Section:

Remote Access Services User Guide

VIRTUAL PRIVATE NETWORK (VPN) OVERVIEW

Remote Access Services provide secure, cost-effective ways for mobile workers, telecommuters and non-government customers on external networks to access the Shared Provincial Access Network for British Columbia (SPAN/BC).

DEFINITIONS:

Virtual Private Network (VPN) allows your remote computer to connect securely to SPAN/BC over a public network like a wireless hotspot or home network and access Government network resources that include your Exchange e-mail, applications and shared data. the public Internet even when connected via a public wireless hotspot.

Remote Desktop Connection (RDC) is an application that allows you to use your remote computer to access your primary @ work SSBC Provisioned Workstation over the Internet via a VPN enabled connection. **Start Before Login (SBL)** is for SSBC Provisioned Mobile Workstations to establish the remote VPN connection to Exchange e-mail, applications, shared data, printers and drives.

1 REMOTE ACCESS VPN GUIDELINES AND PROCESS STEPS

Many employees today find themselves needing access to work documents and tools while outside of the office. Whether you are a Leading Workplace Stretegy participant, an employee who travels for work, or the type who likes to catch up while at home. Depending you your needs, there are several tools in the BC Public Service to help you get connected.

Please take a moment to complete the EXPLORING REMOTE ACCESS OPTIONS assessment. At the end of the assessment a suggested Remote Access tool will be presented. When selecting the right tool for you, consider what is operationally necessary, in contrast to what is merely helpful. There are costs associated with many of the tools offered, so be sure to discuss with your supervisor as to how to proceed.

SECURITY AWARENESS!

To ensure that Government security policies are not violated by any personal Internet activity, it is very important that you disconnect your VPN session as described in section 7 after you've completed your Government business.

If you do not disconnect your VPN session and proceed to do personal Internet activities, then be aware that your personal Internet data traffic will be traversing the Government data network, which may result in a Government policy violation, a security investigation and possible legal repercussions.

The Information Security Branch of the Office of the Chief Information Officer has developed resources to help explain information security best practices. To ensure you are in compliance with policy and are aware of best practices, refer to the Information Management/Information Technology (IM/IT) Strategic Policy web site. An additional OCIO Best Practice Guide for working with personal and/or confidential information outside the workplace is the Working Outside the Workplace resource document.

For questions or comments on pretecting yourself and government data please contact the Knowledge and Information Services, Ministry of Citizens' Services 250-356-0361 or http://www.cio.gov.bc.ca/cio/kis/infomgmt/index.page?

Cisco AnyConnect Security Mobility VPN Client System Requirements

If you are using Internet Explorer, use version 5.0, Service Pack 2 or later.

AnyConnect does not support virtualization software, such as VMware for any platform or Parallels Desktop for Mac OS. Although initial testing suggests that AnyConnect 2.5x running over VMware or Microsoft Virtual PC on Windows 7 will generally work, it has not been fully tested and is not guaranteed to be 100% reliable.

AnyConnect does not support sessions with a security appliance running on the same subnet. **(Review FAQ's)**

Microsoft Windows
If you are using Internet Explorer, use version 5.0, Service Pack 2 or later.

Windows Versions
• Windows Vista—32- and 64-bit Microsoft Windows Vista SP2 or Vista Service Pack 1 with KB952876.
• Windows XP SP2 and SP3.
• Windows 2000 SP4.

Windows Requirements
• Pentium class processor or greater.
• x64 or x86 processors on Windows XP and Windows Vista.
• 5 MB hard disk space.
• RAM:
    – 128 MB for Windows 2000.
    – 256 MB for Windows XP.
    – 512 MB for Windows Vista.
• Microsoft Installer, version 3.1.

3 USING THE CISCO ANYCONNECT VPN CLIENT

If you are using a SSBC Provisioned Mobile Workstation it should have the Cisco AnyConnect VPN Client installed, if not contact the Shared Service BC Service Desk at 7-7000 or toll-free 1-866-660-0811.

Skip to Section 3 for the Start Before Login Feature.

If you are NOT using a SSBC Provisioned Workstation you'll need to download, install and configure the Cisco AnyConnect VPN Client Software on your Personal Computer as described in Section 8
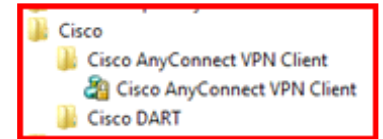

Figure 1

HOW TO CONNECT TO SPAN/BC USING CISCO ANYCONNECT VPN CLIENT

1. Click the **Orb** 🪟 **l All Programs|Click** the **Cisco AnyConnect VPN Client** (Figure 1)

2. Click the **Connection** tab at the top of the window (Figure 2)

3. **Connect to:** vpn2.gov.bc.ca (Figure 2)

4. Complete the **Group** field (Figure 2)

➢ *NOTE: Some Ministry's and BPS customers have requested specific "group" names be created to allow specialized configuration for their clients. To use a different "Group", click on the drop down arrow.*
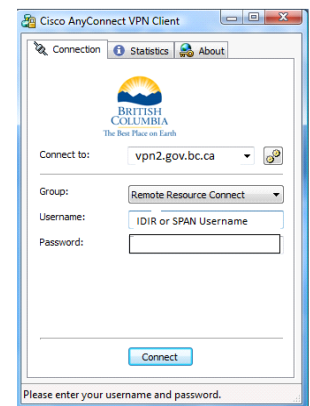

Figure 2

➢ The default "Group" name is "**Remote Resource Connect**". This group will provide access to resources that clients have authorization within SPAN/BC. This may include; applications, shares and printers.

➢ The "Group" name **"Remote Desktop Connect"** is specific for clients who require a connection to their SSBC Provisioned Workstation. The connection will allow Internet Explorer to launch the BCGOV web site to wake up a SSBC Provisioned Workstation and run the Remote Desktop Connection application.

5. In the **Username** and **Password** fields, type your DOMAIN or SPAN/BC Username and password (Figure 2)

6. Click [Connect] The **SPAN/BC VPN Gateway** alert opens (Figure 2)

7. Click [Accept] (Figure 3)

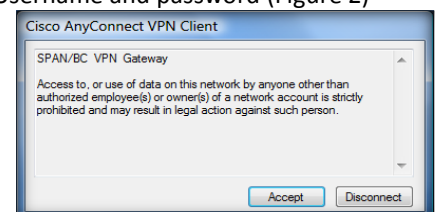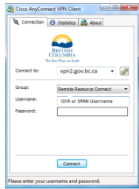8. The **Cisco AnyConnect VPN Client** icon is displayed in the task bar (Figure 4)

Figure 3

Figure 4

4   USING THE START BEFORE LOGIN FEATURE FOR A SSBC PROVISIONED WORKSTATION "FULL" FUNCTIONALITY

> *NOTE: You must ensure that you have already established a network connection either hardwired or via your Wireless. The best way to determine a connection is to login to your workstation as usual, confirm a network connection by opening your Browser e.g. http://www.google.ca. Once you have established a network connection, perform a logoff and follow the instructions as noted below.*

1. At the Windows Vista start window,
   Click **CTRL + ALT + DELETE**

2. Click **OK** at the Security Warning Screen (Figure 5)

3. Click **Switch User** (Figure 6)

4. Click the **Network Login** button at the bottom right of the screen (Figure 7)

5. Click the **Cisco AnyConnect** icon.

6. The **Connecting, please wait…**
   prompt is displayed on the screen (Figure 8)

7. The Cisco AnyConnect VPN Client dialog box appears, login with your DOMAIN or SPAN/BC Username   and password

8. Click **Accept** for the **SPAN/BC VPN Gateway**

9. You will get your login screen, except that it has the Microsoft Disconnect button in the lower-right corner of the screen. This is the only indication that the SBL connection is successful.

10. Click the **Other User** icon and login with your DOMAIN ID and password as you normally would.
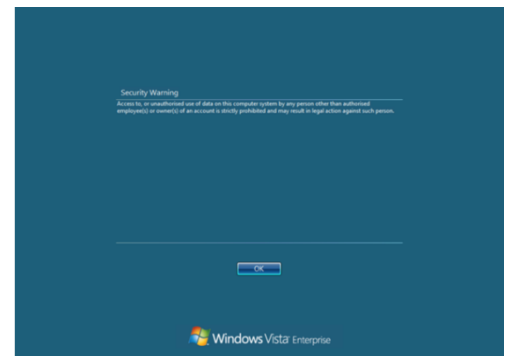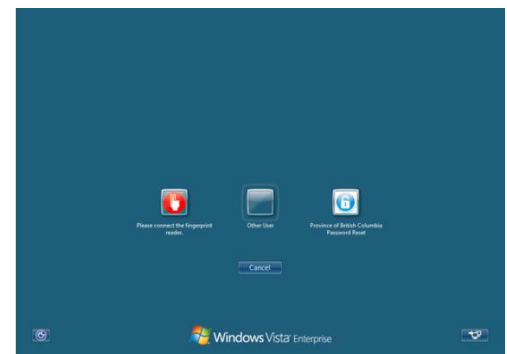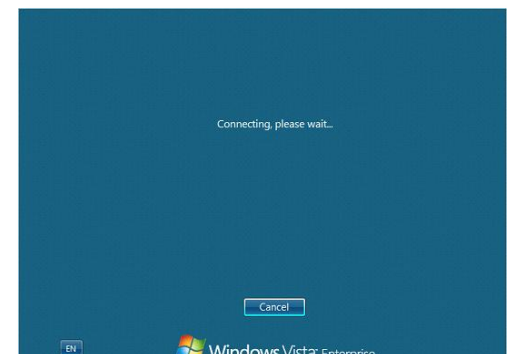

Figure 5

Figure 6

Figure 7

Figure 8

5 USING REMOTE DESKTOP CONNECTION FOR A PERSONAL COMPUTER "FULL" FUNCTIONALITY

BEFORE YOU START:

1. **BE SURE TO GET YOUR "@ WORK" SSBC PROVISIONED WORKSTATION NUMBER FROM THE TOP LEFT HAND CORNER OF YOUR DESKTOP AT WORK AND WRITE IT DOWN HERE _____**
2. **PRINT OFF THIS GUIDE TO USE AS A REFERENCE**
3. **Review FAQ's #17 "What do I need to do to use the Remote Desktop Connection"**

➢ *NOTE: Refer to the Remote Desktop Connection Guide for detailed information on using RDC and the SSBC WakeUp Site. If you are unable to connect to your SSBC Provisioned Workstation you may need to wake it up. Refer to section 6. For MAC or iOS users refer to section 10 Helpful Links.*
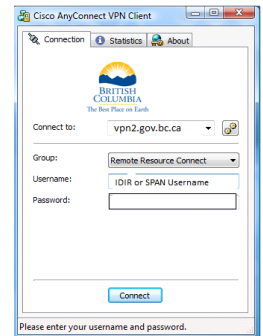

Figure 9

1. Click the **Orb** l **All Programs|Click** the **Cisco AnyConnect VPN Client**

2. Click the **Connection** tab at the top of the window (Figure 9)

3. **Connect to:** vpn2.gov.bc.ca (Figure 9)

4. Click the **Group** "Remote Desktop Connect" from the group dropdown menu

5. In the **Username** and **Password** fields, type your DOMAIN or SPAN/BC Username and password

6. Click [Connect] The **SPAN/BC VPN Gateway** alert opens

7. Click [Accept]

8. The **Cisco AnyConnect VPN Client** icon is displayed in the task bar (Figure 10)

9. Click the **Orb** |**All Programs** l **Accessories** l **Remote Desktop Connection**. The **Remote Desktop Connection** window opens (Figure 11)
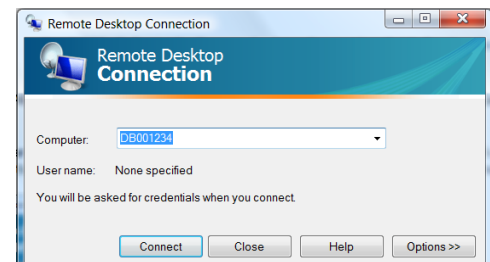
10. In the Computer field, type the name of your workstation (Figure 11)

11. Click [Connect] (Figure 11)

12. Type in your **credentials**, your **User name** and **Password** in the DOMAIN\Username format, click **OK** (Figure 12)

13. Click **OK** at the Security Warning Screen
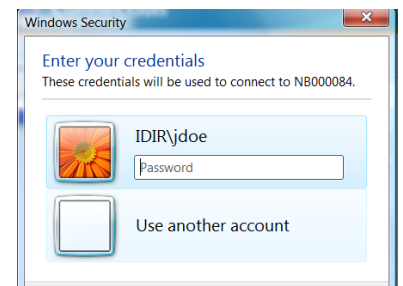
14. Your primary workstation desktop appears on the screen. You can now access your e-mail, applications, and data as though you were at the office. If it doesn't appear your desktop may have gone into Hibernation/Shutdown and must be woken up utilizing the SSBC Wakeup as in Section 6 (Figure 13)
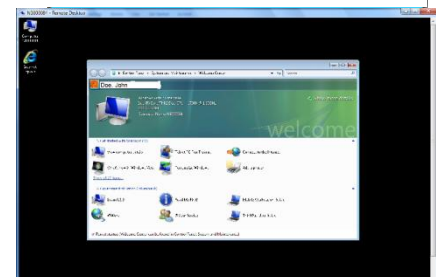
Figure 10

Figure 11

Figure 12

Figure 13

1. Connect to the Shared Services BC WakeUp site using your Web Browser at:
http://wswakeup.bcgov/
2. A Log on window appears. Type your **User name** and **Password** in the DOMAIN\Username format, click OK (Figure 14)
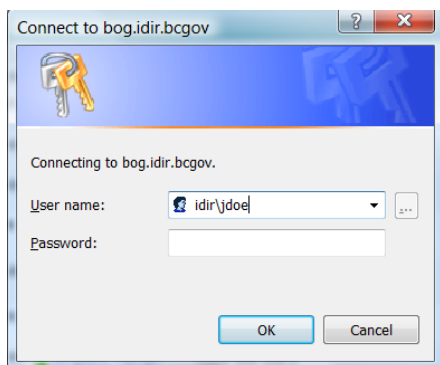
Figure 14

3. Type the **name of your primary @ work SSBC Provisioned Workstation**, click **Search** (Figure 15)

Figure 15

4. The Wake-Up screen appears. Click the Wake button (Figure 15)

Figure 16

5. A response similar to the screen below appears (Figure 17)

Figure 17

6. Close your web browser
7. After a few moments your primary workstation is ready for connection from your remote computer using the same instructions from Section 5 "Using Remote Desktop Connection"

7   DISCONNECT/QUIT FROM CISCO VPN CLIENT

➢ *NOTE: It is important that you disconnect after you've completed your session as VPN is charged @ an hourly rate based on usage. Be aware that if you do not disconnect your VPN session and proceed to do personal Internet activities, your personal Internet data traffic will be traversing the Government data network. This may result in a Government policy violation, a security investigation and possible legal repercussions. To ensure you are in compliance with policy and are aware of best practices, refer to the Information Management/Information Technology (IM/IT) Strategic Policy website.*

Figure 18

HOW TO DISCONNECT/QUIT FROM VPN

1.   Right click the **Cisco AnyConnect VPN Client** icon in the taskbar (Figure 18)
2.   Choose Quit or Disconnect (Figure 19)

➢ *Disconnect will close the VPN connection with the server and allow you to reconnect without starting the Cisco VPN AnyConnect Client again.*
➢ *Quit will close the Cisco VPN AnyConnect Client permanently. To resume a session will require the Cisco VPN AnyConnect Client to be re-established as in section 3.*
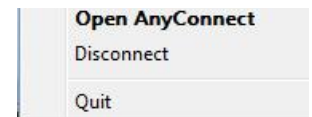
Figure 19

HOW TO DISCONNECT FROM REMOTE DESKTOP CONNECTION "RDC"

1 Click the **Orb** **the Arrow and Log Off** (Figure 20) "this will only terminate your RDC Connection, you will still need to disconnect from VPN to terminate your SPAN/BC Session as noted above "How to Disconnect from VPN"
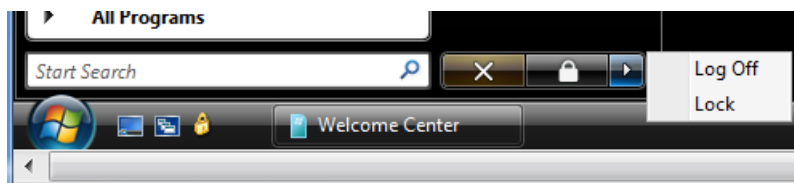
Figure 20

NOTE: The Cisco AnyConnect VPN Client software is provided at no charge for users of the SPAN/BC VPN Gateway service.

Cisco AnyConnect Secure Mobility VPN Client Downloads

- Windows & 64 Bit AnyConnect
- MAC – i386 AnyConnect
- MAC – PowerPC AnyConnect
- Linux AnyConnect
- Linux 64 Bit AnyConnect

1. **Remember to always uninstall any previous versions prior to downloading and installing any newer revisions using your Control Panel\Programs and Feature (Uninstall, Change or Repair) Windows utility.**
2. Download and run the installer for the Cisco AnyConnect client onto your desktop/laptop
3. Click "**Run**" (Figure 21)
4. The Cisco AnyConnect Welcome Box appears, Click **Next** (Figure 22)
5. The Setup Wizard Box appears, Click **Next** (Figure 22)
6. Select To Accept the License Terms, Click **Next** (Figure 23)

7. Ready to Install, click **Install** (Figure 25)

NOTE: Your Personal Computer may have the User Account Control activated and you may be prompted to allow the installation.

8. Click **Finish** to complete the installation (Figure 24)
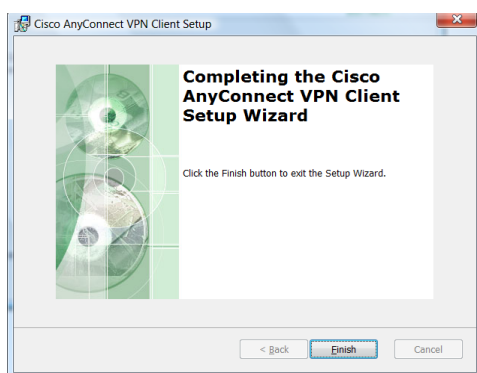
Figure 24

9. You have successfully installed the Cisco AnyConnect VPN Client. Refer back to **Section 3** and **Section 5** to connect to SPAN/BC
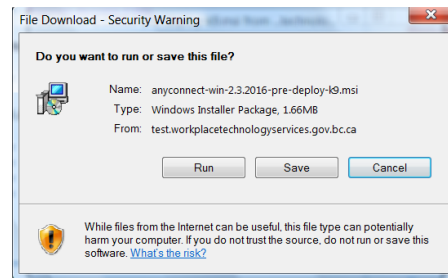
Figure 21
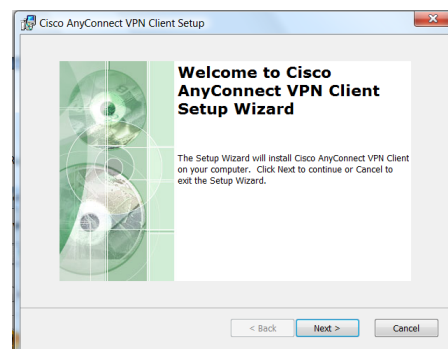
Figure 22
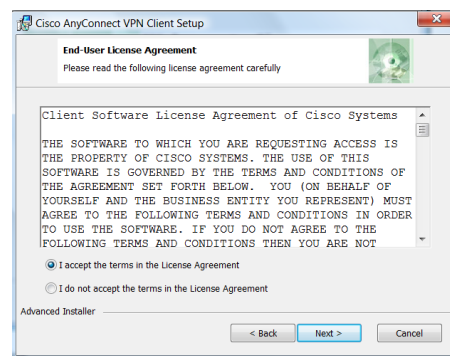
Figure 23
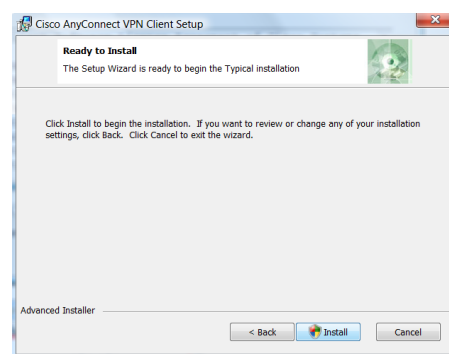
Figure 25

9   SPAN/DIAL (DAS)

For information on how to connect to SPAN/BC using the **SPAN/Dial** service**,** see:

SPAN/Dial Service Description, including Rates

https://workplacetechnologyservices.gov.bc.ca/services/remoteaccess/RemoteAccess.pdf

SPAN/Dial Phone Number

Toll-free Service V.90	1 (888) 873-6155

Available within North America

Delegated Administration System (DAS)

The DAS is used to manage the Remote Access accounts of other users (if you are authorized to do so) by logging into http://www.dial.gov.bc.ca/DAS/das.cgi.

User password management for SPAN Authenticated Users http://phobos.dial.gov.bc.ca/resetspanid.html

Remote Access Services - Related Documents, Service Requirements, User Guides, Forms and Download Links.

 Information Management/Information Technology Policies can be found on the Office of the Chief Information Officer web site. The OCIO has developed a **Working Outside the Workplace Policy**, a set of guidelines and a checklist to handle information incidents.

 Configuration parameters and security controls required for establishing a **Secure Wireless Local Area Network** whether or not a device is directly connected to the SPAN/BC network or alternate Internet Service Provider.

Standards of Conduct for Public Service Employees **-** The Government of British Columbia believes that the highest standards of conduct among public service employees are essential to maintain and enhance the public's trust and confidence in the public service.

Understand your responsibilities regarding the appropriate use of government information and communications technology as per the Standards of Conduct and **Chapter 12, Core Policy and Procedures Manual** .

USER GUIDES/DOWNLOAD LINKS:

 Remote Desktop Access - Remote Desktop Connection User Guide

Mobile Workstation Guide

11 FREQUENTLY ASKED QUESTIONS

1. **What is an DOMAIN account?**
   - Ministry users are setup with an DOMAIN user account to authenticate to resources within SPAN/BC; such as *file shares*, *email* and *applications*.
   - By submitting an iStore request, a client's DOMAIN account will gain access to the Remote Access Services (VPN and SPAN/Dial). See the Remote Access Service Catalogue site on How to Order Services in iStore.
   https://workplacetechnologyservices.gov.bc.ca/services/remoteaccess/order.htm

2. **What is a SPAN account?**
   - Broader Public Sector clients, who do not have an DOMAIN account, use a SPAN account to authenticate, through Remote Access Services (VPN or SPAN/Dial) to gain access to resources within SPAN/BC; such as *file shares*, *email* and *applications*.

3. **How do I change my SPAN password?**
   - If you have a SPAN account to access the Remote Access Services (such as BPS clients) and it has not "expired" you can change the password by going to:
   http://phobos.dial.gov.bc.ca/resetspanid.html
   - If the account has expired, call the Shared Service BC Service Desk at 7-7000 or toll-free 1-866-660-0811.

4. **I changed my DOMAIN password from another computer, now I cannot logon to the SSBC Provisioned mobile workstation. What can I do?**
   - If the workstation has not been connected to SPAN/BC to learn your new password, the old password will work to connect to the desktop. You will require the new password to logon to the VPN connection. Review the process to change your DOMAIN account password in the "Mobile User Guide".
   - SSBC recommends that when you change your DOMAIN password that you logon to the SSBC Provisioned mobile workstation with the new DOMAIN password while connected to SPAN/BC before working remotely.

5. **What Operating Systems does the Cisco AnyConnect VPN Client install on?**
   - SSBC has tested and supports the Cisco AnyConnect VPN Client on Windows Vista 32 bit
   - Other Operating System requirements supported by Cisco are detailed in section 12.

6. **When launching the Cisco AnyConnect VPN Client I need to pick a "group" name. What name do I pick from the dropdown list?**
   - Some Ministry's and BPS customers have requested specific group names for clients to allow for specific security settings. If this is the case, you will have been notified by your account administrator.
   - By default, the "Remote Resource Connect" group will be shown. This group will provide access to all resources clients have when making the connection into SPAN/BC with an SSBC Provisioned workstation. This includes applications, shares, printers etc.
   - The "Remote Desktop Connect" group is specific for clients who will use the Remote Desktop Connection application to connect to a SSBC provisioned workstation. Full details on using the MS Windows version of the Remote Desktop Connection User Guide can be found at
   https://workplacetechnologyservices.gov.bc.ca/workstations/userguides_guides.htm

7. **Why does everything seem slow when using VPN?**
   - If the SSBC Provisoined workstation has not been recently connected to SPAN/BC, critical patches may need to be installed. To verify that this is the issue, right click on the Systems Management Server icon from the desktop as shown below.

   Systems Management Server updates icon. Right click, click on "show details" to display updates ready to install.

   9:50 AM
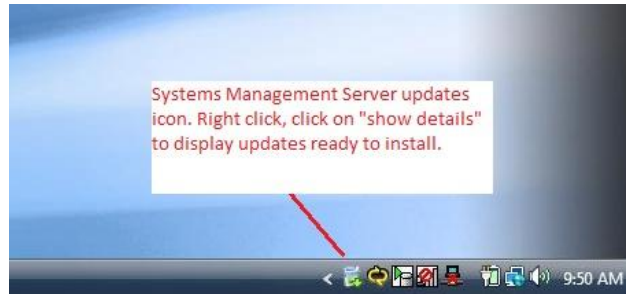
   - Microsoft has changed the way a VPN connection is used on a Vista workstation. It has been determined that there could be performance issues for users with Offline files enabled. Full details on how to resolve this issue can be found in the below article. http://technet.microsoft.com/en-us/library/cc749449(WS.10).aspx#BKMK_Improved
   - Call your Internet Service Provider to ensure your connection does not have any issues.

8. **Using an SSBC Provisioned Workstation the "Start Before Logon" feature doesn't always connect when I'm using a wireless network. I receive the error "Connection attempt has failed due to un-resolvable host entry".**
   - A VPN connection requires that the workstation be connected to a network. This will require that you logon with the CTRL-ALT-DEL screen, confirm an Internet connection, then logoff and connect via VPN using the "Network Logon" screen as in section 4.
        - Examples of this are:
        - Using a connection from a hotel where you need to open an Internet Browser and enter the hotel authentication.
        - Using a Rogers Wireless Rocket Stick (WWAN) with an USB Connection.
        - Using a wireless network for the first time.
   - To automatically detect the network connection, ensure the Network Setting is set to "Connect automatically when this network is in range". To set this on a Vista mobile workstation verify the following settings:
        - Open "Network and Sharing Center"
        - Under Tasks (on the left panel), click "Manage wireless networks". This brings up a dialog that lists the wireless network connections you have created
        - Right click on the wireless connection that you want to view its settings (Properties).

9. **When using the Cisco Anyconnect VPN Client I have the choice to "Quit" or "Disconnect". What is the difference?**
   - **Disconnect** will close the VPN connection with the server and allow you to reconnect without starting the Anyconnect application again.
   - **Quit** will close the VPN connection and exit from the Anyconnect client.

10. **I have a Windows XP Personal Computer (PC). Which VPN client should I use?**
   - SSBC recommends only using the VPN clients available through our downloadable links in section 8. Please be sure to uninstall any previous versions.

11. **Why can I not use my local LAN access devices? This may include shared LAN drives or wireless printers.**
    o To address security vulnerabilities this level of access is disabled. To ensure you are in compliance with policy and are aware of best practices, refer to the Information Security Awareness website.

12. **I can't access my Line of Business Application through my group profile**
    o If a Domain authenticated users password expires or is locked the system won't allow you into your normal RAS account profile, but still allows some access with a default IP which will prevent you from gaining access through a Ministry defined firewall etc.
        ▪ You must call the support line at 250-387-7000, or toll-free 1-866-660-0811, to have your password reset.
    o If a SPAN authenticated users password expires or is locked the system won't allow you into your normal RAs account profile, but still allows some access with a default IP which will prevent you from gaining access through a Ministry defined Firewall etc.
        o You can reset your SPAN ID through the password management tool, but only if you know your old password http://phobos.dial.gov.bc.ca/resetspanid.html or call the Shared Service BC Service Desk at 7-7000 or toll-free 1-866-660-0811.

13. **How do I get the Cisco VPN Anyconnect client?**
    o The Cisco Anyconnect client has been deployed to SSBC Provisioned mobile workstations. If it did not get installed, call the support line at 250-387-7000, or toll-free 1-866-660-0811, to request it.
    o If you are using a non-SSBC provisioned workstation, and you have administrator privileges, the client can be downloaded from the Remote Access Services User Guide: https://workplacetechnologyservices.gov.bc.ca/services/remoteaccess/documents.htm
    o Customers who are not authenticating through the Shared Services BC Domain must contact their Delegated Administration System (DAS) Administrator or sponsoring Ministry Information Security Officer (MISO), alternatively they may contact their Service Centre contact.

14. **I am using Vista on a SSBC provisioned workstation. How do I get my SPAN/BC network drives or printers?**
    o If you require the DOMAIN Domain Logon script to run, which will map your corporate shared drives and printers, you will need to use the "Start Before Login" feature as in section 4.
    o This feature is only available if a specific add-on has been installed. It is not supported on networks outside of SPAN/BC (i.e. at home networks).

15. **I have a laptop that supports both wireless and wired connections and having problems connecting using the wired connection.**
    o Full details on how to use the wireless feature on the SSBC Provisioned mobile workstation can be found in the "Mobile Workstation Guide" posted in the Remote Access Service Catalogue:

       https://workplacetechnologyservices.gov.bc.ca/workstations/Mobile_User_Guide.pdf

16. **My @home ISP is Shaw and I am having connection issues:**

- Ensure your workstation has Internet connectivity by bringing up the browser and opening up a site. If there is no connectivity, call your provider for assistance.
- Shaw Secure has some settings that block certain traffic. If you have connectivity to the network but cannot connect through VPN, call your provider for assistance on enabling specific traffic to allow the connection.

17. **Are you having performance issues while using a SSBC Provisioned "Vista" mobile workstation?**
    - Software Updates
        - Software updates are scheduled to download and run throughout the week. If there are several updates to be applied (due to not logging onto the Government network frequently) it may take a few minutes for them to be applied.
        - Workaround: ensure the mobile workstation is connected to the Government network every week.
    - Changes to Offline files from Windows XP to Vista
        - In Windows XP, if the Offline file setting was disabled and a VPN session was started, it would stay disabled. In Vista, once a VPN session is started Offline files will automatically be enabled. This will then:
            - Synchronize the offline files
            - Automatically retrieve files from shares instead of the cached offline files
        - Suggested workaround: manually set the offline files to disabled. NOTE: this means users will need to reset it to enable.

18. **What do I need to do to use the Remote Desktop Connection?**
    - The Remote Desktop Connection User Guide has details on how to connect to a Remote workstation. Review the steps in this link: https://workplacetechnologyservices.gov.bc.ca/workstations/RemoteDesktopConnectionUserGuide.pdf
    - Refer to the section "What do I need to use the Remote Desktop Connection" before starting. In short, you will need:
        - A connection to the internet
        - The name of your primary workstation (i.e.: DB00123)
        - Remote desktop access permissions to your primary workstation
        - The name of the operating system installed on your remote computer
        - The Microsoft Remote Desktop Connection tool
        - Access to the Remote Access VPN Service.

19. **Windows 7 Installation error "The VPN client agent was unable to create the interprocess communication depot"**
    - This error is caused by Internet Connection Sharing (ICS) being enabled. You can disable ICS:

        - Click the **Start** button.
        - Click on **Control Panel**.
        - Click on **View Network Status and Tasks**
        - Click on **Change adapter settings**
        - Right-click the shared connection and choose Properties
        - Click the Sharing tab
        - Clear the **Allow other network users to connect through this computer's Internet connection** checkbox

- Click OK
  - **You can then try and reinstall the VPN Client again.**

12 MAC AND LINUX SYSTEM REQUIREMENTS FOR CISCO ANYCONNECT VPN CLIENT

Cisco AnyConnect VPN Client System Requirements

Linux

The following sections show the Linux distributions and requirements.

Linux Distributions

AnyConnect supports Linux Kernel releases 2.4 and 2.6 on 32-bit architectures, and 64-bit architectures that support biarch (that is, that run 32-bit code).

The following Linux distributions follow the requirements and work with the AnyConnect Client:

- Ubuntu 7 and 8 (32-bit only).
- Red Hat Enterprise Linux 3 or 4. (As of publication, we have not tested AnyConnect with Red Hat Linux 5.
- Fedora Core 4 through 9. To use Fedora 9 with the AnyConnect client, you must first install Sun Microsystems JRE, preferably JRE 6, Update 5 or higher.
- Slackware 11 or 12.1.
- openSuSE 10 or SuSE 10.1.

Linux Requirements

- x86 instruction set.
- 32-bit or biarch 64-bit processor—standalone mode only; web-based install/connect is not supported.
- 32 MB RAM.
- 20 MB hard disk space.
- Superuser privileges.
- libstdc++ users must have libstdc++ version 3.3.2 (libstdc++.so.5) or higher, but below version 4.
- Firefox 2.0 or later with libnss3.so installed in /usr/local/lib, /usr/local/firefox/lib, or /usr/lib. Firefox must be installed in /usr/lib or /usr/local, or there must be a symbolic link in /usr/lib or /usr/local called firefox that points to the Firefox installation directory.
- libcurl 7.10 or later.
- openssl 0.9.7a or later.
- java 1.5 or later. The default Java package on Fedora is an open-source GNU version, called Iced Tea on Fedora 8. The only version that works for web installation is Sun Java. You must install Sun Java and configure your browser to use that instead of the default package.
- zlib or later.
- gtk 2.0.0,
  gdk 2.0.0,
  libpango 1.0.
- iptables 1.2.7a or later.
- tun module supplied with kernel 2.4.21 or 2.6.

Mac OS

AnyConnect supports Mac OS X Versions 10.4 and 10.5. It requires 50 MB hard disk space. Refer to Helpful Links in section 10 for VPN client and installation instructions.

13 VERSION HISTORY

Document Control/Major Revisions

Date	Change Reference
November 2010	Removed Legacy Client Information
August 2011	Updated the VPN client download links Minor revisions to change WTS references to SSBC
	Updated Security Awareness Information, installation instructions. MAC and/or iOS Helpful Links.
	Updated Security Awareness Information as per OCIO recommendations.
November 2011	Updated the VPN client download links to Version 2.5.3055 per service bulletin #292
August 2012	Updated with new RAS Assessment tool, modified for internal publication, minor edits and updated client software hyperlinks.