Data Sheet

NCP Secure Enterprise Client Windows

Universal, Centrally Administrable VPN Client Suite for Windows

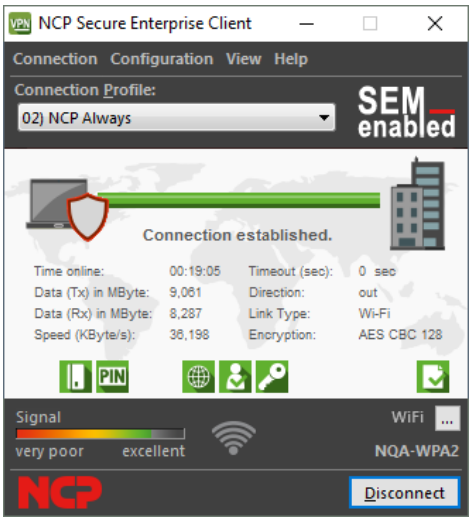
- Central Management (SEM)
- Network Access Control (Endpoint Policy)
- Compatible with all Major VPN Gateways (IPsec Standard)
- Microsoft Windows 10, 8.x, 7
- IPv6 Compatible Dynamic Personal Firewall
- VPN Bypass
- VPN Path Finder Technology (Fallback IPsec/HTTPS)
- FIPS Inside
- Strong Authentication (eg. Certificate), Biometrics
- Multi Certificate Support
- Support for 3G / 4G Hardware
- Seamless Roaming for uninterrupted working, despite changes in the communication medium

Universality and Communications

The NCP Secure Enterprise Client is one of the building blocks of NCP's Next Generation Network Access Technology – the holistic Remote Access VPN solution for all the workforce who use Windows-based computing, either desk-based or mobile/on the move. Use the NCP Secure Client to establish secure, IPsec-based data links from any location in the world to corporate VPN gateways from NCP or any other manufacturer; connection establishment over all networks is totally independent of any Microsoft dialer software.

When working with a mobile Windows computer, "Seamless Roaming" provides an "Always On Connection"; it automatically selects the fastest connection medium and at the same time always preserves the application session during a change to another medium or during a short-term interruption.

NCP's "Path Finder Technology" enables remote access even when the computer is located behind a firewall or proxy that would otherwise hinder the



establishment of an IPsec tunnel; "Path Finder" automates the changeover to a modified IPsec protocol mode that uses the available HTTPS port for the VPN tunnel.

To enable employees to securely log on to the Windows domain before logging on to the Windows system, the client supports domain logon using a credential service provider after establishing a VPN connection to the company network. The user then logs on to the local Windows system through this VPN connection so that the connection is authenticated in the central Windows domain or Active Directory. Secure logon to a Wi-Fi HotSpot is also supported in the pre-logon phase which means the client is optimally protected by the integrated dynamic firewall while logging on to the HotSpot. It makes no difference to the user whether they are in the office or a connected via a HotSpot.

Security

The NCP Secure Enterprise Client also provides additional security mechanisms such as the integrated, dynamic Personal Firewall.

Rules for ports, IP addresses, IP subnets and applications can be defined centrally by the administrator. Based on predefined values for these security rules, "Friendly Net Detection" detects whether the user's computer is located in a friendly or an unknown network. The corresponding Firewall rule is activated, dependent on the network detected, and similarly, when connecting to a hotspot, especially when logging on to and off from the Wi-Fi network. In contrast to normal firewalls, the NCP Firewall starts to work as soon as the computer is booted.
Other security features include support for One-Time Password (OTP) solutions and Certificates in a Public Key Infrastructure (PKI), plus an Endpoint Policy Check that prevents access to the corporate network by computers with inadequate security levels.

Furthermore, the VPN client features biometric authentication before the VPN connection is established, for example via fingerprint or face recognition. Authentication takes place directly after clicking the Connect button in the client GUI, and the connection is not established until authentication is completed. If hardware for biometric authentication is not present or enabled, the user can also authenticate via their password. The endpoint policy check can prevent insufficiently protected end devices from accessing the company network.

When the Home Zone feature is activated, a special user profile is used for the home office network. Users just need to click the Home Zone button and the correct network configuration is made automatically. This includes special firewall rules set up by administrators which only apply when the user is in their home office. This means that users can access their printer or scanner in the home office network. If the user leaves the Home Zone, the existing firewall rules are reactivated.

The new bypass function in the NCP VPN Client allows the IT administrator to configure the client so that certain applications are exempted from the VPN and the data is sent over the Internet even when split tunneling is disabled. This has the advantage that applications such as video streaming no longer overwhelm the server with terabytes of data.

"Multi Certificate Support" enables VPN connections between the one computer and different companies, even when each company demands an individual user certificate. "Multi Certificate" enables a number of certificate settings to be defined and then individually allocated to specific connection profiles.

FIPS: the embedded cryptographic module is validated according to FIPS 140-2 (certificate #1747).
The integrated "Advanced Authentication" feature in the NCP Secure Enterprise Management System supports Two Factor Authentication via SMS. Using the services of the NCP Advanced Authentication Connector or an SMS service provider, the user is sent a one-time password to his/her mobile phone (addressed via the SIM card).
In the extreme case, all Secure Client parameter settings can be blocked by the administrator, preventing the user from making any changes: alternatively, certain situation specific parameters can be individually unblocked ensuring that all situations can be suitably catered for.

Ease of Use and Cost Effectiveness

Ease of use and central administration serve to make the NCP Secure Enterprise Client unique on the market. The Secure Client's integrated dialer automatically establishes the connection to the Internet, and media type detection always selects the fastest available communication network while starting to establish the VPN tunnel. During the life of

that VPN tunnel, Seamless Roaming enables an automated changeover to the optimal communication medium without affecting the state of the VPN tunnel.
The Secure Client's intuitive graphical user interface (GUI) keeps the user updated on the state of the network and its security level, before and during a VPN connection. Detailed logs help to ensure rapid support from the help-desk in the event of unforeseen problems, and a configuration wizard simplifies creation of profiles. The Secure Client supports Wi-Fi/WLAN (Wireless Local Area Network) and WWAN (Wireless Wide Area Network, 2G, 3G, 4G). The mobile wireless network configuration, including Access Point Name (APN), is derived automatically from the SIM card being used, together with the details of the corresponding mobile wireless provider.

This is particularly beneficial when working abroad; the user is free to purchase and use a SIM card from the most cost-effective local provider.
The Budget Manager enables the most economic operation; volume or time budgets or providers can be defined and monitored.

The Secure Client's GUI includes a freely configurable area for displaying the customer logo or support notice, and the GUI itself is designed for barrier free operation, with support for the operation of a screen reader.

Central Management

The NCP Secure Enterprise Management (SEM) provides a "Single Point of Administration" for the rollout, commissioning and administration of NCP Secure Enterprise Clients (precondition for the use of the NCP Secure Enterprise Clients).

Data Sheet

NCP Secure Enterprise Client Windows

Operating Systems	Microsoft Windows (32 and 64 bit): Windows 10, Windows 8.x, Windows 7
Security Features	The Enterprise Client supports all major IPsec standards in accordance with RFC
Personal Firewall Firewall Configuration*	Stateful Packet Inspection; IP-NAT (Network Address Translation); Friendly Net Detection (Firewall rules adapted automatically if connected network 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; Homezone; Differentiated filter rules relative to: protocols, ports, applications and addresses, LAN adapter protection, IPv4 and IPv6 support, Central administration*
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,SHA384, SHA-512, MD5, DH group 1,2,5,14-21, 25, 26
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 conformance will always be maintained when any of the following algorithms are used for establishment 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

Authentication Processes	IKE (Aggressive Mode and Main Mode, Quick Mode); XAUTH for extended user authentication; 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: Pre-shared secrets, one-time passwords, and challenge response systems; RSA SecurID ready
Strong Authentication	X.509 v.3 Standard; biometric Authentication (Windows 8.x or higher)
Standards **PKI Enrollment***	PKCS#11 interface for encryption tokens (USB and smart cards); smart card operating systems: TCOS 1.2, 2.0 and 3.0; smart card reader interfaces: PC/SC, CT-API; PKCS#12 interface for private keys in soft certificates; CSP for the use of user certificates in the windows certificate store 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. CMP* (Certificate Management Protocol)
Network Access Control	Endpoint Policy Enforcement**
Networking Features	LAN emulation: Ethernet adapter with NDIS interface, full WLAN (Wireless Local Area Network) and WWAN (Wireless Wide Area Network, Windows 7 Mobile Broadband) support
Network Protocol	IP

Dialers	NCP Internet Connector, Microsoft RAS Dialer (for ISP dial-in via dial-in script)
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 Secure Enterprise VPN Server)
VPN Path Finder***	NCP Path Finder Technology: Fallback IPsec/ HTTPS (port 443) if port 500 respectively UDP encapsulation is not possible (prerequisite: NCP VPN Path Finder Technology on VPN gateway)
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
Communication Media	Internet, LAN, Wi-Fi, GSM (incl. HSCSD), GPRS, 3G, LTE, HSDPA, PSTN, ISDN.
Line Management	DPD with configurable time interval; Short Hold Mode; Wi-Fi roaming (handover); Channel Bundling (dynamic in ISDN) with freely configurable threshold value; Timeout (controlled by time and charges); Budget Manager; Connection Modes: automatic, manual, variable (reconnection dependent on how previous disconnect invoked)
APN from SIM Card	APN (Access Point Name) defines access point of a mobile data connection at a provider. If user changes provider, system automatically uses APN data from SIM card to configure Secure Client
Data Compression	IPCOMP (lzs), deflate
Additional Features	UDP encapsulation, WISPr-support, IPsec-Roaming, Wi-Fi roaming, Split Tunneling
Point-to-Point Protocols	PPP over ISDN, PPP over GSM, PPP over Ethernet; LCP, IPCP, MLP, CCP, PAP, CHAP, ECP
Internet Society RFCs and Drafts	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)

Client Monitor **Intuitive, Graphical User Interface**	Multilingual (English, Spanish, French, German); Intuitive operation; Configuration, Connection Management and Monitoring, Connection Statistics, Log-files, Internet availability test, Trace Tool for error diagnosis; Traffic light icon for display of connection status; Integrated support of Mobile Connect Cards, embedded); Client Monitor can be tailored to include company name or support information; Password protected configuration management and profile management, configuration parameter lock
Update with SEM	To update the client software the following plugins are required: • • License Plugin: Version 11.10 • • Client Configuration Plugin: Version 11.10 • • Firewall Plug-in: Version 10.11 from r33042 • • Update Client: Version 6.0

*) 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 Secure Enterprise Management
***) Prerequisite: NCP Secure Enterprise VPN Server

More information on NCP Secure Enterprise Client is available on the Internet at:
http://www.ncp-e.com/en/products/centrally-managed-vpn-solution/managed-vpn-client-suite.html

FIPS 140-2 Inside