

# REMOTE ACCESS TO THE APS

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APS-IT

November 30, 2012

D.Cyl

T. Lutes

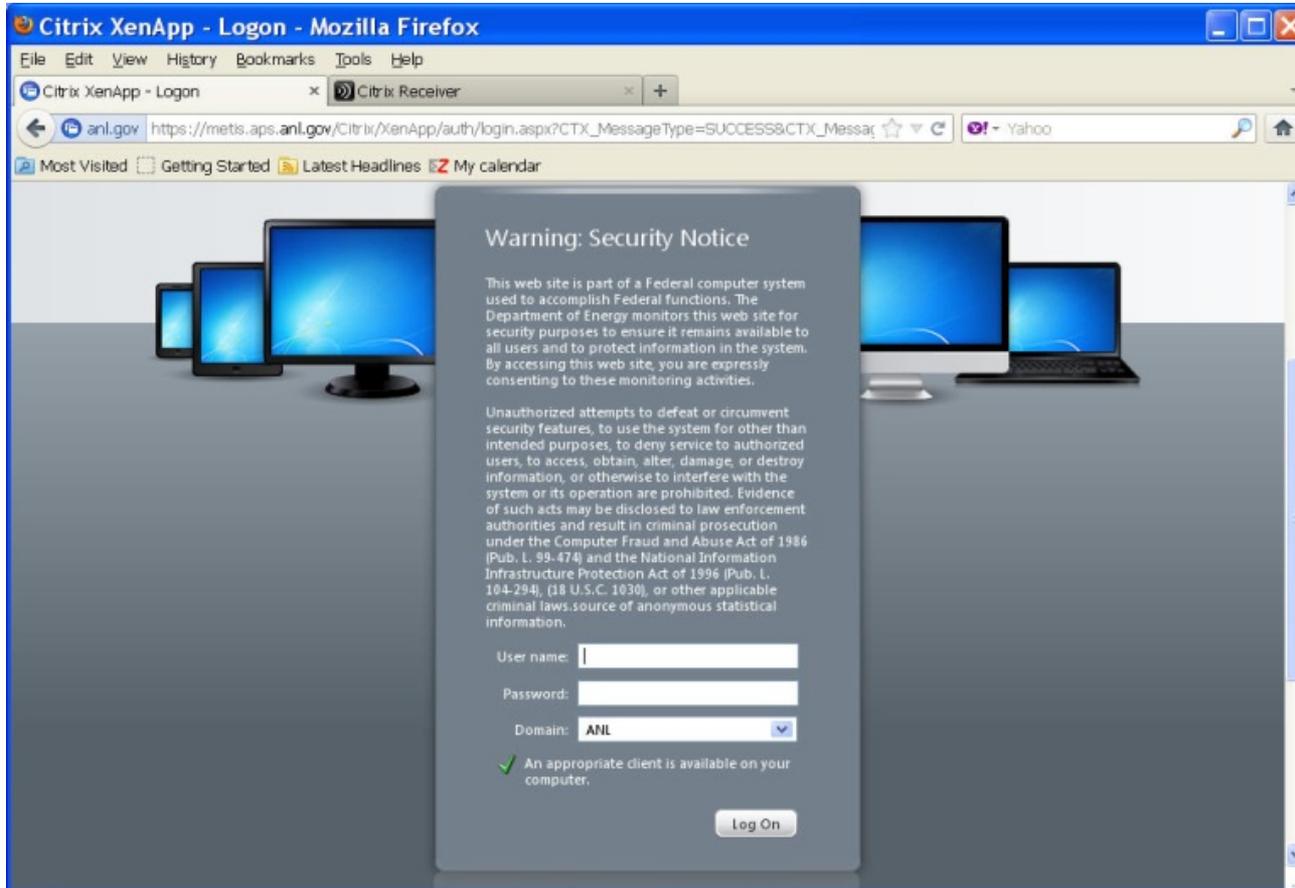
B. Robinson

M. Westbrook

# Outline

- Remote Access Options and Fundamentals
  - APS Web Portal
  - Zimbra Web Client
  - APS VPN
    - WebVPN Portal
    - Cisco AnyConnect VPN Client
    - OpenConnect VPN Client (Linux)
    - Crypto Cards
  - APS SSH
  - **APS Citrix Web Portal**
- Demonstrations

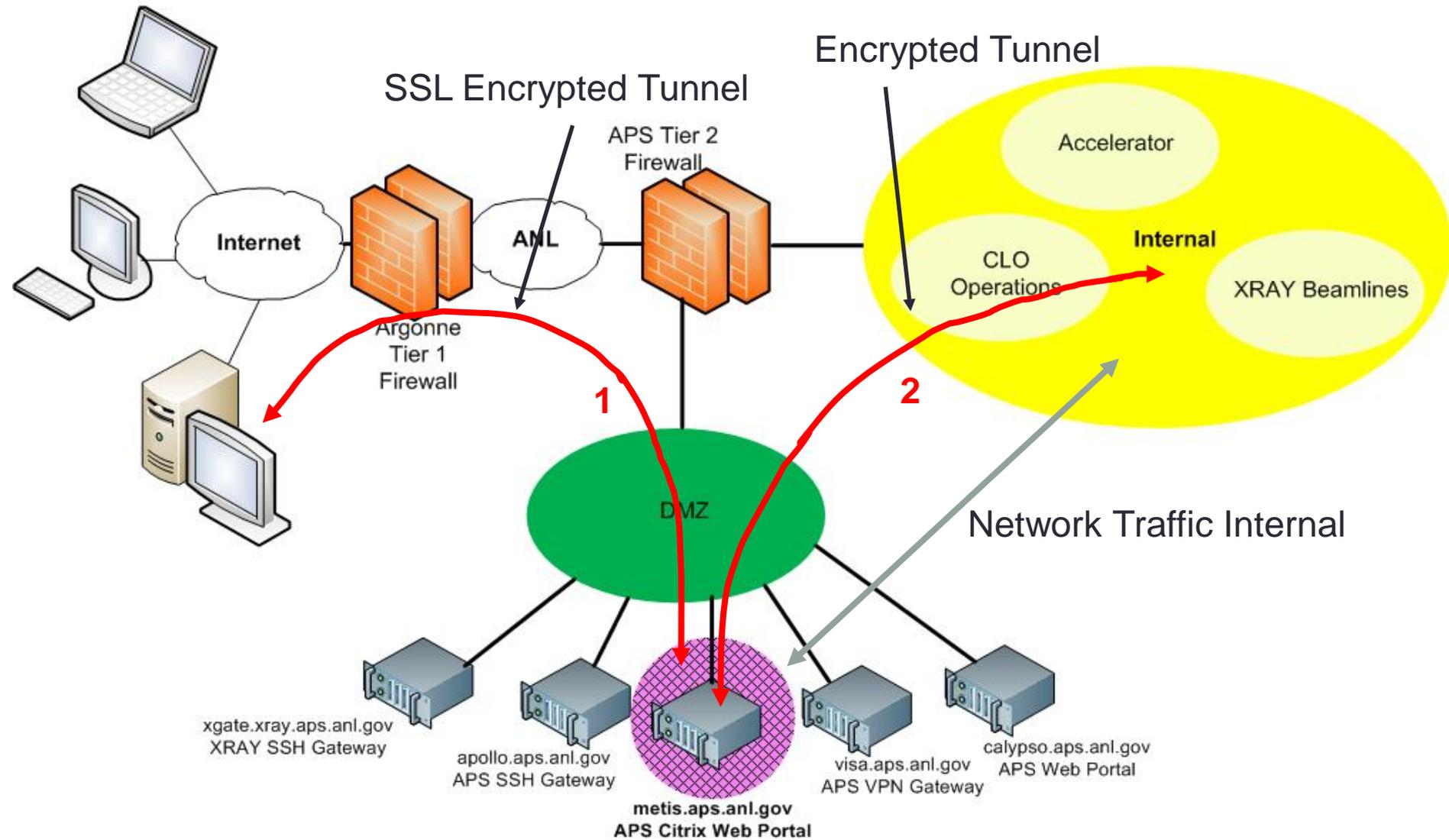
# APS Citrix Web Portal



# APS Citrix Web Portal

- Recommended remote access solution, based upon:
  - Cyber security considerations
  - User experience
- **Recommended remote access solution for personal computers**
- APS network is not extended to remote system (as with VPN)
- Network traffic between APS Citrix Web Portal and internal resources remains on internal APS network
- User's remote system provides keyboard and monitor functionality only
- Keystrokes and screen updates are sent to and from remote system through encrypted SSL web session
- Less likely to transmit viruses and other malware
- Do not lose ability to use network resources on local network (as with VPN)
  - Network printers
- **Cross-platform functionality identical**
  - **Windows, Linux or MAC OS system**

# APS Citrix Web Portal



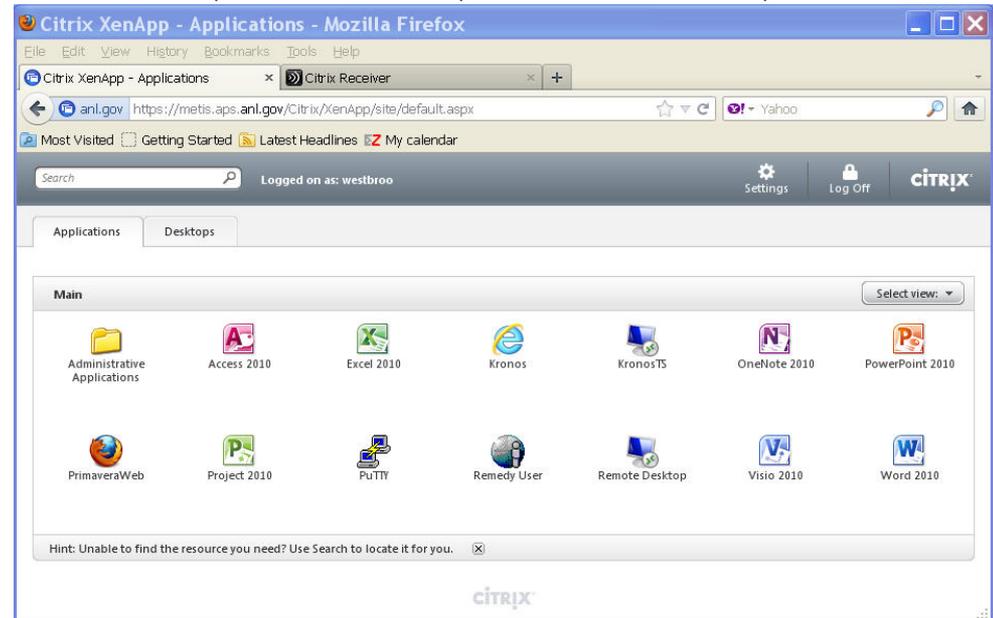
# APS Citrix Web Portal

- For personal computers:
  - Open browser, go to:
    - <https://metis.aps.anl.gov>
    - Click on “Install” to install the Citrix Receiver on first access (admin)
    - Once Citrix Receiver installed, go to: <https://metis.aps.anl.gov>
    - Login using ANL credentials
    - Citrix profile is created when first login
- Follow procedure on APS IT Services page:
  - [http://www.aps.anl.gov/APS\\_Engineering\\_Support\\_Division/Information\\_Technology/Services/RemoteAccess/metis2.pdf](http://www.aps.anl.gov/APS_Engineering_Support_Division/Information_Technology/Services/RemoteAccess/metis2.pdf)



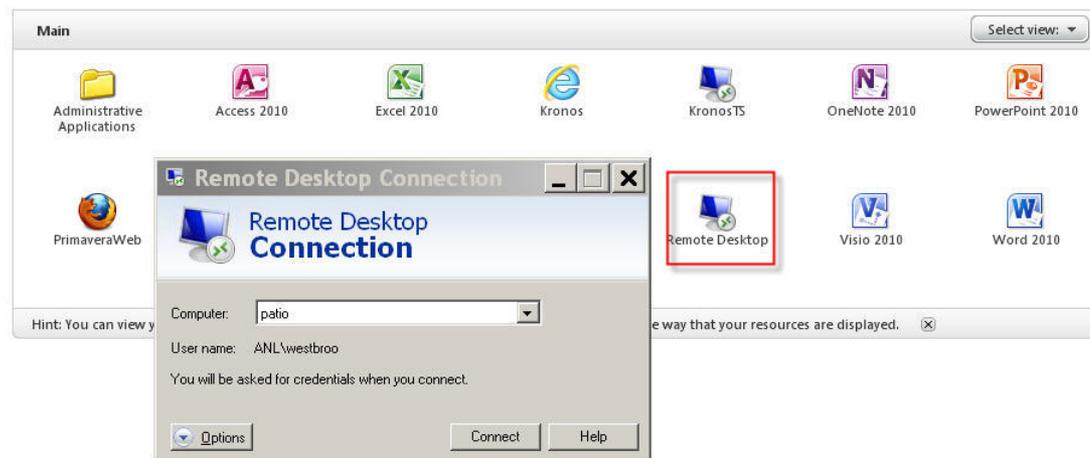
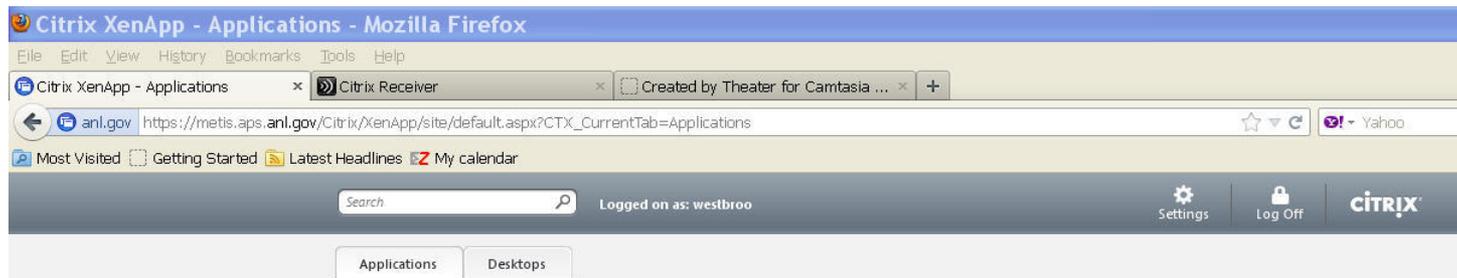
# APS Citrix Web Portal

- Use for access to:
  - ANL Administrative Apps, such as Kronos
  - NOTE: Other ANL Administrative Apps are available on web now
    - Paris, AMOS
  - MS Office Applications (Access Excel, OneNote, PowerPoint, Project, Word)
  - MS Visio
  - Remote desktop connection to office PC or other PC
  - Can RDC to XRAY beamline Windows system
  - Must be provided RDC permissions on PC connect to (contact APS-IT)



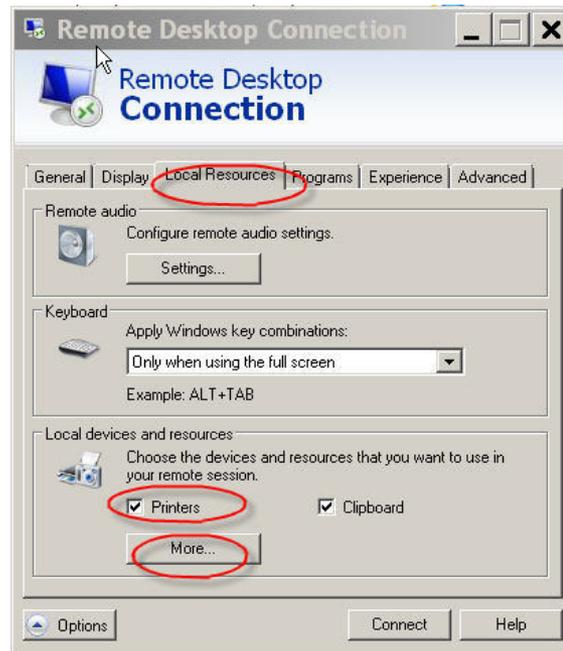
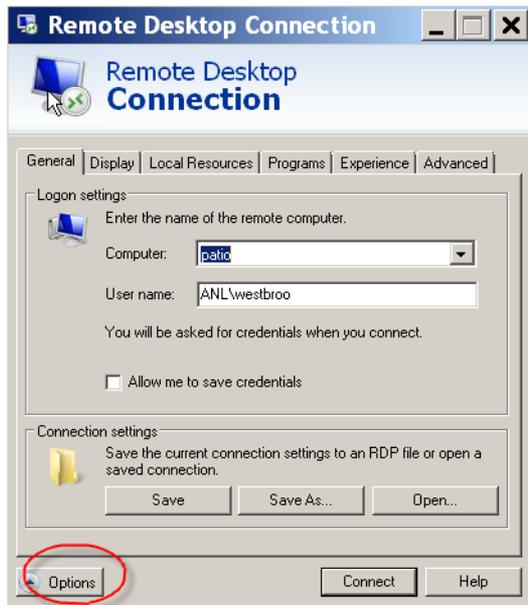
# Remote Desktop Connection

- Remote into your office desktop PC
  - Have access to same resources you do in the office:
    - Files, web browsing, default printer, network shares and **applications**



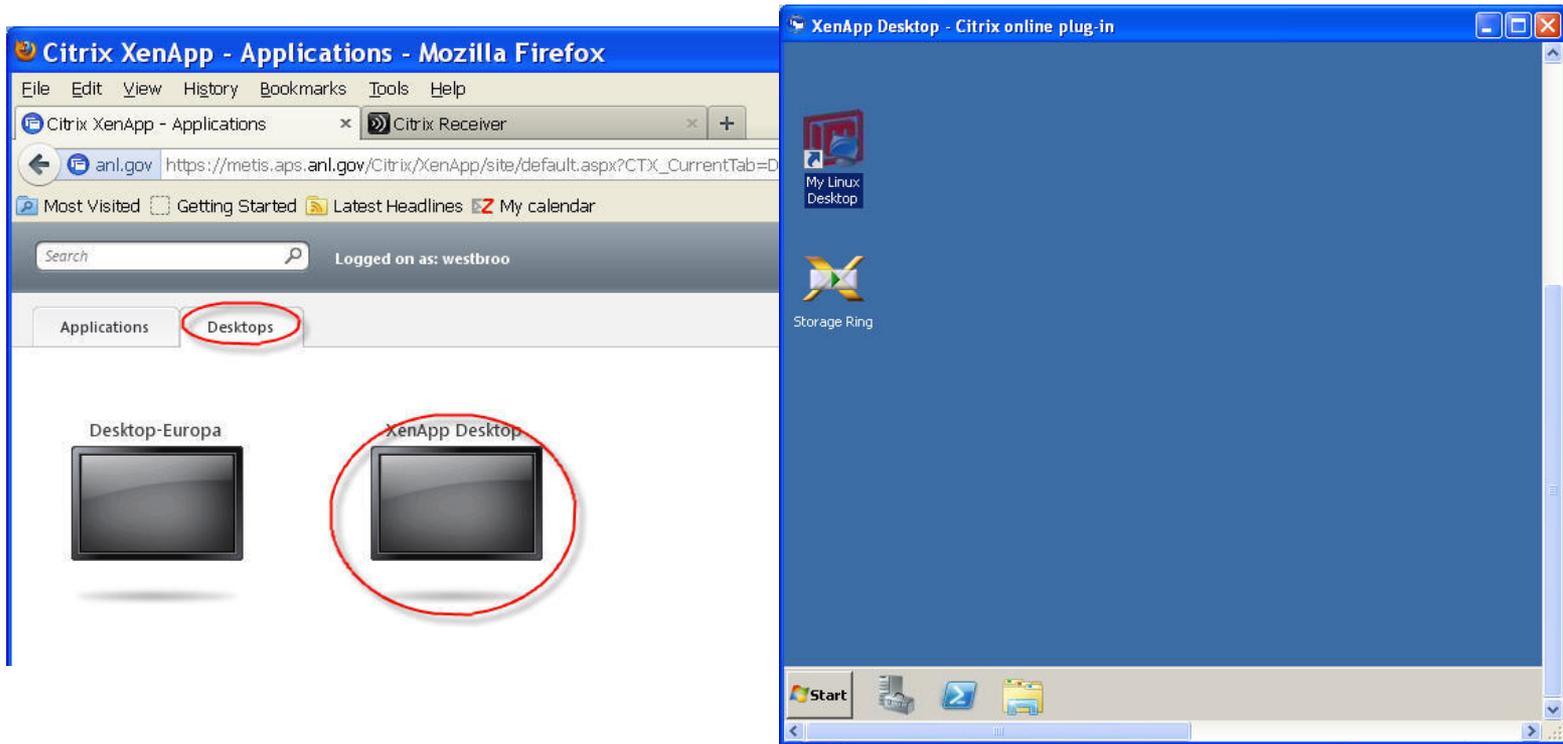
# Remote Desktop Connection

- Configure options



# Citrix XenApp Desktop

- Launch a XenApp Desktop
  - Once logged into Citrix, click on “Desktop” tab
  - Click on “XenApp Desktop”
  - Windows desktop on the Citrix Server (on internal APS network)

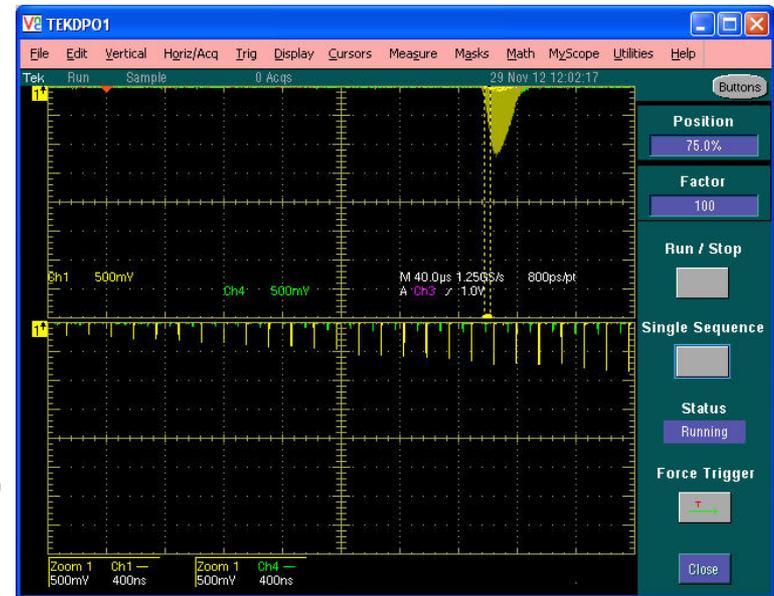


# Citrix XenApp Desktop Applications

- Applications available within XenApp Desktop:
  - MS Office, including Visio
  - OpenText Exceed
  - NX Client for Windows
  - Web browsers: IE and Firefox
  - Adobe Acrobat X and Reader X
  - Putty (SSH)
  - RealVNC viewer (VNC)
- For access to other applications:
  - RDC into your desktop or other computer (with app installed)
- XenApp Desktop
  - Good solution for systems that do not have the applications above

# Citrix XenApp Desktop

- What can be done with a XenApp Desktop?
  - Email/Calendar using ZWC or other mail client, like Mozilla Thunderbird (mail only)
  - Web browse internal web pages
  - Remote Desktop Connection to office PC
    - Multiple RDC connections
  - Run OpenText Exceed Applications
    - Better performance than over VPN
  - SSH to Unix/Linux system using “putty”
  - VNC into systems using RealVNC-E
    - APS-IT has limited number of “RealVNC-Enterprise” licenses
  - Use NX to connect to Unix/Linux system for “full-desktop” environment

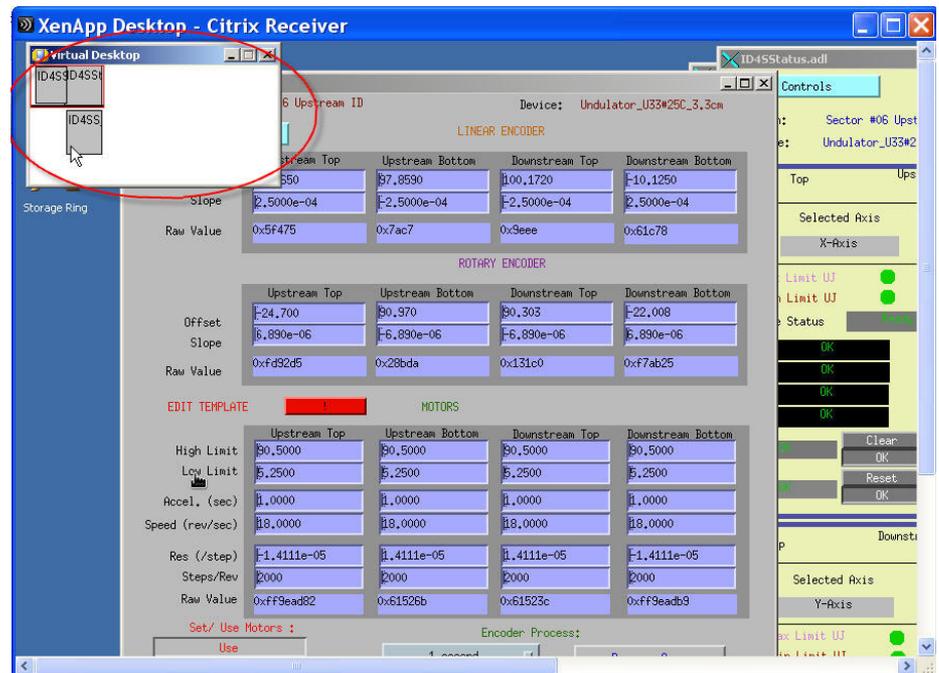


# Citrix XenApp Desktop

- Automatically have access to your Z: drive (Windows home directory)
  - Z: drive is available to apps run from XenApp Desktop
  - Save work to Z: drive
    - Facilitates file sharing
  - Access Z: drive from XenApp desktop or your APS desktop PC
- Map network shares
- Create desktop shortcuts
- When logout XenApp Desktop, settings are saved to Citrix profile
- Default printer (USB or network) passes through
  - Potential problem with XenApp server matching printer driver
  - Should use Citrix Universal Print Driver
  - Some features may not be available (scanning and faxing)

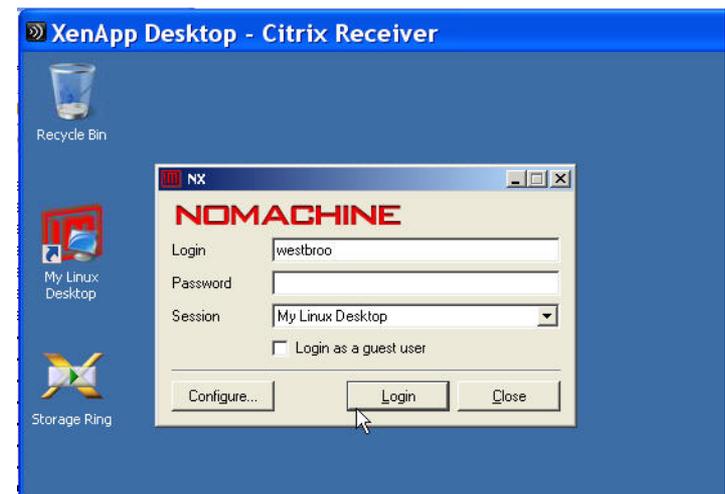
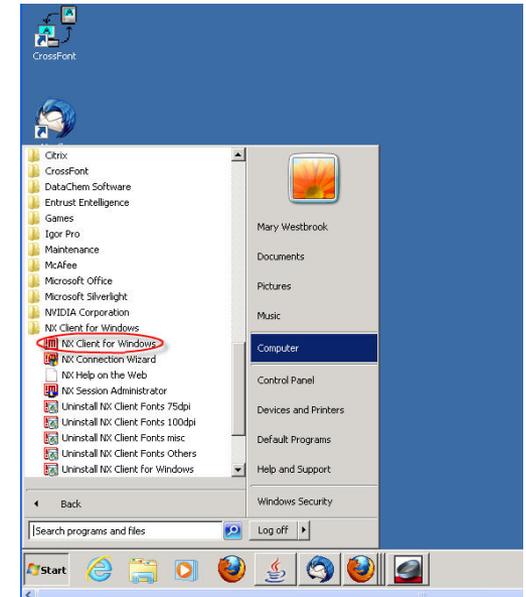
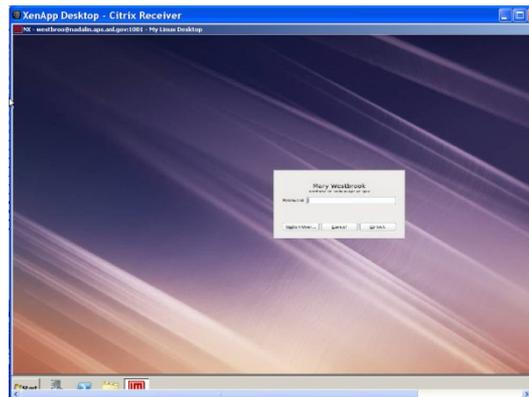
# OpenText Exceed

- Run Exceed MEDM screens and Xterms
- Run Exceed XDMCP Query (Full Unix/Linux Desktop Environment)
- Use Exceed Virtual Desktop to expand display (thanks Marty Smith)
  - While running Exceed, launch Virtual Desktop
  - Left-click to drag windows off screen
  - Right-click to move focus



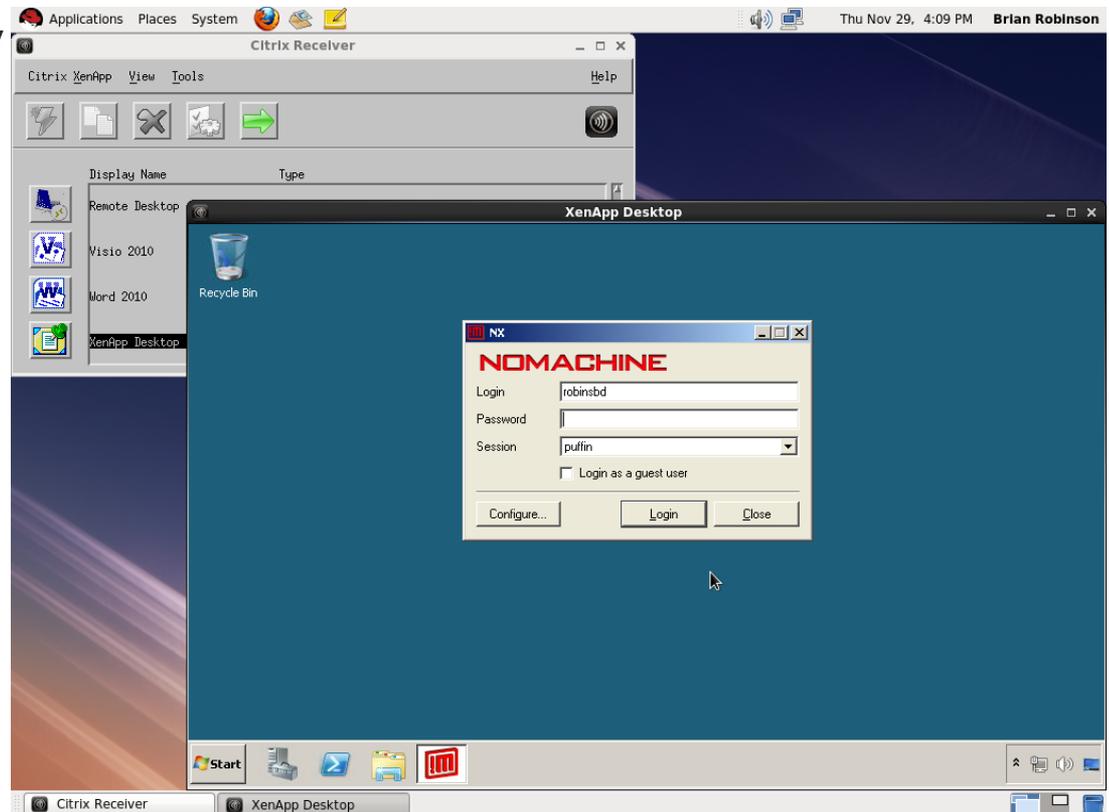
# NoMachine NX for Windows Client

- “Open source” remote desktop access
- Use to control
  - Linux
  - Solaris
- NX clients available:
  - Windows XP/Vista/7
  - Linux
  - MAC (works only with MAC OS 10.6)
- NX available on from within a Citrix XenApp Desktop



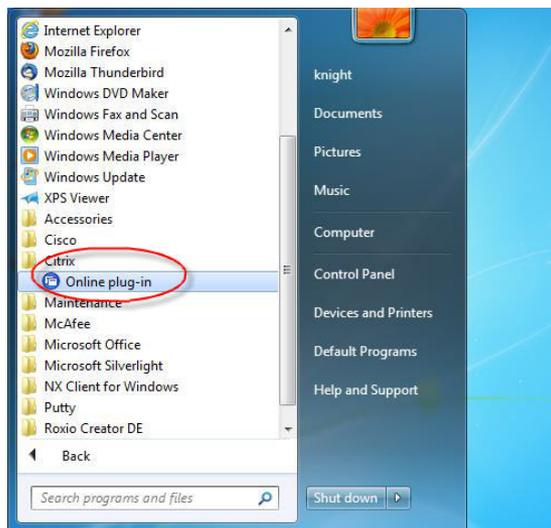
# Citrix Receiver on Linux

- Use Citrix Receiver to launch XenApp Desktop on Linux
  - NX
  - Exceed XDMCP Query
  - Exceed Xstart
  - Putty
  - VNC



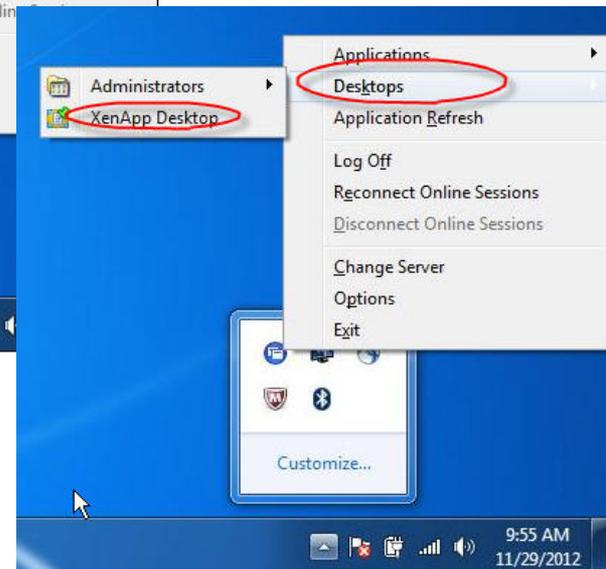
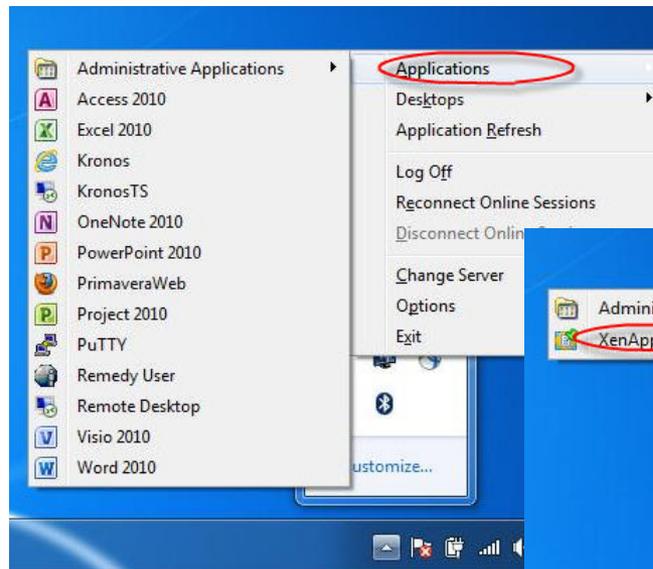
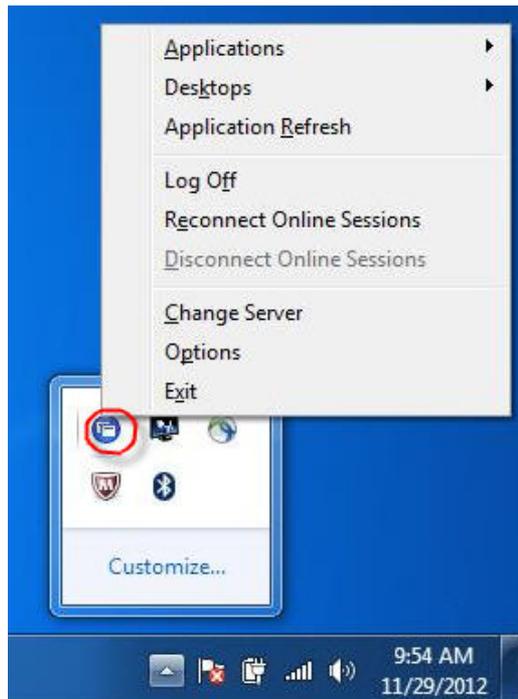
# CitrixEnterprise Client

- APS computers:
  - CitrixEnterprise client will already be installed
- Launch Citrix (Start->Programs->Citrix->Online plug-in)
- Login using ANL credentials
- If prompted for server, enter:
  - <https://metis.aps.anl.gov>



# CitrixEnterprise Client

- From CitrixEnterprise Client have access to:
  - Administrative apps
  - Remote Desktop Connection
  - XenApp Desktop



# Citrix Receiver Client for Mobile Devices

- Android
  - Download Citrix client from “Android Market”
  - Search “Citrix” or “Citrix Receiver”
  - Install
- iPhone/iPad/iPad
  - Download Citrix client from “App Store”
  - Search “Citrix” or “Citrix Receiver”
  - Install
- All same functionality as with Windows, MAC, Linux
  - Limited by size of screen
  - Patience zooming “in-and-out”



# Where to Obtain Remote Access Help?

- APS-IT is a team of over 20 IT professionals ready and willing to help
- Submit a support request at:
  - <http://www.aps.anl.gov/hd>
- Call APS-IT Emergency Line: 2-9700 during business hours
- After hours assistance:
  - Beamline users contact Floor Coordinator on-duty
  - All other users contact MCR 2-9424
- Contact APS-IT Staff directly:
  - [http://www.aps.anl.gov/APS\\_Engineering\\_Support\\_Division/Information\\_Technology/staff/](http://www.aps.anl.gov/APS_Engineering_Support_Division/Information_Technology/staff/)
- APS-IT Services web documentation:
  - [http://www.aps.anl.gov/APS\\_Engineering\\_Support\\_Division/Information\\_Technology/Services/](http://www.aps.anl.gov/APS_Engineering_Support_Division/Information_Technology/Services/)

# Thanks

- Thanks for your kind attention!
- APS-IT encourages you to explore remote access alternatives
- Please share your remote access experiences!
- Questions?
  
- **Today's slides will be published at:**
- **APS VPN and SSH**
  - [http://www.aps.anl.gov/APS\\_Engineering\\_Support\\_Division/Information\\_Technology/Services/RemoteAccess/RemoteAccessVPN\\_SSH.pdf](http://www.aps.anl.gov/APS_Engineering_Support_Division/Information_Technology/Services/RemoteAccess/RemoteAccessVPN_SSH.pdf)
- **APS Citrix Web Portal**
  - [http://www.aps.anl.gov/APS\\_Engineering\\_Support\\_Division/Information\\_Technology/Services/RemoteAccess/RemoteAccessCitrixWebPortal.pdf](http://www.aps.anl.gov/APS_Engineering_Support_Division/Information_Technology/Services/RemoteAccess/RemoteAccessCitrixWebPortal.pdf)