CIAB Remote Desktop System Installation Guide

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Major changes:

1. CIAB now utilizes a Dockerized Guacamole container running on the Server (Cloud/local) or VM itself and no longer in an LXD container.

2. The CIAB Remote Desktop is still installed in an LXD container called ciab-cn1. As part of the Installation an application called **TaskSel** will be executed which will allow you the installer to choose which *Desktop Environment (DE) y*ou want to utilized for the CIAB Remote Desktop the End-Users will see.

   Choices include:
   a) KDE
   b) Ubuntu Gnome
   c) XFCE
   d) MATE
   e) LXDE

   NOTE:
   TaskSel *also allows you to select quite a few other Linux services/applications you may be interested in having available to your ciab-cn1 Remote Desktop sessions.*

The Installation of the CIAB Remote Desktop System is now a bit hybrid where there are a few steps you the installer will need to do manually but there are also scripts which can do much of the work.

Instructions are provided in two separate CIAB Installation Mind Maps which will be shown on the following pages.

Please substitute the *UserName* you intend to utilize anywhere in *Part 1 and Part 2* where ever you see "*UserID*".
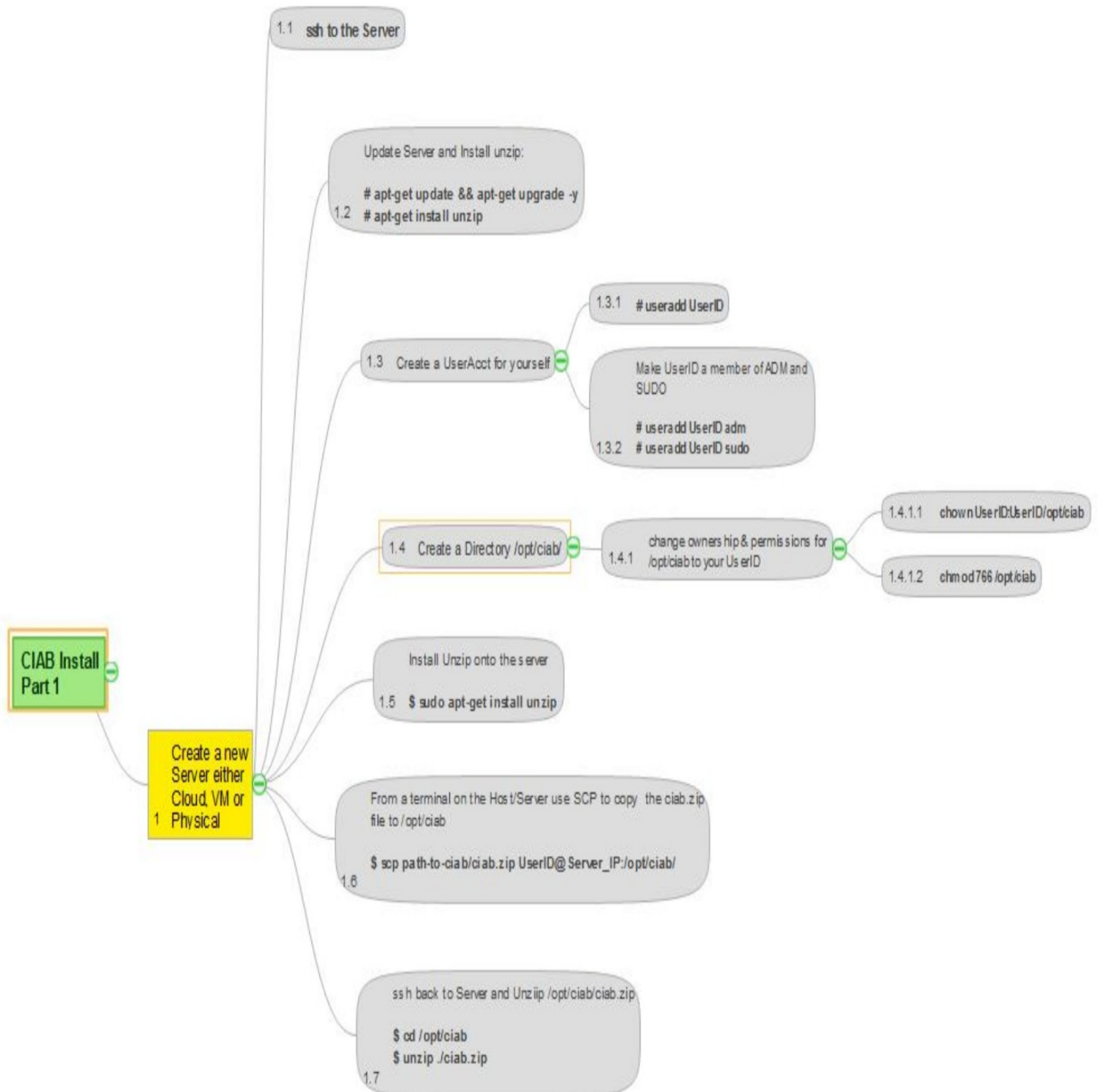
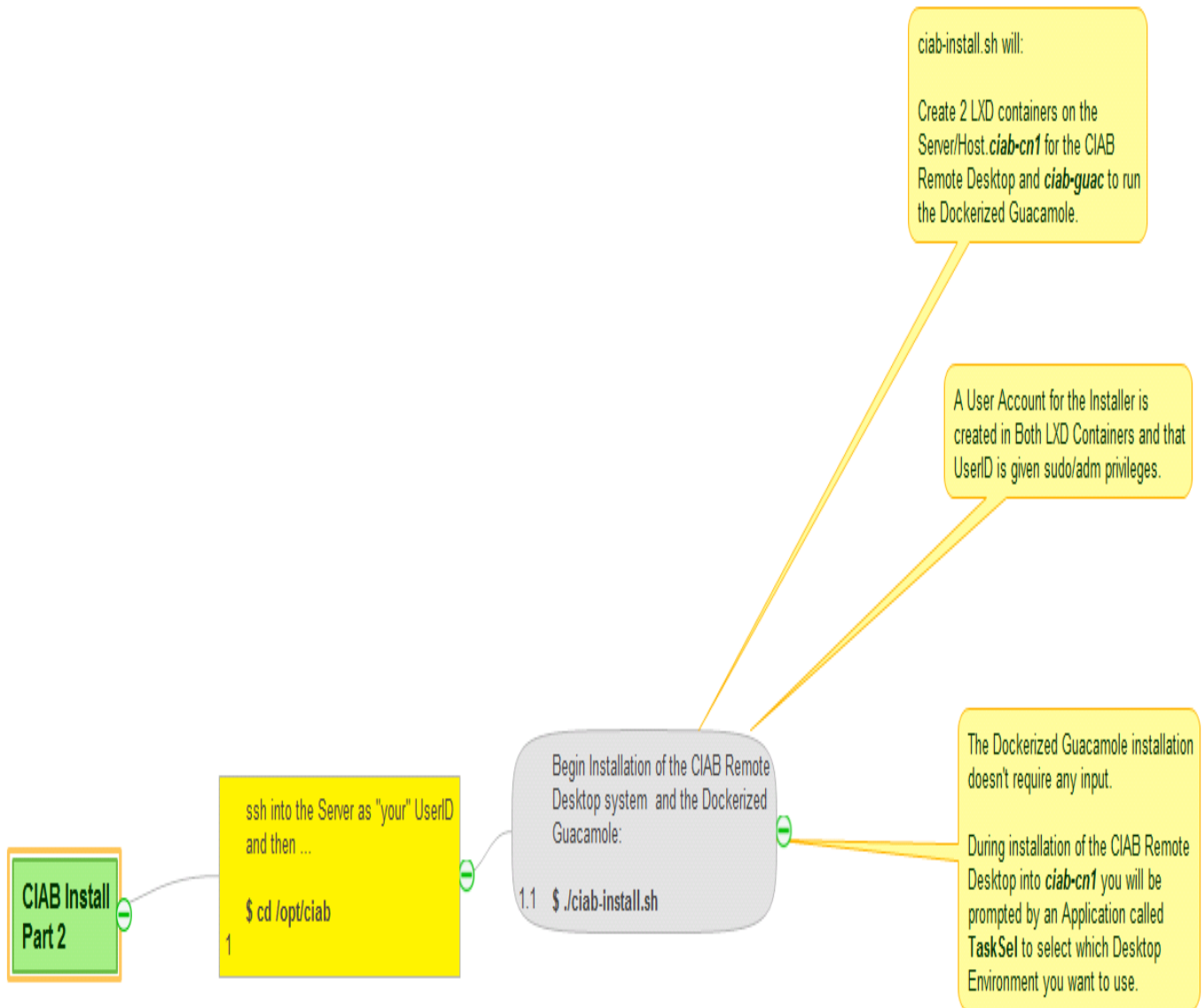Following Installation point a Web Browser at the IP Address of the Server you installed CIAB on.
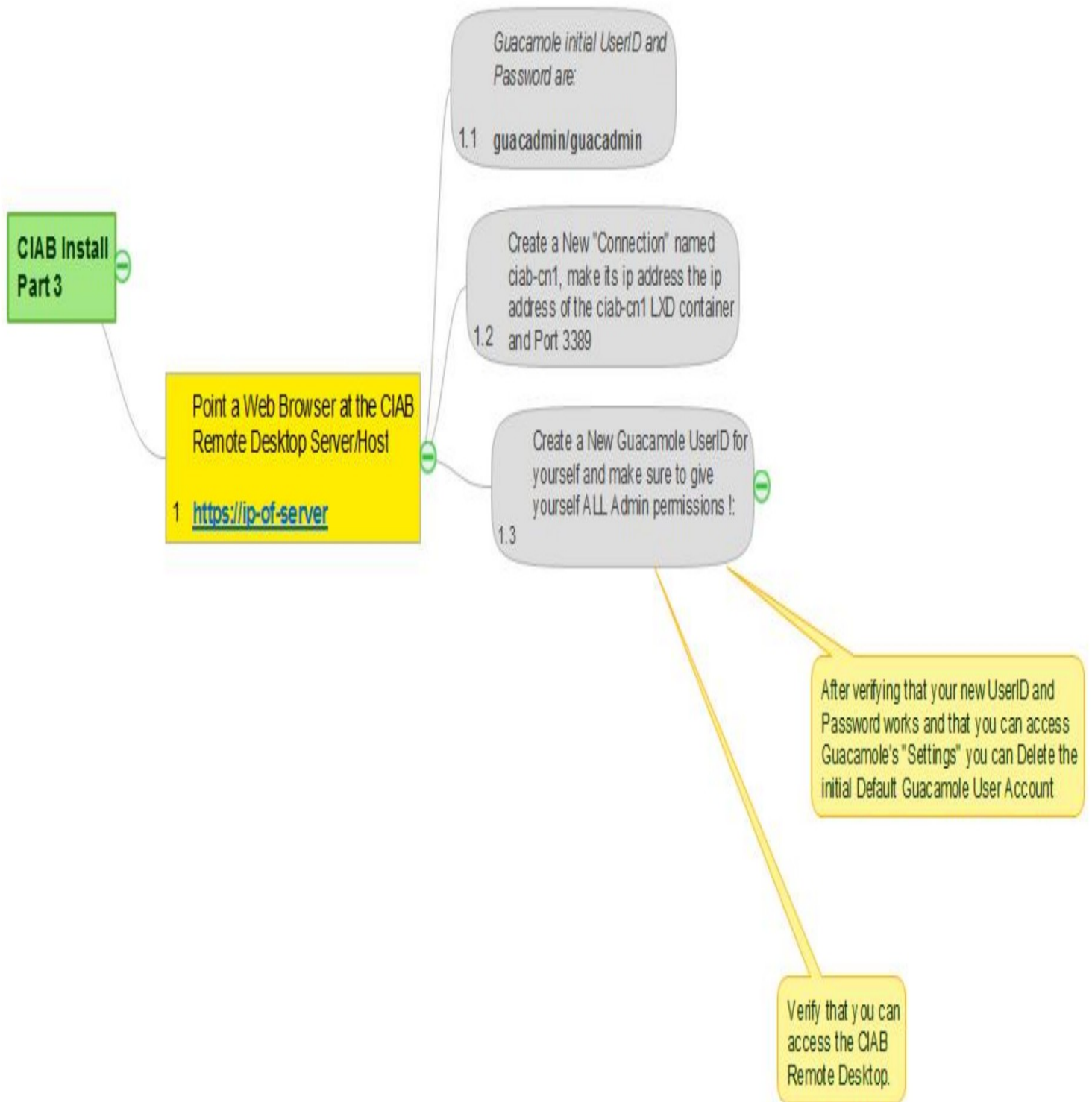
   https://A.B.C.D

   Default Admin login is:
   *   guacadmin*
   *   guacadmin*

CIAB Remote Desktop System Installation – PART 1

CIAB Install Part 1

1 Create a new Server either Cloud, VM or Physical

1.1 ssh to the Server

1.2 Update Server and Install unzip:

```
# apt-get update && apt-get upgrade -y
# apt-get install unzip
```

1.3 Create a UserAcct for yourself

1.3.1 `# useradd UserID`

1.3.2 Make UserID a member of ADM and SUDO

```
# useradd UserID adm
# useradd UserID sudo
```

1.4 Create a Directory /opt/ciab/

1.4.1 change ownership & permissions for /opt/ciab to your UserID

1.4.1.1 `chown UserID:UserID /opt/ciab`

1.4.1.2 `chmod 766 /opt/ciab`

1.5 Install Unzip onto the server

```
$ sudo apt-get install unzip
```

1.6 From a terminal on the Host/Server use SCP to copy the ciab.zip file to /opt/ciab

```
$ scp path-to-ciab/ciab.zip UserID@Server_IP:/opt/ciab/
```

1.7 ssh back to Server and Unziip /opt/ciab/ciab.zip

```
$ cd /opt/ciab
$ unzip ./ciab.zip
```

CIAB Remote Desktop System Installation – PART 2

ciab-install.sh will:

Create 2 LXD containers on the Server/Host. *ciab-cn1* for the CIAB Remote Desktop and *ciab-guac* to run the Dockerized Guacamole.

A User Account for the Installer is created in Both LXD Containers and that UserID is given sudo/adm privileges.

CIAB Install Part 2

ssh into the Server as "your" UserID and then ...

$ cd /opt/ciab

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Begin Installation of the CIAB Remote Desktop system and the Dockerized Guacamole:

1.1 $ ./ciab-install.sh

The Dockerized Guacamole installation doesn't require any input.

During installation of the CIAB Remote Desktop into *ciab-cn1* you will be prompted by an Application called **TaskSel** to select which Desktop Environment you want to use.

CIAB Remote Desktop System Installation – PART 3

CIAB Install Part 3

Point a Web Browser at the CIAB Remote Desktop Server/Host

1 https://ip-of-server

1.1 Guacamole initial UserID and Password are:

guacadmin/guacadmin

1.2 Create a New "Connection" named ciab-cn1, make its ip address the ip address of the ciab-cn1 LXD container and Port 3389

1.3 Create a New Guacamole UserID for yourself and make sure to give yourself ALL Admin permissions !:

After verifying that your new UserID and Password works and that you can access Guacamole's "Settings" you can Delete the initial Default Guacamole User Account

Verify that you can access the CIAB Remote Desktop.

Basic CIAB Guacamole Configuration Steps

Point your web browser to the IP address of your CIAB Server:

https://X.X.X.X

and you will see the Guacamole Login Menu:

Default initial Login & Password are:

guacadmin
guacadmin

In the upper right corner of the next screen you will see:
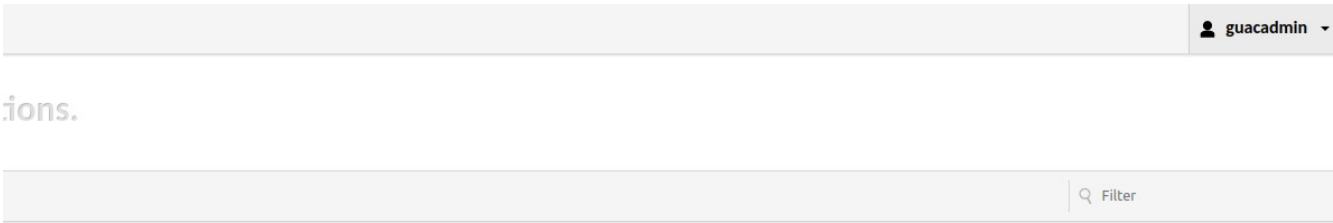
Click on "**guacadmin**" and choose "**Settings**" and the next screen you will see is:
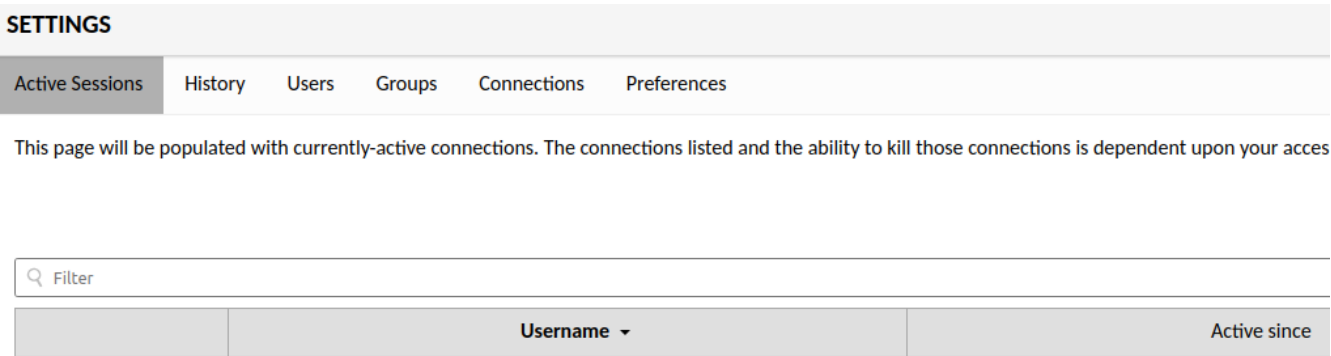
For basic configuration of CIAB we will show configuring a "new" Connection (ie to ciab-cn1) and a "new User.

Configure a new Connection

Click on "Connections" and you will see the following screens.   I will fill in the forms and take a screen shot of each so you can see what you will need to do.   *The only difference will be the IP address of your ciab-cn1 LXD container.*

Note: you can find ciab-cn1 IP by logging into the Server/Host and executing:

$ lxc ls

example:

EDIT CONNECTION

Name: ciab-cn1
Location: ROOT
Protocol: RDP

CONCURRENCY LIMITS

Maximum number of connections: 100
Maximum number of connections per user: 2

LOAD BALANCING

Connection weight: [ ]
Use for failover only: ☐

GUACAMOLE PROXY PARAMETERS (GUACD)

Hostname: [ ]
Port: [ ]
Encryption: [ ]

PARAMETERS

Network

Hostname: 10.141.152.153
Port: 3389

Authentication

Username: ${GUAC_USERNAME}
Password: ${GUAC_PASSWORD}
Domain: [ ]
Security mode: RDP encryption
Disable authentication: ☐
Ignore server certificate: ☐

Remote Desktop Gateway

Hostname: [ ]
Port: [ ]
Username: [ ]
Password: [ ]
Domain: [ ]

Note: those are "curly braces" around Username and Password !!

Basic Settings

Initial program: [ ]

Client name: [ ]

Keyboard layout: [US English (Qwerty) ▾]

Time zone: [America ▾] [New York ▾]

Enable multi-touch: ☐

Administrator console: ☐

Display

Width: [▴▾]

Height: [▴▾]

Resolution (DPI): [▴▾]

Color depth: [True color (32-bit) ▾]

Force lossless compression: ☐

Resize method: [▾]

Read-only: ☐

Clipboard

Line endings: [▾]

Disable copying from remote desktop: ☐

Disable pasting from client: ☐

Device Redirection

Support audio in console:	☐
Disable audio:	☐
Enable audio input (microphone):	☐
Enable printing:	☐
Redirected printer name:	
Enable drive:	☑
Drive name:	ciab-drive
Disable file download:	☐
Disable file upload:	☐
Drive path:	drive/
Automatically create drive:	☑
Static channel names:	rdpdr

This form will have Guacamole & xRDP create a directory on your CIAB Desktop named "ciab-drive".

If you copy/paste a file into that Directory it will be transferred to your local machine.

To upload a file from you local machine to your CIAB Remote Desktop just right click & copy the file on your local machine and drop it "anywhere" on your CIAB Remote Desktop.

Finally scroll to the Bottom of the form and Click SAVE...

Configure a New Guacamole User

NOTE: you will need to create a User Account in the CIAB-CN1 LXD container for each Guacamole User you create !

*Click on "**Users**" then click on "**New User**".*

EDIT USER

Username: bmullan

Password: ••••••••••••

Re-enter Password: ••••••••••••

PROFILE

Full name:

Email address:

Organization:

Role:

ACCOUNT RESTRICTIONS

Login disabled: ☐

Password expired: ☐

Allow access after: `-- : -- --`

Do not allow access after: `-- : -- --`

Enable account after: `mm / dd / yyyy`

Disable account after: `mm / dd / yyyy`

User time zone: America ∨ New York ∨

PERMISSIONS

Administer system: ☑

Create new users: ☑

Create new user groups: ☑

Create new connections: ☑

Create new connection groups: ☑

Create new sharing profiles: ☑

Change own password: ☑

CONNECTIONS

Current Connections | All Connections

⊟ 🖥 ☑ ciab-cn1

Important Notes on New User creation.

For yourself as the CIAB Installer give your Guacamole Account ALL Permissions

Make sure you select the *ciab-cn1* Connection

Finally, Click SAVE.

*Back on the next Screen Click on **guacadmin** again and Select Logout.*

*Login with your own UserID and Password and you will see something like the following.   Clicking on either the **Icon** or the connection name "**ciab-cn1**" should log you into your CIAB Desktop.*

RECENT CONNECTIONS

ciab-cn1

ALL CONNECTIONS

🖥 ciab-cn1

Note for UBUNTU MATE Desktop Environment !!

Mate itself has a "bug" described here:

https://ubuntu-mate.community/t/upgraded-to-20-04-and-the-menu-keeps-closing/21781/16

For Ubuntu Mate Desktop I fixed this problem by editing (as sudo):

/usr/share/applications/caja.desktop

and change:

Exec=/usr/bin/caja

to:

Exec=/usr/bin/caja --force-desktop

Log out and back in and now it all works.