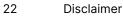
Release Notes

Advanced VPN Client Windows 6.22 Rel / 5.23 Rel

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1. Preface

The LANCOM Advanced VPN Client Windows provides mobile employees with encrypted access to the company network, whether they are at their home office, on the road, or even abroad.

This document describes the innovations within the Advanced VPN Client Windowssoftware releases 6.22 Rel and 5.23 Rel, as well as the improvements since the previous versions.

The client needs a license key of the same version for activation. Activation or update installation is no longer possible with an old license key. This applies from now on for every upcoming major version.

2. The release tag in the software name

Release Candidate (RC)

A Release Candidate has been extensively tested by LANCOM and includes new LCOS featurses. It is suitable for testing and is not recommended for use in productive environments.

Release Version (REL)

The release version has been extensively and successfully tested in practice. It contains new features and improvements over previous LANCOM operating system versions and is therefore recommended for use in productive environments.

Release Update (RU)

A release update is a further development of an initial release version in productive environments and contains minor improvements, security fixes, bug fixes and smaller features.

Security Update (SU)

Contains important security fixes for the respective LANCOM operating system version and ensures that your security level remains very high on an ongoing basis in your productive environment.



3. Requirements

Supported Microsoft Windows operating systems

You can see a list of supported operating systems / versions here: https://knowledgebase.lancom-systems.de/pages/viewpage. action?pageId=37457174

HotSpot registration

For the correct function of the HotSpot login, at least version 101.0.1210.39 of the Microsoft WebView2 runtime must be installed.

New directory structure

For reasons of operational security and compatibility with Windows, the directory structure of the LANCOM Advanced VPN Client has been changed as of version 5.0. The following directories, which were located in the installation directory within **Programs\LANCOM\Advanced VPN Client** in older client versions, are now located in **ProgramData\LANCOM\Advanced VPN Client**:

- \rightarrow arls
- \rightarrow cacerts
- → certs
- → config
- \rightarrow crls
- \rightarrow CustomBrandingOption
- → data
- → hotspot
- \rightarrow log
- → statistics

These are configuration files, certificates, or log files. Binaries or resources remain in the path **Programs\...**

During an update process, the new directory structure is automatically created and the client configuration is transferred accordingly. Thus, configuration paths within the certificate configuration that contain the variable **%InstallDir%** are rewritten to paths with **%CertDir%**. Here **%CertDir%** denotes the path **C:\ProgramData** LANCOM\Advanced VPN Client\certs.

Note:

The configuration entry %CertDir%\client1.p12 is equivalent to client1.p12.





4. History Advanced VPN Client Windows version 6.x

Advanced VPN Client Windows 6.22 Rel Build 30766

Bugfixes / improvements

→ VPN bypass configuration of an application with wildcard The creation of an application-based VPN bypass rule requires the specification of the complete file path of the relevant application. For Firefox, this file path is by default:

C:\Program Files\Mozilla Firefox\firefox.exe

For cloud applications, it can be helpful to include a wildcard (valid within a directory level) in their file path, as a new file path is often created with an application update. Below is an example for Microsoft Teams:

C:\Program Files\WindowsApps\MSTeams_23285.3607.2525.937_

x64__8wekyb3d8bbwe\ms-teams.exe

We recommend configuring the file path as follows:

C:\Program Files\WindowsApps\MSTeams_*\ms-teams.exe or

C:\Program Files*\MSTeams_*\ms-teams.exe

Note: In contrast to previous client versions, it is now no longer possible to configure only the application name, in this case 'ms-teams.exe'. This configuration is not evaluated by the client for security reasons.

\rightarrow Signaling of IKEv2-Mobike

If the client was signaled via the gateway that no IKEv2 mobike is supported, the client still sent MOBIKE notifications to the gateway, which could lead to undesirable effects.

\rightarrow Seamless roaming after standby

If a wireless adapter was deactivated by Windows during a standby, no automatic VPN connection was established after the standby was ended.

 \rightarrow Crash of the client GUI during license activation

In rare cases it could happen that the client GUI crashed during the license activation in the Advanced VPN Client.

→ Automatic mode with two mobile phone configurations

If automatic mode was configured and two mobile phone configurations were available, only the first mobile phone configuration was selected. In this case, if the SIM card of the other mobile phone provider was inserted, the matching mobile phone configuration was not used. This problem has been fixed.





Known limitations

- → Under certain circumstances, the firewall configuration is not displayed correctly in the AVC.
- \rightarrow Option: 'Automatically open dialog for connection setup'

Under certain circumstances, the logon option 'Automatically open dialog for connection establishment' does not work.



Advanced VPN Client Windows 6.21 Rel Build 30745

New features

→ LANCOM Trusted Access Client

This version introduces the LANCOM Trusted Access Client. During a new installation, the user is asked within the installation routine whether the new LANCOM Trusted Access Client (LTA Client) or the LANCOM Advanced VPN Client (AVC) should be installed. In the case of an update of the Advanced VPN Client, the latter will continue to run. The operating mode can be switched in each case.

 $\rightarrow \mathbf{New} \ \mathbf{GUI}$

The GUI of the LANCOM Advanced VPN Client has been revised.

 \rightarrow The GUI scaling has been removed

The menu item 'View / GUI scaling' has been removed.

→ Adaptation of the software update dialog for chargeable updates If the VPN client detects a new, available major release within the software update check, it points to a chargeable update.

Bugfixes / improvements

 \rightarrow Negotiation of IPv6 selectors

As of this version, the client only negotiates IPv6 selectors if it is assigned an IPv6 address by the gateway.

→ Troubleshooting: On-screen keyboard opens

If the on-screen keyboard is enabled, it came to the foreground during certain actions in the client's menu.

→ Troubleshooting: Export of a VPN profile

When exporting a profile to an INI file, IPv6 addresses are now also taken over.

 \rightarrow Troubleshooting: INI file import aborts

The profile import via INI file has been revised so that now up to 400 profiles can be imported.

 \rightarrow Troubleshooting: Active PIN menu items for hardware certificates

The VPN client incorrectly displayed the menu items 'Enter / Change / Reset PIN' despite the configuration of hardware certificates in the 'Connection' menu.

- \rightarrow Troubleshooting when exporting a VPN profile with PSK
- \rightarrow Troubleshooting: Crash of the VPN service

Under certain constellations, the VPN service could crash with the activation of the PKI log.





- \rightarrow Issue resolved: Support Wizard does not collect all existing log files
- → Improvement of PIN handling in connection with SmartCard readers with PIN pad and configured PKCS#11
- \rightarrow Issue resolved: Audit log files were not deleted (after specified time).
- \rightarrow Troubleshooting: Deleting the used certificate in the user CSP

If the currently used user certificate was deleted in the user CSP, the VPN client could not establish a new VPN connection despite existing alternative certificates. Only after changing the VPN profile to another one and back again, a VPN connection could be established.

- \rightarrow RFC 5685: IKEv2 redirect support for IPv4/6 and FQDNs added
- \rightarrow Optimization in the pro-logon phase with OTP
- \rightarrow Update to OpenSSL version 1.0.2zi
- \rightarrow New driver or network adapter

The driver or network adapter of the NCP Secure Client was adjusted due to a possible bluescreen. This bluescreen occurred after the installation of the NCP Secure Client during the subsequent startup process. Only a few end devices with the respective software environment were affected. As a result of this adjustment, the name of the network adapter has been changed.

- → Troubleshooting when changing the profile from Wi-Fi to mobile radio If the option 'Switch off mobile radio while Wi-Fi connection is active' is set, no connection could be established during the first connection attempt after a profile change from Wi-Fi to mobile radio.
- \rightarrow Certificate handling

Selecting a user certificate based on the extended key usage failed under certain circumstances.

- \rightarrow Internal optimizations to increase performance
- \rightarrow Log output during pre-logon operation

In the case of pre-logon operation, it could happen that not all log messages were written to the log file when there were a large number of log outputs from the client GUI.

→ Connection establishment via mobile radio

When establishing a connection via mobile radio in connection with seamless roaming, a functional VPN tunnel could not be established in certain cases.

ightarrow INI profile import extended to DH group 30

Within the INI profile import, DH groups up to and including DH group 26 could be imported so far. The import function has been extended to DH groups up to 30.



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Known limitations

- → Under certain circumstances, the firewall configuration is not displayed correctly in the AVC
- \rightarrow Option: 'Open dialog for connection automatically'.

Under certain circumstances the logon option 'Open dialog for connection automatically' does not work.

 \rightarrow Application-based VPN bypass configuration

Configuring a DNS within the VPN bypass configuration will invalidate an application-based rule contained within it.

 \rightarrow PIN menu entries

When using hardware certificates, the PIN menu items 'Enter / Reset / Change PIN' have no function, but can be selected incorrectly.

→ Seamless Roaming

Under certain circumstances, the VPN tunnel status remains at 'Keep tunnel logical' when switching from WLAN to LAN and a functional connection via LAN is not established. This must be done by manually disconnecting and reconnecting.

 \rightarrow Home Zone and IPv6

If the predefined Home Zone rule is active in the firewall settings of the VPN client, outgoing IPv6 packets to the local network are dropped in the defined Home Zone network.



Advanced VPN Client Windows 6.14 Rel Build 29669

Bugfixes / improvements

→ Adjustment of the PKCS#11 module configuration

To increase the security of the LANCOM Advanced VPN Client, as of this client version only PKCS#11 files can be loaded from the following locations: WINDIR, PROGRAMFILES and PROGRAMFILES(x86).

 \rightarrow Enhancement: VPN bypass and mobile radio

When using a profile with the connection medium 'Mobile' configured, the domain configured via VPN bypass can now be used reliably again.

→ Improvement: Automatic media detection

The 'automatic media detection' now reliably selects LAN as the connection medium again when the device is connected to the LAN.

- → Improvement: Stateful boot option
- \rightarrow Improvement: Status display (PIN symbol) in connection with smartcards
- \rightarrow Customization of the IKEv2 configuration payload

The length of the IKEv2 configuration payload attribute type INTERNAL_IP6_ ADDRESS has been changed from 16 bytes to 17 bytes. Accordingly, the prefix is now also transmitted in addition to the IPv6 address.

- \rightarrow Support for RFC7383 (IKEv2 message fragmentation)
- \rightarrow Update to OpenSSL version 1.0.2zg

Known limitations

 \rightarrow Option: 'Automatically open dialog for connection setup'.

Under certain circumstances, the logon option 'Automatically open dialog for connection establishment' does not work reliably.

 \rightarrow Application-based VPN bypass configuration

Configuring a DNS within the VPN bypass configuration will invalidate an application-based rule contained within it.

 \rightarrow PIN menu entries

When using hardware certificates, the PIN menu items 'Enter/Reset/Change PIN' / 'Enter/Reset/Change PIN' have no function, but can be selected incorrectly.

 $\rightarrow \text{Seamless roaming}$

Under certain circumstances, the VPN tunnel status remains at 'Keep tunnel logical' when switching from Wi-Fi to LAN and a functional connection via LAN is not established. This must be done by manually disconnecting and connecting.





\rightarrow Home Zone and IPv6

If the predefined Home Zone rule is active in the firewall settings of the VPN client, outgoing IPv6 packets to the local network are dropped in the defined Home Zone network.



Advanced VPN Client Windows 6.11 Rel Build 29631

New features

\rightarrow New option: Resolve DNS domains in the tunnel

The Split DNS functionality can be configured using the new 'DNS domains to be resolved in the tunnel' option. In the case of configured Split tunneling, the DNS requests of the configured domains are sent into the VPN tunnel. All other DNS requests bypass the VPN tunnel.

→ Distribution of Split Tunneling Configurations

The VPN client now supports RFC 7296 for distributing Split Tunneling configurations on the part of the VPN gateway.

Bugfixes / improvements

\rightarrow New rights structure within 'C:\ProgramData\NCP\'.

The write permissions within the 'C:\ProgramData\NCP\' directory have been limited to a minimum. For example, a user can now no longer store CA certificates in the designated directory. Likewise, the directory and rights structure has been rebuilt so that no application in the user and system context writes to the same directory.

- \rightarrow Improvements in server-side configured split DNS
- \rightarrow The automatic Windows login works again.
- \rightarrow Seamless roaming now also works with IPv6 destination addresses.
- \rightarrow Saved VPN usernames are displayed correctly again after an AVC update.
- \rightarrow Improved compatibility with third-party gateways when addressing via IPv6
- → Compatibility with third-party gateways in connection with 2-factor authentication / token entry has been improved
- \rightarrow Various GUI optimizations
- \rightarrow Update to zlib version 1.2.12
- \rightarrow CVE-2022-0778 and CVE-2020-1971 have been fixed in OpenSSL.
- → Migration to TLS 1.2 (TLS 1.0 and 1.1 are no longer supported)
- \rightarrow Update to cURL library 7.84.0
- → Changes to the DNS entries in the VPN bypass configuration work properly again.
- \rightarrow Improvement of the 'Connect before Windows login' function
- \rightarrow The forwarding of the split DNS configuration by the gateway (RFC 8598) is now supported.
- \rightarrow The network connection works properly again after a client installation.
- \rightarrow General improvements in INI file import



→ Implementation of RFC8598 (<u>https://datatracker.ietf.org/doc/html/</u> rfc8598)

Known limitations

 \rightarrow Option: 'Open dialog for connection automatically'.

Under certain circumstances the logon option 'Automatically open dialog for connection establishment' does not work.

 \rightarrow Application-based VPN bypass configuration

Configuring a DNS within the VPN bypass configuration will invalidate an application-based rule contained within it.

 \rightarrow PIN menu entries

When using hardware certificates, the PIN menu item 'Enter/reset/change PIN' has no function, but can be selected by mistake.

→ Seamless Roaming

Under certain circumstances, the VPN tunnel status remains at 'Keep tunnel logical' when switching from WLAN to LAN and a functional connection via LAN is not established. This must be done by manually disconnecting and connecting.

 \rightarrow Home Zone and IPv6

If the predefined Home Zone rule is active in the firewall settings of the VPN client, outgoing IPv6 packets to the local network are dropped in the defined Home Zone network.

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Advanced VPN Client Windows 6.04 Rel Build 29378

New features

\rightarrow Revised hotspot login

As of this version 6.0 of the LANCOM Advanced VPN Client, the Chromebased Microsoft Edge web browser is invoked by means of WebView2 runtime and used exclusively for the purpose of logging into a hotspot. The prerequisite for this is the installed WebView2 runtime (from version 94.0.992.31 or newer) within the operating system. The WebView2 runtime can be downloaded here: <u>https://developer.microsoft.com/en-us/</u> <u>microsoft-edge/webview2/#download-section</u>

→ INI file import for max. 250 split tunneling networks

For both IPv4 and IPv6, up to 250 split tunneling configurations each can be imported into the client via INI file.

\rightarrow INI file import: New split DNS parameter

The specific redirection of DNS requests into the VPN tunnel can now be configured by setting the 'DomainInTunnel' parameter with a max. length of 1023 characters in the import file.

\rightarrow Support for WPA3 encryption

The Wi-Fi Manager integrated in the LANCOM Advanced VPN Client can now also manage Wi-Fi networks encrypted with WPA3.

\rightarrow Support for RFC 7296

RFC 7296 defines the passing of split tunneling remote networks through the VPN gateway to the VPN client. This feature is supported as from this client version.

\rightarrow Extension of the VPN status in the Windows registry

Until now, the connection status of the LANCOM Advanced VPN Client could be set in the registry under 'Computer\HKEY_LOCAL_MACHINE\SOFTWARE\ WOW6432Node\NCP engineering GmbH\NCP RWS/GA\6.0' for the parameter 'SecCICsi' could be read out with the values 0 = not connected and 1 = connected

As from this version, the client stores additional statuses under the following location in the Windows registry:

HKEY_LOCAL_MACHINE\SOFTWARE\NCP engineering GmbH\NCP Secure Client

respectively

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\NCP engineering GmbH\NCP Secure Client

The associated ConnectState parameter can take the following values:

0 = Connection is disconnected





- 1 = Connection is established
- 2 = Connection has been successfully established
- 3 = Internet connection is interrupted, VPN connection is held
- 4 = Connection has been established, but only communication with the NCP Management Server is possible (licensing)

Bugfixes / improvements

\rightarrow Revised file handling of ncp.db

In rare cases, the 'ncp.db' file became unusable during operation, causing the client to lose its license.

\rightarrow 'Network Location Awareness' not available with active firewall

If the client firewall is activated, the 'Network Location Awareness' of the Windows operating system is not available. In the case of the exclusively desired 'Friendly Network Detection' functionality, the 'Network Location Awareness' of the Windows operating system can be used by configuring a client firewall rule 'Allow all network traffic bidirectionally' and setting a registry key. For this purpose, the parameter 'RegDw "WscIntegration"=0' must be configured in the registry within 'HKEY_LOCAL_MACHINE\SYSTEM\ CurrentControlSet\Services\ncprwsnt'. The default value of this parameter is '1'.

\rightarrow Automatic login via credential provider

When using the logon option with configured user credentials, a locked Windows workstation could be unlocked by selecting the credential provider.

→ Troubleshooting multiple certificates with the same issuer and subject in the Windows certificate storage

If the Windows certificate storage contains certificates with identical issuer and subject, the wrong, expired certificate may have been used by the client and acknowledged with the message "unable to get issuer certificate".

\rightarrow Changed default value in FND options

The default value for the 'Check for known networks periodically' option has been changed from 0 sec to 3600 sec.

\rightarrow Incomplete log files

Under certain circumstances, incorrect write accesses to the client log files occurred, so that log entries were missing in the worst case.





\rightarrow Revised installation routine

In rare cases, the network connection was completely disconnected after the end of the installation process, before the computer restarted. Furthermore, the 'Repair program' functionality within the MSI installation process was removed.

\rightarrow Standby status in connection with IPv6

After the standby state of the PC, there were connection problems with IPv6.

 \rightarrow Installation with certmgr.exe

During the installation of the LANCOM Advanced VPN Client, the file 'certmgr. exe' created by Microsoft was used to install the vendor certificate. This file was detected as unsigned. As of this version, the newer 'certutil.exe' is used instead of 'certmgr.exe'.

 \rightarrow Dynamic certificate selection

The certificate selection has been decisively improved, moreover, only valid certificates will be imported in the future.

- \rightarrow Bug fix in ESP header for IPv6
- \rightarrow Revised parameter locks in the client GUI

Measures have been taken in the client GUI to ensure that locked buttons cannot be activated by certain tools, thereby making locked functions available.

- \rightarrow Fixed a misbehavior when connecting with HTTPS encapsulation and IPv6.
- \rightarrow Improved FND compatibility with network switches
- → Optimization of the establishment of an IKEv2 connection with EAP In certain situations, establishing the VPN tunnel with IKEv2 and EAP could take an unusually long time.
- \rightarrow Improvement of VPN bypass compatibility with MS Teams

Known limitations

 \rightarrow Option 'Automatically open dialog for connection establishment'

Under certain circumstances the logon option 'Automatically open dialog for connection establishment' does not work.



5. History Advanced VPN Client Windows version 5.x

Advanced VPN Client Windows 5.23 Rel Build 48767

Bugfixes / improvements

\rightarrow Incomplete log files

Erroneous write accesses to the client log files could sporadically occur, resulting in the client log being incomplete.

\rightarrow Revised installation routine

In rare cases, after the end of the installation process the network connection was completely disconnected before the computer restarted.

\rightarrow Fixing CVE-2021-41793

Within the MSI installation process, the 'Repair program' functionality has been removed, thus eliminating CVE-2021-41793.

Advanced VPN Client Windows 5.20 Rel Build 48591

New features

\rightarrow DNS input for VPN bypass

This new configuration option ensures that for external VPN bypass targets, name resolution through the VPN tunnel is performed only by the two configured DNS servers. For this purpose, a primary and a secondary DNS, optionally as IPv4 or IPv6 address, can be entered in the VPN bypass configuration. In this release, the configured DNS servers are only effective for configured web domains. Configured applications within the VPN bypass functionality are currently not yet taken into account.

\rightarrow Screen sharing via Wi-Fi

Screen sharing via Wi-Fi, e.g. for presentation via beamer via Miracast, is now possible.





Bugfixes / improvements

\rightarrow Troubleshooting reverse DNS requests

Fixed a problem with reverse DNS requests (PTR requests) from the operating system.

\rightarrow Update of the integrated OpenSSL version

The OpenSSL version used in the LANCOM Advanced VPN Client has been updated to the latest version.

- → Problems in conjunction with multiple IPv6 addresses on the adapter If multiple IPv6 addresses were assigned to the network adapter, the VPN connection establishment or data transfer through the VPN tunnel could be disrupted in certain cases.
- \rightarrow DNS troubleshooting

Under certain circumstances, DNS requests through the VPN tunnel were not resolved correctly or returned an error.

→ Support Assistant

The output path for storing the ZIP file with the collected log files is now taken into account.

 \rightarrow No data throughput within the VPN tunnel

In rare cases, no data could be transported through the VPN tunnel after the media change when using seamless roaming.

- \rightarrow Troubleshooting in the VPN bypass functionality
- → Various stability improvements

Known limitations

\rightarrow Network connection remains disconnected after installation/update

After the installation/update process of the Advanced VPN Client, the network connection remains inactive and can only be used after restarting the computer.

 \rightarrow Dialog for silent installation under Windows 7

Since the change of the software signature from SHA-1 to SHA-256 within Windows 7, two Windows security dialogs are generally displayed to confirm the driver installation during the client installation.





Advanced VPN Client Windows 5.11 Rel Build 48297

New features

→ Selecting the certificate for IEEE 802.1X authentication on the Wi-Fi network

Within the wireless configuration of the LANCOM Advanced VPN Client, a Windows dialog for selecting a certificate from the certificate store can be called up under 'Profile/Encryption' by clicking on the 'Certificate selection' button. This certificate is then used for IEEE 802.1X authentication on a wireless LAN with configured SSID.

\rightarrow Support for the Cookie Challenge mechanism

The Cookie Challenge mechanism is used to defend against DoS attacks on a VPN gateway. The function cannot be configured in the client.

 \rightarrow Extension of the parameter lock for profile save / restore

The parameter lock for profile backup has been replaced by two new parameter locks. A distinction is now made between backing up and restoring a profile.

Bugfixes / improvements

\rightarrow IPv6 prioritization with DNS resolution of the VPN tunnel endpoint

If the VPN tunnel endpoint is configured as a domain name, a DNS server can return both an IPv6 and an IPv4 address. In this case the LANCOM Advanced VPN Client first selects the IPv6 address. If the connection setup fails, the IPv4 address is then attempted.

 \rightarrow Input window for user name and password during connection establishment IKEv2/EAP

If no user name or password is entered in the client configuration when using IKEv2/EAP, a separate input window now appears when the connection is established.

 \rightarrow Read '%username%' for the ID of the local identity

Similar to the entry of the environment variable '%username%' for the VPN user name, this entry can now also be made in the ID of the local identity. The first time the configuration is read by the client GUI, the corresponding value of '%username%' is permanently transferred to the configuration.

- → Display the available Wi-Fi SSIDs Available Wi-Fi SSIDs were not completely displayed in the Wi-Fi configuration of the LANCOM Advanced VPN Client
- \rightarrow Optimizations of the client GUI in the 'extended log settings'
- \rightarrow Optimization of the 'OTP-Token' functionality



\rightarrow Optimization of the functionality 'Logon options'

If the LANCOM Advanced VPN Client was installed outside the 'C:\Programs' directory, the NCP Credential Provider was not displayed correctly during Windows logon.

\rightarrow Display of the connection information

After disconnecting a VPN connection and re-establishing it, the IP addresses displayed were not updated. This problem has been fixed.

- \rightarrow Omission of directory selection for firewall log files
- \rightarrow Improved compatibility with Gemplus USB Key SmartCard readers
- → Troubleshooting when processing certificates with contained certificate chains that are larger than 8 kByte
- \rightarrow Fixed a bug in the search path of a PKCS#11 DLL on Windows 10
- \rightarrow Improved compatibility to ReinerSCT cyberJack $^{\circ}$ card readers
- \rightarrow Bug fixes in the Support Assistant

When the Support Assistant was called to collect the log files, the PKI log files were missing. This problem has been fixed.

 \rightarrow Fixed a bug in the license handling

In rare cases, the license file of the LANCOM Advanced VPN Client could be damaged. The following error message appeared: "License data could not be read". This problem has been solved.

- \rightarrow Adaptation of the error message if no VPN gateway is reached
- \rightarrow Troubleshooting within the split tunneling configuration

Known limitations

→ Silent Installation under Windows 7

Since the change of the software signature from SHA-1 to SHA-256 within Windows 7, two Windows security dialogs are generally displayed during the client installation to confirm the driver installation. This effect does not occur under Windows 8.x or Windows 10.

→ Option 'Automatically open dialog for connection establishment' Under certain circumstances the logon option 'Automatically open dialog for connection establishment' does not work.



Advanced VPN Client Windows 5.00 Rel Build 45109

New features

\rightarrow Quality of Service

Outgoing client data can now be prioritized within the VPN tunnel. For this, the total bandwidth of the data channel in sending direction has to be configured in the QoS configuration. The configured total bandwidth is static. Due to this, the QoS functionallity is currently only of limited suitability for mobile usage. Data which has to be prioritized can be specified, depending on its source, as .exe file (case sensitive) or directory (without subdirectories). These data sources can be grouped, and each group can be allocated a minimum bandwidth. Data which has to be sent and can not be allocated to any group is limited according to the remaining bandwidth. If a configured group is not in use, the remining bandwidth is increased by the reserved throughput of this inactive group. The applying throughput rates of the configured groups in sending direction can be monitored under the menu item "Connection/Connection information/Quality of Service".

\rightarrow IPv4 / IPv6 dual stack support

Within the VPN tunnel, the IPv4- as well as the IPv6 protocol is supported. The split tunneling functionallity can be configured separately for IPv4 and IPv6.

\rightarrow Temporary home zone

A new option "Set home zone only temporarily" has been added. Until now the Advanced VPN Client recognized a previously set home zone at a later time. Now, if this option is set, a configured home zone is forgotten after a restart, standby, or a change of the connection medium, and has to be re-set, if required.

\rightarrow Expert mode

An expert configuration mode has been added to the client configuration.

Extended connection management

The Advanced VPN Client connection management has been extended by two connection options:

"Disable mobile radio with plugged LAN cable" and "Disable mobile radio with active Wi-Fi connection".

\rightarrow Extended support wizard

As from this version, the support wizard collects all available log files for passing on to the support.



Bugfixes / improvements

\rightarrow New directory structure

For reasons of operational reliability and Windows compatibility the directory structure of the Advanced VPN Client has been changed. Directories which had been previously created in the installation folder under "\Programs\ LANCOM\Advanced VPN Client\", have now been moved to "\ProgramData\ LANCOM\Advanced VPN Client\". You can find further information about the migration to the new directory structure in the file Readme.txt.

\rightarrow Extended status window "Connection information"

In the status window "Connection information" the used algorithms within the IKE negotiation and the IPsec protocol for the current VPN connection are displayed.

\rightarrow Removal of no longer relevant configuration parameters

The following configuration parameters have been removed from the configuration due to missing relevance:

Connection medium	ISDN
ISDN	Dynamic Link aggregation
ISDN	Threshold for link aggregation
IPSec address allocation	1. and 2. WINS server
Link firewall	only configurable in expert mode

\rightarrow Support for the Gemalto IDPrime 830 SmartCard

The PIN handling of a Gemalto IDPrime 830 SmartCard which has been configured by Microsoft Smart Card Key Storage Provider (CSP) has been optimized.

 \rightarrow Optimized filter driver

The Advanced VPN filter driver has been optimized regarding data throughput.

- \rightarrow Optimized login via Time-based OTP (one-time passwords)
- \rightarrow GUI scaling bug fix

When using GUI scaling a faulty display within configuration dialogs could occur.



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6. Common advice

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