

Avaya VPN Client Software Release 10.06_300

1. Release Summary

 Release Date
 June 14th, 2013

 Release Version
 10.06_300

 Prior Release
 10.06_200 (Jan 28th, 2013)

Minor corrective content service pack to address customer and software issues.

2. Important Notes before Upgrading to This Release

Users who upgrade from a v10.05 or earlier release to v10.06 may receive the following error dialogue when attempting to establish an IPSec VPN tunnel – "Activation of VPN Adapter Failed". This issue occurs when AVC's filter adapter is not upgraded correctly during software installation.

Please refer to Section 9 "Known Limitations" for further information.

3. Platforms Supported

The following operating systems including all available service packs are fully supported:

Microsoft Windows 8 (32-bit and 64-bit) Microsoft Windows 7 (32-bit and 64-bit) Microsoft Windows Vista (32-bit and 64-bit) Microsoft Windows XP (32-bit and 64-bit)

4. VPN Server Support

The Avaya VPN client has been certified for use with the following Avaya Access Control and Unified Branch products:

Avaya VPN Gateway Avaya Secure Router Avaya VPN Router *

* The Avaya VPN Router is EoMS (End of Manufacturing Support) for Software. Support services are provided for the client software only.



5. Interoperability

The following represents a list of known interoperability issues with the Avaya VPN Client and 3rd Party Vendor operating systems or applications.

□ McAfee VirusScan v8.8

Users of McAfee VirusScan v8.8 may experience a Blue Screen of Death (BSOD) at random times on active VPN connections. The vendor has identified mfewfpk.sys as the cause. A hotfix is available from the vendor as of October 2011 and is available in McAfee VirusScan v8.8 Repost 1 or above. Please apply the hotfix or use McAfee VirusScan v8.8 Repost 1 (or later release).

□ **Microsoft Internet Explorer v8** (on Windows XP)

Microsoft has acknowledged that a bug exists in Internet Explorer 8 on Windows XP installations. Browsing websites (such as facebook.com) using Internet Explorer 8 may cause high CPU utilization.

□ Microsoft Windows 7 IPv6 6to4 Adapter Duplicates (Microsoft KB980486)

The following issue affects Windows 7 installations. A new Microsoft 6to4 adapter (for IPv6 to IPv4 translation) is unexpectedly created after you restart Windows 7. Over time the number of 6to4 adapters will increase and potentially lead to improper routing table alteration. This prevents the VPN Client from creating a VPN tunnel.

Microsoft has provided a hot fix for this problem and is documented by Microsoft KB 980486. More information can be found at <u>http://support.microsoft.com/kb/980486</u>.

□ Avaya NetDirect Client

The Avaya VPN Client (AVC) must not be installed on the same client machine in which either the Avaya VPN Gateway (AVG) NetDirect Installable Client (NDIC) or NetDirect portable client (ActiveX or Java-based) is installed, or vice-versa. Doing so may result in unexpected client behaviors. The AVC client may report "Failed to Activate the VPN Adapter". Ensure that conflicting clients are uninstalled prior to installation of either AVC or NDIC/NetDirect.

DNS Binding Priority with Windows Operating Systems

By design, Windows operating systems will prioritize 3G, 4G, WWAN (Mobile Broadband) or PPP broadband NICs (Network Interface Cards) at a higher priority than standard locally attached NICs. This prioritization supersedes the DNS server information assigned by the Avaya VPN Client to the Avaya VPN Adapter installed on the host machine. As a result the Avaya VPN Client may not work as expected when used with such 3G, 4G, WWAN (Mobile Broadband) or PPP adapters. Clients may experience the inability to correctly perform DNS (Domain Name System) address resolutions or resolve FQDN (Fully Qualified Domain Names). As a result applications may not function as expected if DNS or FQDN addresses are not resolved correctly.

While this issue will mostly affect 3G, 4G, WWAN (Mobile Broadband) or PPP adapters it can apply to any locally installed or attached NIC on the host operating system depending on the adapter binding priority.

An optional workaround has been added in the 10.06_022 release (and above) as noted in the Enhancement section and is only intended to be used by clients using Mobile Broadband adapters.



6. Feature & Enhancements Introduced

No new features or enhancements have been added in Release 10.06_300. All features and enhancements added apply to all future releases from the "Where Added" release unless specifically removed or modified and noted below.

Features Added

Where Added	Summary	Description
10.06_200	Windows 8 Support	Support for Windows 8. The newly released Windows 8 from Microsoft introduced some changes to Windows 7 that previous versions of AVC cannot install and/or work properly on it. Adjustments have been made in this release of AVC to address those issues.
10.06_022	Two Factor Authentication	The TFA mechanism introduced in this release is in compliance with the Payment Card Industry (PCI) security standards. It supports the dual authentication of "Certificate + Username/Password". This feature works with Avaya VPN Gateway (AVG) v9.0 and Avaya VPN Router (AVR). For more details about this feature, please refer to documentation for AVG, AVR and AVC.
10.06_022 (wi01015489)	Profile & Configuration Import/Export	 This feature allows users to import or export selected profiles and/or configurations. The path selection textboxes for import and export are purposely put at different positions to help users distinguish the two dialogs from each other easily. Screenshots are available below. Notes: Importing/Exporting between different versions of AVC may not work and is not recommended Users can only import profiles and configurations to which they have write access to.



Where Added	Summary	Description	
		Avaya VPN Client	Select the import path: C:\Users\Fred\Documents Select the items you want to import: Public profiles Private profiles Private profiles Default user configuration Default user configuration
		Help About Close	
		💆 Avaya VPN Client	
10.05,022	SucoAdontor	VPN Client Manage Profiles View Logs Manage Options Import Export Help About	Select the items you want to export: Public profiles Private profiles Public machine configuration Private user configuration Perfault user configuration Default user configuration Select the export path: C:Wsers/Fred/Documents Note: A new folder named AvcExport will be created under the import path. Selected items will be put inside it.
10.06_022 (wi00830401) (wi00982866)	SwapAdapter Binding Prioritization	"Interoperability" By default, this er	inding Prioritization concern described in ' the following enhancement has been made available. hhancement is not enabled and must be enabled either allation or during runtime to activate.



Where Added	Summary	Description
		Notes: 1. This option only applies to IPSEC tunnel connection profiles at this time.
		For those Administrators who want their end users to use the option, two steps are needed:
		1. Show the option.
		This can be done at Install time or Run time.
		<u>Install time method</u> : Set custom install switch "ShowSwapAdapters" to TRUE. The ShowSwapAdapters is a custom install switch, which is used to control whether to show the run time option "Set higher precedence for VPN Adapter" (described in second item). It can be passed in from nvcsetup.ini or MSI command line. For more details about custom install, please refer to the document "Avaya VPN Client – Install and Upgrades".
		<u>Runtime method</u> : Add registry key value SwapAdapters with DWORD type under HKLM\Software\Avaya\Avaya VPN Client. The key value's existence controls the option's appearance. If it's deleted, the option will disappear too. The key value's value represents the choice - 1: on; 0: off.
		 Turn on the option After the previous step, launch the AVC by right clicking the program shortcut and then selecting "Run as administrator", the option would be selectable as shown in the figure below.



Where Added	Summary	Description
		Avaya VPN Client VPN Client Disconnect dialup connection when VPN is disconnected Enable Certificate Revocation List validation for server certificate Send unencrypted packets to debugger View Logs Manage Options Import Export Logging Level Debug Information Varning Error Fatal Disabled Linformation Varning Error Fatal Disabled
10.06_022 (wi00982866)	TrustAvaya Custom Install Option	The custom install option "TrustAvaya" was introduced in v10.04.100 to support Complete Silent Install. It used to be an MSI command line option only. In this release, we made it acceptable to the custom install setup file Nvcsetup.ini. This will make installer's customization easier.

Features Removed

No features have been removed or modified.



7. Closed Issues

Issues Resolved in THIS Release

Bug ID	Release	Description
wi01066387	10.06_300	Removal and re-installation of the VPN Client did not restore VPN adapter configurations (such as MTU) to system defaults.
wi01069254	10.06_300	AVC SSL Tunnel mode may randomly fail to retrieve the banner.
wi01076085	10.06_300	The Avaya VPN Client was previously unable to handle fragmented UDP frames resulting in data loss. This functionality has been added.
wi01082043	10.06_300	VPN Client Does Not Send UDP Keepalives In NAT Environments.
wi01086545	10.06_300	Manual Removal Instructions to Repair Broken Windows 8 Installation.
wi01090553	10.06_300	VPN Client Route Monitoring for SSL Tunnel Mode is inconsistent or not working as expected.
wi01090556	10.06_300	The VPN Client disconnects a user due to detected route table changes (via route monitoring) if the client machine's local area connections renew their DHCP lease while a tunnel is active - and the DHCP server returns a default gateway value (normal in most environments).
wi01105916	10.06_300	Changes introduced by wi01059319 in 10.06.200 may result in the client returning error "General System Problem." This has been resolved.
wi01090812	10.06_300	AVC/SSL connection drops while roaming when original metric lower than VPN adapter.

Issues Resolved in PREVIOUS Release(s)

Bug ID	Release	Description
wi01041435	10.06_200	Traffic to overlapping network of Split net and Local net got blocked.
wi01031645	10.06_200	AVC SwapAdapter feature does not reprioritize the VPN Adapter binding order
		for SSL tunnel types.
wi01011920	10.06_200	AVC may Orphan NetBT NameList registry entries if ungracefully terminated.
wi01047768	10.06_200	NVR interoperability - banner issues with specific IP address pool for Windows
		7 users.
wi01043584	10.06_200	Installing AVC over same version in silent mode causes error.
wi01058523	10.06_200	AVC 10.06.104 IPSec Tunnels might drop during server initiated rekey.
wi01049421	10.06_200	Unsigned EAC Miniport Driver Blocked by Windows XP OS. A new binder.exe
		utility has been included in the installation directory (default:
		%ProgramFiles%\Avaya\Avaya VPN Client) on Windows XP systems to assist
		with remediating this issue.
wi01056647	10.06_200	AVC may crash when connecting through an unstable wireless access point.
wi01059319	10.06_200	Sometimes WINS Servers may not take effect in Windows XP.
wi01068400	10.06_200	Dial-up not working properly on 32 bit platforms.
wi01028196	10.06_200	Client fails to properly identify Windows XP x64 operating system which may
		result in improper client operation.
wi01009468	10.06_104	BSOD (Blue Screen of Death) may occur on Windows 7 multi-core machines if
		Symantec Endpoint Protection v11.x is installed.



Bug ID	Release	Description
wi01002823	10.06_104	AVC 10.04.108+ Incompatibility with AT&T 4G USB Modem.
wi01011943	10.06_104	AVC "Display Warning" or "Disconnect" Limitation. Previously the VPN client would be abruptly terminated if a user attempted to shut down or restart the
		host machine. Now the tunnel is gracefully disconnected prior to shut down or restart.
wi01032791	10.06_104	Disconnect the VPN tunnel when AVC service is closed/stopped.
wi01003255	10.06_022	Split Tunnel Failure on Windows 7.
wi00860526	10.06_022	Mobility for IPSEC doesn't work properly on Windows 7 and XP.
wi00972868		
wi00947857	10.06_022	IPsec split tunneling mode enabled_inverse_local does not enforce its
		restrictions on sessions already established before the tunnel was created.
wi00956803	10.06_022	Cached VPN adapter drivers not cleaned up on Windows 7.
wi00995550	10.06_022	Disconnecting a tunnel may cause service crash.
wi00981906	10.06_022	Fetching banner from different AVG when DNS Round Robin used.
wi01006672	10.06_022	AVC may Orphan DNS Suffix Entries if ungracefully terminated.

8. Open Issues

Bug ID	Found In	Found In Previous Releases	Description
wi01069666	10.06_104	All	Repeated failover between wired and wireless connections may cause mobility failure.
wi01100993	10.06_200	All	AVC PLAP (Pre-Logon Access Provider) feature intermittently fails in Windows 8.



9. Known Limitations

Known Limitations apply to all 10.06 releases unless specifically noted.

Bug ID	Description
wi00928966	Users who upgrade from a v10.05 or earlier release to v10.06 on Windows XP may receive the following error dialogue when attempting to establish an IPSec VPN tunnel – "Activation of VPN Adapter Failed". This issue occurs when the AVC filter driver is not upgraded correctly during software installation.
	As a precautionary measure, rebooting the machine before an upgrade installation is highly recommended. If the problem does occur, the workaround would be to uninstall and then reinstall the client. Please note, uninstall will remove all profiles and configurations. If users want to carry them over to the following reinstallation, they can use the Import/Export feature to export them before uninstall and import them back after reinstallation. For more details about the Import/Export feature please see Section 7 of this document.)
wi00951988	Component modification after installation is not supported.
wi00932075	Canceling uninstall in the middle may cause faulty rollback.
wi01100994	OSK (On-Screen Keyboard) does not launch on touchscreen based Windows 7 and Windows 8 PC and Tablets.

For other known issues, please refer to the product release notes and technical documentation available from the Avaya Technical Support web site at: <u>http://www.avaya.com/support</u>

Copyright © 2013 Avaya Inc - All Rights Reserved.

The information in this document is subject to change without notice. The statements, configurations, technical data, and recommendations in this document are believed to be accurate and reliable, but are presented without express or implied warranty. Users must take full responsibility for their applications of any products specified in this document. The information in this document is proprietary to Avaya.

To access more technical documentation, search our knowledge base, or open a service request online, please visit Avaya Technical Support on the web at: <u>http://www.avaya.com/support</u>



Appendix: OpenSSL License

Third Party Terms for VPN Client release 10.01 thru 10.06 (December 2008- August 2013)

Certain portions of the product ("Open Source Components") are licensed under open source license agreements that require Avaya to make the source code for such Open Source Components available in source code format to its licensees, or that require Avaya to disclose the license terms for such Open Source Components. For a period of three years from your date of purchase of a product containing any of the software listed below from Avaya Inc., any Avaya affiliate or an authorized Avaya reseller, we will provide upon request a complete machine readable copy of the source code for such Open Source Component on a medium customarily used for software interchange for a charge no more than our cost of physically performing source distribution. To get access to the source code, you may contact Avaya at (408) 577-7666.

The Open Source Components are provided "AS IS". ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR THE CONTRIBUTORS OF THE OPEN SOURCE COMPONENTS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THE PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The following component is licensed under the OpenSSL license:

Component

Copyright

openssl Copyright (C) 1995-1998 Eric Young. All rights reserved. Copyright (c) 1998-2004 The OpenSSL Project. All rights reserved.

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

```
OpenSSL License
```

/* _____ * Copyright (c) 1998-2004 The OpenSSL Project. All rights reserved. * Redistribution and use in source and binary forms, with or without * modification, are permitted provided that the following conditions * are met: * 1. Redistributions of source code must retain the above copyright * notice, this list of conditions and the following disclaimer. * 2. Redistributions in binary form must reproduce the above copyright * notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.

* 3. All advertising materials mentioning features or use of this



* software must display the following acknowledgment: * "This product includes software developed by the OpenSSL Project * for use in the OpenSSL Toolkit. (http://www.openssl.org/)" * * 4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to * endorse or promote products derived from this software without * prior written permission. For written permission, please contact * openssl-core@openssl.org. * 5. Products derived from this software may not be called "OpenSSL" * nor may "OpenSSL" appear in their names without prior written * permission of the OpenSSL Project. * 6. Redistributions of any form whatsoever must retain the following * acknowledgment: * "This product includes software developed by the OpenSSL Project * for use in the OpenSSL Toolkit (http://www.openssl.org/)" * THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE * * IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR * PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR * ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, * SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT * NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; * LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) * HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, * STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) * ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED * OF THE POSSIBILITY OF SUCH DAMAGE. * _____ * This product includes cryptographic software written by Eric Young * (eay@cryptsoft.com). This product includes software written by Tim * Hudson (tjh@cryptsoft.com). * / Original SSLeay License /* Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com) * All rights reserved. * This package is an SSL implementation written * by Eric Young (eay@cryptsoft.com). * The implementation was written so as to conform with Netscapes SSL. * This library is free for commercial and non-commercial use as long as * the following conditions are aheared to. The following conditions * apply to all code found in this distribution, be it the RC4, RSA, * lhash, DES, etc., code; not just the SSL code. The SSL documentation * included with this distribution is covered by the same copyright terms * except that the holder is Tim Hudson (tjh@cryptsoft.com). * Copyright remains Eric Young's, and as such any Copyright notices in * the code are not to be removed. * If this package is used in a product, Eric Young should be given attribution * as the author of the parts of the library used. * This can be in the form of a textual message at program startup or * in documentation (online or textual) provided with the package. * Redistribution and use in source and binary forms, with or without



* modification, are permitted provided that the following conditions are met: * 1. Redistributions of source code must retain the copyright * notice, this list of conditions and the following disclaimer. 2. Redistributions in binary form must reproduce the above copyright * notice, this list of conditions and the following disclaimer in the * documentation and/or other materials provided with the distribution. * 3. All advertising materials mentioning features or use of this software * must display the following acknowledgement: "This product includes cryptographic software written by * Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the rouines from the library being used are not cryptographic related :-). * * 4. If you include any Windows specific code (or a derivative thereof) from * the apps directory (application code) you must include an acknowledgement: * "This product includes software written by Tim Hudson (tjh@cryptsoft.com)" * THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND * ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE * FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL * DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS * OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) * HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT * LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY * OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF * SUCH DAMAGE. * The licence and distribution terms for any publically available version or * derivative of this code cannot be changed. I.e. this code cannot simply be * copied and put under another distribution licence

- * [including the GNU Public Licence.]
- */