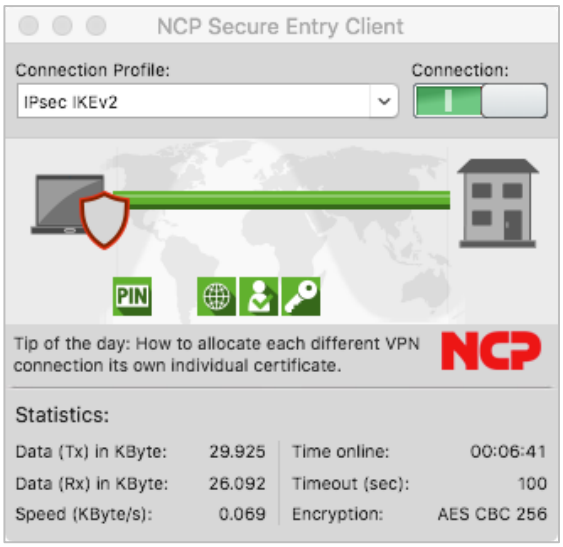
Data Sheet

NCP Secure Entry macOS Client

Universal VPN Client Suite for macOS

- Compatible with VPN Gateways (IPsec Standard)
- macOS 13 Ventura, 12 Monterey, 11 Big Sur
- VPN profile import of third-party configuration files
- IPv4/6 Dual Stack support
- Fallback IPsec → HTTPS (VPN Path Finder Technology)
- Strong authentication (e.g. Certificate), Biometrics
- Integration of all security and communication technologies for universal remote access
- FIPS Inside
- Support Apple Keychain
- Free of charge 30-day full version



Universality and Communication

The NCP Secure Entry macOS Client establish highly secure data connections can via any type of network (including iPhone Tethering), to VPN gateways from all well-known suppliers Mobile workers can use their macOS devices to access their company's central data network from anywhere in the world. Even when the macOS is located behind a firewall whose settings typically prevent IPsec data connections, NCP's "VPN Path Finder Technology" ensures that a connection to the remote gateway can always be established. "Path Finder" automatically switches to a modified IPsec protocol mode that then uses the resulting HTTPS port for the VPN tunnel. This feature mandates using an NCP Secure Enterprise VPN Server for the central VPN gateway.

Security

The NCP Secure Entry macOS Client provides additional security mechanisms such as support for OTP (One-Time Password) solutions and certificates in a PKI (Public Key Infrastructure).

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).

Usability and Cost Effectiveness

"Easy-to-use" for both user and administrator - the NCP Secure Entry macOS Client's features are unique in the market. The intuitive, graphical user interface (GUI) provides information on all connection and security states and in order to save space on the desktop, the GUI can be minimized to the menu bar.

A configuration wizard simplifies the set-up of connection profiles and detailed log information ensures effective assistance from the help desk.

Operating Systems	macOS 13 Ventura (Apple M1/M2 Chip und Intel-CPU), macOS 12 Monterey, 11 Big Sur (Apple M1 Chip and Intel-CPU)
Security Features	The NCP Secure Entry macOS Client supports the Internet Society's Security Architecture for the Internet Protocol (IPsec) and all the associated RFCs
Virtual Private Networking	▪ IPsec Tunnel mode ▪ IPv4/6 Dual Stack support ▪ IPsec proposals negotiated via IPsec gateway (IKE, Phase 2) ▪ Communication only in tunnel ▪ Message Transfer Unit (MTU) size fragmentation and reassembly
Encryption and Encryption Algorithms	*Symmetric processes:* AES-CBC 128, 192, 256 Bit; AES-CTR 128, 192, 256 Bit; AES-GCM 128, 256 Bit (only IKEv2); Blowfish 128, 448 Bit; Triple-DES 112, 168 Bit *Dynamic processes for key exchange:* RSA until 4096 Bit; ECDSA until 521 Bit, Seamless Rekeying (PFS); Hash Algorithm: SHA, SHA-256, SHA-384, SHA-512, MD5; Diffie-Hellman-Groups: 1, 2, 5, 14-21, 25-30 (from Group 25: Brainpool curves)
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
Key Exchange	IKEv1 (Aggressive Mode und Main Mode): Pre-shared key, RSA, XAUTH; IKEv2: Pre-shared key, RSA, EAP-MS CHAPv2, EAP-MD5, EAP-TLS, EAP-PAP, Signature Authentication (RFC 7427), IKEv2 Fragmentation (RFC 7383)
Authentication	Internet Key Exchange (IKE): ▪ Aggressive Mode and Main Mode ▪ Quick Mode ▪ Perfect Forward Secrecy (PFS) ▪ IKE Config. Mode for dynamic allocation of private IP (virtual) address from address pool ▪ Pre-shared secrets or RSA Signatures (with associated Public Key Infrastructure) User authentication: ▪ XAUTH for extended user authentication ▪ One-time passwords and challenge response systems ▪ Access details from certificate (prerequisite PKI) Support for certificates in a PKI: ▪ Multi Certificate Configurations for PKCS#11 and certificate-based authentication from file system as PKCS#12 container

	Machine Authentication Certificate based authentication with certificates from the Apple keychain Seamless rekeying (PFS) IEEE 802.1x: ▪ Extensible Authentication Protocol – Message Digest 5 (EAP-MD5): Extended authentication relative to switches and access points (layer 2) ▪ Extensible Authentication Protocol – Transport Layer Security (EAP-TLS): - relative to switches and access points on the basis of certificates (layer 2) RSA SecurID ready
Public Key Infrastructure (PKI) - Strong Authentication	▪ Biometric Authentication ▪ X.509 v.3 Standard; ▪ PKCS#11 interface for encryption tokens (USB and smartcards); ▪ PKCS#12 interface for private keys in soft certificates; ▪ PIN policy; administrative specification for PIN entry in any level of complexity; ▪ Revocation: ▪ End-entity Public-key Certificate Revocation List (EPRL formerly CRL) ▪ Certification Authority Revocation List, (CARL formerly ARL) ▪ Online Certificate Status Protocol OCSP
Networking Features	Any type of network, iPhone tethering via USB or Bluetooth
Secure Network Interface	Interface Filter ▪ NCP Interface Filter interfaces to all standard Network Interfaces from the PPP and Ethernet families. ▪ Wireless Local Area Network (WLAN) support ▪ Wireless Wide Area Network (WWAN) support
Network Protocol	IPv4/IPv6
Communications Media	LAN Communications media supported using Apple or 3rd party media interfaces and management tools: ▪ LAN / Ethernet ▪ Wi-Fi ▪ Mobile connections ▪ iPhone tethering
VPN Path Finder	Fallback to HTTPS (port 443) from IPsec if neither port 500 nor UDP encapsulation are available (prerequisite: NCP Secure Enterprise VPN Server V 8.0 and later)
IP Address Allocation	DHCP (Dynamic Host Configuration Protocol); IKE Config Mode (IKEv1); Config Payload (IKEv2); DNS (Domain Name Service): gateway selection using public IP address allocated by querying DNS server. When using Split-Tunneling, those domains whose DNS packets are to be routed via the VPN Tunnel can be specified exactly
Line management	DPD (Dead Peer Detection) with configurable time interval;

	Timeout; VPN on demand for the automatic construction of the VPN tunnel and the exclusive communication about it
Data Compression	IPCOMP (lzs), deflate
Additional Features	UDP encapsulation, import of the file formats:*.ini, *.pcf, *.wgx, *.wge and *.spd.
Internet Society RFCs and Drafts	RFC 4301 (IPsec), RFC 4303 ESP, RFC 3947 (NAT-T negotiations), RFC 3948 (UDP encapsulation), IKEv1, RFC 3526, ISAKMP, RFC 7296 (IKEv2), RFC 4555 (MOBIKE), RFC 5685 (Redirect), RFC 7383 (Fragmentation), RFC 7427, 3279 Section 2.2.3, 3447 Section 8 (Signature Authentication), RFC 5903, 6954, 6989, 4754 (ECC), RFC 2451, 3686 (AES with ESP), 5930 (AES-CTR), 4106 (AES-GCM), 5282, 6379 (Suite B), RFC 3447 Section 8 (Padding)
Client Monitor	Multilingual (English, German) Monitor & Setup: de, en Online Help and License de, en
Intuitive, Graphical User Interface	Configuration, connection statistics, Log-book (color coded, easy copy&paste function) Password protected configuration and profile management Trace tool for error diagnosis Monitor can be tailored to include company name or support information Options for starting the Monitor automatically after system reboot: either as application, or as an icon in the menu bar
Tip of the Day	The field is integrated into Client Monitor where configuration tips and application examples can be displayed. A mouse click in this field opens an HTML page, that provides information on how to use the Client and other feature. The tips are changed on a day-by-day basis
Project Logo	Clicking on the banner in an additional field in the Client Monitor will open a local HTML page in the macOS's default browser. The banner can be replaced by a company logo and the local HTML page by a page of your choice. Both files are located in the Client's installation directory under /Project logo as logo_en.png and secure_entry_banner_en.html. In addition a "Quick-Info" tip can be displayed when the mouse moves over the banner

Option: central management and endpoint security (upgrade NCP Secure Enterprise Client)

More information on NCP Secure Entry macOS Client is available on the Internet at:
https://www.ncp-e.com/en/products/ipsec-vpn-client-suite/vpn-clients-for-windows-10-8-7-macos/

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

FIPS 140-2 Inside

NCP engineering GmbH
Dombuehler Str. 2
90449 Nuremberg
Germany

+49 911 9968 0
info@ncp-e.com
www.ncp-e.com

NCP engineering, Inc.
19321 US Highway 19 N, Suite 401
Clearwater, FL 33764
USA

+1 650 316 6273
info@ncp-e.com
www.ncp-e.com