Directions to connect LC GitLab to FRCE

Step 1:

Check to see if you already have an existing SSH key pair

$ cd ~

If the directory ~/.ssh does not exist, you likely do not have an SSH key pair installed or you installed your key in another directory location.

If an SSH key pair does not exist, create a key on FRCE

$ ssh-keygen -t ed25519 -C "<comment>"

Hit enter to accept the default ssh key location

Enter a passphrase for the key

Step 2:

Add public ssh key to LC GitLab

Navigate to https://lc.llnl.gov/gitlab then click on the arrow in the top right, then click "Edit Profile". Click on "SSH Keys" on the left side of the screen.

Copy the your public key from FRCE (entire contents from this file: ~/.ssh/id_ed25519.pub) and past it into the box labelled "key" on the SSH Keys page of LC Gitlab.

Click the "Add key" button.

Step 3:

Make a file named "config" at the following location:

~/.ssh/config

Then copy the following into the file:

```
###################################################################
##########
# LC SSH Config
#
# Created by Ian Lee <lee1001@llnl.gov>
#
# For more information, see: https://dev.llnl.gov/securityaccess/ssh/
```

```
####################################################################################
##########

# Notes:
# # - From the ssh_config manual:
# #      "Since the first obtained value for each parameter is used,
more host-specific declarations should be given near the beginning of
the file, and general defaults at the end."

CanonicalDomains        llnl.gov
CanonicalizeHostname    always

# Proxy connections to LC Bitbuckets and GitLabs through jump host
Host cz-bitbucket* czgitlab*
    ProxyCommand        ssh oslic -W %h:7999
    ControlMaster       no

# Jump host
Host oslic*
    PreferredAuthentications password

# CZ Hosts
Host borax* catalyst* corona* flash* lassen* pascal* quartz* ray*
surface* syrah*
    ProxyCommand        sh -c 'g=oslic.llnl.gov; ms=~/.ssh/%r@$g:%p;
if [ ! -e $ms ]; then echo Connecting to $g so use your CZ RSA
Pin+Token>&2; ssh -fNMS $ms $g; fi; echo Connecting to %h so use
corresponding RSA Pin+Token if prompted >&2; exec ssh -S $ms $g "if nc
-w 3 -z %h 622; then p=622; else p=22; fi; nc %h \$p"'

# Default values for all hosts, if not overridden above
Host *
    # Control sockets do not work on Windows. Comment these out if
that's where you're coming from
    ControlMaster       auto
    ControlPath         ~/.ssh/%r@%h:%p
    ControlPersist      120h

    IdentitiesOnly      yes
    IdentityFile        ~/.ssh/id_ed25519
    ForwardAgent        no

    # Leaving X11 forwarding on all the time is a security risk
    # If you do need X11 forwarding, you can:
    #   - use the `-X` or `-Y` command line flags
    #   - change these two options to `yes`
    #   - or even better, consider using RealVNC for your GUI needs:
    #     https://hpc.llnl.gov/software/visualization-software/vnc-
realvnc
```

```
    #      https://hpc.llnl.gov/software/visualization-software/vnc-
nice-dcv
    ForwardX11          no
    ForwardX11Trusted   no

    # macOS Only options:
    # AddKeysToAgent      yes
    # UseKeychain         yes

    # Change the name below to your LC Username
    User                <your_lc_username>
```

If your file is a format other than ed25519 or if your ssh key pair is
at a different director location, then make sure to correct the value
next to "IdentityFile" to match the full path to the file that
contains the private ssh key.

Step 4:
Set up your public key on target host.
$ ssh-copy-id <your_lc_username>@oslic
Make sure to add your lc username in the above command

When it asks for your password, enter your LC pin + RSA token key

Done!
Now you should be able to run git clone commands from FRCE using the
ssh clone links.