation of the Asymmetric Cryptography, also known as public-key cryptography.



(1) The user presents its private ssh-key, (2) If the primary IPA Server is reachable (ipa1.lsst.org), the Rubin's Server (Server A) presents the user's private key to ipa1, (3) The IPA Server checks against the common database (among all replicas) if the user exists and matches the private against the stored public key; if the user exists, it also checks if the group who it belongs has sufficient privileges to access, (4) The Server fetches the Database information, (5) The IPA Server either grants or denied access to the User's Laptop to Server A, (10) The permission

granted/denied is send to the User's Laptop. If the Primary IPA Server isn't reachable after timeout, it does the same operation over the failover (red) Server, following path 6 -> 7 -> 8 -> 9 instead of 2 -> 3 -> 4 -> 5.

### 3.1 SSH Keys Creation

Depending on your OS, is the instructions you will need to follow:

### 3.2 Linux and MacOS

First, log into your local machine, then search and open a terminal window. Once there:

```
john@localhost:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/john/.ssh/id_rsa): #HIT ENTER, DO NOT WRITE ANY CONTENT
Enter passphrase (empty for no passphrase): #ENTER
Enter same passphrase again: #ENTER
Your identification has been saved in /home/ john /.ssh/id_rsa.
Your public key has been saved in /home/ john /.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:seMcIk0bj0ZhXlKer5ik6e3mpAMisYdvZwziPddbAs john@localhost
```

If the John, already has a pair of private/public keys – and for personal reasons don't want to reuse them – you can set a new pair by changing the name of the keys and adding a config file, so that the local ssh agent includes that key as well:

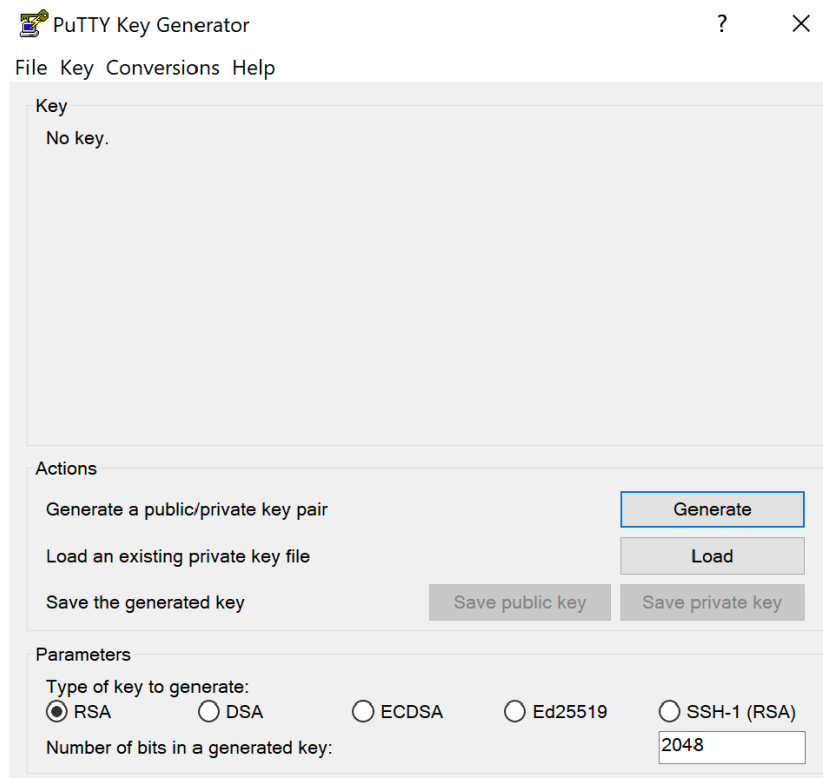
```
john@localhost:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/john/.ssh/id_rsa): /home/john/.ssh/rubin_rsa
Enter passphrase (empty for no passphrase): #HIT ENTER, DO NOT WRITE ANY CONTENT
Enter same passphrase again: #ENTER
Your identification has been saved in /home/ john /.ssh/rubin_rsa.
Your public key has been saved in /home/ john /.ssh/rubin_rsa.pub.
The key fingerprint is:
SHA256:seMcIk0bj0ZhXlKer5ik6e3mpAMisYdvZwziPddbAs john@localhost
john@localhost:~$ echo -ne "IdentityFile /Users/hreinking/.ssh/id_rsa\nIdentityFile /Users/hreinking/.ssh/rubin_rsa\n" > ~/.ssh/config
john@localhost:~$ chmod 644 ~/.ssh/config
```

The id rsa file contains your private key, which by no reason must be shared or known by another person, this will not only compromise the integrity of the server but also related user's data, account access etc. On the other hand, the id rsa pub contains the public key, whis is intended to be shared and publicly known.

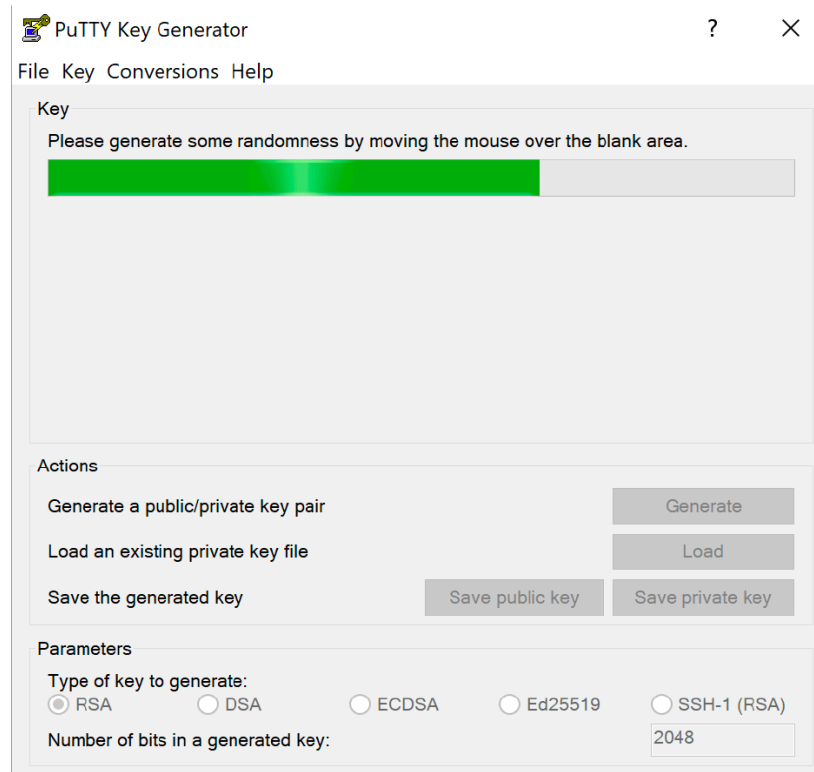
### 3.3 Windows OS

Windows does not natively have a native ssh mechanism. There are several third-party applications, designed to satisfy such need, but we are going to use PuTTY9, which is an Open-Source software SSH and Telnet client Putty Client.

Once PuTTY is installed, we will use a complementary tool (already installed along with putty) called PuTTYgen (you can open it by typing it into Windows Search box):

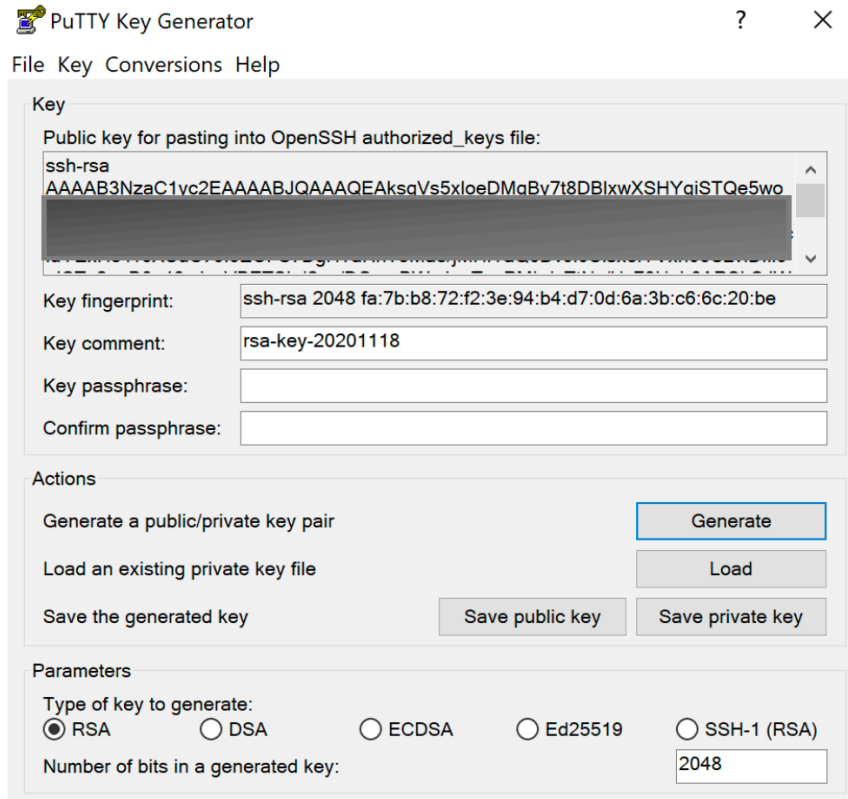


Click on generate:



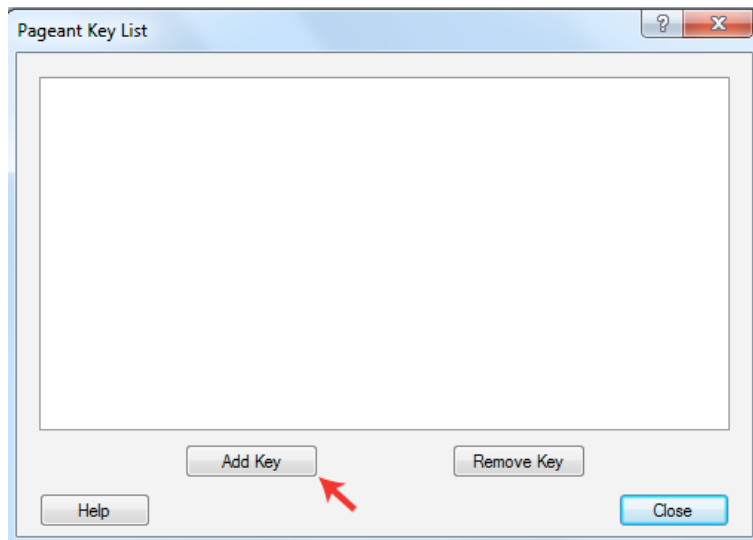
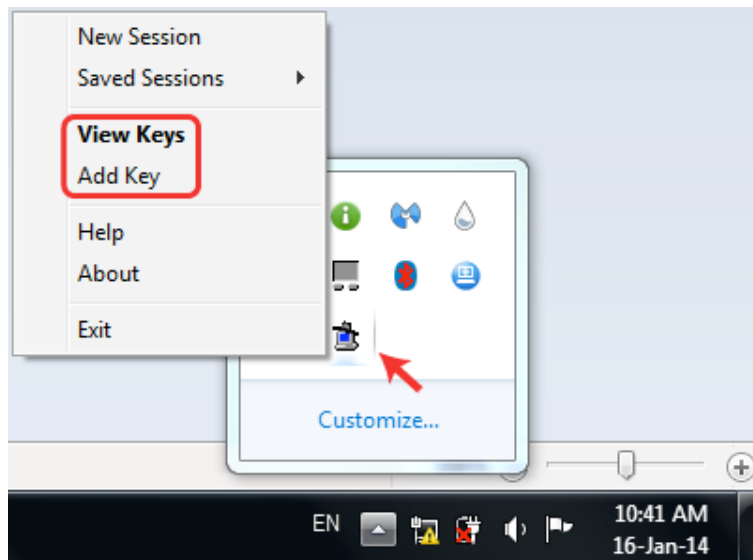
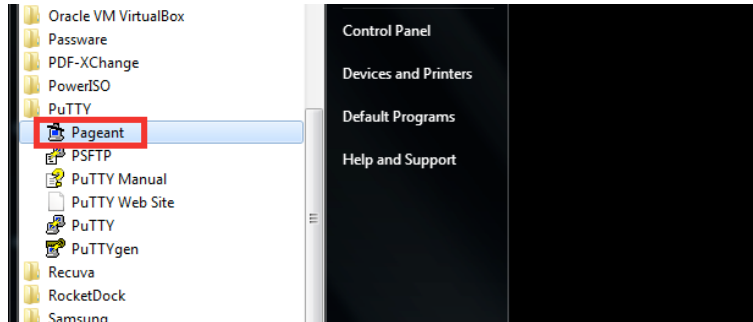
In order to create a random key, you must move the mouse over the surface, so the progress bar moves.

Once concluded, you should see something like:

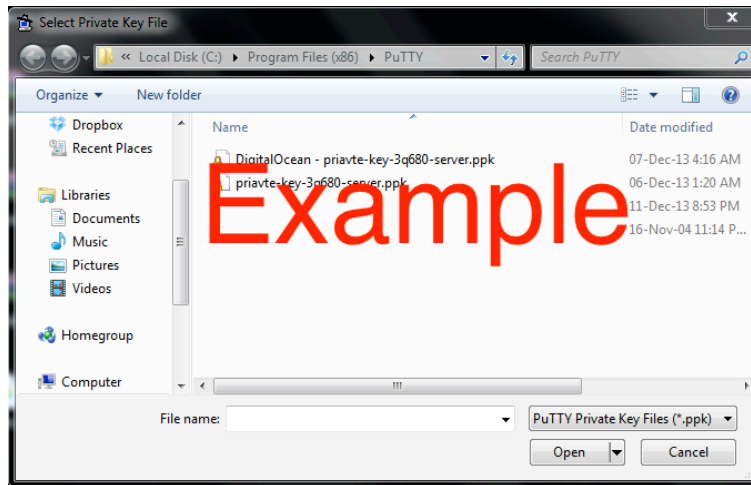


Now, save both keys into a well-known location. It is recommended (but not needed) to create a folder named "ssh" in the user's home directory, so when asked, you can easily find your keys in "/Users/<username>/ssh".

The next images will show you how to load the ssh private key in the Pageant app.





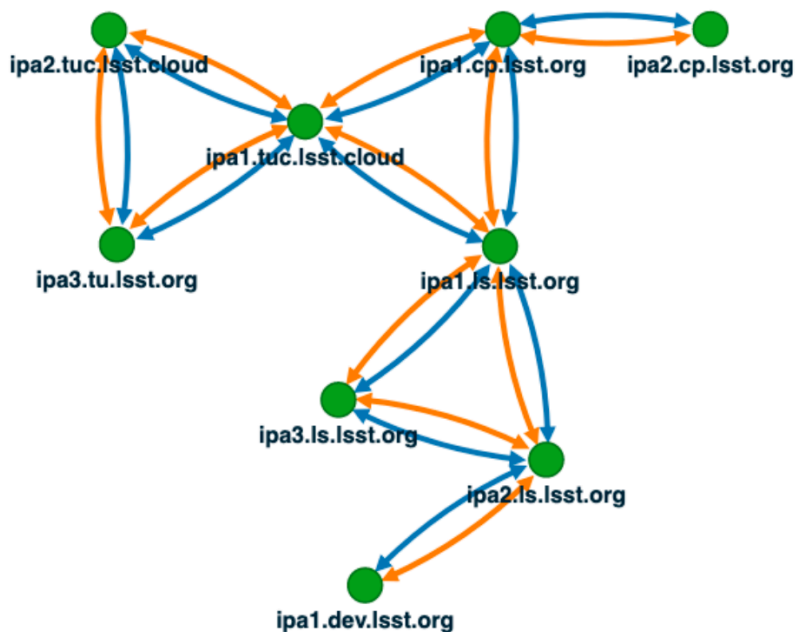


Once you have your private key loaded in the Pageant app, you need to upload your public ssh key to the jira ticket in order for the IT Team to format the ssh keys.

### 3.4 Add Public Key Into IPA

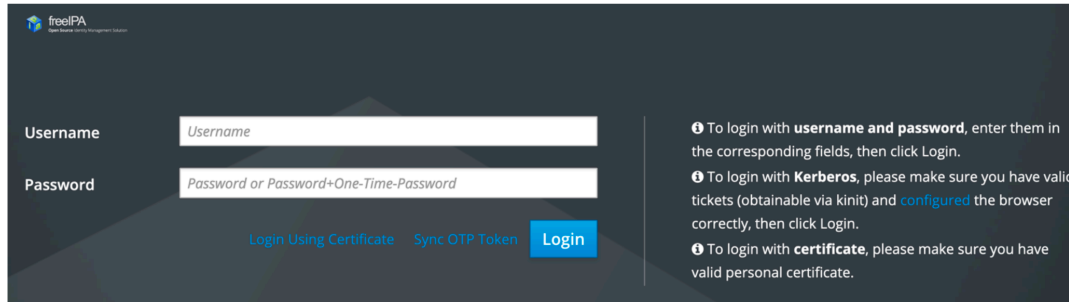
The IPA infrastructure is composed of a master server and several replicas, meaning that it does not matter in which one you modified your personal data, it will be propagated over the rest of the nodes.

The IPA Topology (Image below) is designed in such way, that in the worst-case scenario, at least one source of authentication will remain.

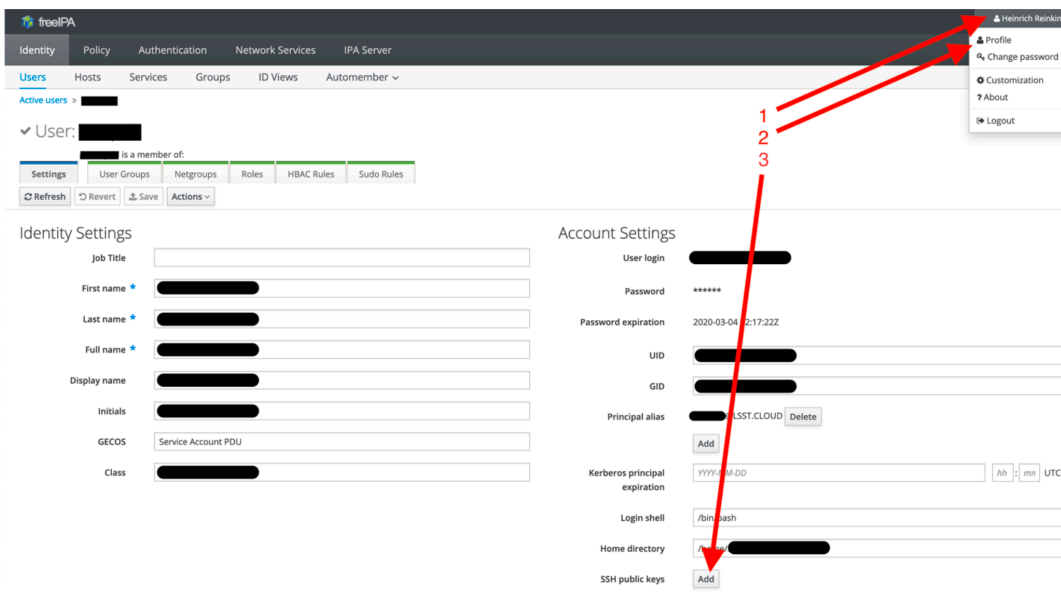


The orange arrows represent the DL (Domain Link), meanwhile the blue arrows the CA (Certificate Authority). The DL keeps the authenticity of the defined domain – i.e. server.local – and the CA is the responsible of emitting and signing the hosts certificates, to validate their authenticity.

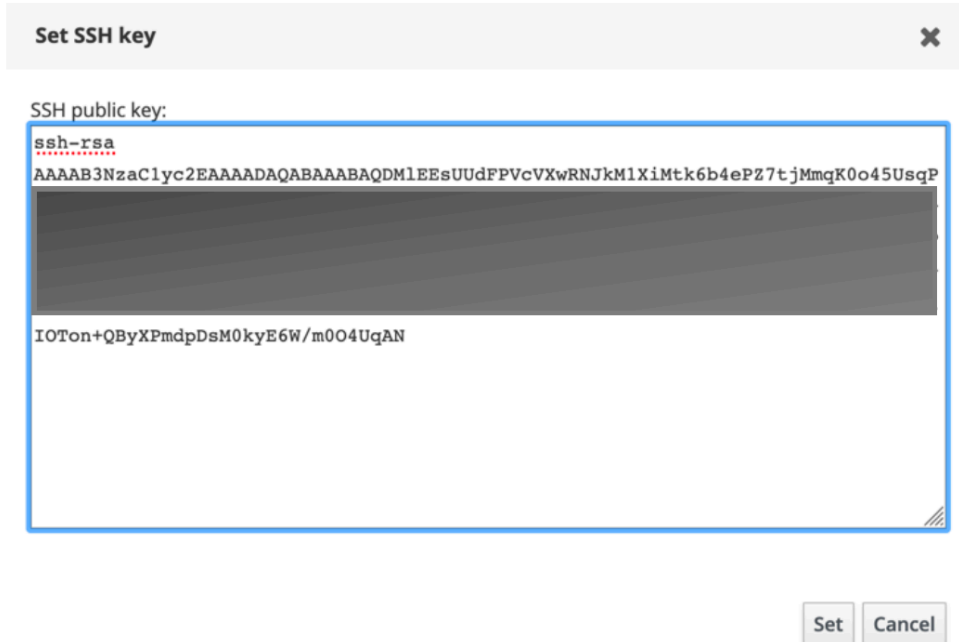
In order to add your public key into IPA, you must access through any of the http frontends, from either the replicas or master. Bear in mind that you must be either inside the network or connected through VPN. Let's use the BDC (Base Data Center) replica: open a web-browser and navigate to IPA Website. You should see a welcoming screen:



If it's the first time you log in, the system will force you to change your password (also if it has expired). Once successfully logged in the platform, (1) in the upper right corner click your username, (2) profile, and then (3) Add:



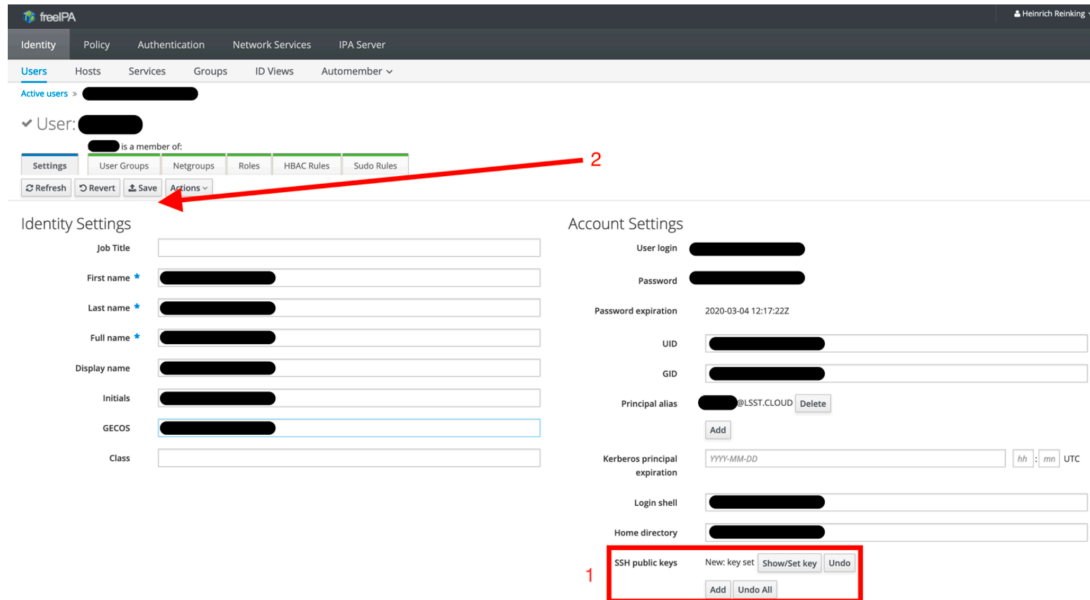
A pop-up window will appear, in which you must paste your public key:



If you are importing a key generated with PuTTY, must use only the selected section:

```
----- BEGIN SSH2 PUBLIC KEY -----  
Comment: ""  
AAAAB3NzaC1yc2EAAAABJQAAAgEAgQuf5Sd1Z51XkjUPN2Fwusz2NGkO6ZDAzdV  
K  
VprMERiajyNnkU7JQw1V020L+IwFuyoJOW5Zi6zjXzmDw1zTKPAN2vjoorBAyMoy  
w/JPwBeiEfc9nBLbNEgyWlnMsPNnTeLqHWfwCxrP58LHHJQDs18f1qLvJSM9XnYu  
bJgRJNS1TCAR37N7Y0zMuyS5ku/Xn3CwXI+DQdke8TMXFuG8Jdd8EkSHTtDy/JM3  
VprMERiajyNnkU7JQw1V020L+IwFuyoJOW5Zi6zjXzmDw1zTKPAN2vjoorBAyMoy  
cZ2NGa+kfxJXe5unDi4Pi0wSvo9y5HzqEzYWdpXYEqnzVeXiUquSI/+mhT7tgrJE  
+dEnuG5GYpd6pVrg34BBkAFP9Gmd4kd9F18LWf0h968xkUo7IN7IVHuPQRRiUATb  
XFOFHD62Y/s2vrpJP19lusWbKHirXN6sRApNYtb5/5yZQZaQQFqzV5yU5KvpgDzm  
cZ2NGa+kfxJXe5unDi4Pi0wSvo9y5HzqEzYWdpXYEqnzVeXiUquSI/+mhT7tgrJE  
6YdjS937wnfZfU/IRmLVENFXaxRlrYZ9nai1xBeDj2U9FaApJkgAGxMHLqf73c1G  
DYnSuGcAURjyFatU13H80/FEXA8gEUDoU6jvMEcXF2oZDmG/9zDiXmcoDyzrQHwP  
jfYX9/s=  
----- END SSH2 PUBLIC KEY -----
```

If everything was set correctly, click Set, and you will find yourself in the previous window:



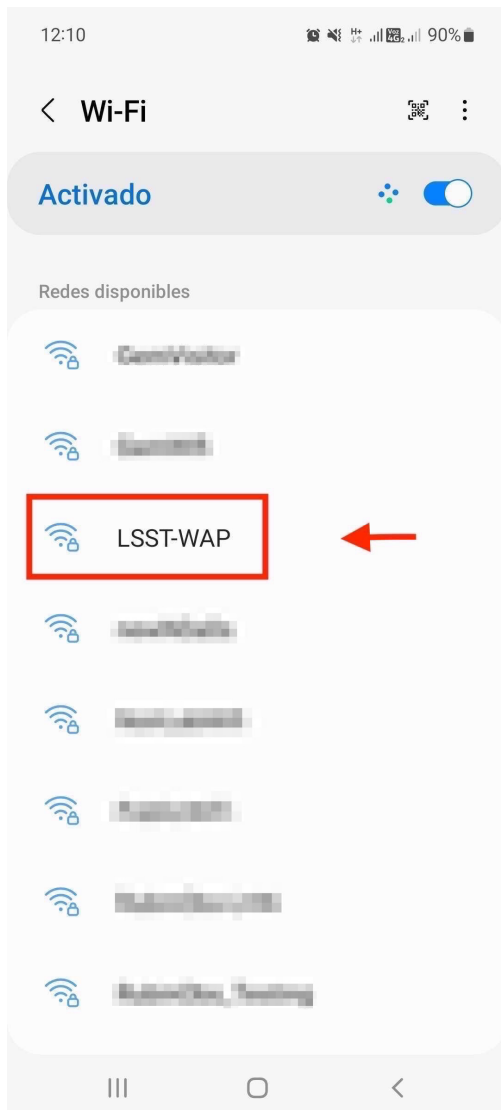
(1) A "New:key set" should now appear and in order for the changes to take place, (2) click on Save.

## 4 Accessing the Rubin Observatory WIFI network

Once the onboarding form is complete and the AUP form is submitted, IT will contact you to hand out your Domain account credentials concluding the onboarding process. These credentials depending on the level of access requested by the manager will give you access to services such as Jira, Confluence, DocuShare, Exchange and most importantly the Rubin Observatory WIFI network named "LSST-WAP", this WIFI SSID can be found both at Cerro Pachon and La Serena Base facility.

## 4.1 Android Mobile Device

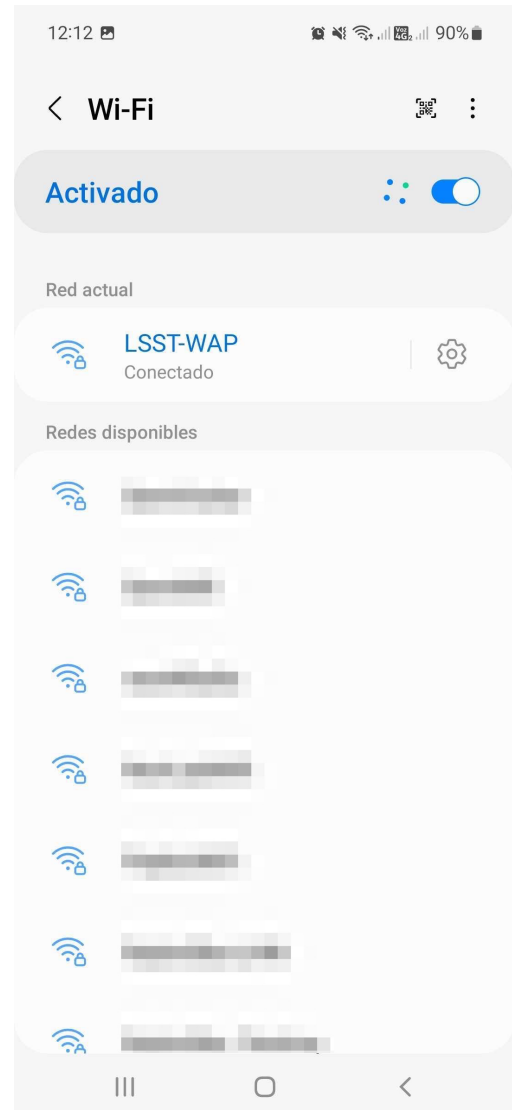
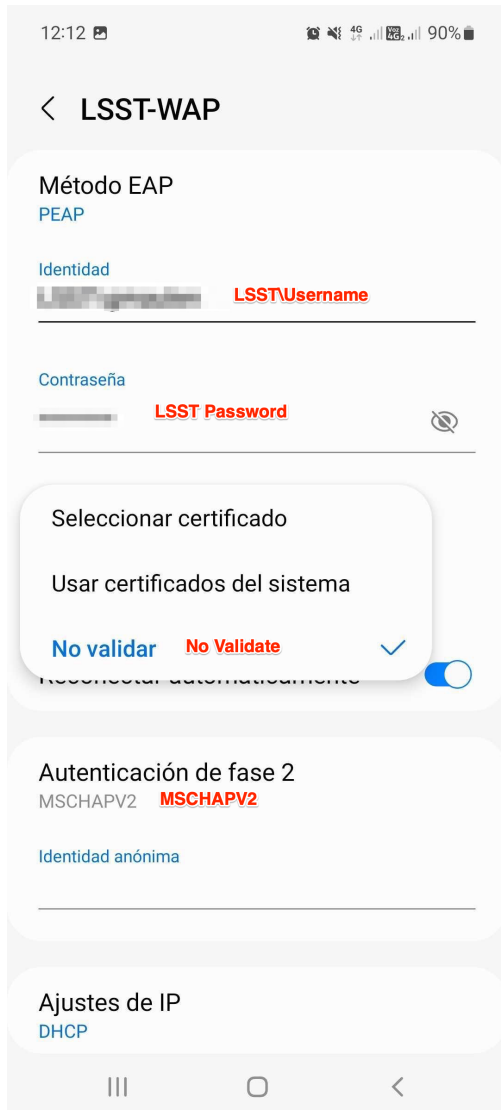
To connect your mobile device to the LSST-WAP wifi network please follow the instructions on the images below.



1.) Select the LSST-WAP WIFI Network from the list.

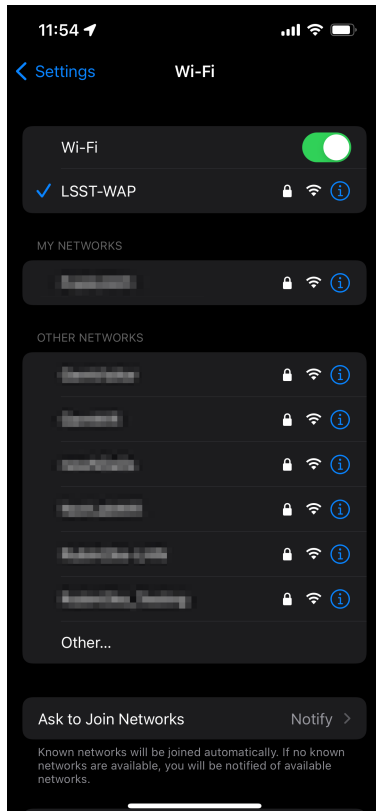


2.) Fill out the fields highlighted in red as show on the image.

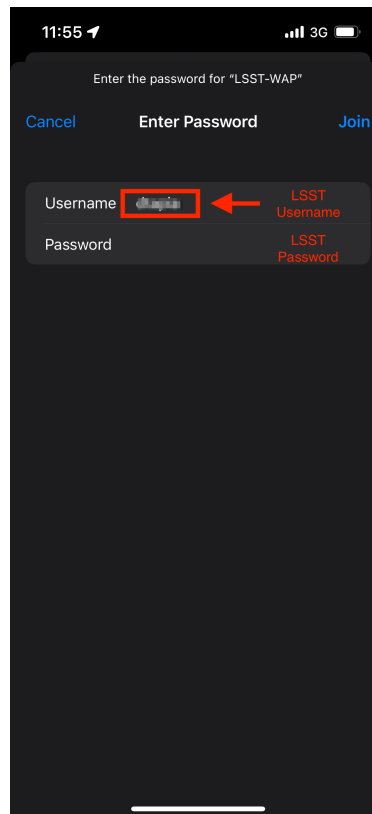




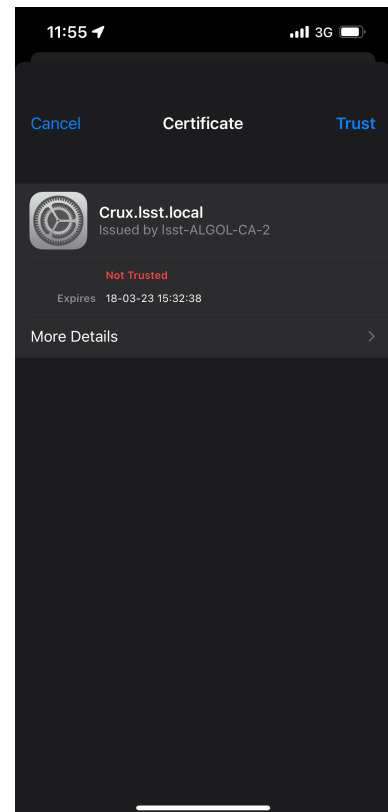
## 4.2 Apple Mobile Device



1.) Select the LSST-WAP WIFI Network from the list.

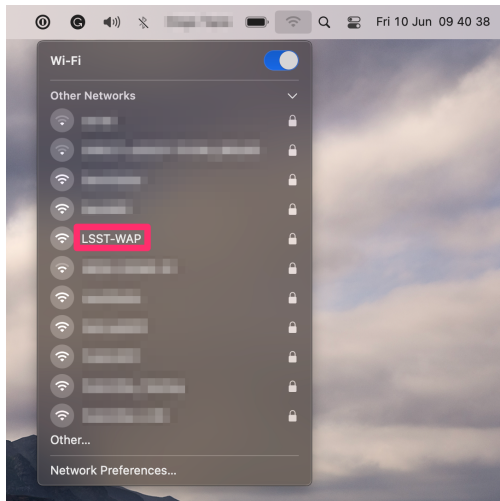


2.) Log in with your domain account credentials as shown on the images.

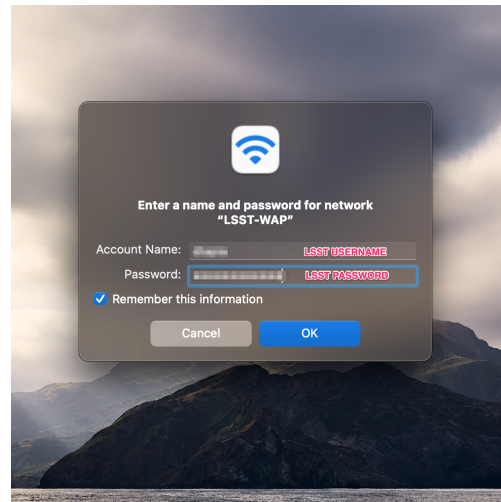


3.) Accept the certificate and hit on the trust button to connect.

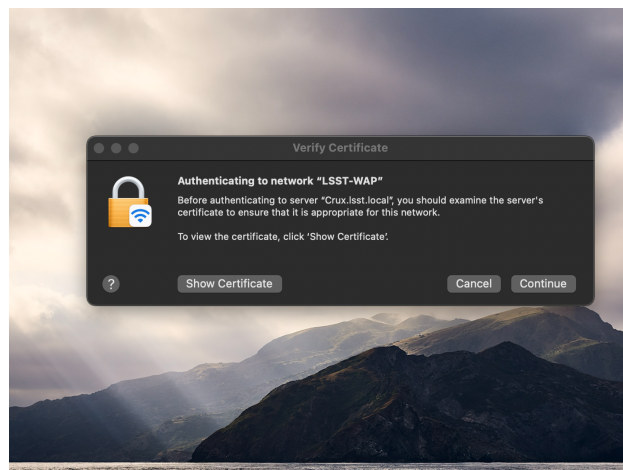
## 4.3 MacOS



1.) Select the LSST-WAP WIFI Network from the list.

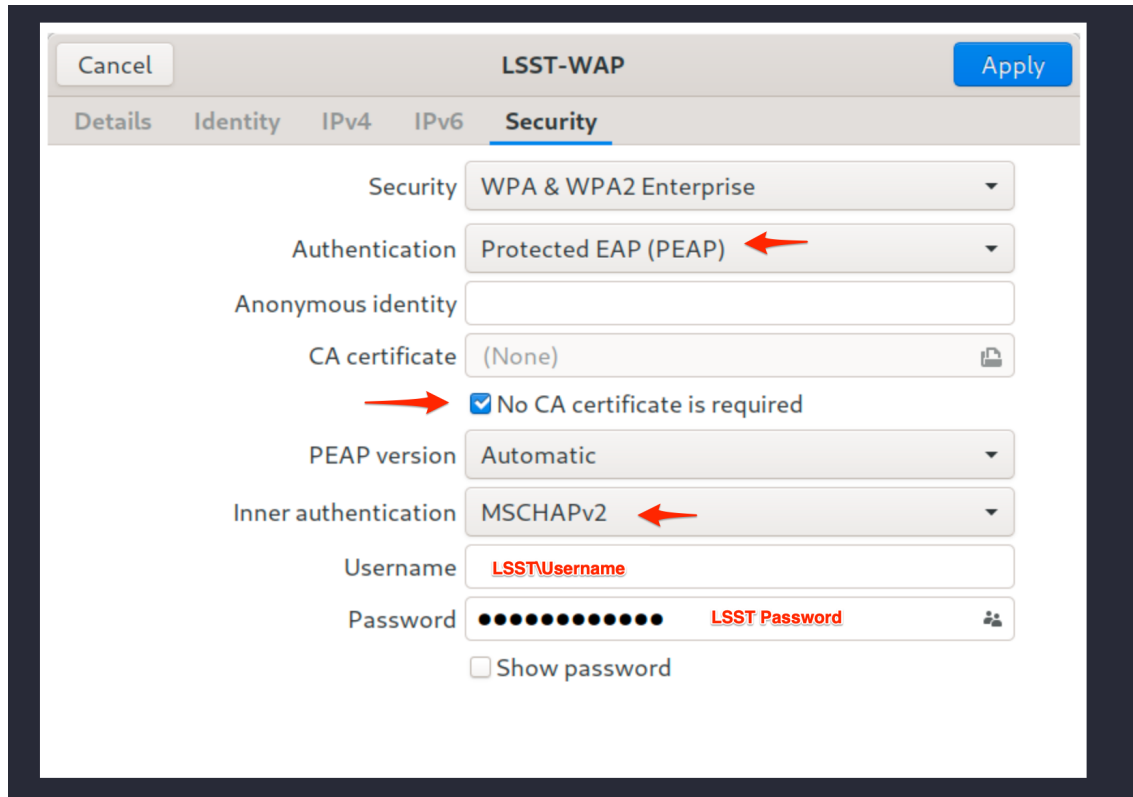


2.) Log in with your domain account credentials as shown on the images.



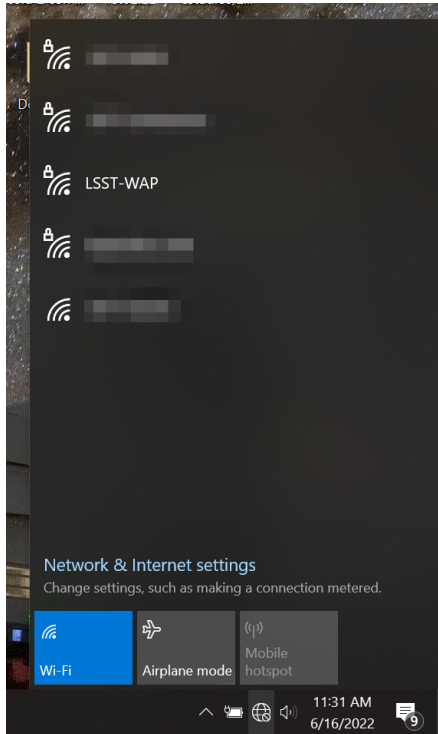
3.) Accept the certificate and hit continue to connect.

## 4.4 Linux

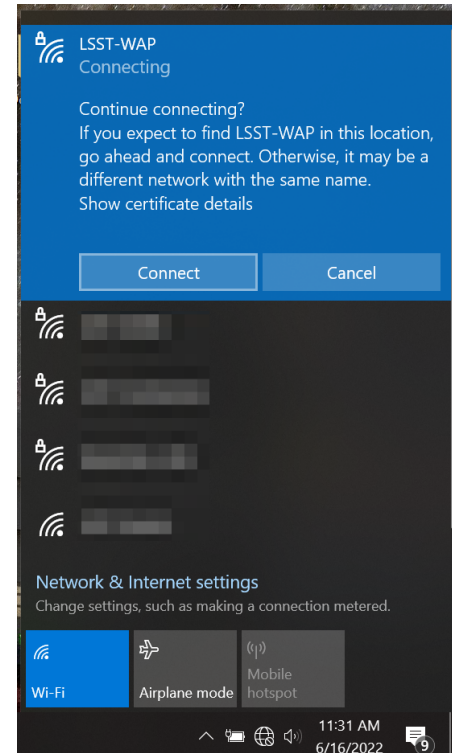


Use the following network configurations settings to setup the LSST-WAP WIFI Network on Linux laptop computers.

## 4.5 Windows



1.) Select the LSST WAP WIFI Network from the list if at La Serena Base or Cerro Pachon.



2.) Select connect, log in with your domain account credentials both username and password.

## 5 Offboarding

File an IHS ticket with the following information:

- Project: IT Helpdesk Support (IHS)
- Issue Type: Service Request
- Summary: Offboarding <user>
- Component: AAA
- Description:

<user>: Name of the user to offboard.

Offboarding tickets must be created by the manager of the user to offboard, and if it's time sensitive, please contact by email or Slack the DevOps manager.

The user will be offboarded from the following services

- Summit Services
- Active Directory
- Slack
- 1Password
- Github

## 6 Auditing

Visitors can be provided with temporary accounts, which will have separate records maintained for them. These accounts are scheduled for deactivation on the last day of each month through an automated process.

However, this deactivation can be prevented if the manager responsible for the visitor explicitly overrides the process to exclude the account from the deactivation cycle.

The current list of temporary accounts is available at <https://rubinobs.atlassian.net/l/cp/ddeM4LkA>, where managers should also record any overrides.