



Connecting to NERSC & Using the **NEW** NX Service

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Basics



Logins and Passwords

NIM = NERSC Information Management

- **NIM** username and password
 - The set of username/password that you need to use to login most NERSC host/service.
 - Machines (Carver, Hopper, etc)
 - Website (My NERSC, etc)
- **http://NIM.nerisc.gov**
 - A webpage to manage your account, change password, change shell, etc.



NIM Passwords

- **New User:**
 - **Must** call NERSC Account Support to get initial password
- **To Change/Reset Password:**
 - **Online** at <https://nim.nersc.gov/> **or**
 - **Call** Account Support (during business hours) **or**
 - **Call** Computer Operations (after hours)

Our Number: 1-800-66-NERSC

- Menu Option **1**: Computer Operations 24x7
- Menu Option **2**: Account Support (Normal Business Hours)

- **Automatic Lock-Out**
 - For security reasons, if you repeatedly fail to type your correct password when accessing a NERSC system, your account on that system will be locked.
- **To Unlock:**
 - **Call** Account Support (during business hours) **or**
 - **Call** Computer Operations (after hours) **or**
 - **Email** accounts@nersc.gov (during business hours)



Connecting to NERSC Machines



Connecting with SSH

- **Unix-like Systems:**

- **Most** NERSC Systems uses Unix-like Systems.
- You connect to them using “SSH”
- Use your **NIM** username and password

- **SSH Clients:**

- **If you use a Linux/Mac:**

SSH -X -A nimusername@hopper.nersc.gov

- **If you use windows:**

- Download a client (e.g. putty) and then connect.

Method	Requirements	Simple To Use	Parallel Transfer	Speed
scp/sftp	Any SSH/SFTP Client	Simple	NO	Slow
bbcp	bbcp client (no windows support)	Simple With Instructions	YES	Moderate-Fast
GridFTP	GridFTP Client Grid Certificate	Less Simple, multiple steps needed	YES	Fast

More Info? Go to www.nersc.gov and search for them

- **X-Windows let you run graphical user programs (e.g. Emacs, Matlab) on NERSC Machines**
- **We suggest you to use NX for much better X-Windows experience**

- **Two Reasons for NX:**

- X-Windows is **slow**

- Tried opening an emacs from China? It might take minutes to get the window open.

- SSH Terminals are a pain

- If I lose the internet connection, I might lose the running process.

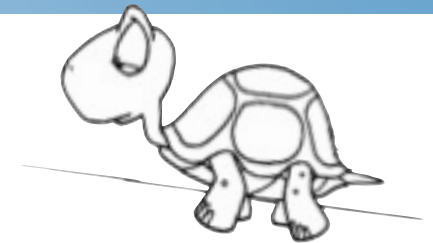
- **Two Features of NX:**

- Much Better X Experience

- **Buffered/Compressed - Means faster!**

- Sessions

- **Suspend, go home, reconnect, your open programs are still there!**



- **New NX Service**
 - New Dedicated Server
 - Going into Production Soon
 - Suggestions are Greatly Appreciated
- **To Use**
 - Instructions: go to www.nersc.gov, search for “NX”
 - **Download Client (One Time)**
 - **Setup Connection (One Time)**
 - **Connect, Use, Suspend and Reconnect**
 - Will guide you to setup keypair for password-less login to other NERSC Systems (One Time)



Demo

Questions?

consult@nersc.gov



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