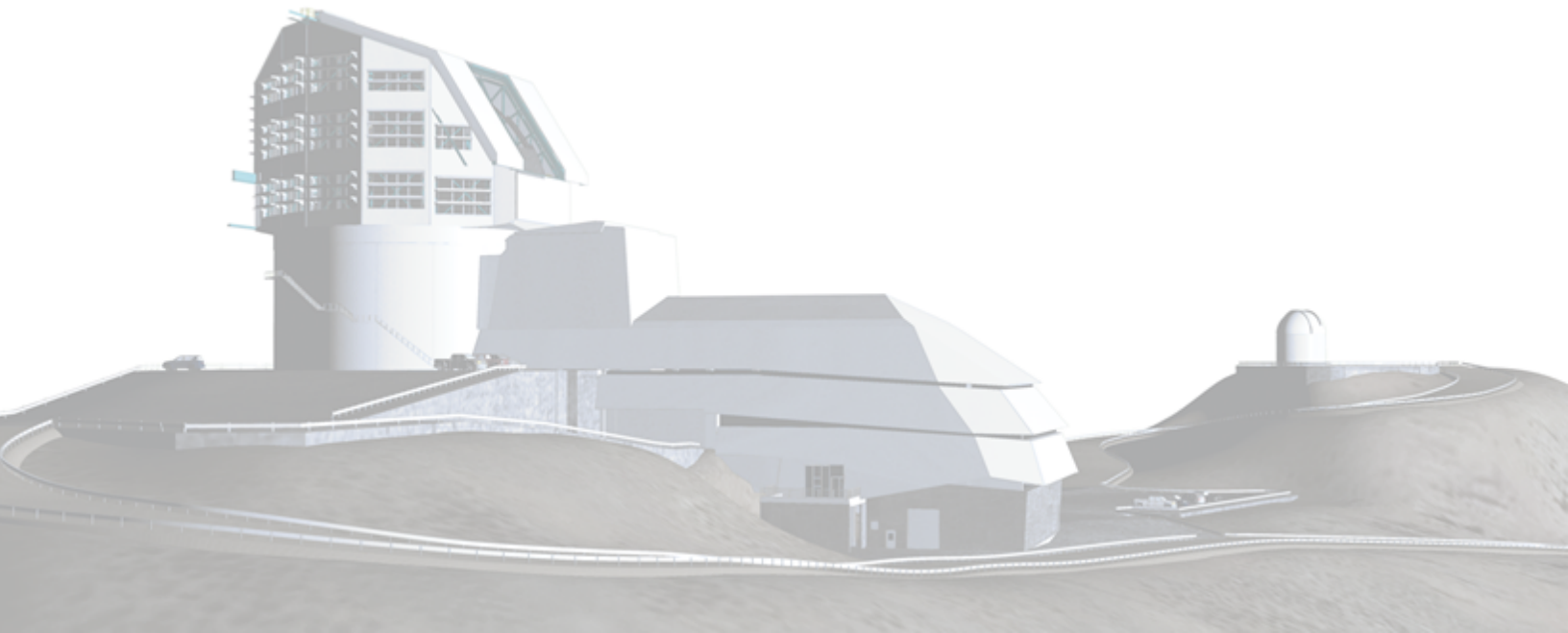

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Summit Onboarding Procedure

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ITTN-045

Latest Revision: 2024-05-03

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

Document source location: `https://github.com/lsst-it/ittn-045`

Contents

Summit Onboarding Procedure

1 Introduction

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

The access to servers (ssh) and VPN is controlled by the IPA backend. To request an IPA account please refer to the section Requesting an IPA Account

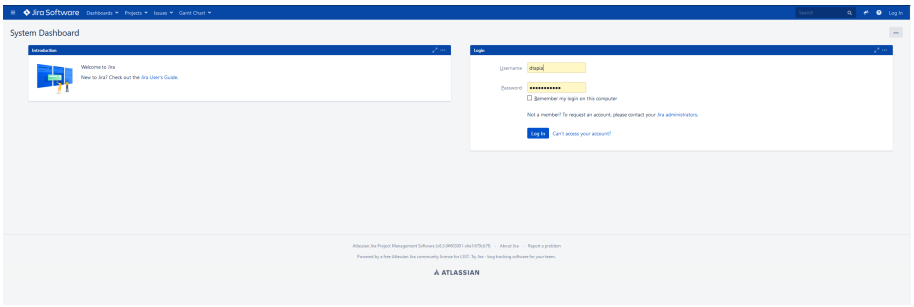
The acccess to Nublado is controlled by a Github backend. To request Nublado access please refer to Requesting Nublado Access.

The access to Wifi is controlled by domain credentials. To request Domain Credentials please refert to Requesting Domain Credentials.

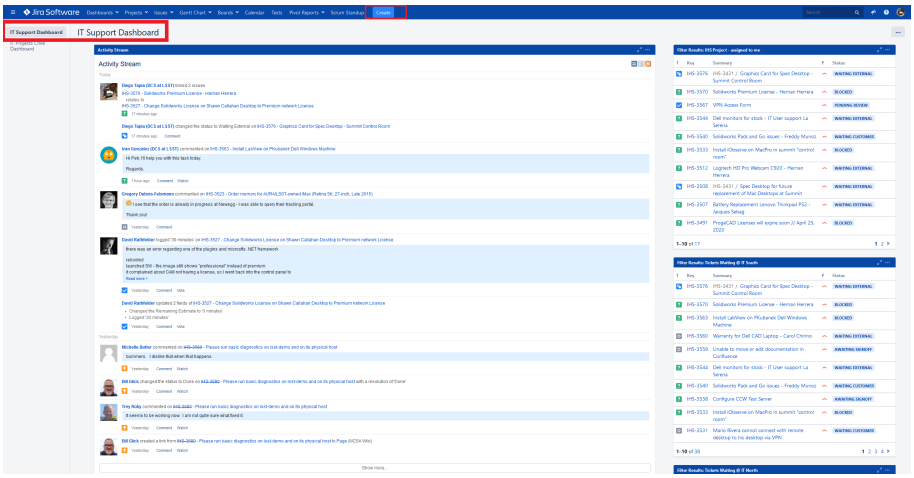
2 Requesting an IPA account

To request an IPA account, it is required for the user to create a Service Request ticket inside the IT User Support Dashboard. 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: IPA Account Creation / VPN Access - ”Insert your name here”
- Component: AAA
- Description: Please use the template provided below.

1. **Project:**

   IT Help desk Support (IHS)
2. **Issue Type:**

   Service Request
3. **Summary:**

   IPA Account Creation / VPN Access - "Insert your name here"
4. **Component:**

   AAA
5. **Description:**

   Copy and Paste the following information and fill out the form.

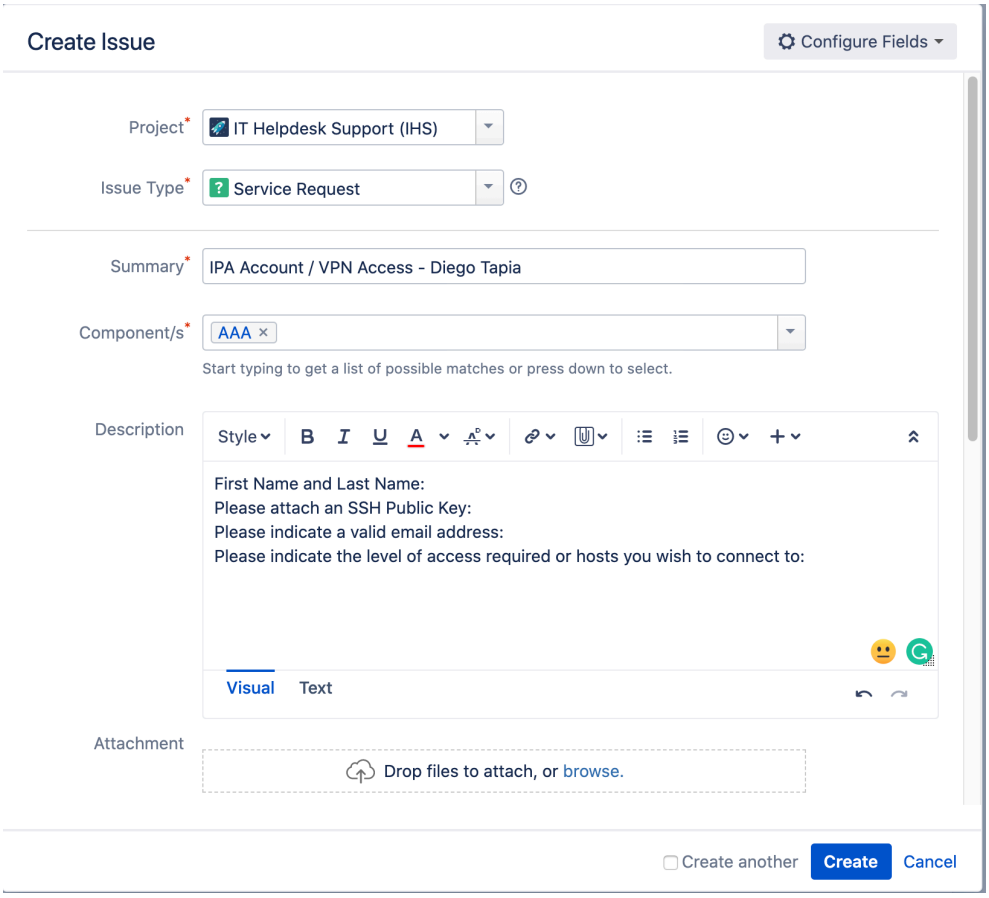
   First Name and Last Name: (.....)

   Please attach an SSH Public Key: (.....)

   Please indicate a valid email address: (.....)

   Please indicate the level of access required or hosts you wish to connect to: (.....)

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



IT User support will receive the request and will proceed with the account creation process. Once the account has been created and the services have been provisioned IT Support will be in contact with you via email to provide you with the account credentials and services you've been granted access too along with the website where you can change your temporary password.

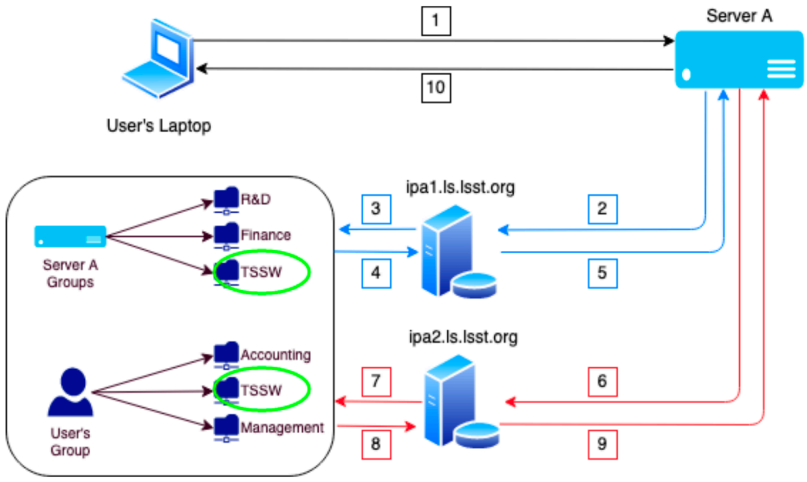
If you have any questions or concerns regarding the services provisioned please contact IT User Support at rubinobs-it-las@lsst.org

2.1 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 accountsand 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.ls.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 users 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.

2.1.1 SSH Keys Creation

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

2.1.2 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:seMcIk0bqj0ZhXlKer5ik6e3mpAMisYdvZwziPddbAs 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:

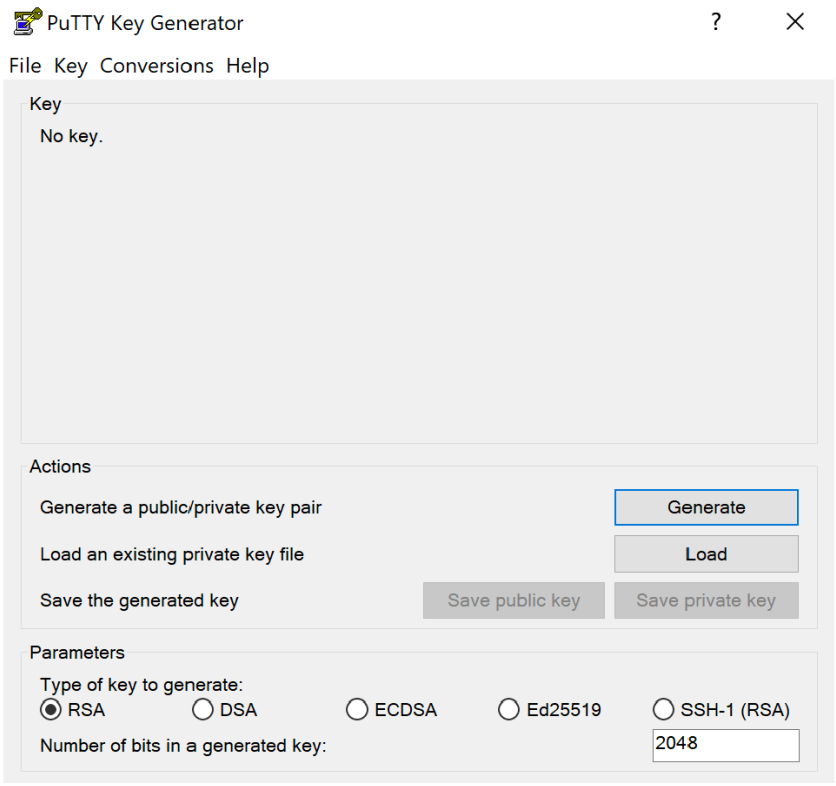
```
john@localhost:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/john/.ssh/id_rsa): /home/john/.ssh/rubin_rsa
Enter passphrase (empty for no passphrase):                        #HIT ENTER, DO NOT WRITE ANY CONTENT
Enter same passphrase again:                                       #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:seMcIk0bqj0ZhXlKer5ik6e3mpAMisYdvZwziPddbAs 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.

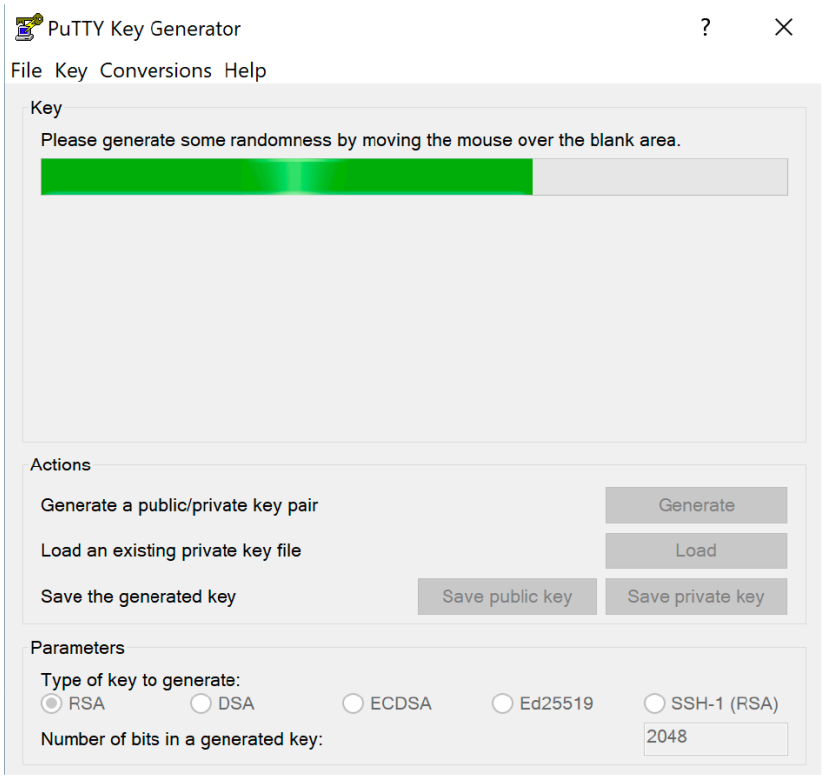
2.1.3 Windows OS

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):

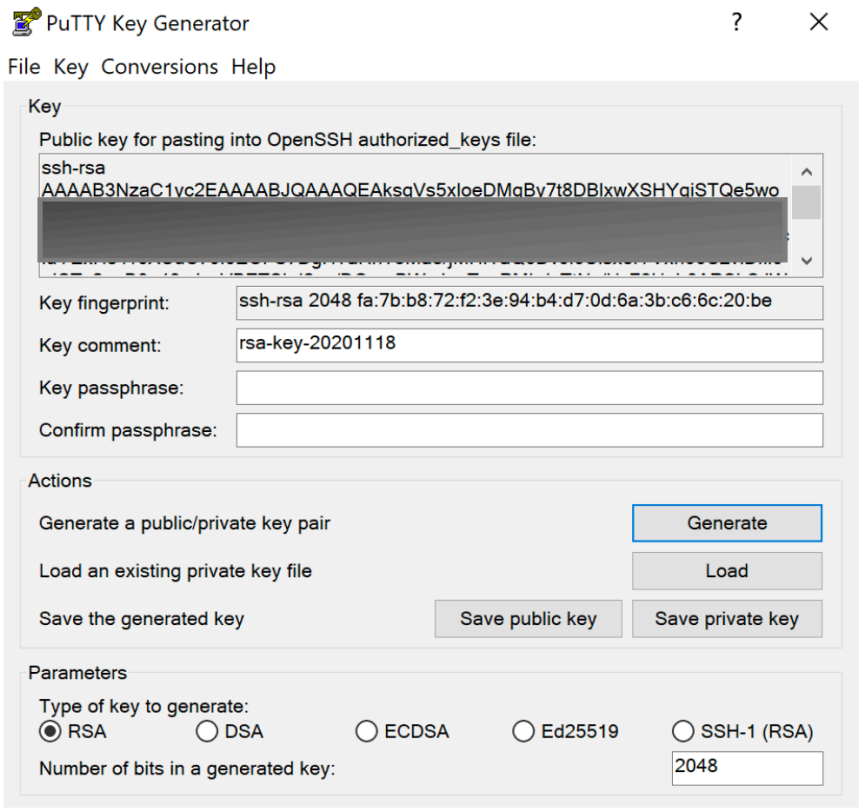


Click on generate:



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:

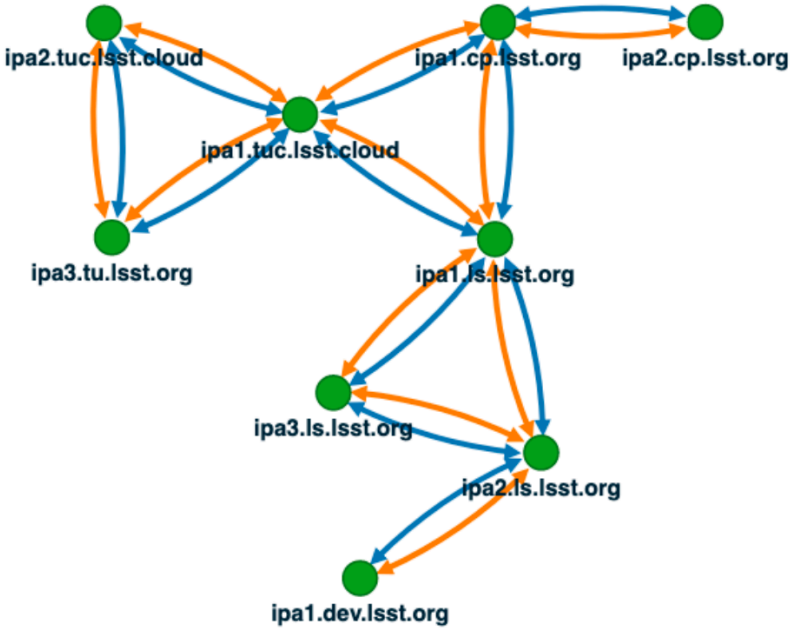


Now, save both keys into a well-known location. It is recommended (but not needed) to create a folder named “ssh” in the user’s home directory, so when asked, you can easily find your keys in “/Users/<username>/ssh/”.

2.1.4 Add Public Key Into IPA

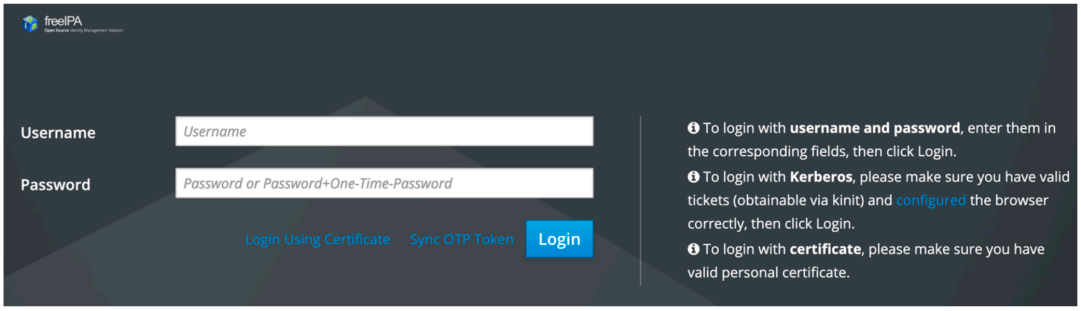
The IPA infrastructure is composed of a master server and several replicas, meaning that it does not matter in which one you modified your personal data, it will be propagated over the rest of the nodes.

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

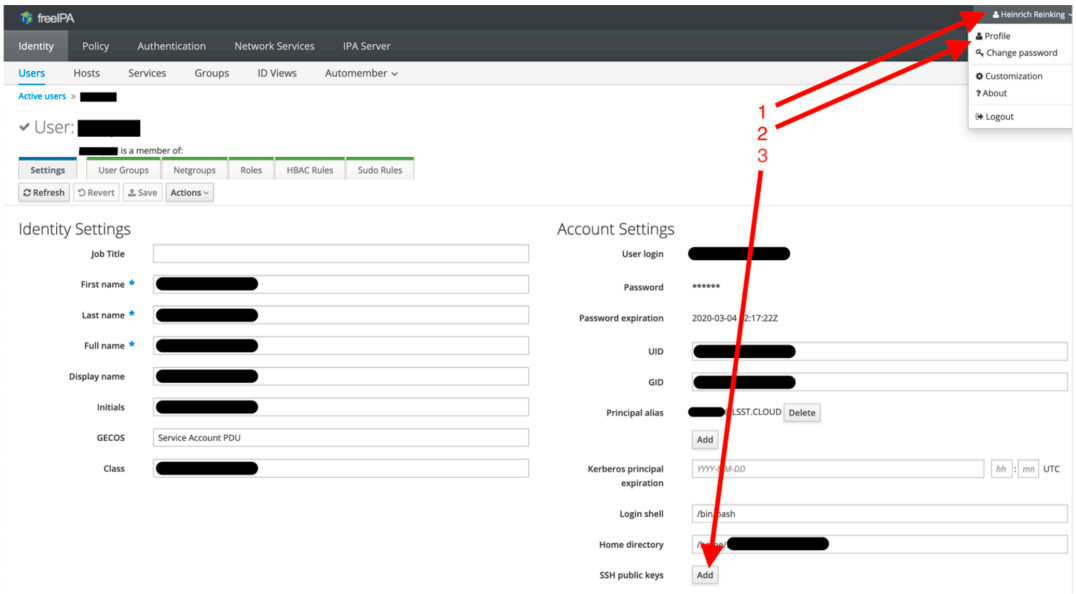


The orange arrows represent the DL (Domain Link), meanwhile the blue arrows the CA (Certificate Authority). The DL keeps the authenticity of the defined domain – i.e. server.local – and the CA is the responsible of emitting and signing the hosts certificates, to validate their authenticity.

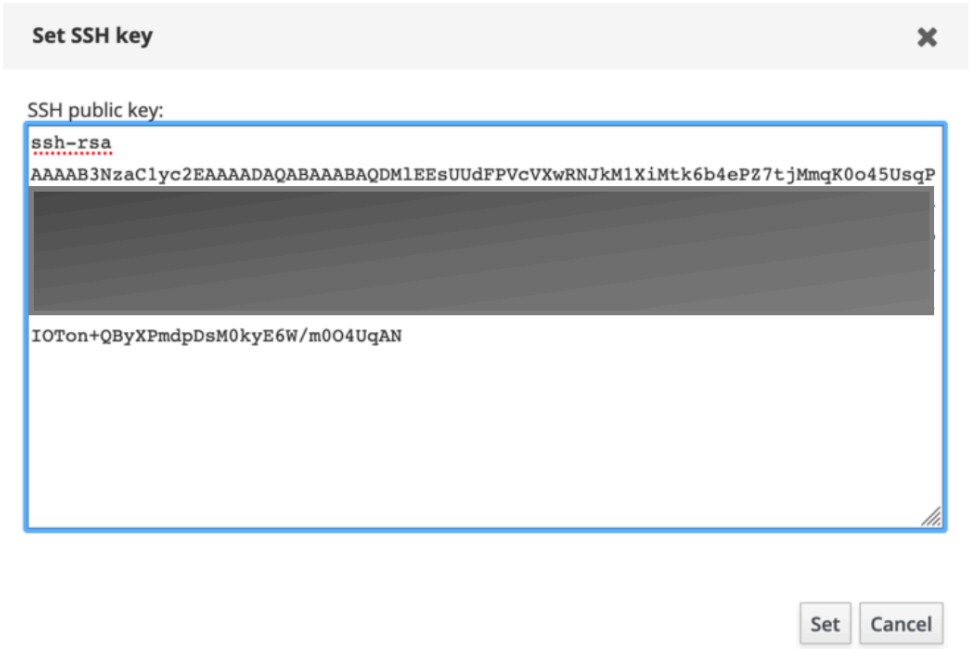
In order to add your public key into IPA, you must access through any of the http frontends, from either the replicas or master. Bear in mind that you must be either inside the network or connected through VPN. Let's use the BDC (Base Data Center) replica: open a web-browser and navigate to IPA Website.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



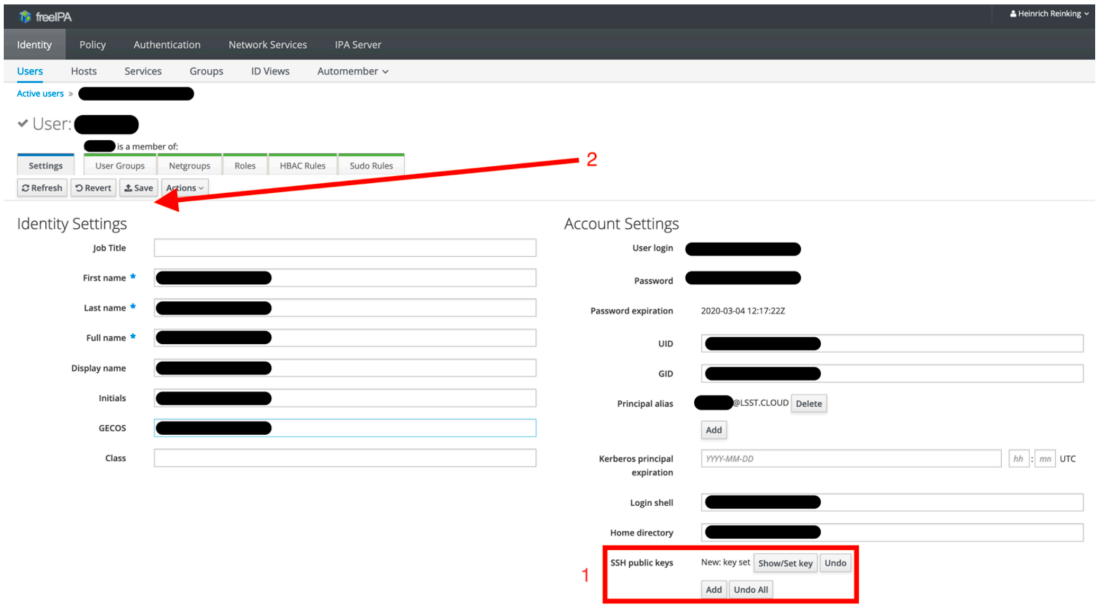
A pop-up window will appear, in which you must paste your public key:



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

```
---- BEGIN SSH2 PUBLIC KEY ----
Comment: ""
AAAAB3NzaC1yc2EAAAABJQAAAgEAgQuf5Sd1Z51XkjUPN2Fwusz2NGkO6ZDAzdvK
VprMERiajyNnkU7JQwlV020LrIwFuyoJOW5Zi6zjXzmDw1zTKPAN2vjoorBAyMoy
w/JPwBeiEfc9nBLbNEgyWlnMsPNnTeLqHWfwCxrP58LHHJQDs18f1qLvJSM9XnYu
bJgRJNS1TCAR37N7Y0zMuyS5ku/Xn3CWxI+DQdkE8TMXFuG8Jdd8EkSHTtDy/JM3
VprMERiajyNnkU7JQwlV020L+IwFuyoJOW5Zi6zjXzmDw1zTKPAN2vjoorBAyMoy
cZ2NGa+kfxJXe5unDi4Pi0wSvo9y5HzqEzYWdpXYEqnzVeXiUquSI/+mhT7tgRjE
+dEnuG5GYpd6pVrg34BBkAFP9Gmd4kd9Fl8LWf0h968xkUo7IN7IVHuPQRRiUATb
XFOFHD62Y/s2vrpJP19lusWbKHirXN6sRApNYtb5/5yZQZaQQFqzV5yU5KvpgDzm
cZ2NGa+kfxJXe5unDi4Pi0wSvo9y5HzqEzYWdpXYEqnzVeXiUquSI/+mhT7tgRjE
6YdjS937wnfZfU/IRmLVENFXAxR1rYZ9nai1xBeDj2U9FaApJkgAGxMHLqf73c1G
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.

3 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.

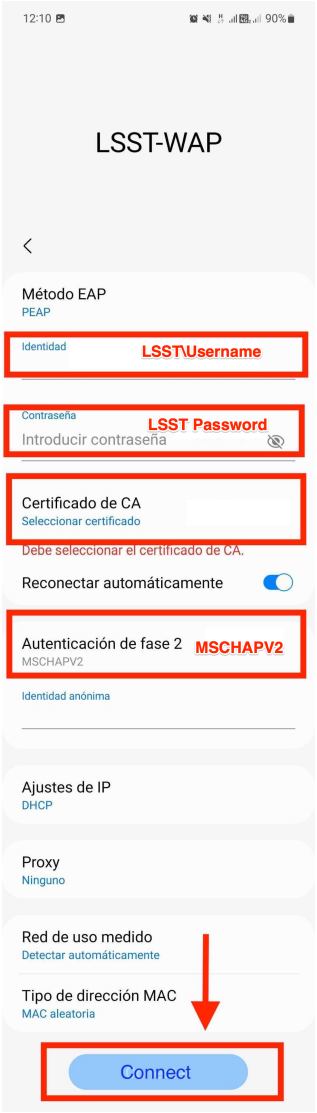
4 Accesing the Rubin Observatory WIFI network

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.

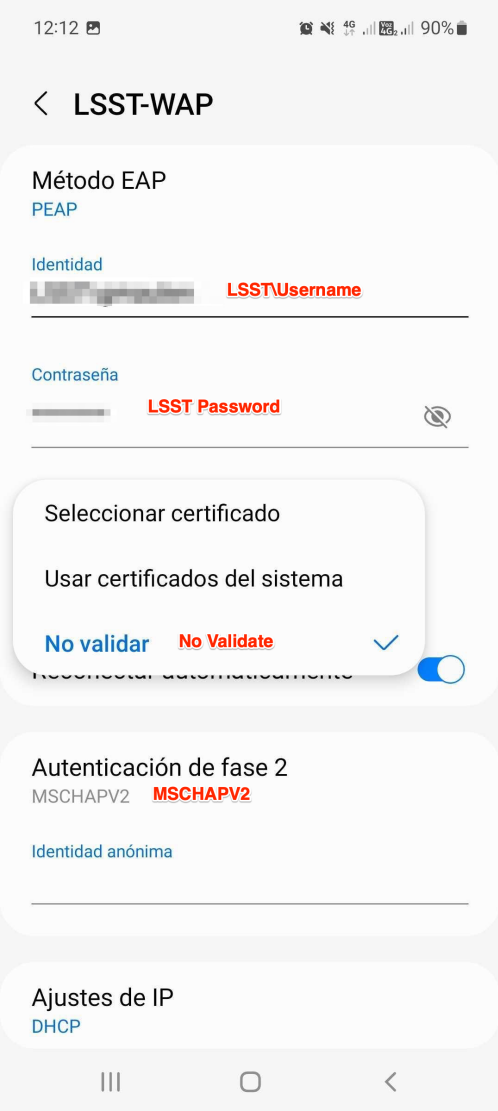
4.1 Android Mobile Device

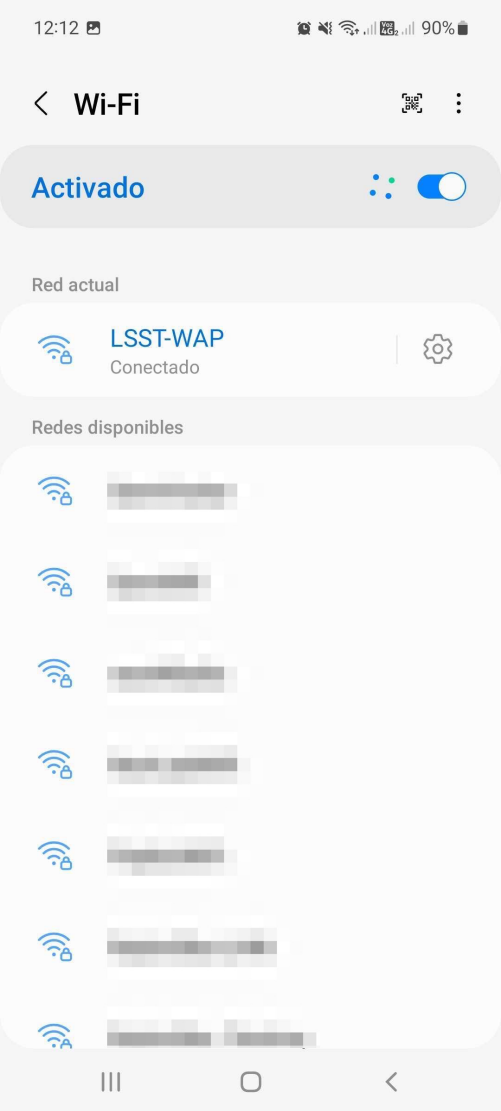
To connect your mobile device to the LSST-WAP wifi network please follow the instructions on the images below.

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

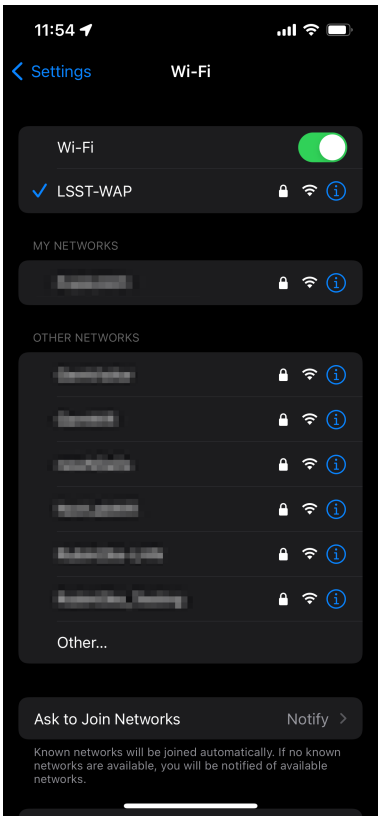


2.) Fill out the fields highlighted in red as show on the image.

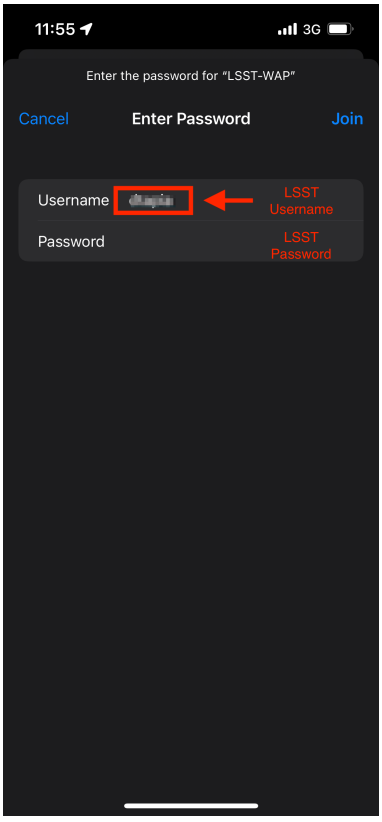

12:12
90%
LSST-WAP
Método EAP
PEAP
Identidad
LSST\Username
Contraseña
LSST Password
Seleccionar certificado
Usar certificados del sistema
No validar
No Validate
Autenticación de fase 2
MSCHAPV2
MSCHAPV2
Identidad anónima
Ajustes de IP
DHCP


12:12
90%
Wi-Fi
Activado
Red actual
LSST-WAP
Conectado
Redes disponibles

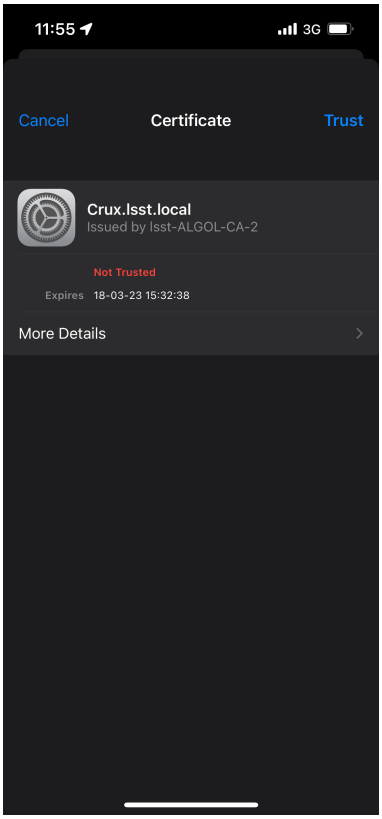
4.2 Apple Mobile Device



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

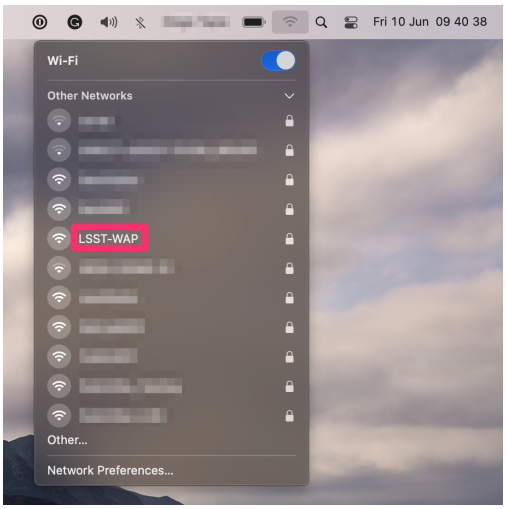


2.) Log in with your domain account credentials as shown on the images.

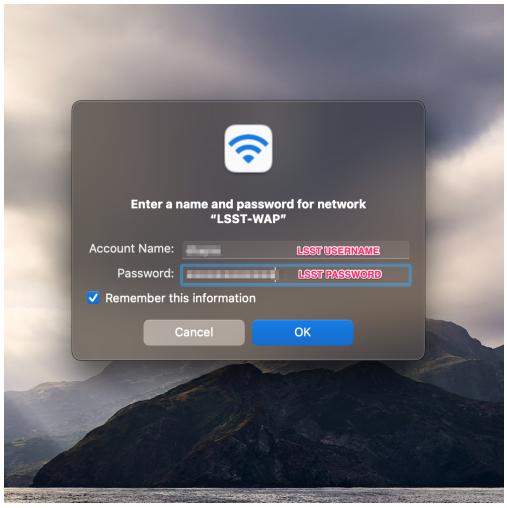


3.) Accept the certificate and hit on the trust button to connect.

4.3 MacOS



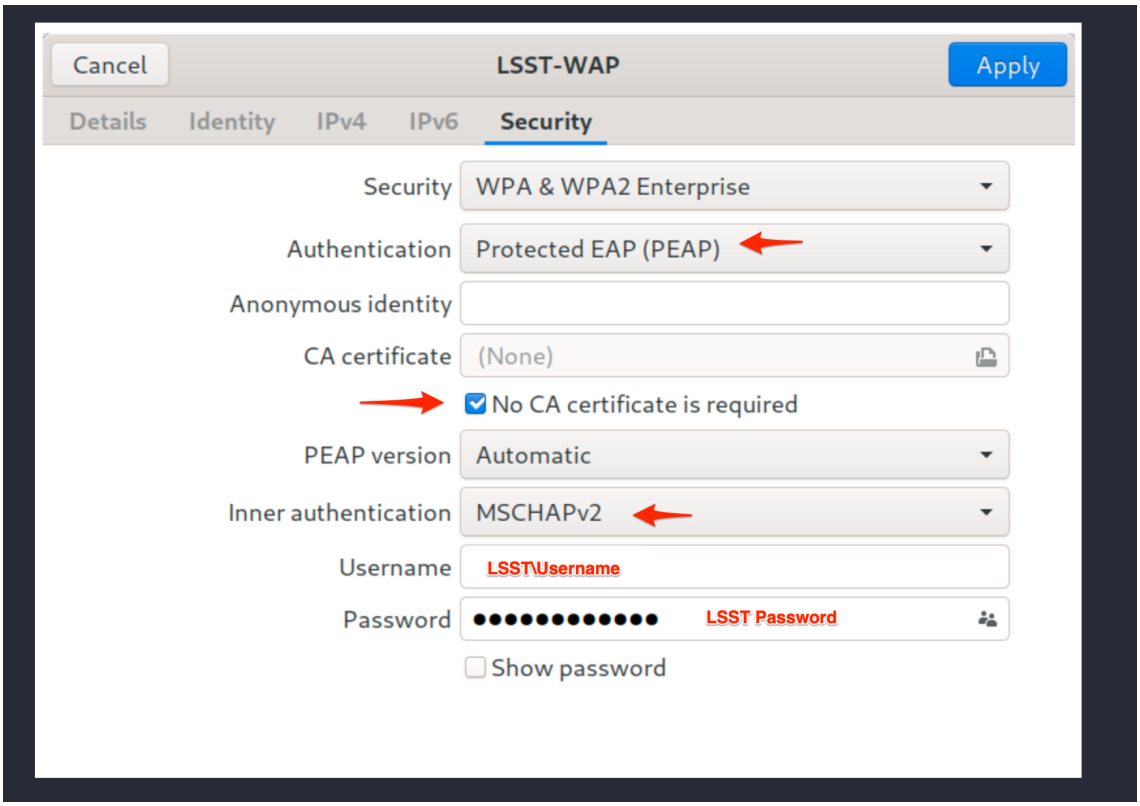
1.) Select the LSST-WAP WIFI Network from the list.



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

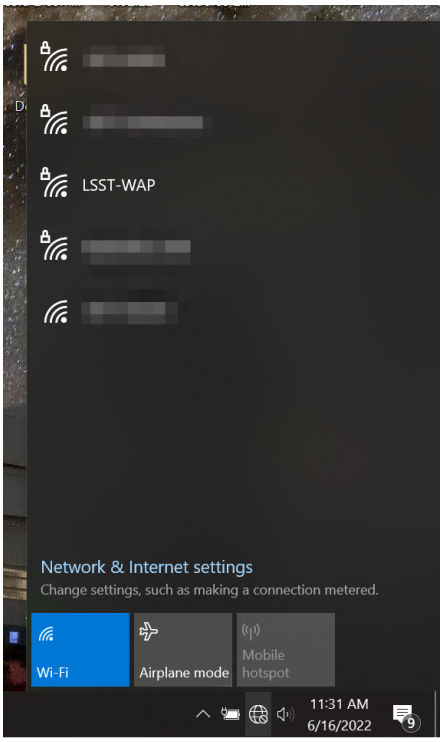
3.) Accept the certificate and hit continue to connect.

4.4 Linux

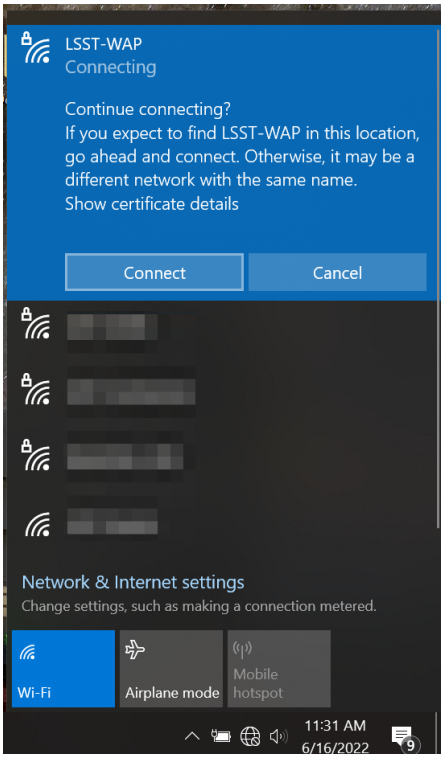


Use the following network configurations settings to setup the LSST-WAP WIFI Network on Linux laptop computers.

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 Access to Nublado, EFD/Chronograph and other SQuaRE services

A number of data services on the summit are operated by the SQuaRE team and are currently authenticated via Github. This includes the summit instance of the Science Platform, including the Notebook Aspect, intformally referred to as Nublado. It also includes the EFD (Engineering Facilities Database) and its web-based front end (Chronograph)

To gain access to your services you must (a) have a Github account and (b) it must belong to the right organisation and team.

If are a member of the Telescope & Site team, you are probably already a member of the Github lsst-ts organisation, and you merely need to check that you are in the summit-access team in that org.

If you are not, you need to be invited in the rubin-summit organisation and added to the rsp-access team. Ask on the `#com-square` Slack channel to be added to summit-access, mention your Github username and a number of people will be able to add you.

Note: Adding your Github username to your Slack profile is really helpful and saves you from being asked to supply it. To do that, select Edit Profile on Slack and sroll down until you find a field called Github Username.

6 Software Deployment - Access and Prerequisites

1. Follow instructions in ITTN-045, file an IHS ticket (1 of 3) to request access to IPA, the VPN and the Resources and Bare-Metal Machines for

   a) TTS.

      - Include access to the ArgoCD Admin and Tucson Teststand (TTS) 1Password vaults in the request.

   b) BTS.

      - Include access to the ArgoCD Admin and Base Teststand (TTS) 1Password vaults in the request.

   c) Summit.

      - Include access to the ArgoCD Admin and Summit 1Password vaults in the request.

2. Request for increased privileges.

   a) For deployments and system administration, sudo privileges are required.

      - File an IHS ticket (2 of 3).

3.) Request access to the following Github Organizations.

   a) lsst-it (docker-compose-ops-repo, explicitly).

      - File and IHS ticket (3 of 3).

   b) lsst-ts (argocd-csc scripts).

      - Submit and Email or Slack request to Rob Bovill (rbovill@lsst.org).

4.) Access to kubectl and argocd CLI tool.

a) Install to local machine.

- kubectl
  * TTS Configuration
  * BTS Configuration
  * Summit Configuration
- argocd
  * Checkout the argo-csc repo, it contains scripts used during the deployment.
  * Create the $HOME/.argocd_auth file