



**Service release:** 12.20 r48591  
**Date:** January 2021

### Prerequisites

#### Operating System Support

The following Microsoft Operating Systems are supported with this release:

- Windows 10, 32/64 bit (up to and including version 20H2)
- Windows 8.x, 32/64 bit
- Windows 7, 32/64 bit

## 1. New Features and Enhancements

### New configuration option: DNS entry for VPN bypass

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

### Screen sharing over WiFi is no longer blocked by the client firewall

Screen sharing via WiFi, e.g. for presentation via projector with Miracast protocol, is no longer blocked by the client firewall and is now possible.

## 2. Improvements / Problems Resolved

### Troubleshooting when entering a wrong WiFi password in the pre-logout phase

If an incorrect WiFi password was entered when logging on to a WiFi during the pre-logout phase, this password could no longer be changed. With this release, the password will be requested again if it is entered incorrectly and the new WiFi profile will only be generated after a successful login to the WiFi.

### Troubleshoot reverse DNS requests

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

### Update to OpenSSL version 1.0.2u-8

The OpenSSL version used in the NCP Secure Client has been increased to 1.0.2u-8. This closed the OpenSSL vulnerability CVE-2020-1971.

Next Generation Network Access Technology



### Blue screen after updating the NCP Secure Client

In rare cases the user computer crashed during the first restart after an update of the NCP Secure Client. This problem only occurred with Windows 10 and has been resolved.

### FND detection fails with Hyper-V installed

If Hyper-V is installed on the user computer and a virtual switch is active, the NCP Secure Client's FND functionality is not working correctly. This problem has been fixed.

### Problems related to multiple IPv6 addresses on the adapter

If several IPv6 addresses were assigned to the NCP network adapter, the establishment of the VPN connection or the data transfer through the VPN tunnel could be disturbed in certain cases. This problem has been fixed.

### No data transport through the VPN tunnel at Juniper SRX remote station

In rare cases, no data can be transported through the VPN tunnel in connection with a Juniper SRX remote station. This manifests itself in an incorrectly assigned IPv4 address on the NCP adapter. This problem has been fixed.

### DNS error

Under certain circumstances, DNS requests were not properly resolved through the VPN tunnel or returned an error. The reason was an incorrectly assigned metric on the NCP network adapter. This problem has been fixed.

### Support assistant

The output path for storing the ZIP file with the collected log files was ignored. This problem has been fixed.

### Compatibility with CISCO ASA Gateway

The connection to the CISCO ASA Gateways was not established correctly in rare cases. This problem has been fixed.

### No data throughput in the VPN tunnel

In rare cases, when seamless roaming was used, no data could be transported through the VPN tunnel after the media change. The reason was that the DHCP negotiation for the NCP network adapter ran into a timeout and the IP address was not assigned correctly. This problem has been fixed.

### Bugfix in the area of the VPN bypass functionality



### 3. Known Issues

#### Network connection remains disconnected after installation / update

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

#### Silent Installation on Windows 7

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

#### Option: "Automatically Open Connection Setup Dialog"

Under certain circumstances, the Logon option "Automatically Open Connection Dialog" does not work.



**Service release:** 12.11 r48297  
**Date:** August 2020

### Prerequisites

#### Operating System Support

The following Microsoft Operating Systems are supported with this release:

- Windows 10, 32/64 bit (up to and including version 2004)
- Windows 8.x, 32/64 bit
- Windows 7, 32/64 bit

## 1. New Features and Enhancements

### Selection of Certificate for 802.1x Authentication via Wi-Fi

Within the Wi-Fi configuration of the NCP Secure client, certificates that are stored in the Windows Certificate Store can be selected via the “Select Certificate” button under Profiles/Encryption. This certificate is used for 802.1x authentication on a Wi-Fi network with a configured SSID.

### Support for Cookie Challenge Mechanism

The cookie challenge mechanism is used to prevent DoS attacks on a VPN gateway. The NCP Secure Client supports this procedure from this version onwards and is therefore also compatible with VPN gateways of third-party manufacturers. This mechanism is not configurable in the client.

### Parameter Lock Extended for Backing Up/Restoring Profile

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

## 2. Improvements / Problems Resolved

### Switch to TLS 1.2 for FND Negotiations

The negotiation with the NCP Friendly Net Detection Server now uses TLS 1.2. The prerequisite for this is the use of the NCP Friendly Net Detection Server 3.01 or newer.



### IPv6 Prioritization for VPN Tunnel Endpoint DNS resolution

If the VPN tunnel endpoint is configured as a domain name, a DNS server can return an IPv6 as well as an IPv4 address. In this case, the NCP Secure Client first selects the IPv6 address. If the connection setup fails, the IPv4 address is then attempted. The same procedure applies to the selection of a gateway in the load balancing procedure.

### Execution of (dis)connect.bat Batch File During Connection Setup/Disconnection

The batch file (dis)connect.bat was not executed. This issue has been resolved.

### Username and Password Prompt not Displayed when Connecting

If the VPN username or password is not entered in the client configuration when using IKEv1/XAUTH, a separate username and password prompt appears when setting up the connection. This prompt was not displayed when using IKEv2/EAP. This issue has been resolved.

### Reading %username% for the ID of the Local Identity

Similar to entering the environment variable %username% for the VPN username, this entry can now also be made in the ID of the local identity. When the client GUI reads the configuration for the first time, the corresponding value of %username% is set in the configuration.

### Display of Available Wi-Fi SSIDs

Available Wi-Fi SSIDs were not fully displayed in the Wi-Fi configuration of the NCP Secure client. This issue has been resolved.

### Improved Compatibility with CISCO ASA

Compatibility with CISCO ASA gateways in conjunction with IKEv2 has been improved. Compatibility with other third-party gateways has also been improved with regard to rekeying.

### UI Optimization for Advanced Log Settings

### Optimization of OTP Token

### Optimization of Logon Options

If the NCP Secure Client was installed outside the c:\Program directory, the NCP Credential Provider was not displayed correctly during Windows login. This issue has been resolved.

### Display of Connection Information

After disconnecting a VPN connection and reconnecting, the displayed IP addresses were not updated. This issue has been resolved.



Optimization of FND detection for Two Active LAN adapters

Removal of Directory Selection for Firewall Log Files

Improved Compatibility with Gemplus USB Key Smart Card Readers

Issue Resolved for Certificates with Certificate Chains Greater than 8 kBytes

Troubleshooting the Search Path of a PKCS#11-DLL on Windows 10

Improved Compatibility with ReinerSCT cyberJack® Card Readers

Troubleshooting Support Wizard

When using the Support Wizard to collect the log files, the PKI log files were missing. This issue has been resolved.

Troubleshooting License Handling

In rare cases, the NCP license file may have become corrupted. The following error message was displayed: "Could not read license data". This issue has been resolved.

Updated Error Message Displayed if the VPN Gateway is not Reachable

Issues Resolved within Friendly Net Detection

After a new IP address was assigned by the DHCP server due to expiry of the DHCP Lease Time, the Friendly Net Detection did not function correctly. This issue has been resolved.

Issues Resolved within Split Tunneling configuration

Support of CertReqWithData=1 in ini Import File

In the case of IKEv1, the CertReqWithData parameter causes the client to send a certificate request containing the subject of the locally available CA certificates to the VPN gateway. If this parameter is not set, an „empty“ certificate request is sent. Support for this parameter improves compatibility with third-party gateways.



### 3. Known Issues

#### Silent Installation on Windows 7

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

#### Option: "Automatically Open Connection Setup Dialog"

Under certain circumstances, the Logon option "Automatically Open Connection Dialog" does not work.

#### Client Info Center: The status of the NCP Virtual Secure Client Adapter is displayed incorrectly

The NCP Virtual Secure Client Adapter is incorrectly displayed as deactivated in the Client Info Center.



**Service release:** 12.00 r45109

**Date:** August 2019

### Prerequisites

#### Operating System Support

The following Microsoft Operating Systems are supported with this release:

- Windows 10, 32/64 bit (up to and including version 1909)
- Windows 8.x, 32/64 bit
- Windows 7, 32/64 bit

## 1. New Features and Enhancements

### Quality of Service

**Outgoing data from the client** can be prioritized within the VPN tunnel. The total outgoing bandwidth must be entered in the QoS configuration for this purpose. The configured total bandwidth is static. The QoS feature is therefore only conditionally suitable for use in the mobile environment.

Data can be prioritized according to their origin by .exe file name (case sensitive) or directory (without subdirectories). These data sources can be grouped and each group can be assigned a minimum bandwidth. Outgoing data that is not assigned to a group are limited according to the remaining bandwidth. If a group is inactive, the remaining bandwidth is increased by the bandwidth that would have been allocated to the inactive group. The outgoing bandwidth allocated for the configured groups can be viewed under the menu item Connection/Connection Info/Quality of Service.

### Temporary Home Zone

The option "Only set Home Zone temporarily" was added. Previously, the NCP Secure Client recognized the Home Zone after it had been set once. If the new option is set, the Home Zone is forgotten after restart, standby or change of connection medium and must be enabled again if necessary.

### IPv4 / IPv6 Dual Stack Support

Both the IPv4 and IPv6 protocols are supported within the VPN tunnel. Split tunneling can be configured separately for IPv4 and IPv6.

### Expert Mode

An expert mode has been added to the client configuration. In addition to the previous configuration options, the expert mode also includes other rarely used or experimental options.





### Enhanced Connection Management

The connection management of the NCP Secure Client has been extended by two connection options: "Disable mobile network when LAN cable is connected" and "Disable mobile network when &Wi-Fi connection is established"

### Enhancements to the Support Assistant

From the current version, the Support Assistant always collects all available log files for forwarding to Support. The files `setup.msilog`, `ncpdrvinst.log`, `ncpdrvupd.log` and `rwsrsu.log` have been added to the support wizard.

## 2. Improvements / Problems Resolved

### New Directory Structure

For security reasons and compatibility with Windows, the directory structure of the NCP Secure Client has been changed. The following directories that were previously in the installation directory under `Programs\NCP\SecureClient\` have been migrated to

`ProgramData\NCP\SecureClient\`:

`arls`, `cacerts`, `certs`, `config`, `crls`, `CustomBrandingOption`, `data`,  
`hotspot`, `log`, `statistics`

These are configuration files, certificates or log files. Binaries or resources remain in `Programs\...`

During the update process, the new directory structure is created automatically and the configuration is transferred accordingly. Configuration paths within the certificate configuration that contain the variable `%InstallDir%` are converted to paths with `%CertDir%`. `%CertDir%` refers to the path

`C:\ProgramData\NCP\SecureClient\certs`.

**Note:** The configuration entry `%CertDir%\client1.p12` is equivalent to `client1.p12`.

For more information regarding the new directory structure please read the `Read_Me.pdf` file.

### Enhanced Connection Status Information

The Connection Information status window displays the algorithms negotiated for the current VPN connection within the IKE negotiation and IPsec protocol.

### Removal of Obsolete Configuration Parameters

The following configuration parameters have been removed from the configuration because they are now obsolete:

Communication Medium      ISDN

# NCP Secure Entry Client

## Release Notes



|                          |                                       |
|--------------------------|---------------------------------------|
| ISDN                     | PPP Multilink                         |
| ISDN                     | Multilink Threshold                   |
| IPsec Address Assignment | 1st and 2nd WINS server               |
| Link firewall            | Can only be configured in expert mode |

### Support for Gemalto IDPrime 830 SmartCard

The PIN handling for Gemalto IDPrime 830 SmartCards configured via Microsoft Smart Card Key Storage Provider (CSP) has been optimized.

### Optimization of the NCP Filter Driver

The data throughput of the NCP filter driver has been optimized.

### Optimization of Logon via time-based OTP

### GUI Scaling

Some configuration dialogs were not displayed correctly if GUI scaling was enabled. This issue has been resolved.

## 3. Known Issues

### Temporary Home Zone

If two network adapters are available, the Home Zone will only be forgotten on one adapter if the "Only set Home Zone temporarily" option is set.

## 4. Getting Help for the NCP Secure Entry Client (Win32 / 64)

To ensure that you always have the latest information about NCP's products, always check the NCP website at:

<http://www.ncp-e.com/en/downloads/software/version-information.html>

For further assistance with the NCP Secure Enterprise Client (Win32/64), visit:

<http://www.ncp-e.com/en/company/contact.html>

E-Mail: [support@ncp-e.com](mailto:support@ncp-e.com)

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## 5. Features

### Operating Systems

Microsoft Windows (32 and 64 bit): Windows 10, Windows 8.x, Windows 7  
x86 or x86-64 platform

### Security Features

The Entry Client supports all IPsec standards in accordance with RFC

### Personal Firewall

Stateful Packet Inspection;  
IP-NAT (Network Address Translation);  
Friendly Net Detection (Firewall rules adapted automatically if the connected network is recognized based on its IP subnet address, the DHCP server's MAC address or an NCP FND Server\*);  
start FND dependent action;  
Secure hotspot logon;  
Home Zone;  
Differentiated filter rules relative to: protocols, ports, applications and addresses, LAN adapter protection;  
IPv4 and IPv6 support

### VPN Bypass

The VPN Bypass function allows the administrator to define applications which can communicate over the Internet directly despite disabling split tunneling on the VPN connection. It is also possible to define which domains or target addresses can bypass the VPN tunnel.

### Virtual Private Networking

IPsec (Layer 3 Tunneling), RFC-conformant; IPsec proposals can be determined through the IPsec gateway (IKEv1/IKEv2, IPsec Phase 2);  
Event log;  
communication only in the tunnel;  
MTU size fragmentation and reassembly, DPD, NAT-Traversal (NAT-T);  
IPsec tunnel mode

### Encryption

Symmetric processes: AES 128, 192, 256 bits; Blowfish 128, 448 bits; Triple-DES 112, 168 bits;  
Dynamic processes for key exchange: RSA to 2048 bits; seamless rekeying (PFS);  
Hash algorithms: SHA-1, SHA-256, SHA-384, SHA-512, MD5, DH group 1, 2, 5, 14-21, 25-30

### FIPS Inside

The IPsec Client incorporates cryptographic algorithms conformant with the FIPS standard. The embedded cryptographic module incorporating these algorithms has been validated as conformant to FIPS 140-2 (certificate #1747). FIPS compatibility is always given if the following algorithms are used for set up and encryption of the IPsec connection:

- DH Group: Group 2 or higher (DH starting from a length of 1024 Bit)
- Hash Algorithms: SHA1, SHA 256, SHA 384, or SHA 512 Bit
- Encryption Algorithms: AES with 128, 192 and 256 Bit or Triple DES

# NCP Secure Entry Client

## Release Notes



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### Authentication Processes

IKE (Aggressive Mode and Main Mode, Quick Mode);  
XAUTH for extended user authentication; IKEv2;  
IKE config. mode for dynamic assignment of a virtual address from the internal address pool (private IP);  
PFS;  
PAP, CHAP, MS CHAP V.2;  
IEEE 802.1x: EAP-MD5 (Extensible Authentication Protocol): Extended authentication relative to switches and access points (Layer 2);  
EAP-TLS (Extensible Authentication Protocol - Transport Layer Security): Extended authentication relative to switches and access points on the basis of certificates (Layer 2);  
Support of certificates in a PKI: Soft certificates, smart cards, and USB tokens; Multi Certificate Configurations;  
Pre-shared secrets, one-time passwords, and challenge response systems;  
RSA SecurID ready

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### Strong Authentication

X.509 v.3 Standard; biometric Authentication (Windows 8.1 or higher)  
PKCS#11 interface for encryption tokens (USB and smart cards);  
smart card operating systems: TCOS 1.2, 2.0 and 3.0 Signature Card Version 2.0 Release 1, Atos CardOS V5.3 QES, V1.0;  
Smart card reader interfaces: PC/SC, CT-API, Microsoft CSP;  
PKCS#12 interface for private keys in soft certificates;  
CSP for the use of user certificates in the windows certificate store  
CSP for the use of smart cards via vendor API  
PIN policy; administrative specification for PIN entry in any level of complexity;  
revocation: EPRL (End-entity Public-key Certificate Revocation List, formerly CRL), CARL (Certification Authority Revocation List, formerly ARL), OCSP

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### Networking Features

LAN emulation: Ethernet adapter with NDIS interface, full WLAN (Wireless Local Area Network) and WWAN (Wireless Wide Area Network, Mobile Broadband) support

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### Network Protocol

IPv4 / IPv6 Dual Stack

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### Dialers

NCP Internet Connector or Microsoft RAS Dialer (for ISP dial-in via dial-in script)

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### Seamless Roaming\*\*

If a communications medium error occurs, automatic switchover of VPN tunnel to another Internet communication medium (LAN/WWAN/3G/4G) without altering IP address ensures that applications communicating over VPN tunnel are not disturbed and application session is not disconnected. (prerequisite: NCP (Virtual) Secure Enterprise VPN Server)

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### VPN Path Finder\*\*

NCP Path Finder Technology: Fallback IPsec/ HTTPS (port 443) if port 500 respectively UDP encapsulation is not possible

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### IP Address Allocation

DHCP (Dynamic Host Control Protocol), DNS: Dial-in to the central gateway with changing public IP addresses through IP address query via DNS server

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Next Generation Network Access Technology

# NCP Secure Entry Client

## Release Notes



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|---|---|
| <b>Communication Media</b>                                | Internet, LAN, Wi-Fi, GSM (incl. HSCSD), GPRS, 3G, LTE, HSDPA, PSTN   |
| <b>Line Management</b>                                    | DPD with configurable time interval; Short Hold Mode; Wi-Fi roaming (handover);<br>Timeout (controlled by time and charges);<br>Budget manager (administration of connection time and/or –volume for GPRS/ 3G and Wi-Fi, in case of GPRS/ 3G separated administration of roaming abroad)<br>Connection Modes: automatic, manual, variable (reconnection dependent on how previous disconnect invoked)   |
| <b>APN of SIM Card</b>                                    | The APN (Access Point Name) defines the access point of a mobile data connection at a provider. If the user changes provider, the system automatically takes APN data from the corresponding SIM card and uses it in client configuration   |
| <b>Data Compression</b>                                   | IPCOMP (lzs), deflate (only for IKEv1)  |
| <b>Quality of Service</b>                                 | Prioritization of configured outgoing bandwidth in VPN tunnel.  |
| <b>Additional Features</b>                                | Automatic media detection; UDP encapsulation, WISPr-support, IPsec-Roaming, Wi-Fi roaming, import of the file formats:*.ini, *.pcf, *.wgx and *.spd,  |
| <b>Point-to-Point Protocols</b>                           | PPP over GSM, PPP over Ethernet; MLP, CCP, CHAP   |
| <b>Internet Society RFCs and Drafts</b>                   | RFC 2401 –2409 (IPsec), RFC 3947 (NAT-T negotiations), RFC 3948 (UDP encapsulation), IP security architecture, ESP, ISAKMP/Oakley, IKE, XAUTH, IKECFG, DPD, NAT Traversal (NAT-T), UDP encapsulation, IPCOMP, RFC 7427: IKEv2-Authentication (Padding-method)   |
| <b>Client Monitor Intuitive, Graphical User Interface</b> | Multilingual (German, English, Spanish, French);<br>Client Info Center;<br>Configuration, connection management and monitoring, connection statistics, log-files (color displayed, easy copy&paste-function);<br>Internet availability test;<br>Trace tool for error diagnosis;<br>Display of connection status;<br>Integrated support of Mobile Connect Cards;<br>The Client Monitor can be tailored to include your company name or support information;<br>Password protected configuration management and profile management, configuration parameter lock;<br>Automatic check for newer software version |

Next Generation Network Access Technology

# NCP Secure Entry Client

## Release Notes



\*) If you wish to download NCP's FND server as an add-on, please click here:  
<https://www.ncp-e.com/en/resources/download-vpn-client.html>

\*\*\*) Prerequisite: NCP VPN Path Finder Technology on the Gateway is required

More information on NCP Secure Entry Client is available on the Internet at:  
<https://www.ncp-e.com/en/products/ipsec-vpn-client-suite.html>

You can test a free, 30-day full version of Secure Entry Client (Win32/64) here:  
<https://www.ncp-e.com/en/resources/download-vpn-client.html>



**NCP**PATH FINDER™

FIPS 140-2 Inside

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