How to Open A Remote Linux Desktop Session

How to Open A Remote Linux Desktop Session Requirements - Remote Linux Desktop NX Client Installation Using one of the Bundles Client installation **Quick Instructions** Windows - Quick Instructions Linux - Quick Instructions Mac OSX - Quick Instructions Remote Linux Desktop from Outside ACC Networks (Home, Travel or from Jlab Networks) Create an SSH Tunnel Windows - Create an SSH Tunnel using puTTy Linux - Create an SSH Tunnel using nxtunnel or from the command line. Mac OSX - Create an SSH Tunnel using nxtunnel or command line. Start/Configure the NX Client Tips for Using the NX Client Optimizing the Display

Please use the PDF Version of this Procedure if you wish take this procedure home.

Requirements - Remote Linux Desktop

- An ssh client or tunnel manager
 - Windows puTTy r Important Putter Put
 - Linux openssh (installed by default).
 - Mac OSX openssh (installed by default).
- · You must have a active Accelerator Account.
- You must have a two-factor Crypto-Card (Smarphone App or Keychain Token).
- An NX Client installed for your Operating System. If not, please use one of the NX-Connects bundles which includes the scripts and clients found at https://cebaf.jlab.org/accelerator-remote-access 2.

NX Client Installation

Using one of the Bundles

The preferred method for installing the client is simple to install one of the *NX-Connects* bundles found at <u>https://cebaf.jlab.org/accelerator-remote-access</u>. If you use one of these bundles, you need not follow the reset of this procedure as the bundle sets up everything for you.

- On Windows, unzip/extract the NX-Connects.zip file to your desktop (make sure this ins not in your temp folder). From from there you can simply run the NX-Connect shortcut.
- On Mac OSX, download the dmg image and open it. Drag the Acctools icon to your Applications folder. You can then simply run the NX-Connect shortcut in the Acctools Applications folder. Note that you might have to "Right Click"-> Open the first time to allow the program to run.
- There is no bundle yet for Linux, you must install one of the client packages a found at https://cebaf.jlab.org/accelerator-remote-accessiv. You will also need to download the nxtunnel script from the same page.

Client installation

If you need to install the client manually, please use one of the client install packages provided at https://cebaf.jlab.org/accelerator-remote-accessmatrix. Newer versions of the client have had some issues and older versions (3.X) are not always compatible with the new server. The client installation is very straight forward. Note that you need to install all the extra font packages on Windows.

Quick Instructions

Windows - Quick Instructions

The PuTTy configuration settings are as follows:

```
Session->Hostname: acclogin.jlab.org
SSH->Tunnels->Source Port: 2222
SSH->Tunnels->Destination: opsnx7.acc.jlab.org:22
```

In NX Client:

Computer: localhost:2222

Linux - Quick Instructions

You can run the NX Tunnel Script for Linux: nxtunnel and it will do everything for you.

Alternately, can do it from the command line:

Open an ssh tunnel:

ssh -f -N -C -L 2222:opsnx7.acc.jlab.org:22 acclogin.jlab.org"

In the NX Client:

Computer: localhost:2222

Mac OSX - Quick Instructions

Open an ssh tunnel:

ssh -f -N -C -L 2222:opsnx7.acc.jlab.org:22 acclogin.jlab.org"

In the NX Client:

Computer: localhost:2222

Remote Linux Desktop from Outside ACC Networks (Home, Travel or from Jlab Networks)

Create an SSH Tunnel

You need to create an SSH tunnel through the Jlab firewall. This procedure varies for each platform and each platform has several methods from which to chose(you only need one). The configuration of the **NX Client** is same for all supported platforms (Windows, Linux, Mac OSX).

Windows - Create an SSH Tunnel using puTTy

1/ Open a new puTTy window

2/ Under "Category" on the left, expand "SSH" and scroll down and click "Tunnels"

- • Click "X11"
- • On the right, check "Enable X11 forwarding"
- On the right under "Source port" type "2222"
- • Under "Destination" type "opsnx7.acc.jlab.org:22".
- Now click "Add" and a new entry will appear in the "Forwarded Ports" box.

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- Terminal	~	Options controlling SSH port forwarding				
Keyboard Bell Features Window Appearance Behaviour Translation Selection Colours Connection Proxy Talset		Port forwarding Local ports Remote port Forwarded ports	accept connection ts do the same (SS s:	s from other hosts H-2 only) Remove		
	ill d	Add new forwar Source port Destination	rded port: 2222 opsnx.acc.jlab	Add		
Riogin ⊟ SSH Kex Auth TTY X11 Tunnels		LocalAuto	⊘ Remote ⊘ IPv4	⊘ Dynamic ⊘ IPv6		
Bugs	-					

3/ Under "Category" Click "Session"

- On the right under "Host Name (or IP address)" type "acclogin.jlab.org" (without the quotes)
- On the right under "Saved Sessions" type the name you want to use "NX Desktop opsnx7" (without the quotes)
- Click "Save" and "NX Desktop opsnx" should appear in the list below "Saved Sessions"

4/ Login by double-clicking "NX Desktop opsnx7" under "Saved Sessions"

- Log in with your CUE username and password
- You can now minimize or otherwise forget about puTTy

Session Logging Logging Keyboard Bell Features Window Appearance Behaviour Translation Selection Colours Connection	Basic options for your PuTTY session				
	- Specify your connection by host name or Host Name (or IP address)	IP address Port			
	acclogin,ilab.org Protocol: Raw	SSH			
	Load, save or delete a stored session Saved Sessions				
	NX Desktop opsll				
	Default Settings DB1	Load			
- Proxy	NX Desktop opsll	Save			
⊢ Telnet ⊢ Rlogin ⊟- SSH ⊢ Auth ⊢ Tunnels ⊢ Bugs	opsll	Delete			
	Close window on exit:	_ clean exit			

Linux - Create an SSH Tunnel using nxtunnel or from the command line.

There are several tools available to create an SSH tunnel on Linux. You can use puTTY are, gstm are (gnome ssh tunnel manager), a custom script such as nxtunnel or just the command line. We recommend using nxtunnel.

SSH Tunnel script nxtunnel

The NX Tunnel Script for Linux: nxtunnel will do everything for you. You just need to copy it to your local computer and execute it. It will open an ssh tunnel and wait to kill them all.

SSH Tunnel from the Command Line

1/ Open an ssh connection using the ssh command.

ssh -f -N -C -L 2222:opsnx7:22 acclogin.jlab.org

2/ Kill any left over ssh tunnels when you are done.

ps -ef | grep ssh | grep 2222 kill -9 PID

Mac OSX - Create an SSH Tunnel using nxtunnel or command line.

There are several tools available to create an SSH tunnel on a Mac. You can use <u>SSH Tunnel Manager</u> the custom script <u>nxtunnel.command</u> or just the command line. We recommend using nxtunnel.command.

SSH Tunnel script nxtunnel

The NX Tunnel Script for Linux: <u>nxtunnel.command</u> will do everything for you. You just need to copy it to your local computer (Right click and select "Save As") and set it to have execute permissions(chmod +x nxtunnel.command). It will open an ssh tunnel and wait to kill them all.

SSH Tunnel from Command Line

1/ Open an ssh connection using the ssh command.

ssh -f -N -C -L 2222:opsnx7:22 acclogin.jlab.org

2/ Kill any left over ssh tunnels when you are done.

```
ps -ef | grep ssh | grep 2222
kill -9 PID
```

Start/Configure the NX Client

1/ Start the Desktop Client

- Windows Start>>Programs>>NoMachine>>NoMachine
- Linux From a terminal shell, execute "nxplayer." This is usually in /usr/NX/bin/nxplayer
- Mac Finder>>Applications>>NoMachine Player

2/ Create the NX Session.

• • Select next at the first screen and select "New" from the Connection Manager.

- • Select "SSH" as the protocol.
- • Under "Host" type localhost
- • Under "Port" type 2222 and select "Continue."
- • Under Authentication, Select "System Login" and "Password" for the authentication method and select Continue."
- • Under Proxy, select "No Proxy."
- • If you want to make changes, you can use the "Edit" button after selecting the Connection.







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3/ Login by selecting "NX Desktop opsnx" from the Connection Manager.

- Ensure that you use your ACC username and password.
- If you already have an active desktop, you can re-connect by selecting that connection.
- If this is you inital login, select "New Virtual Desktop."



Tips for Using the NX Client

Optimizing the Display

The new version of the NXClinet allows the display to be dynamically sized (i.e. you can make it bigger by scaling the window). This can produce some odd results that are easily fixed.

- Hover the Mouse Cursor over the top right corner until you see it "fold down," and then select it.
- Select Display and adjust accordingly.
- A good starting point is to make the window your desired size and then select "Display" and then "Resize Remote Display."



NoMachine - NX Desktop to opsnx	
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Click on the items below or click Done to close the menu panel	
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Fit to window Resize remote Fullscreen Fullscreen screen	on all Iconize Change settings
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DocForm					
Title	How to Open A Remote Linux Desktop Session				
IntendedAudience	Administrators, Developers, On-Call, Users				
<u>OperatingSystem</u>	HPUX, Linux, Solaris, Windows				
OsVersion					
RelatedDocs	none				

1	Attachment	History	Action	Size	Date	Who	Comment
Å	HowToRemoteDesktopLinux.pdf	r2 <u>r1</u>	<u>manage</u>	595.6 K	2014-09-30 - 16:26	AnthonyCuffe	PDF Version of this Procedure
	<u>gstm_tunnel_nx.png</u>	r3 <u>r2</u> <u>r1</u>	<u>manage</u>	88.8 K	2013-09-10 - 11:34	AnthonyCuffe	Linux SSH Tunnel with gstm
	mac_stm_tunnel_nx.png	r1	<u>manage</u>	115.7 K	2010-04-08 - 15:32	AnthonyCuffe	Mac SSH Tunnel Manager NX
	<u>nx_desktop.jpg</u>	r1	<u>manage</u>	40.1 K	2010-04-08 - 14:11	AnthonyCuffe	NX Desktop Client Desktop Window
	<u>nx_login.jpg</u>	r1	<u>manage</u>	56.0 K	2010-04-08 - 14:18	AnthonyCuffe	NX Desktop Client Login Window
	<u>nx_login_localhost.jpg</u>	r1	<u>manage</u>	54.6 K	2010-04-08 - 14:29	AnthonyCuffe	NX Desktop Client Login Localhost
	nx_session.jpg	r1	<u>manage</u>	33.7 K	2010-04-08 - 14:09	AnthonyCuffe	NX Desktop Client Session Window
	nx_session_authentication.jpg	r1	<u>manage</u>	59.6 K	2014-09-26 - 15:52	AnthonyCuffe	NX Desktop Authentication
	nx_session_display.jpg	r1	<u>manage</u>	58.0 K	2014-09-26 - 16:16	AnthonyCuffe	NX Desktop Display
	nx_session_localhost.jpg	r2 <u>r1</u>	<u>manage</u>	55.4 K	2014-09-26 - 15:51	<u>AnthonyCuffe</u>	NX Desktop Client Session Localhost
	nx_session_manager.jpg	r1	<u>manage</u>	52.2 K	2014-09-26 - 16:00	AnthonyCuffe	NX Desktop Manager
	nx_session_password.jpg	r1	manage	57.8 K	2014-09-26 - 15:53	AnthonyCuffe	NX Desktop Password

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		nx_session_protocol.jpg	r1	<u>manage</u>	54.0 K	2014-09-26 - 15:53	AnthonyCuffe	NX Desktop Protocol
		nx_session_proxy.jpg	r1	<u>manage</u>	59.7 K	2014-09-26 - 15:53	AnthonyCuffe	NX Desktop Proxy
		nx_session_resize.jpg	r1	<u>manage</u>	60.7 K	2014-09-26 - 16:16	AnthonyCuffe	NX Desktop Display Resize
		nxtunnel	r3 <u>r2</u> <u>r1</u>	<u>manage</u>	4.1 K	2014-09-26 - 15:07	AnthonyCuffe	NX Tunnel Script for Linux
		nxtunnel.command	r3 <u>r2</u> <u>r1</u>	<u>manage</u>	4.1 K	2014-09-26 - 15:08	AnthonyCuffe	NX Tunnel Script for Mac
		windows_putty_sessions_nx.jpg	r3 <u>r2</u> <u>r1</u>	<u>manage</u>	54.2 K	2013-09-10 - 11:44	<u>AnthonyCuffe</u>	Windows Putty Sessions NX Configuration
		<u>windows_putty_tunnel_nx.jpg</u>	r4 <u>r3</u> r2 r1	<u>manage</u>	48.9 K	2014-09-26 - 15:26	<u>AnthonyCuffe</u>	Windows Putty Tunnel NX Configuration

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