Barracuda Network Access Client

Release Notes - Barracuda NAC/VPN Client for Windows

https://campus.barracuda.com/doc/46206550/

Before installing the new software version, back up your configuration and read all of the release notes that apply to the versions that are more current than the version that is running on your system.

Do not manually reboot your system at any time while the update is in process, unless otherwise instructed by Barracuda Networks Technical Support.

You can download the install files for the Barracuda Network Access Client from http://login.barracudanetworks.com

Firmware Version 4.3

- Barracuda Network Access Client version 4.3 is the direct successor to Barracuda Network Access Client version 4.2 and contains all improvements and features delivered with version 4.2.
- Updating to Barracuda Network Access Client 4.3 is possible for any prior version.

Before installing the Barracuda Network Access Client 4.3 on Windows 7, the following Microsoft update must be applied: KB3033929

Improvements Included with the Barracuda Network Access Client 4.3

- This update addresses a local privilege escalation vulnerability. (BNNGF-52248)
- An arbitrary file write possibility has been fixed. (BNNGF-52486)

Firmware Version 4.2

- Barracuda Network Access Client version 4.2 is the direct successor to Barracuda Network Access Client version 4.1 and contains all improvements and features delivered with version 4.1.
- Updating to Barracuda Network Access Client 4.2 is possible for any prior version.

Before installing the Barracuda Network Access Client 4.2 on Windows 7, the following Microsoft

update must be applied: and [KB3033929](#)

Improvements Included with the Barracuda Network Access Client 4.2

- DNS suffix assignment was improved. (BNNGF-50117)
- VPN adapter handling default mode is now set to disconnect/connect by default. (BNNGF-49286)
- The VPN Client now successfully terminates pending tunnels if the One Time Password dialog is cancelled by the user. (BNNGF-42183)
- Custom search patterns were added to the X.509 certificate selection. (BNNGF-47817)
- It is no longer possible to modify existing installations of the Network Access Client via the installer. (BNNGF-45707)
- Client log no longer erroneously reports 'VPN Ruleset - Client has no NAC License' error message. (BNNGF-43784)
- Quick connect via the Windows system tray icon no longer asks for certificate if not required. (BNNGF-43281)
- VPN Client updates within minor versions no longer introduce an additional VPN adapter. (BNNGF-41250)

Firmware Version 4.1

- Barracuda Network Access Client version 4.1 is the direct successor to Barracuda Network Access Client version 4.0 and contains all improvements and features delivered with version 4.0.
- Updating to Barracuda Network Access Client 4.1 is possible for any prior version.

Before installing the Barracuda Network Access Client 4.1 on Windows 7, the following Microsoft update must be applied: and [KB3033929](#)

What's New with the Barracuda Network Access Client 4.1

- One-time password handling has been improved. (BNNGF-42183)
- Process monitor causing Event 1000 errors has been fixed. (BNNGF-34830)
- Metric adjustment for VPN adapter reordering now works automatically for Windows 7 clients. (BNNGF-34849, BNNGF-34748)

Improvements Included with the Barracuda Network Access Client 4.1

- False positive: VIRUS alert for "NACConsoleLoader.exe" by McAfee, MS Endpoint Protection, and K7 Anti-Virus has been fixed. (BNNGF-44732)
- Reconnect with wrong AD no longer locks users. (BNNGF-42479)
- VPN Client no longer freezes when a user cancels the OTP reconnect dialog. (BNNGF-42183)
- Windows Firewall is no longer wrongly disabled/enabled in some cases. (BNNGF-41745)

- IPv6 VPN tunnel does not terminate any longer if ENA is enabled. (BNNGF-40995)
- VPN Client IPv6 connecting issues have been fixed. (BNNGF-40989)
- RSA SMS token usability has been improved. (BNNGF-40601)
- Concurrent VPN user sessions now work properly for X.509 certificates. (BNNGF-40382)
- Spac and phionvpn drivers have been repaired after Windows 10 upgrades. (BNNGF-40099)
- VPN Client - Windows 10 application error - EventID 1000 has been fixed. (BNNGF-34830)
- Various bug fixes based on Windows error reporting. (N/A)

Firmware Version 4.0

- Barracuda Network Access Client version 4.0 is the direct successor to Barracuda Network Access Client version 3.7.
- Updating to Barracuda Network Access Client 4.0 is possible from any prior version.

Before installing the Barracuda Network Access Client 4.0 on Windows 7, the following Microsoft update must be applied: and [KB3033929](KB3033929)

What's New with the Barracuda Network Access Client 4.0

- Support for IPv6 envelope client-to-site connections to Barracuda NextGen Firewall F version 7.0 or later.

Improvements Included with the Barracuda Network Access Client 4.0

- Installation of the VPN-only component of the Barracuda Network Access Client no longer writes Windows error logs on startup. (BNNGF-38084)
- Barracuda Network Access Client no longer causes high CPU load and high memory usage if certain anti-malware solutions are installed. (BNNGF-37252)
- It is no longer possible to delete the only remaining VPN profile. (BNNGF-37248)
- The VPN Always On tray icon no longer appears multiple times. (BNNGF-36708)
- Settings in the *customer.inf* file are no longer overwritten when installing the VPN client in unattended installation mode. (BNNGF-30067)
- Setup installer improvements and removal of deprecated components/parameters. (BNNGF-38507)

Firmware Version 3.7

- Barracuda Network Access Client version 3.7 is the direct successor to Barracuda Network Access Client version 3.6 and contains all improvements and features delivered with version 3.6 hotfix 209 and 3.6 hotfix 303.
- Updating to Barracuda Network Access Client 3.7 is possible for any prior version.

Before installing the Barracuda Network Access Client 3.7 on Windows 7, the following Microsoft update must be applied: and [KB3033929](KB3033929)

As of Barracuda Network Access Client 3.7, support for Windows Vista is discontinued.

What's New with the Barracuda Network Access Client 3.7

- Support for new group policy feature **VPN Client NAC: Required** introduced with NG Firewall 6.2.1. (BNNGF-35247)
- Pre-Domain Logon (Single Sign-On) support for X.509-based VPN profiles. (BNNGF-35347)
- UI improvements for new "VPN Always On" feature. (BNNGF-29906)
- Support for X.509 authentication for multiple, concurrent client-to-site VPN sessions by the same user. Note that this feature requires Barracuda NextGen Firewall F version 6.2.1 or higher and a valid Premium Remote Access subscription. (BNNGF-35671)

Improvements Included with Barracuda Network Access Client 3.7

- VPN Adapter Prioritization (Adapter Reordering) now works as expected on Windows 10. The corresponding settings have been renamed. (BNNGF-34849, BNNGF-34748)
    - **Automatically reorder adapters** renamed to **Automatically prioritize VPN adapter**.
    - **Order VPN Adapter** renamed to **VPN Adapter Prioritization**.
- VPN Client service no longer crashes when using Adapter Reordering on Windows 10. (BNNGF-32120)
- Manual IP address assignment for the VPN adapter now works as expected. (BNNGF-29343)
- Uninstalled driver packages are no longer listed in the Windows control panel. (BNNGF-31552)
- The VPN profile configuration option "Certificate Selection Dialog" now works as expected. (BNNGF-35997)
- VPN status notifications in the Windows tray no longer become unresponsive. (BNNGF-31581)
- phions.log and phionha.log log files are no no longer filled with Windows Security Center events generated by 3rd-party anti-malware software. (BNNGF-31413)
- VPN Client service no longer crashes when Windows leaves hibernation mode. (BNNGF-33140)
- Ruleset may not get activated properly after terminating a VPN connection. (BNNGF-29759, BNNGF-33029)
- Resizing of certain user interface windows now works as expected. (BNNGF-32513)
- VPN connections on Windows 10 are no longer terminated when Pre-Domain Logon is enabled. (BNNGF-36711)
- VPN connections are now correctly terminated on Windows 10 if "Disconnect when user logs of" is enabled. (BNNGF-36712)
- Various bug fixes based on Windows Error Reporting.
- Updating from Windows 7 to Windows 10 no longer fails if Barracuda Network Access Client 3.6 with HF209 is present. (BNNGF-32589)
- The OPSWAT Library was updated to version 4.2.761.0. (BNNGF-34048)
- The driver for the Personal Firewall is now certified for Windows 10. (BNNGF-33554)

Firmware Version 3.6

Barracuda Network Access Client version 3.6 is the direct successor to version 3.5 and contains all improvements and features delivered with version 3.5.

System Requirements

Operating Systems	Windows Vista (32-bit, 64-bit), Windows 7 (32-bit, 64-bit), Windows 8 (32-bit, 64-bit), Windows 8.1 (32-bit, 64-bit), Windows 10 (32-bit, 64-bit) with installed hotfix 209.
Disk Space	• Complete installation: 250 MB • VPN Client only: 200 MB
RAM	• Windows 7, Windows 8: 1 GB (32-bit) or 2 GB (64-bit) • Windows Vista: 1 GB
CPU	• Windows Vista, Windows 7: 1 GHz or faster with 32-bit (x86) or 64-bit (x64) • Windows 8: 1 GHz or faster with PAE, NX and SSE2 support

What's New with the Barracuda NAC 3.6

- Support for SHA-256, SHA-384, and SHA-512 certificate hash functions.
- The VPN authentication timeout is now configurable.
- The Always On feature allows system administrators to force VPN clients to have a permanent VPN connection (which cannot be turned off by the end user), thereby preventing unprotected Internet connections.
- Enhanced client health checks are now configurable in the personal firewall configuration (i.e., they can now be disabled). With new installations, enhanced client health checks are now disabled by default.

Updates

The OPSWAT Library was updated to version 4.1.187.0.

Improvements Included with Barracuda Network Access Client Version 3.6

- The VPN Client's user interface controls are no longer visible on the Windows lock screen. (BNNGF-28943)
- Importing multiple valid certificates now works as expected and no longer leads to incorrect expired messages. (BNNGF-22939)

Barracuda NAC 3.6 Hotfix 104

Barracuda Network Access Client version 3.6 hotfix 104 is a hotfix to be applied on Barracuda Network Access Client 3.6.

Improvements Included with Barracuda Network Access Client Hotfix 104

- The Barracuda Network Access Client no longer crashes on MS Windows 8/8.1 64-bit when using AES256 encryption. (BNNGF-31018)
- The **Establish VPN connection prior to Logon** (Credential Provider (SSO)) setting is now configurable. (BNNGF-30428)
- VPN connections now work as expected when using SHA256 certificates from the local machine store. (BNNGF-30518)
- The lock screen interception for the VPN Client's user interface controls is now configurable. (BNNGF-30427)
- VPN Always On - User Interface improvements. (BNNGF-30256)
- The Barracuda Network Access Client now disables VPN server probing correctly, if configured. (BNNGF-30549)
- Health revalidation now works correctly in case of changes on the network adapter. (BNNGF-30255)

In order to use SHA256 hashing algorithm, Barracuda Network Access client version 3.6 requires properly issued certificates. When using a Microsoft Certificate Authority, make sure to use a key storage provider as described here:
https://technet.microsoft.com/en-us/library/dn771627.aspx

Barracuda NAC 3.6 Hotfix 209

Barracuda Network Access Client version 3.6 hotfix 209 is a hotfix to be applied on Barracuda Network Access Client 3.6.

Improvements Included with Barracuda Network Access Client Hotfix 209

- Added support for Credential Provider on Microsoft Windows 10. (BNNGF-32121)
- System Report - Improved data collection handling when retrieving OS information. (BNNGF-31521)
- Adapter reordering no longer results in VPN client crashes on Microsoft Windows 10. (BNNGF-32121)
- OESIS Library Update - Improved product detection and several bug fixes. (BNNGF-31505)
- Added support for multiple concurrent VPN user sessions. (BNNGF-30584)

Firmware Version 3.5

- Barracuda Network Access Client version 3.5 is the direct successor to version 3.4 hotfix 304 and contains all improvements and features delivered with version 3.4 hotfix 304.
- Barracuda VPN Client 3.6 is the direct successor to version 3.2 hotfix 8 and contains all improvements and features delivered with version 3.2 hotfix 8.

System Requirements

Operating Systems	Windows XP, Windows Vista (32-bit, 64-bit), Windows 7 (32-bit, 64-bit), Windows 8 (32-bit, 64-bit), Windows 8.1 (32-bit, 64-bit)
Disk Space	• Complete installation: 250 MB • VPN Client only: 200 MB
RAM	• Windows XP: 64 MB (recommended: 128 MB) • Windows 7, Windows 8: 1 GB (32-bit) or 2 GB (64-bit) • Windows Vista: 1 GB
CPU	• Windows XP: Pentium 233 MHz (recommended: 300 MHz) • Windows Vista, Windows 7: 1 GHz or faster with 32-bit (x86) or 64-bit (x64) • Windows 8: 1 GHz or faster with PAE, NX, and SSE2 support

What's New with the Barracuda NAC 3.5

- **On-demand VPN connection** – The On-Demand VPN connection feature allows a dedicated VPN connection to defined IP networks. If users are trying to establish a network connection to a specified IP network, the connection is only allowed through a VPN connection, and the VPN tunnel is, therefore, automatically built up on-demand.
- **VPN Reconnection** – The VPN reconnection mechanism was redesigned to improve the connection time. The overall time for VPN reconnections could be significantly reduced.
- **PowerShell integration** – The Barracuda Network Access Client can now be controlled through a dedicated PowerShell. PowerShell integration includes the following features:
    - VPN connect/disconnect
    - VPN profile management
    - VPN/Health Agent settings
    - Master password and MS credentials
    - Policy server and health validation
    - On-Demand VPN configuration
    - Personal Firewall configuration
    - VPN status information
- **RSA New Pin Mode support** – The Barracuda Network Access Client now supports RSA New Pin mode (user-generated PINs).

Updates

- The OPSWAT Library was updated to version 3.6.8068.2.

Improvements Included with Barracuda Network Access Client Version 3.5

- OpenSSL update to version 0.9.8za. (BNNGF-24010)
- The Personal Firewall no longer crashes when running on MS Windows touch devices. (BNNGF-23357)
- The VPN user interface now correctly determines the VPN connection state for users containing white spaces in the username. (BNNGF-23287)
- The install wizard now also works correctly on MS Windows XP. (BNNGF-22889)
- Establishing manual VPN connections (rvpn.exe) through proxy servers without specifying host names and port no longer leads to subsequent failing connection attempts of vpn.exe. (BNNGF-22757)
- The VPN Client no longer crashes when using ENA (Exclusive Network Access) and hot-pluggable network adapters. (BNNGF-22483)
- Context menus can now be correctly accessed via keyboard shortcut (Shift+F10). (BNNGF-22375)
- The MS Vista/Windows 7 credential crashed on very rare occasions. This issue has been fixed. (BNNGF-22322)
- VPN profile settings now also support SHA256 as hashing algorithm. (BNNGF-22216
- Basic authentication as fallback authentication method now works as expected. (BNNGF-22170)
- The Settings window of the Personal Firewall no longer loads with the default settings instead of the configured values. (BNNGF-21911)
- The Personal Firewall no longer crashes when closing the Settings window when no ruleset is selected. (BNNGF-21894)
- The DCE/RPC firewall plug-in now correctly works with MSRPC on 64-bit machines. Also, the plug-in now supports IPv6. (BNNGF-21442)
- OPSWAT version detection now works correctly even if the registry key VersionOpswat is not present. (BNNGF-21369)
- The login screen now always displays a Barracuda-specific message, even if Pre-Domain Login and Direct Access are disabled. (BNNGF-21349)
- OS detection now works correctly for MS Windows 8.1. (BNNGF-21248)
- Authentication with usernames less than 3 characters now works correctly. (BNNGF-21219)
- The Personal Firewall's process monitor can now be terminated correctly. (BNNGF-20321)
- The behavior for enabling/disabling the Personal Firewall was reworked. It is no longer possible to disable the Personal Firewall if a ruleset is assigned. Also, the master password is no longer required to enable the Personal Firewall. (BNNGF-20044)
- Added input validation for allowed IPv6 prefixes and MAC address in the Router Advertisement Guard configuration. (BNNGF-20210)
- Updating MS login credentials via rvpn commend now works correctly. (BNNGF-19559)
- Disabling Windows IP Auto Configuration now works as expected on Windows XP. (BNNGF-19248)
- Added warning and information items to the log viewer and current status messages. (BNNGF-19184)
- Reordering of lists now works as expected. (BNNGF-18821)
- Enumerating certificates from the predefined (physical) certificate stores no longer triggers an error message. (BNNGF-17305)
- phionvpn.sys occasionally crashed. This issue has been fixed. (BNNGF-16260)

Firmware Version 3.4

Barracuda Network Access Client version 3.4 is the direct successor to version 3.2. Version 3.3 was only an internal release and was therefore not made available to the public. Prior to Barracuda NG Firewall firmware release version 5.2.3, it was (for compatibility reasons) possible to establish a client-to-site VPN connection using any VPN client, even though Exclusive Network Access (ENA) was configured on the Barracuda NG Firewall. With version 5.2.3 or higher, you must have the Barracuda Personal Firewall (including the packet filter SPAC) installed on Windows clients. Otherwise, a connection to the VPN server is blocked.

System Requirements

Operating Systems	Windows XP, Windows Vista (32-bit, 64-bit), Windows 7 (32-bit, 64-bit), Windows 8 (32-bit, 64-bit)
Disk Space	• Complete installation: 250 MB • VPN Client only: 200 MB
RAM	• Windows XP: 64 MB (recommended: 128 MB) • Windows 7, Windows 8: 1 GB (32-bit) or 2 GB (64-bit) • Windows Vista: 1 GB
CPU	• Windows XP: Pentium 233 MHz (recommended: 300 MHz) • Windows Vista, Windows 7: 1 GHz or faster with 32-bit (x86) or 64-bit (x64) • Windows 8: 1 GHz or faster with PAE, NX and SSE2 support

What's New with the Barracuda NAC 3.4

New Firmware Features

SPAC Driver Windows 8 Certified

As of Barracuda Network Access Client version 3.4, the Secure Personal Access Client (SPAC) driver within the Barracuda Network Access Client has been certified for Windows 8 by Microsoft.

Windows 8 Virtual Smart Card Supported

As of Barracuda Network Access Client version 3.4, Windows 8 Virtual Smart Card authentication is supported. The Virtual Smart Card is a new strong authentication technology that emulates hardware smart cards.

For more information on Windows 8 Virtual Smart Cards, see Using Virtual Smart Cards with Windows 8.

mils Hardware Encryption Supported

Release version 3.4 of the Barracuda Network Access Client supports hardware authentication and encryption technology by _mils electronic GmbH & Co KG_.

> For more information on the strong authentication and encryption products of _mils electronic_, see http://www.mils.com/.

Improvements Included with Barracuda Network Access Client Version 3.4

- In Barracuda Personal Firewall and predecessor versions 3.0 to 3.2, an internal issue occasionally created erroneous TCP-RST packets when resetting the traffic stream due to a ruleset change. An appropriate enhancement has been included. (BNNGF-18181)
- In Barracuda Network Access Client version 3.2, the **Remote Server** field within the VPN profile configuration had a length limitation that erroneously prevented certain URLs from being entered into the field. An appropriate enhancement has been included. (BNNGF-18077)
- In Barracuda Network Access Client version 3.2, the VPN Client's GUI occasionally froze after the **Message of the Day** pop-up window was closed by the user. An appropriate enhancement has been included. (BNNGF-17726)
- In Barracuda Network Access Client version 3.2, if a new network adapter was added to the system after the client setup had been completed, the **Firewall** property within the network adapter configuration incorrectly reflected the adapter state. An appropriate enhancement has been included. (BNNGF-17670)
- With Windows User Account Control (UAC) enabled, it was not possible to launch the Barracuda VPN control from within the Windows Control Panel in Barracuda Network Access Client version 3.2. An appropriate enhancement has been included. (BNNGF-17505)
- In Barracuda Network Access Client 3.1 hotfix 4 and 3.2, logging in using the **Enable MS Logon** option did not work as intended if the password contained white space characters. An appropriate enhancement has been included. (BNNGF-17396)
- In Barracuda Network Access Client versions prior to 3.4, certain functions of the integrated virtual keyboard did not work as intended. Appropriate enhancements have been included. (BNNGF-17240)
- In Barracuda Network Access Client version 3.2, the **Change Server Password** function did not work as intended if a wrong 'old' password was given. In such cases, the client confirmed a successful password change although the password was in fact not changed. An appropriate enhancement has been included. (BNNGF-18820)

Barracuda NAC 3.4 Hotfix 101

Barracuda Network Access Client version 3.4 hotfix 101 is the direct successor to version 3.4.

Prior to Barracuda NG Firewall firmware release version 5.2.3, it was (for compatibility reasons) possible to establish a client-to-site VPN connection using any VPN client, even though Exclusive Network Access (ENA) was configured on the firewall. With version 5.2.3 or higher, you must have the Barracuda Personal Firewall (including the packet filter SPAC) installed on Windows clients. Otherwise, a connection to the VPN server is blocked.

Update with Barracuda Network Access Client Version 3.4 Hotfix 101

New Firmware Feature: Pre-Domain Logon

The pre-domain logon feature delivered with this update lets you create a client-to-site VPN connection using TINA on Windows Vista, Windows 7, and Windows 8 PCs even before the user is logged on to the domain. This allows users to remotely log on to the domain for the first time. It also lets you connect to the VPN and Windows domain using single sign-on. On the Windows login screen, the end user has the option to use Barracuda single sign-on to establish a VPN connection for a selected VPN profile prior to logging into Windows.
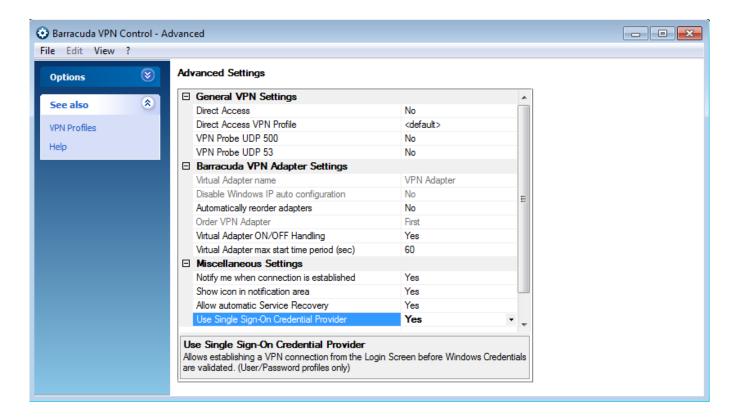
Intended Use Case

This feature is designed to be used if client-to-site VPN is integrated with Active Directory for authentication. This ensures that the Windows user credentials match the client-to-site VPN user credentials. It provides the user with a quick and easy single sign-on user experience.

Setup

Pre-domain logon can be enabled by setting the 'Use Single Sign-On Credential Provider' in **VPN Control > Advanced** to **Yes**. The credential provider will then automatically be installed.

Prerequisites and Limitations

- Works only with username / password VPN authentication (preferably MSAD – see intended use case above).
- In order to establish a VPN connection, the Internet connection must be accessible before logging on to the PC. This means that this feature will not work if, for example, the connection uses a guest Wi-Fi requiring a web form to be filled in to connect.
- A VPN profile using the required connection parameters must have been previously set up on the PC.
- The certificate for the VPN must already be trusted since the user cannot be prompted during the single sign-on to trust a certificate. See the **Temporary Root Certificate** setting.

Barracuda NAC 3.4 Hotfix 207

Barracuda Network Access Client version 3.4 hotfix 207 is the direct successor to version 3.4 hotfix 101.

Update with Barracuda Network Access Client Version 3.4 Hotfix 207

OPSWAT update: The OPSWAT Library was updated to version 3.6.8068.2.

Improvements Included with Barracuda Network Access Client Version 3.4 Hotfix 207

- The following message is no longer generated in the gateway's VPN status: `Reverse Routing Check Failed`
- The Active Directory check no longer terminates VPN sessions.
- The E1000E network driver within VMware no longer causes high CPU usage.
- With Microsoft Windows 8.1, firewall.exe did not start, on rare occasions. Hotfix 207 fixed this issue.

Barracuda NAC 3.4 Hotfix 304

Barracuda Network Access Client version 3.4 hotfix 304 is the direct successor to version 3.4 hotfix 207.

Improvements Included with Barracuda Network Access Client Hotfix 304

- Importing multiple valid certificates now works as expected and no longer leads to incorrect expired messages. (BNNGF-22937)
- Improved network address change notification on systems with disabled IPv6 protocol support. (BNNGF-22442)
- Probing of MS Active Directory services now works as expected. (BNNGF-22392)
- Direct Access now works as expected when NAC is installed in VPN Only mode. (BNNGF-22392)
- In very rare cases, firewall.exe crashed at startup. (BNNGF-22441)

Figures

1. nac_3.4_101.png