

Accessing and Using the ARM Archive Data Visualization Cluster

1. Request an account

- Send an email to ARM Archive User Services (armarchive@arm.gov) with the subject line “Request for access to ARM Archive Data Visualization Cluster”.
- You will receive a reply containing a link and instructions for creating the required ORNL “XCAMS” account, which only takes a few minutes.

2. Create your ORNL XCAMS account

- The first screen in the XCAMS process will ask you to choose your XCAMS Username. If you already have an ARM Archive UserID that is at least 4 characters in length, it’s recommended you use that ID as your XCAMS Username. Please also note that you will be asked to set up a reminder PIN even before you choose your login password.

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Please enter your email address and choose a username.

Email Address:

Username:

Email Address

- You must enter a valid email address to which you have access.
- This email address will be used to contact you regarding your account.

Username

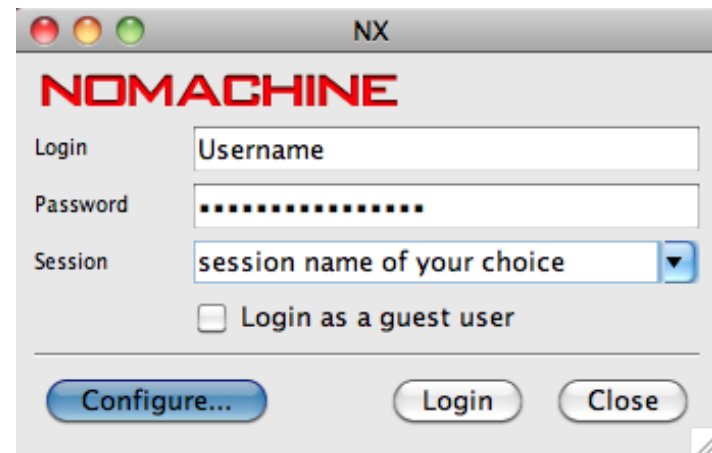
- Must be from 4-20 characters long.
- May contain letters, numbers, and underscores (“a-z”, “0-9”, “_”).

- Once your XCAMS account is created, send an email to armarchive@arm.gov with the subject line “XCAMS Username for Data Visualization Cluster”, and your XCAMS Username in the body of the email.

3. Accessing the ARM Visualization Cluster:

The ARM visualization cluster can be accessed using the remote desktop utility NXClient

- You will receive an email from the ARM Archive with a link for downloading *NxClient* software to your computer for use in accessing the Data Visualization Cluster server.
- Once installed on your computer, launch the *Nxclient* program, which begins the connection wizard. Enter your XCAMS Username and password (the Session name can be whatever you wish); then click Configure. The remainder of the login and setup procedure is illustrated below graphically.



NOMACHINE

Insert name of the session. Your configuration settings will be saved with this name.

Session <<session name of your choice>>

Insert server's name and port where you want to connect.

Host comp2.archive.am.gov Port 22

Select type of your internet connection.

MODEM ISDN **ADSL** WAN LAN

(Be sure to select your appropriate internet connection.)

Select Unix and GNOME

NOMACHINE

Desktop

Using NX Client you can run RDP, VNC and X desktops, depending on what the service provider has made available.

Unix GNOME Settings...

Select size of your remote desktop: KDE GNOME

Available area: CDE H: 600

Authorization credentials: XDM

Custom

Disable encryption of all traffic

< Back **Next >** Cancel

NOMACHINE

Configuration completed

Congratulations, connection to 'bd2-vm1.ornl.gov' will be saved as 'ad2-vm1'. You may further configure your session by running the Advanced Configuration dialog.

Create shortcut on desktop

Show the Advanced Configuration dialog

< Back **Finish** Cancel

NX

The authenticity of host bds2-vm1.ornl.gov, 128.219.164.209, can't be established.

The RSA key fingerprint is:

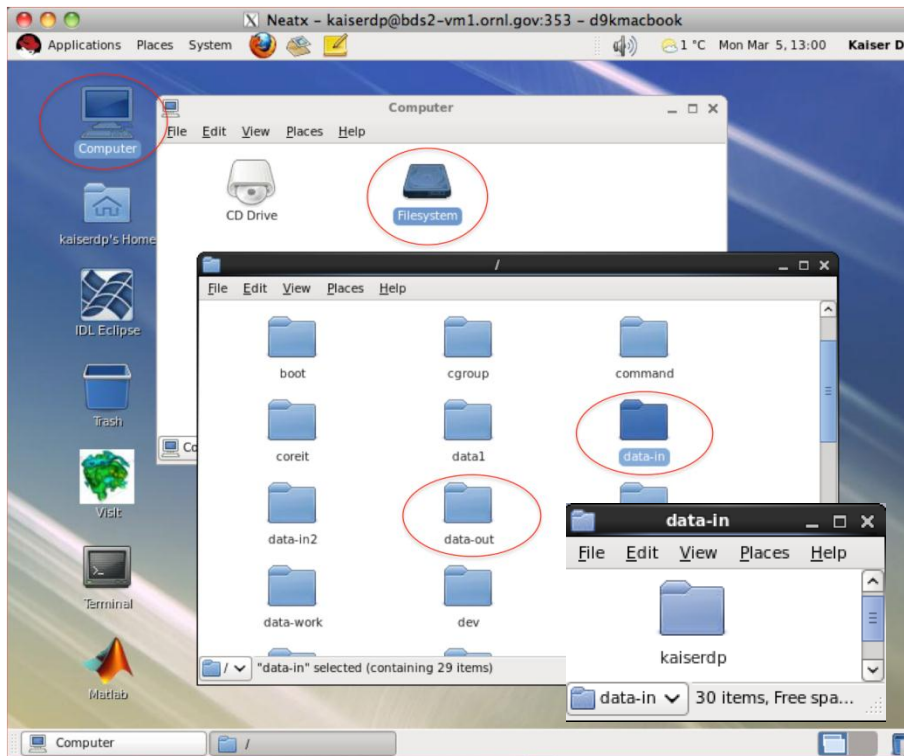
fc:5a:d6:55:5a:d0:e2:9c:d6:36:87:38:28:56:37:13.

Are you sure you want to continue connecting?

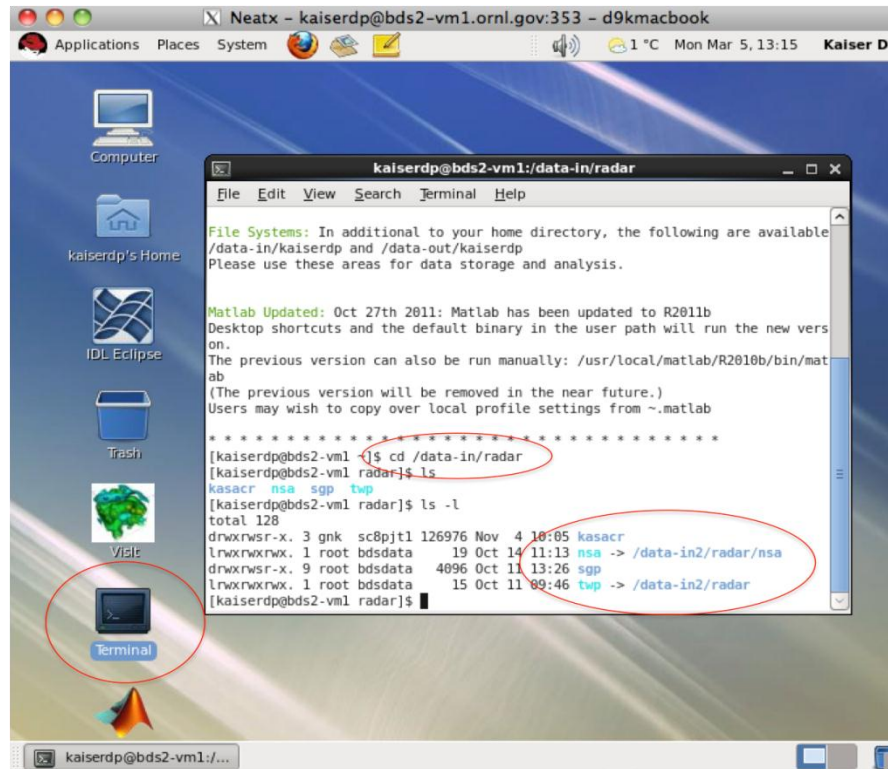
Yes No

4. Navigating the features and tools of the Data Visualization Cluster

- Once logged into the server you will see a *Neatx* window. Double clicking on the “Computer” icon and then the “Filesystem” icon will display the dedicated folders “data-in” and “data-out”, among others. (Or you can open a Terminal window to navigate directly to your data of interest, e.g., radar data in “data-in”.)
- Under both /data-in and /data-out you will find a directory with your Username for working with your I/O datasets.



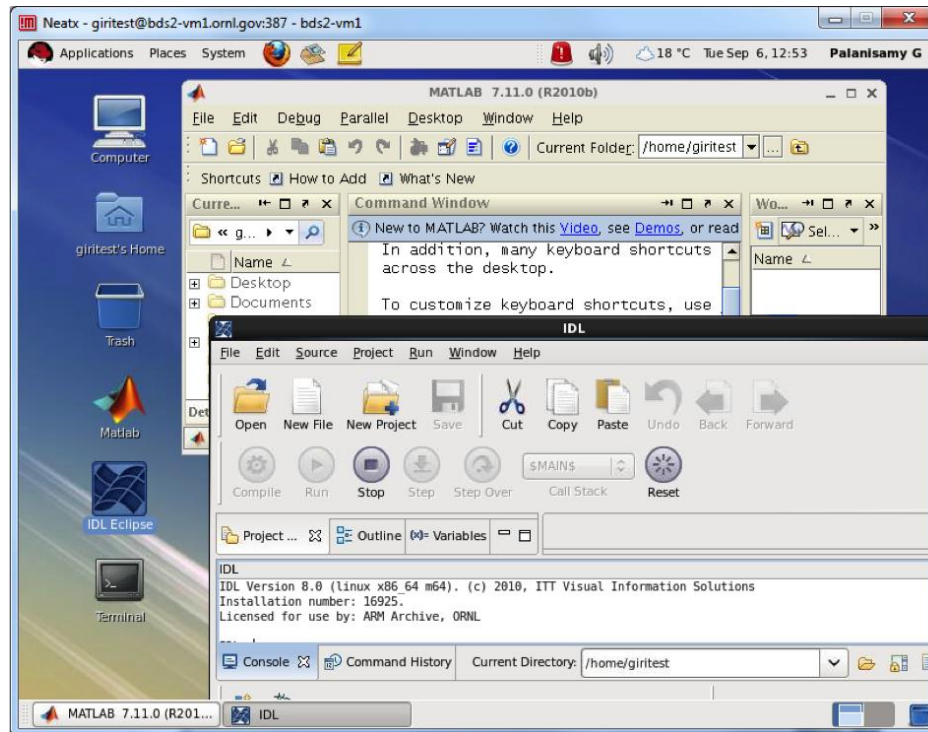
- Example of finding data: To check the data currently available in the visualization cluster, navigate to the /data-in/radar directory. Data are stored by site and data stream name.



- If you don't find your data of interest in the radar folder, please use one of the standard ARM Archive user interfaces (<http://www.archive.arm.gov>) to order the data. You can then email armarchive@ornl.gov to request that your data order be staged to the visualization cluster in the directory /data-in/YourUsername.

- The system has a suite of tools for analysis and visualization of data, including *Matlab*, *IDL* and *Visit*:

Use tools to visualize data



- The system also has a wide variety of programming language APIs including Python modules and Perl.
- When you wish to end your session, simply close the *Neatx* window or click 'System' then 'logout Username'.

Questions or comments?

- Please contact:
 - armarchive@arm.gov or
 - 1-888-ARM-DATA