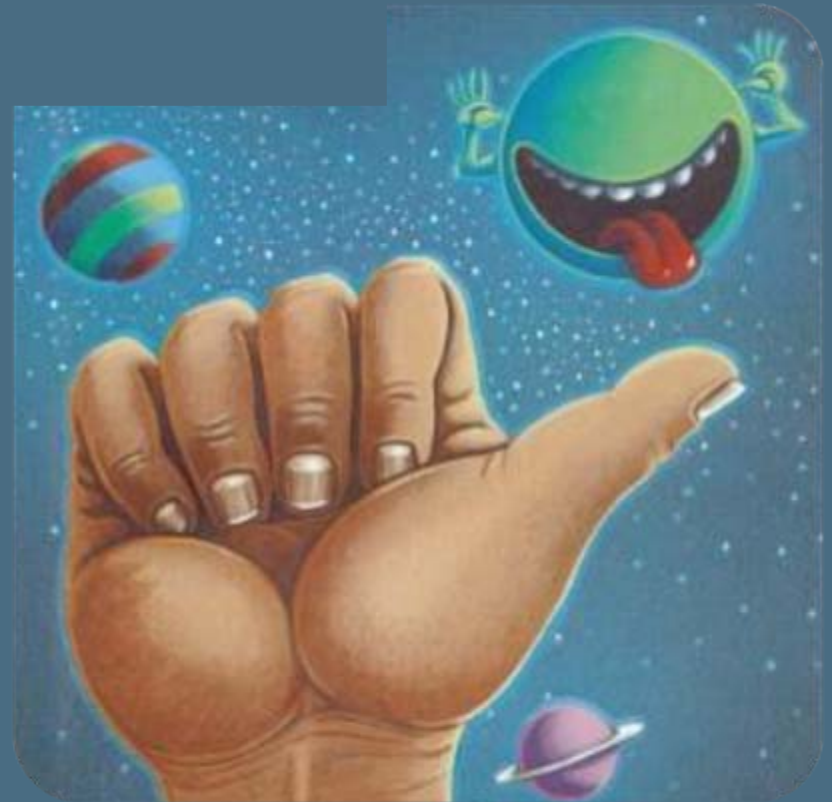




The Road Warrior's Guide

Tips and Tricks for Mobile Computing





Lets answer a poll question.

How many people are
attending from your
connection?



The Many Faces of Mobile Computing





The current environment is leading to frustration

I Can't do my job. How do I comply with security mandates and still support my users?

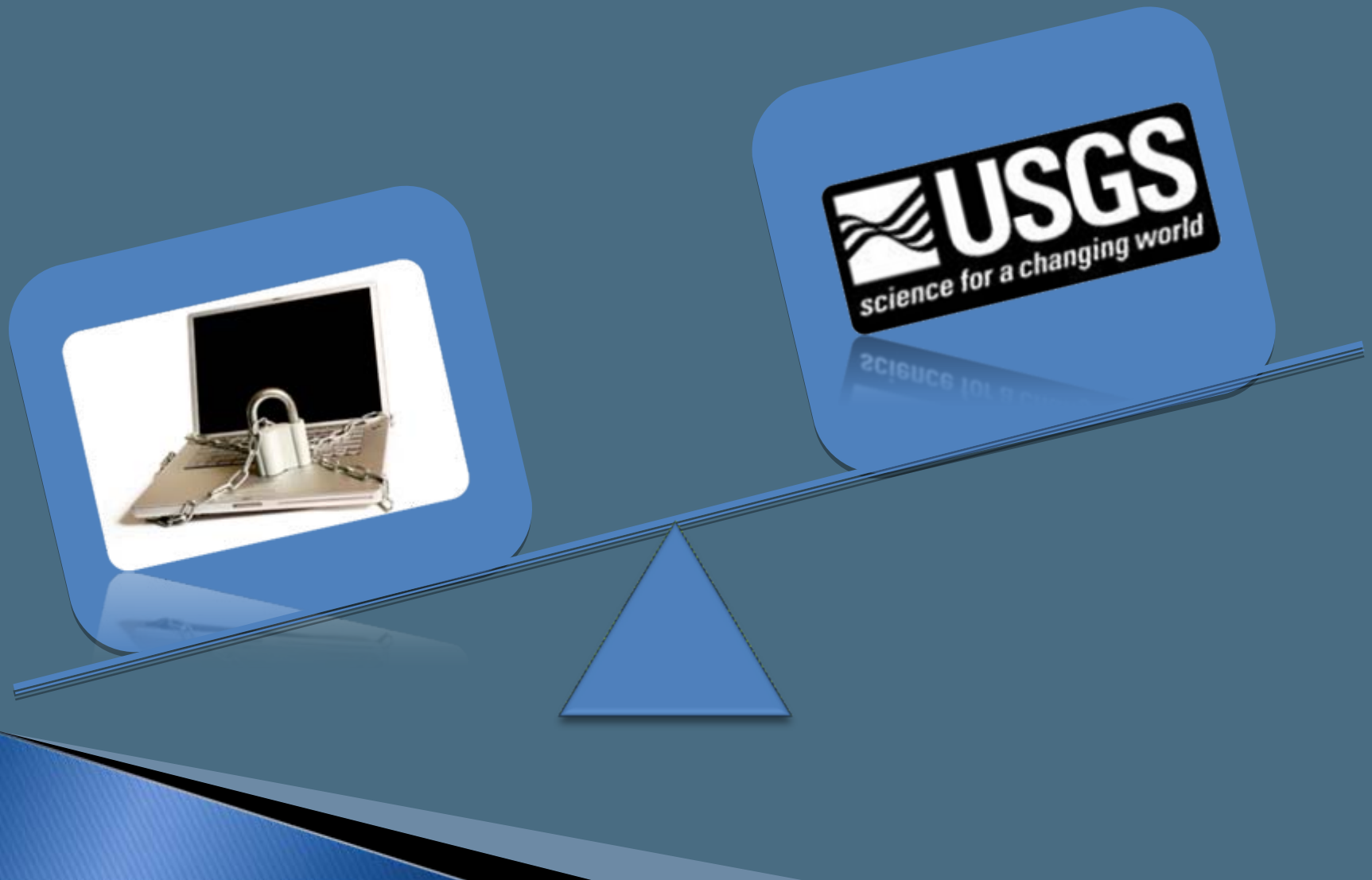


I Can't do my job. The Science is suffering





Finding the Balance in Mobile Computer Management





+

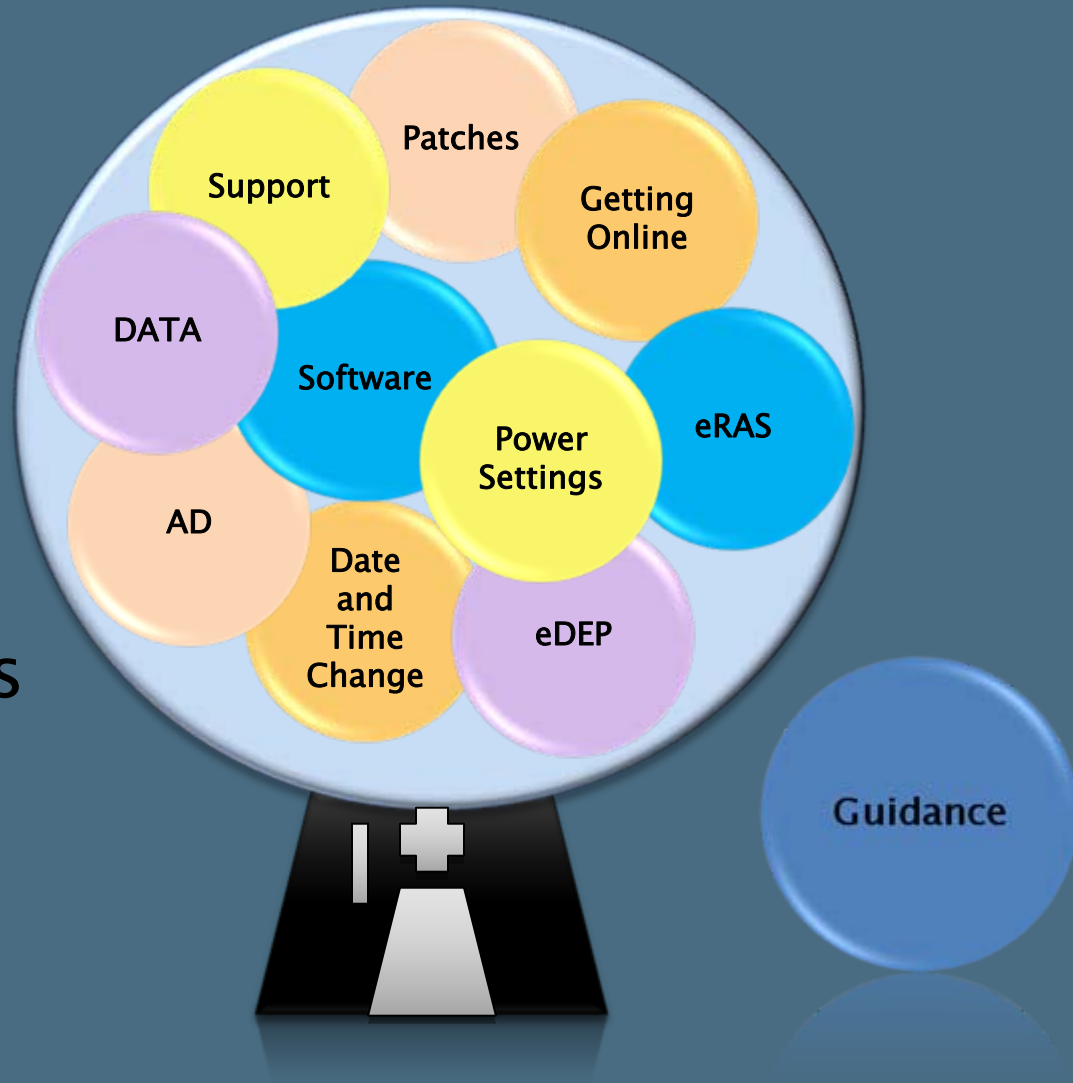


Community Catalyst!



Tips and Tricks – Outline

- ▶ Getting Online
- ▶ eRAS VPN
- ▶ Dealing with Data
- ▶ Collaboration Tools
- ▶ Support
- ▶ Helpful Settings
- ▶ Desktops vs. Laptops
- ▶ Questions



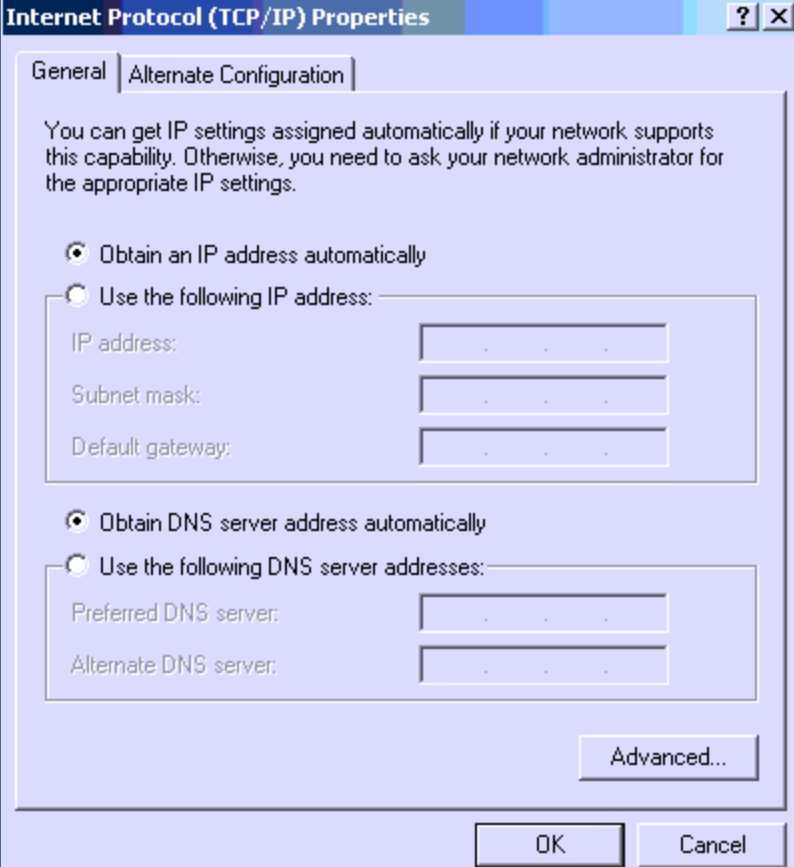


Getting online

- ▶ Network connection
- ▶ Wireless
- ▶ Network anywhere

Network settings – Dynamic Host Configuration Protocol (DHCP)

- ▶ DHCP is a way to set up your laptop so that it is assigned an IP address from servers at different locations
- ▶ <http://bwtst.usgs.gov/os/win2008/DHCPserver2008/>



The screenshot shows the 'Internet Protocol (TCP/IP) Properties' dialog box. The 'General' tab is selected. It contains a text box explaining that IP settings can be assigned automatically if the network supports this capability. Below this, there are two radio button options: 'Obtain an IP address automatically' (which is selected) and 'Use the following IP address:'. The 'Use the following IP address' option has three input fields for 'IP address:', 'Subnet mask:', and 'Default gateway:'. Below these, there are two more radio button options: 'Obtain DNS server address automatically' (selected) and 'Use the following DNS server addresses:'. The 'Use the following DNS server addresses' option has two input fields for 'Preferred DNS server:' and 'Alternate DNS server:'. At the bottom right of the dialog box is an 'Advanced...' button. At the very bottom are 'OK' and 'Cancel' buttons.

Internet Protocol (TCP/IP) Properties

General | Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

☒ Obtain an IP address automatically

☐ Use the following IP address:

IP address:

Subnet mask:

Default gateway:

☒ Obtain DNS server address automatically

☐ Use the following DNS server addresses:

Preferred DNS server:

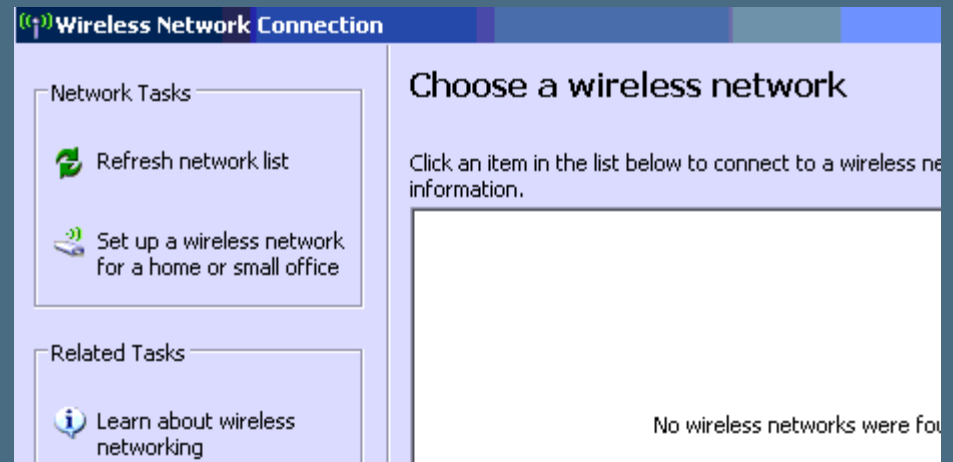
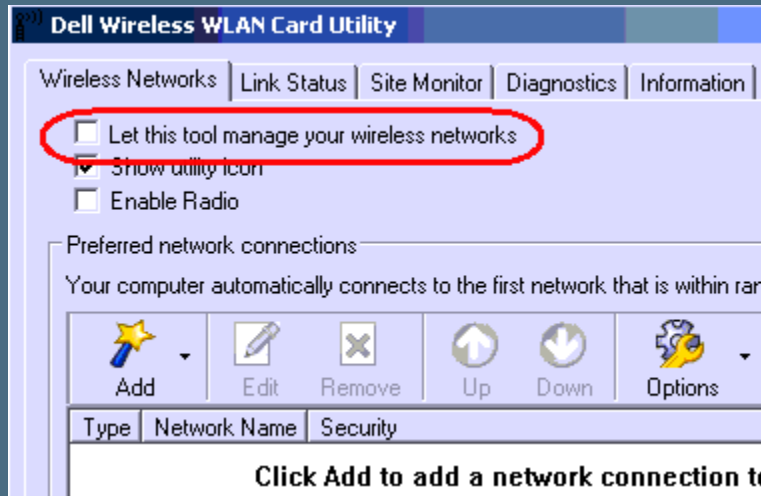
Alternate DNS server:

Advanced...

OK Cancel

Wireless Access

- ▶ Let Microsoft Manage your wireless to avoid permission issues
- ▶ 3rd party software confuses the issue





Network Anywhere

- ▶ Air cards – PCMCIA or USB
- ▶ Blackberry/Phone tethering
- ▶ MiFi – Portable Hotspots





What can you do with a basic internet connection

- ▶ Go to external internet sites
 - <http://www.google.com>
 - <http://water.usgs.gov>
 - <http://waterdata.usgs.gov/nwis/rt>
- ▶ Use Lotus notes or iNotes to check your email
- ▶ DOI Learn
- ▶ GovTrip



Lets answer a poll question.

What percentage of people on
your connection have an eRAS
VPN account?



eRAS – Getting to more

- ▶ Internal Web Sites
 - Basis+
 - Quicktime
 - WebForms
 - RMS/SIMS and other Data processing sites
- ▶ Keep your password up to date
- ▶ File Shares (firewall change needed)
 - Move Files to Data share locations
 - Move Files to Unix system for processing
- ▶ Remote Desktop Connection (firewall change needed)
 - RDP to systems at the office to check on models, etc
- ▶ Access NWIS (firewall change needed)
 - Process Data
 - Print Data to office Printers



Firewalls

- ▶ eRAS does not allow access to all internal resources by default
- ▶ Firewall rules must be adjusted to allow access
- ▶ As with all firewall “holes” they expose us to potential security risks
- ▶ Site specific – discuss with local IT and management
- ▶ <http://itsot.usgs.gov/firewall/index.html>

If you take down one wall – make sure you put up another

- ▶ Log on to your computer with Least User Access (LUA)
 - Don't work as an administrator – work as a standard user
- ▶ Why all these security patches
 - The importance of Microsoft Update and assuring your patches are up to date
- ▶ Virus Protection
 - Enterprise – Symantec – Keep those definitions up to date

How to get eRAS

- ▶ Get an eRAS account, even if you don't need it now (WebForm 9-3119)
<https://gsvaresa08.er.usgs.gov/WebForms/9-3119.nsf/9-3119?OpenForm>
- ▶ Install Juniper Software on Laptops (why not put it on all laptops with a GPO)
<http://bwtst.usgs.gov/apps/interop/ras/vpn/windows/InstallerServiceSetup/index.htm>
- ▶ All Juniper upgrades will install without admin access

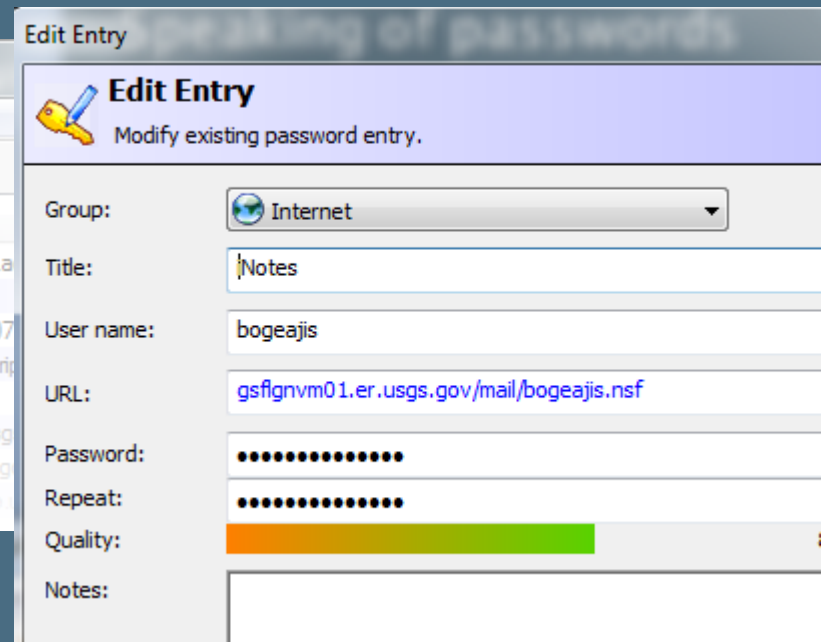
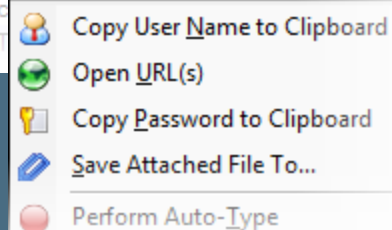
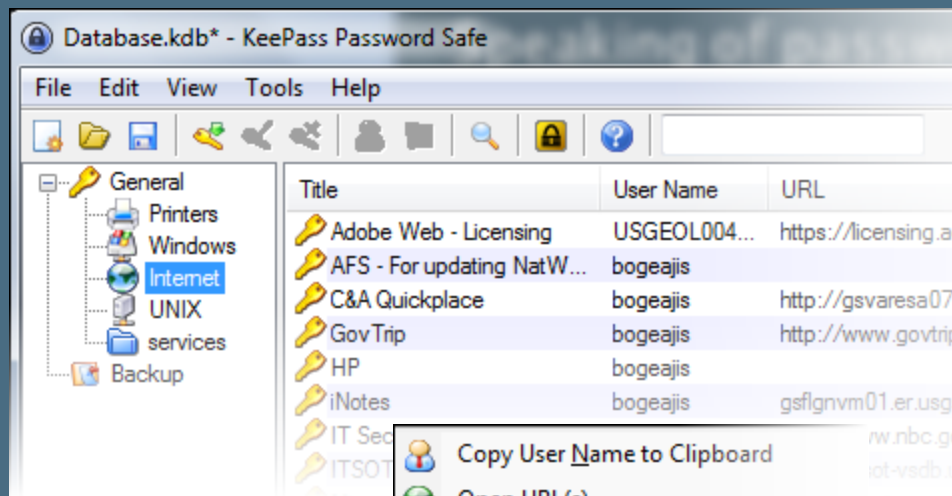


Keeping your passwords up to date

- ▶ Did you know that if you are out of the office, you can change your windows password if you have established a eRAS connection?
 - Log onto your computer
 - Connect to eRAS
 - Just to be sure you received a key, connect to a network share
 - Ctr-alt-del and change your windows password
 - This will update your windows password on the network
- ▶ In a pinch – your password can be reset through the Service desk gs_service_desk@usgs.gov (866-447-4375)

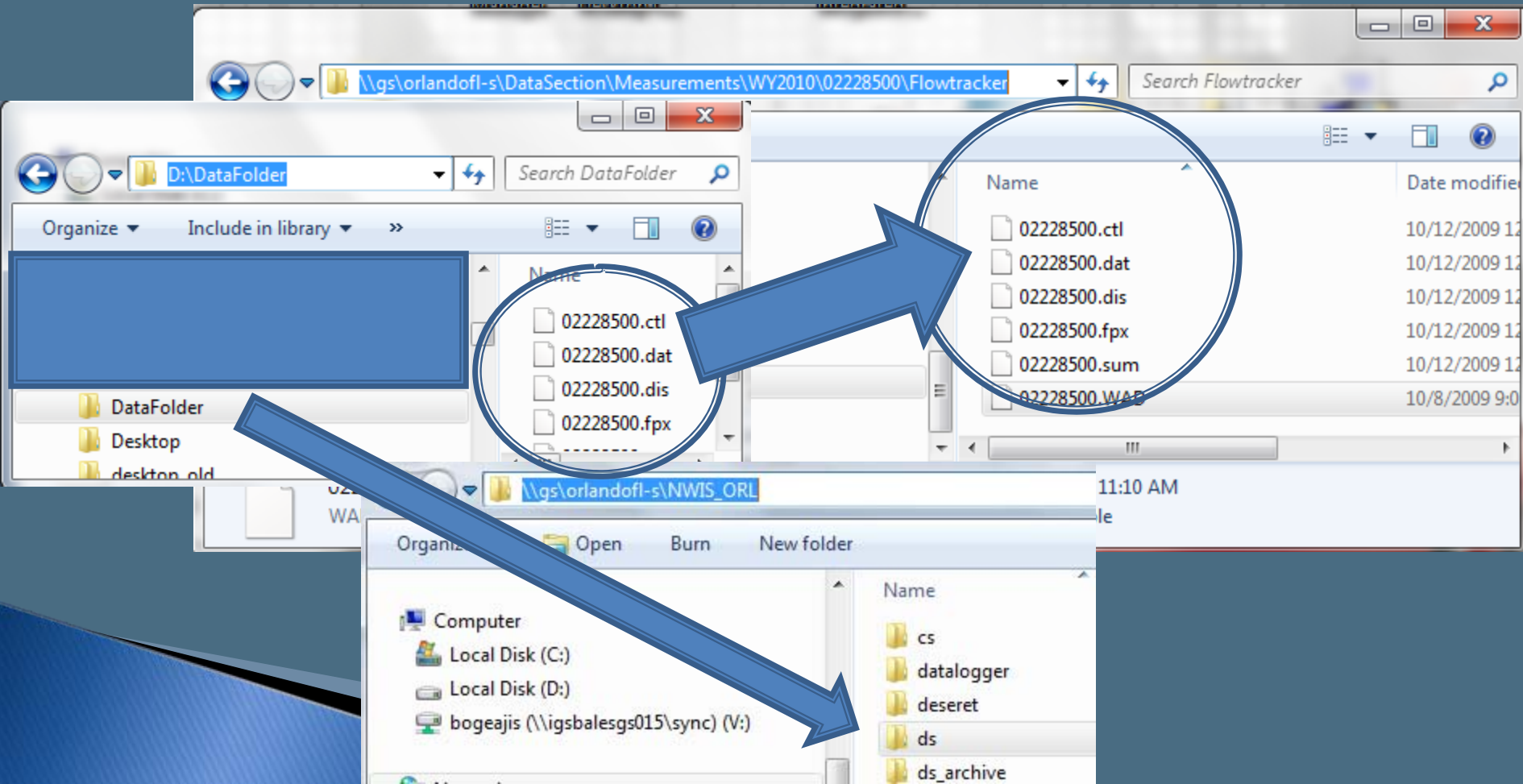
Speaking of passwords

- ▶ Have you tried KeePass?
- ▶ <http://bwtst.usgs.gov/security/keepass/>



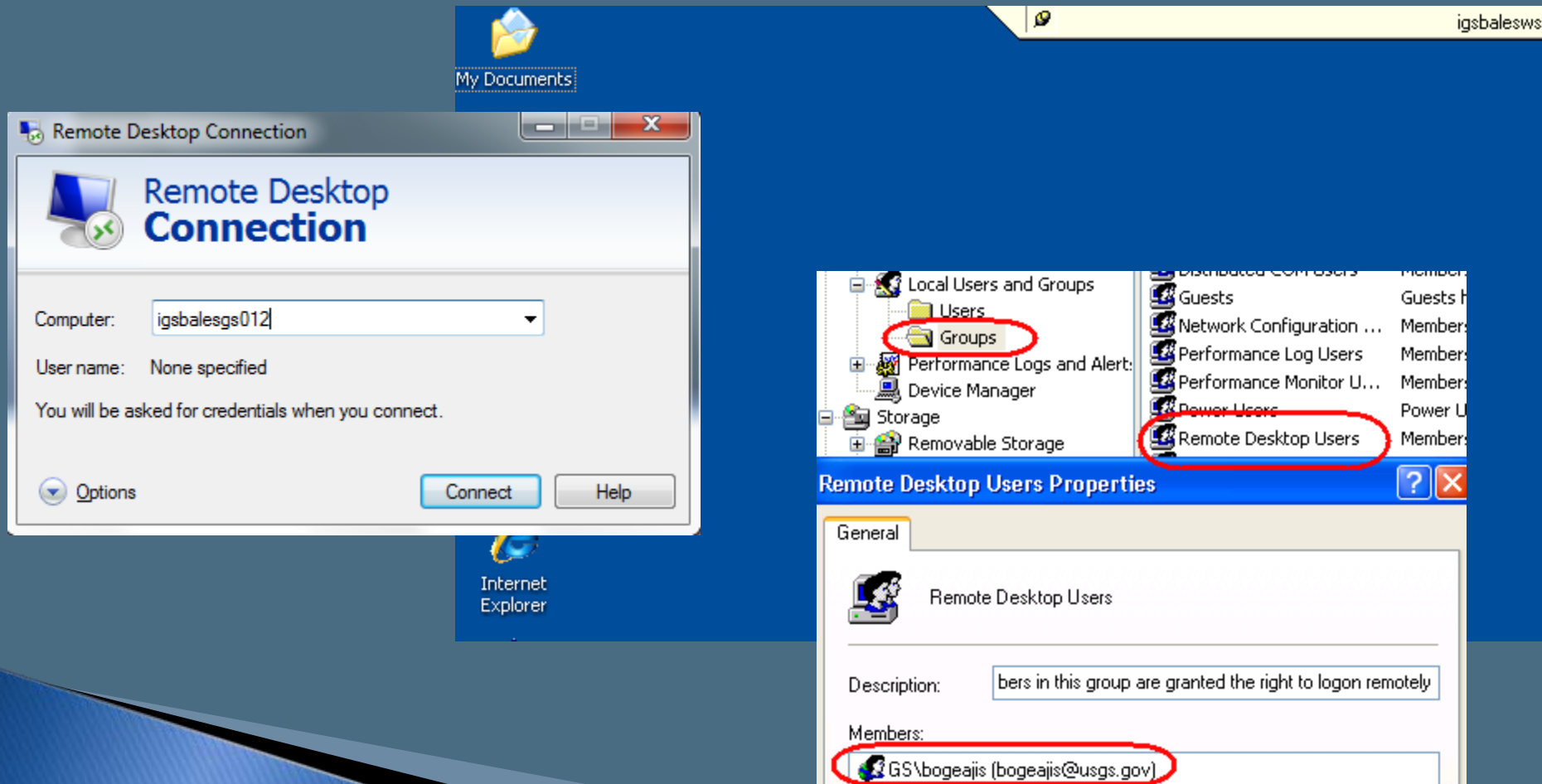
Files Shares

- ▶ With the right configuration.....UDP 139 and TCP Port 445
- ▶ Online + eRAS = Drag and Drop files to office



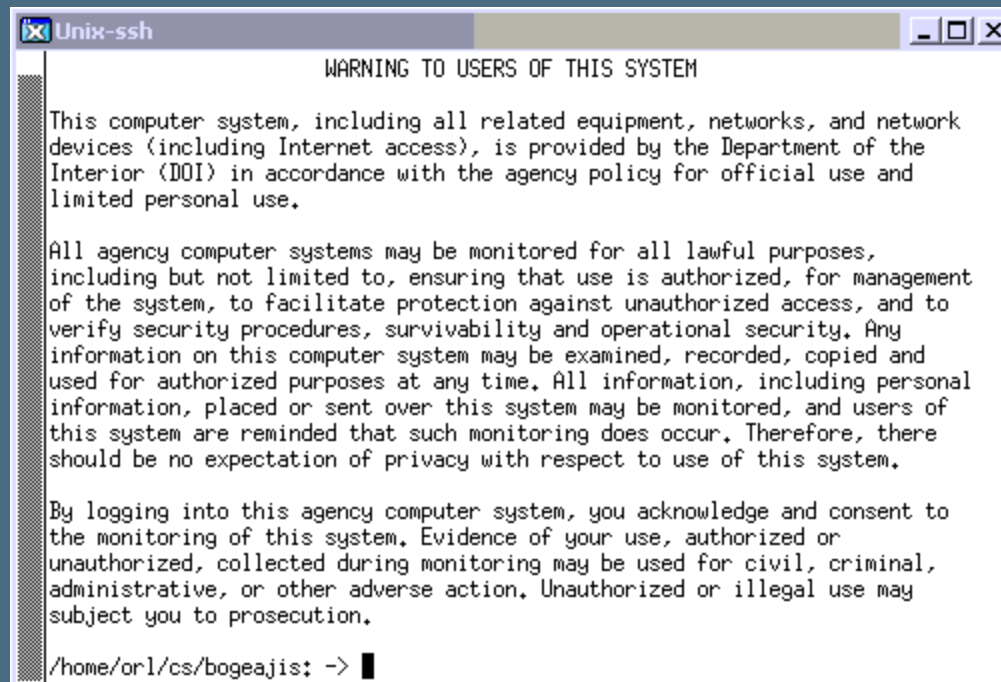
Remote Desktop Connections

- ▶ With the right configuration...TCP Port 3389
- ▶ Online + eRAS = Connecting to Desktop



Access ADAPS

- ▶ With the right configuration.....TCP Port 22
- ▶ Online + eRAS = SSH connection to NWIS



```
Unix-ssh
WARNING TO USERS OF THIS SYSTEM

This computer system, including all related equipment, networks, and network
devices (including Internet access), is provided by the Department of the
Interior (DOI) in accordance with the agency policy for official use and
limited personal use.

All agency computer systems may be monitored for all lawful purposes,
including but not limited to, ensuring that use is authorized, for management
of the system, to facilitate protection against unauthorized access, and to
verify security procedures, survivability and operational security. Any
information on this computer system may be examined, recorded, copied and
used for authorized purposes at any time. All information, including personal
information, placed or sent over this system may be monitored, and users of
this system are reminded that such monitoring does occur. Therefore, there
should be no expectation of privacy with respect to use of this system.

By logging into this agency computer system, you acknowledge and consent to
the monitoring of this system. Evidence of your use, authorized or
unauthorized, collected during monitoring may be used for civil, criminal,
administrative, or other adverse action. Unauthorized or illegal use may
subject you to prosecution.

/home/orl/cs/bogejais: -> █
```



Dealing with Data on Laptops

- ▶ Offline File Sync
- ▶ 3rd Party Sync Software
- ▶ Moving files back to the office
- ▶ Memory Sticks

Data – Offline File Sync

▶ Offline File Sync

- Free from Microsoft
- Data is stored on the Server and accessed through a mapped drive
- When you log on and off system, the files are synced to a local area on your laptop
- These files are available when you are out of the office
- Edits are updated to the server when you return
- Benefits – Set it and forget it
- Concerns – Not great for “Big” files or large amounts of data – time consuming



Recommended GPO Settings

- ▶ By default certain things will be excluded
- ▶ Files not cached – set to blank so all are cached
- ▶ Ex. – OrlandoFL-S Offline File Settings
- ▶ Default is use 10% of drive space
- ▶ Cachemov.exe xp

OrlandoFL-S Offline File Settings
Data collected on: 1/14/2010 11:42:56 AM

Computer Configuration (Enabled)

Administrative Templates

Network/Offline Files

Policy	Setting
Files not cached	Enabled

Files may be excluded from caching on auto-cache shared folders based on their extension. Enter a list of extensions to be excluded. Extensions must be preceded by an asterisk and period. "e.g. *.dbf;*.ndx;*.lnk

Extensions:

Default cache size Properties

Setting | Explain

 Default cache size

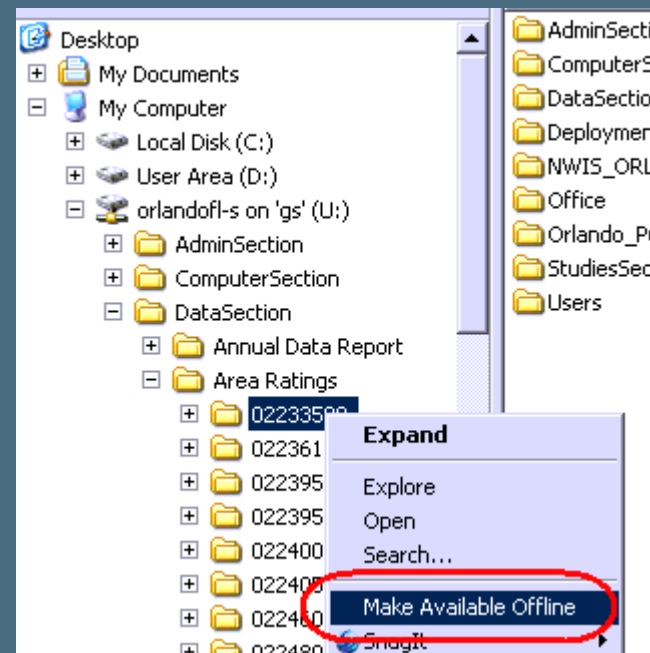
☒ Not Configured
☐ Enabled
☐ Disabled

Value entered is [percent disk used * 10,000].
For example, to indicate 12.53%, enter 1253.

Default cache size:

Offline File Sync – desktop side

- ▶ As a user, data will be stored on the server and accessed with a mapped drive
- ▶ Navigate to the area to make available offline
- ▶ Right click and choose “Make Available Offline”



Offline Files Wizard



Welcome to the Offline Files Wizard

Using Offline Files, you can work with network files when you are not connected to the network.

Offline Files are most useful when you are working on a laptop or remotely over a slow network connection.

To continue, click Next.

< Back

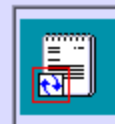
Next >

Cancel

Offline Files Wizard



Offline files are marked with a visual indicator so they are easy to identify.



Click Synchronize on the File menu of Windows Explorer to update the files on your computer and on the network.

☒ Automatically synchronize the Offline Files when I log on and log off my computer

< Back

Next >

Cancel

Offline Files Wizard



While you are offline, a message appears periodically to remind you that you are not connected to the network.

☒ Enable reminders



Whether you are working online or offline, you can access your Offline Files in the same network folders or in the Offline Files folder.

☐ Create a shortcut to the Offline Files folder on my desktop

< Back

Finish

Cancel

Windows Explorer window showing a folder structure:

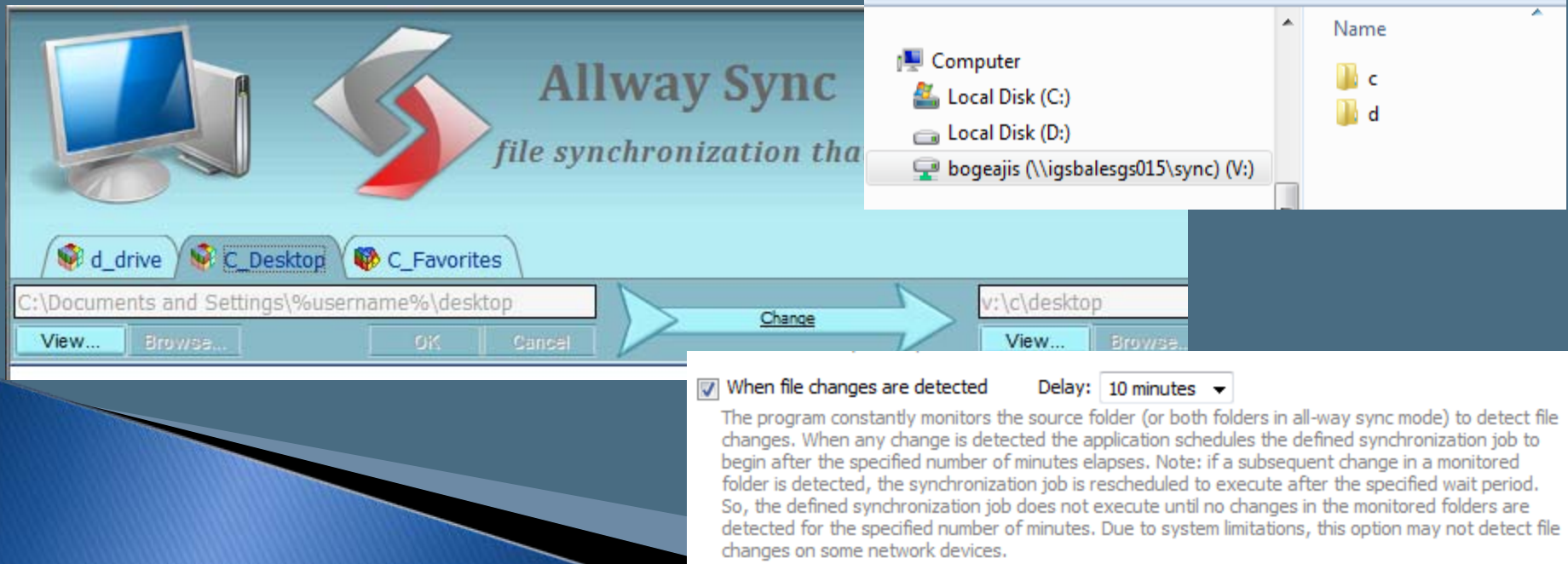
- Annual Data Report
- Area Ratings
 - 02233500 (selected)
 - 02236160
 - 02239501
 - 02239510
 - 02240000
 - 02240500

Files in the selected folder:

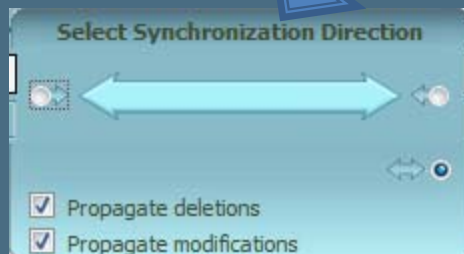
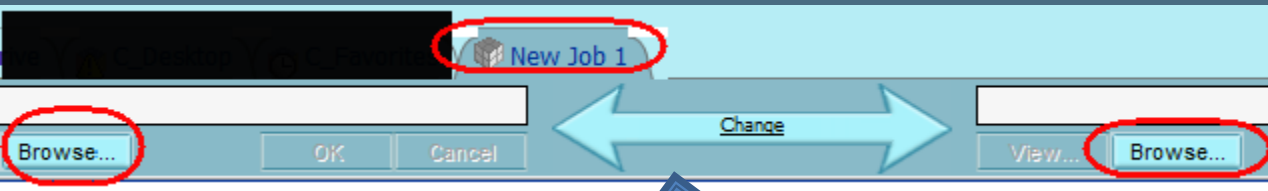
- 02233500_area.xls
- 02233500_main_channel.act
- 02233500_total_area_09.ac

Data – 3rd Party Software

- ▶ Allway Sync is an example of one product
- ▶ Allows laptop user to constantly keep files in sync with a server share as they work through the day and leave the server area to be backed up at night.



- ▶ Benefits
 - Syncs as you work
 - Data is local
- ▶ Concerns
 - May need actions if issues arise



Error Handling

Errors

Specify program behavior in case of different errors for manual and automatic (scheduled) synchronization in left and right columns correspondingly. Set "Stop" to stop synchronization session on the error. Set "Alert" to pause and show the error message to user. Set "Skip" to ignore the error. Set "Auto Retry" for automatic retry attempt.

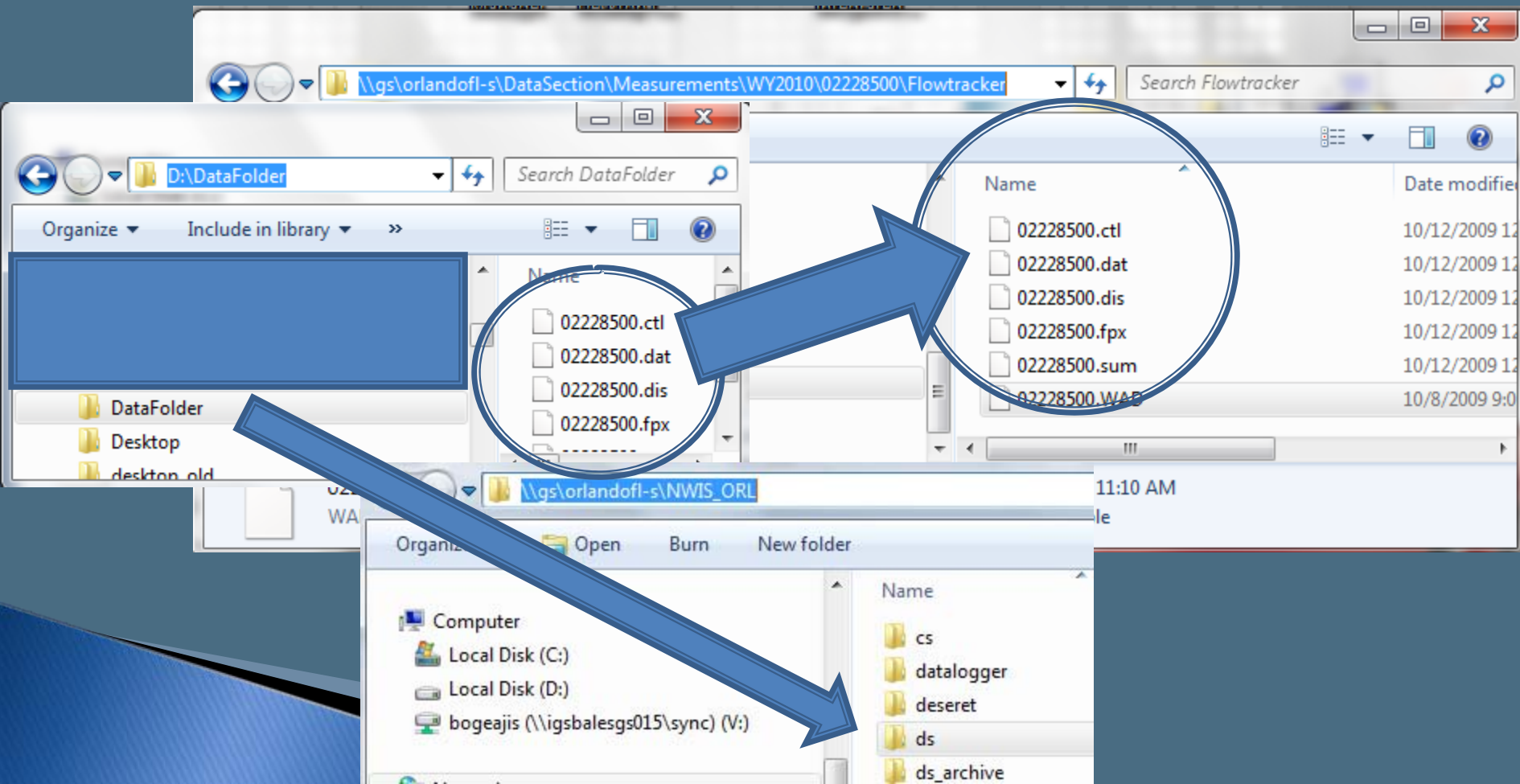
	Manual mode	Automatic mode
Device is not found Drive is not accessible.	Skip	Auto Retry
Network errors Access is not permitted.	Alert	Auto Retry
Other errors All errors not listed above.	Alert	Skip

☒ Start application system tray icon on system start-up

If you check this option the application starts automatically when you log on. The application is represented by a minimized icon in the task bar. Use this option when automatic synchronization is configured.

Data – Moving files to the office

- ▶ Manually moving important data back to the office is a good way to secure data



Data – Memory Stick

- ▶ It doesn't always have to be high tech
- ▶ The memory stick is a good way to secure new files and changes until you return to the office
- ▶ Any memory stick can be used for storing non sensitive data
- ▶ Encrypted memory sticks can be used to secure sensitive data
 - Data at Rest team is recommending McAfee Sticks
 - <http://bwtst.usgs.gov/security/encryption/>



Collaboration Tools

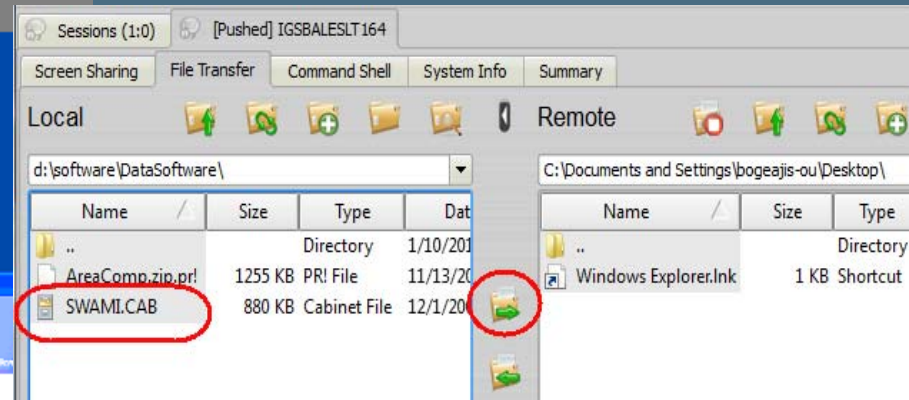
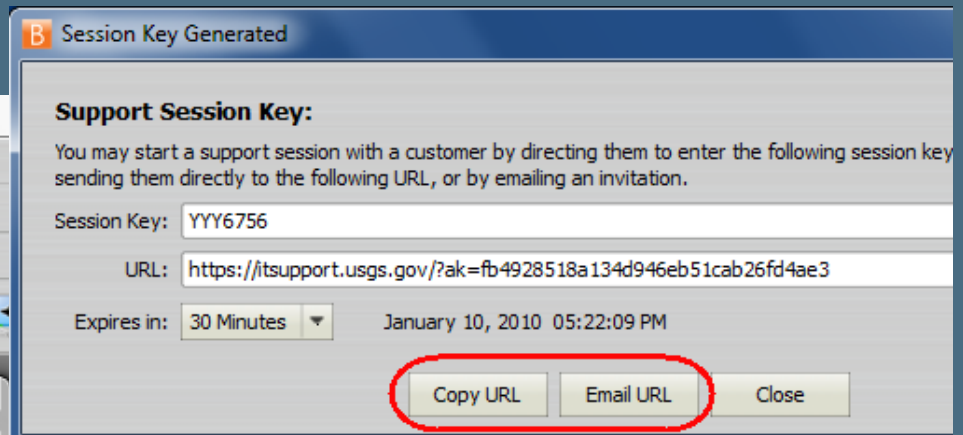
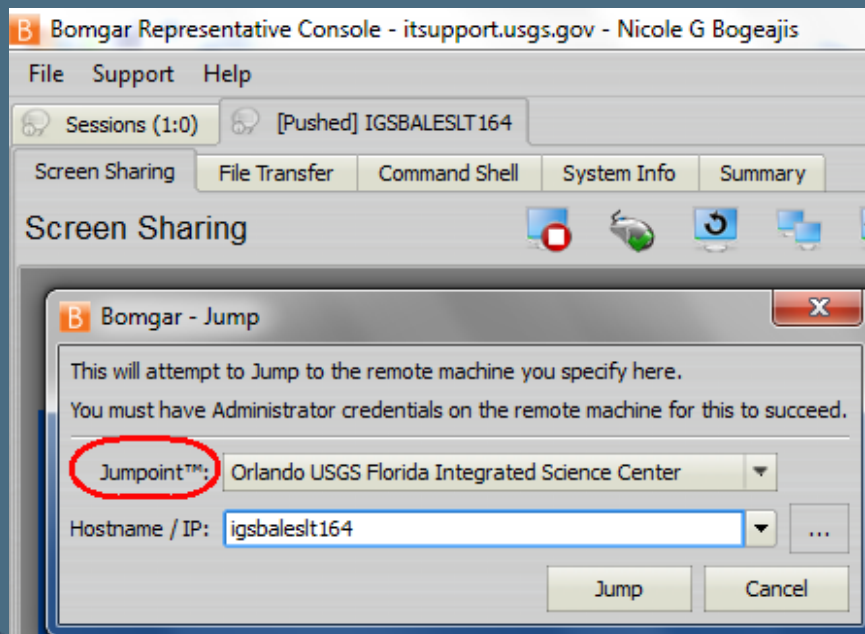
- ▶ Chatting – Sametime Chat
 - http://bwtst.usgs.gov/apps/training/didyouknow/Lotus/sametime_chat_configuration/
- ▶ Document Exchange
 - Sharepoints
 - Quickr Sites – <http://notes.usgs.gov/qp-overview.html>
 - Folder shares available through eRAS
- ▶ WebEx
 - More than just for presentations, document editing, video feed <http://usgs.web.com>

Support

- ▶ When you are away from the office, it is important to know how to get support
- ▶ Reboot first – we all know it solves most of the problems
- ▶ Local IT should always be your first point of contact
- ▶ Secondary support can be found through gs_service_desk@usgs.gov (insert #)
- ▶ Tools are available to remote control your system no matter where you are
- ▶ Gs_help_windows@usgs.gov is available to support IT in applying best practices to systems

Bomgar

- ▶ All you need is to be online – ANYWHERE
- ▶ http://bwtst.usgs.gov/os/desktop_management/



Helpful Settings

- ▶ Change system Time
 - http://bwtst.usgs.gov/os/xp/usgs_fdcc_xp_stig/KnownIssues.html
- ▶ Change Power Settings
 - <http://bwtst.usgs.gov/security/gpo/PowerSettings/>



Why do I still have a desktop
as a primary computer?





Lets answer a poll question.

What percentage of people on
your connection have a
desktop computer as their
primary computer?



Good Reasons to have a Desktop

- ▶ You never work outside of the office
- ▶ You run GIS, models, or processes that need higher performance or run for multiple days
 - Can this be a secondary computer?
 - Can this be a virtual computer?

Good Reasons to replace you Desktop with a Laptop

- ▶ Lower cost of ownership per person
 - Half the hardware/software/support
- ▶ Everything you need to do your job – at hand when you leave the office
- ▶ Always have the latest software and patches
- ▶ No data duplication and confusion with file transfer
- ▶ Fluid work process

How to effectively manage Laptops

- ▶ A discussion for another WebEX



Last poll question.

Please rank the content of this
WebEx?

