Connecting to NERSC & Using the NEW NX Service

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Basics

Tuesday, June 7, 2011

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.nersc.gov**
  - A webpage to manage your account, change password, change shell, etc.

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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** <u>accounts@nersc.gov</u> (during business hours)

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Connecting to NERSC Machines

- **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.

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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

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- **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.**
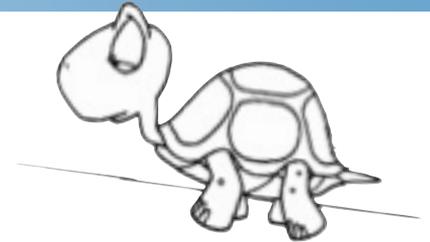
- **Two Features of NX:**
  - Much Better X Experience
    - **Buffered/Compressed - Means faster!**
  - Sessions
    - **Suspend, go home, reconnect, your open programs are still there!**

- **Public Beta** **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)

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Demo

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Questions?
consult@nersc.gov

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