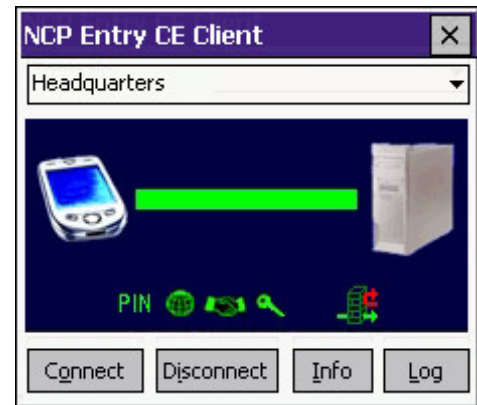


## Universal IPSec Client software for Windows CE operating systems - including Windows Mobile

- ▶ **Secure mobile computing**
- ▶ **Integrated, dynamic personal firewall**
- ▶ **Worldwide dial-in over all public networks**
- ▶ **Compatible with VPN gateways from different manufacturers**
- ▶ **End-to-end security principle even at hotspots**
- ▶ **Strong authentication with certificates -- software and hardware**
- ▶ **Intelligent connection management for transparent work even if the wireless path is interrupted**



### Universality

The NCP Secure Entry CE Client is a communication software product for universal implementation in any remote access VPN environment. Highly secure data connections to VPN gateways from all well-known suppliers can be established on the basis of IPSec standards. The data is transferred over any public wireless network, the Internet, as well as wireless networks such as wireless LANs on corporate campuses and at hotspots. For example mobile teleworkers can access central data repositories and applications via PDA, MDA, or TabletPC from any location. Another interesting area of application is mobile data acquisition, e.g. taking stock in the warehouse with PDAs via an integrated barcode reader and data transfer via WLAN.

### Security

Universal implementation possibilities require security mechanisms that repel attacks in any remote access environment. Even at hotspots during the logon and logoff processes of the teleworker. In addition to VPN tunneling the most important integrated components are: data encryption, a dynamic personal firewall, support of OTP (One-Time Password tokens) and certificates in a PKI (Public Key Infrastructure). Use the Personal Firewall to define policies for: ports, IP addresses, and segments as well as applications. An additional safety criterion is "Friendly Net Detection", i.e. automatic detection of secure and non-secure networks. The appropriate

firewall rules are activated or deactivated depending on whether a friendly net is detected. All configurations are always executed by the administrator - they cannot be changed by the user. The NCP Dialer also offers protection against cost-intensive outside dialers.

### Convenience

"Easy-to-use" – simple installation and operation of the client software. Convenience is ensured by the integrated configuration wizard for the configuration PC and an intuitive graphic user interface on the mobile end device. The mobile user works in precisely the same manner as he does on his office workstation. Interruptions of a wireless connection while transferring data e.g. wireless failures, or when changing access points in the WLAN, have no effect on these transparent work methods. For E-mail push services a special connection mode ensures automatic re-establishment of the VPN tunnel to the central VPN gateway. Thus the teleworker can always be reached.

### IPSec and CE compatibility

See [www.ncp.de/deutsch/services/index.html](http://www.ncp.de/deutsch/services/index.html)

## Technical data

<p><b>System Requirements</b></p> <p>Mobile end device</p> <p>Configuration PC</p>	<p>Operating system: Windows CE 3.0 (Handheld PC 2000, Pocket PC 2000), Windows CE.net 4.2 (Windows Mobile 2003 for PocketPC, Windows Mobile 5.0 for Pocket PC or for Smartphone, Windows Mobile 6.0 configuration: StrongARM processor (min. 200 MHz); 3.3 MB program memory, 2.1 MB memory; WAN or WLAN adapter:</p> <p>Operating system: Windows 98SE, NT (v.4.0 SP5), 2000, XP; 32 MB RAM, configuration: At least 10 MB RAM, MS Active Sync v. 4.X or higher</p>
<p><b>Security Features</b></p>	<p>The Entry Client supports all IPSec standards in accordance with RFC and also satisfies the most rigorous security requirements.</p>
<p><b>Personal Firewall</b></p>	<p>Stateful Packet Inspection; IP-NAT (Network Address Translation); Friendly Net Detection (analysis of: current network address, IP address and MAC address of the DHCP server); secure hotspot logon; differentiated filter rules relative to: protocols, ports and addresses</p>
<p><b>Virtual Private Networking</b></p>	<p>IPSec (Layer 3 Tunneling), RFC-conformant; IPSec proposals can be determined through the IPSec gateway (IKE, IPSec Phase 2); Event log; block and central tunneling; MTU size fragmentation and reassembly, DPD, NAT-Traversal (NAT-T); IPSec modes: tunnel mode, transport mode</p>
<p><b>Encryption</b></p>	<p>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; Diffie-Hellman Groups 1,2,5 seamless rekeying (PFS); hash algorithms: SHA1, MD5</p>
<p><b>Authentication processes</b></p>	<p>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; Pre-shared secrets, one-time passwords, and challenge response systems; RSA SecurID ready.</p>
<p><b>Strong authentication - standards</b></p>	<p>X.509 v.3 standard; PKCS#11 interface encryption tokens (smart cards and MMC Flash Memory Cards); smart card operating systems: TCOS 1.2 and 2.0; smart card reader interfaces: PC/SC, CT-API; PKCS#12 interface for keys in soft certificates</p>
<p><b>Networking features</b></p>	<p>LAN emulation: virtual Ethernet adapter with NDIS interface or transparent mode</p>
<p><b>Network protocols</b></p>	<p>IP</p>
<p><b>Dialers</b></p>	<p>PPC Connection Manager, NCP Secure Dialer, Microsoft RAS Dialer (for ISP dial-in via dial-in script)</p>
<p><b>IP address allocation</b></p>	<p>DHCP (Dynamic Host Control Protocol), DNS: Dial-in to the central gateway with changing public IP addresses through IP address query via DNS server</p>
<p><b>Transmission media</b></p>	<p>WLAN (WiFi), GSM (incl. HSCSD), GPRS, UMTS; Internet; analog modems (mobile phones via infrared or Bluetooth).</p>
<p><b>Line management</b></p>	<p>DPD with configurable time interval; WLAN roaming (handover);</p>
<p><b>Data compression</b></p>	<p>Stac (lzs), deflate</p>
<p><b>Point-to-Point Protocols</b></p>	<p>PPP over GSM, PPP over PSTN, PPP over Ethernet; LCP, IPCP, MLP, CCP, PAP, CHAP, ECP</p>
<p><b>Internet Society RFCs and drafts</b></p>	<p>RFC 2401 –2409 (IPSec), RFC 3498, RFC 3947: IP security architecture, ESP, HMAC-MD5-96, HMAC-SHA-1-96, ISAKMP/Oakley, IKE, XAUTH, IKECFG, DPD, NAT Traversal (NAT-T),UDP encapsulation, IPCOMP</p>
<p><b>Client Monitor graphic user interface</b></p>	<p>Multilingual (German, English); connection statistics, log files, trace tool for error diagnosis; stop light icon for display of connection status. Configuration management and profile management with password protection</p>

You can test a full version of the Secure Entry CE Client for 30 days, free of charge here:  
<http://www.ncp.de/english/download/testsoftware/index.html>