comforte's encryption suite

Protect passwords and confidential application data on HPE Nonstop systems

SecurCS SecurTN SecurFTP SecurLib SecurSH SecurPrint

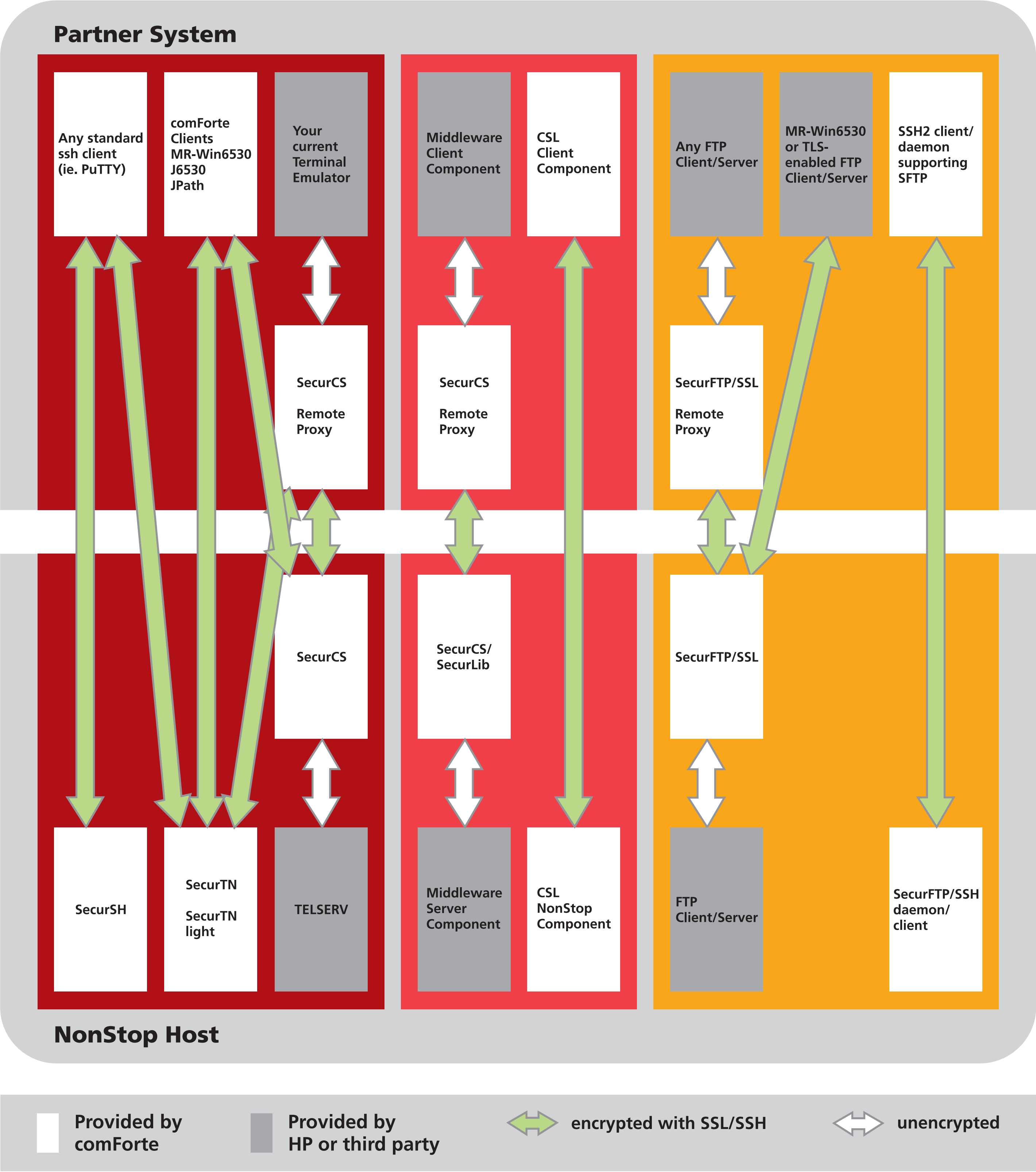
Overview

comForte offers a rich set of products depending on the protocol you want to encrypt. Even for a single protocol (such as Telnet) we offer different solutions depending on your requirements.

The following diagram shows all products together. This diagram may look confusing at first glance, but we do believe that our rich set of products allows us to tailor our solutions according to the customers' requirements rather than according to our product set. The purpose of this flyer is to provide an overview of the different products and to help you find the right solution for your requirements.

All our products take advantage of the most widely used and accepted security protocols: Depending on the product, connections are secured either via SSL (Secure Sockets Layer, now standardized by the IETF as Transport Layer Security – TLS) or via SSH2 (Secure Shell protocol version 2).

All our solutions can restrict access to your NonStop system to "encrypted only" and also provide some basic firewall capabilities.



Partner System

Any standard ssh client (ie. PuTTY)

comForte Clients MR-Win6530 J6530 JPath

Your current Terminal Emulator

Middleware Client Component

CSL Client Component

Any FTP Client/Server

MR-Win6530 or TLS-enabled FTP Client/Server

SSH2 client/ daemon supporting SFTP

SecurCS Remote Proxy

SecurCS Remote Proxy

SecurFTP/SSL Remote Proxy

SecurCS

SecurCS/ SecurLib

SecurFTP/SSL

SecurSH

SecurTN

SecurTN light

TELSERV

Middleware Server Component

CSL NonStop Component

FTP Client/Server

SecurFTP/SSH daemon/ client

NonStop Host

⬜ Provided by comForte

▨ Provided by HP or third party

⇔ encrypted with SSL/SSH

⇔ unencrypted

Telnet Encryption

Many organizations are realizing that using Telnet over a heterogenous TCP/IP network results in reduced security: all protective measures such as Safeguard become useless if passwords can be sniffed from the network using simple tools.

Client Solutions

Telnet Encryption using comForte's 6530 emulators

All of comForte's 6530 emulation products come with built-in encryption capabilities:

- **MR-Win6530 – a feature-rich Win32 terminal emulation**
  MR-Win6530 provides Microsoft Windows users with a powerful yet easy-to-use emulation package for HP NonStop, IBM or Unix system access, combining outstanding performance and security with unique features specifically designed to support users of HP NonStop systems.

- **JPath – instant GUIfication of block mode applications**
  JPath allows you to automatically add a GUI-flavour to your existing block mode screens.

Telnet Encryption using your existing 6530 emulator

- **SecurCS Remote Proxy**
  Our remote proxy component allows customers to encrypt their Telnet traffic while retaining their current terminal emulation software.

Solutions for the HP NonStop System

SecurTN – Secure Telnet Access Server
SecurTN provides secure and manageable high volume Telnet access to applications running on HP NonStop systems. It combines the functionality of a powerful Telnet server with strong authentication, user access control, session encryption and auditing facilities in a single, integrated product. SecurTN replaces TELSERV, thereby eliminating the "256 session only" limit of TELSERV. SecurTN also provides strong client authentication through hardware tokens and advanced access control as well as support for ssh clients.

SecurTN light
SecurTN light is a version of SecurTN with reduced functionality. This allows you to match your requirements to your budget: SecurTN light provides all the features of SecurTN except for auditing, strong client authentication and advanced access control.

SecurCS for Telnet
SecurCS for Telnet is our basic solution for encrypting Telnet access. A proxy process will forward sessions to the TELSERV process thereby transparently encrypting all Telnet traffic without the need for any additional encryption processes on the NonStop host. Your applications will not see any difference to the environment you are currently using.

SecurSH
SecurSH implements an ssh terminal daemon on the NonStop system allowing full terminal access to the OSS personality using standard ssh clients such as PuTTY. It also supports file transfer according to the SFTP over SSH standard.

Secure Client/Server Communication

Encrypting the Telnet data stream is the first priority when it comes to protecting sensitive data from LAN sniffer attacks. However, sensitive data is sent across TCP/IP networks by using other products as well. Remote Server Call (RSC), Open Database Connectivity (ODBC), Websphere MQ and other messaging middleware products don't come with encryption capabilities.

SecurCS
SecurCS provides SSL/TLS encryption capabilities to these middleware protocols without any changes to the underlying components. SecurCS is transparent to your existing environment and requires no applications changes. It has been tested with RSC, IBM Websphere MQ, ODBC, FASTPTCP, CORBA, Pathway iTS, Web-ViewPoint, EXPAND and other protocols. We will assist you with the encryption of other TCP/IP based protocols using SecurCS.

SecurPrint (not in diagram)
SecurPrint implements the SSL/TLS protocol as a plug-in for FASTPTCP, the HP NonStop TCP/IP network print process. Printers or print spoolers which do not support the SSL/TLS protocol can be SSL-enabled using a secure remote proxy or LPD server which is included with the product.

SecurLib (not in diagram)
SecurLib allows you to implement complex cryp-tographic algorithms such as SHA-1, 3DES or RSA with only a few lines of code. It also allows to SSL-enable exisiting TCP/IP applications.

CSL – Client Server Link
CSL transparently replaces RSC. Coming with built-in SSL and native Java support, CSL focuses on security, high throughput and ease of manageability. CSL also enables integration of both legacy and new applications with J2EE environments.

Secure File Transfer

Although FTP is a widely adopted standard for exchanging files across different platforms, the standard implementations of FTP have no encryption capabilities whatsoever. User names, passwords and files are sent across the network in the clear.

SecurFTP
SecurFTP provides secure file transfer between NonStop systems and other platforms. It supports a rich set of platforms and protocols and can be integrated in existing FTP environments very easily.

SecurFTP comes in two "flavours" supporting either the SSL and SSH encryption standard: SecurFTP/SSL is based on an extension to the FTP standard which defines how to add SSL-encryption protocol to FTP. This proposed new standard is currently discussed in the Internet Engineering Task Force (IETF).

SecurFTP/SSL works with existing PC-based solutions for encrypted file transfer such as WSFTP-Pro or CuteFTP Pro. SecurFTP/SSL also interacts with the built-in secure FTP client of MR-Win6530. Finally, using the Remote Proxy component it will also work with FTP clients and servers running on other platforms where no Secure FTP product is available. This way SecurFTP/SSL is a true any-to-any solution for Secure File Transfer.

SecurFTP/SSH implements the SFTP/SSH standard which is especially popular on Unix systems. It will interoperate with any SSH2 client or daemon which implements the SFTP protocol.

[public art: darmstadt]

Professional Services

- **Consultancy**
  We at comForte have extensive know-how both on network security and the HP NonStop platform. Network security is a complex field: while there are many resources available on that topic for the Windows or the Unix platform, very few companies are able to match our combined expertise of network security and the NonStop platform.

- **Network Security Review**
  We offer a network security review which will look at your HP NonStop system and how it is embedded into your company IP network. Our review will identify potential security weaknesses and explain the best solutions.

- **Custom development**
  For individual requirements which aren't covered by our product set as yet, we can provide custom-built solutions. Because we base new components on our existing components you may be surprised how fast we are able to deliver new functionalities.

comForte provides a wealth of information pertaining its security products:

Product Sheets
Product Sheets with detailed information about the individual products are available for the following products:

- SecurTN
- SecurFTP/SSL
- SecurFTP/SSH
- SecurCS
- SecurLib
- SecurSH

- MR-Win6530
- JPath
- CSL

Articles in *The Connection*
comForte has authored various articles in *The Connection*, the ITUG magazine:

- "Securing your NSK System" (September/October 2001): overview of some generic security principles and how to apply them in the NonStop world.
- "NonStop network security" (July/August 2003): describes how network-based attacks can be used to attack NonStop systems and how to counter those attacks.
- "SSL Certificates and PKI in the NonStop world – and other worlds" (May/June 2004): sheds some light on the somewhat confusing topic of Public Key Infrastructure (PKI).
- "Secure File Transfers in Heterogeneous Environments" (November/December 2005): compares various solutions for secure file transfer to/from NonStop systems.

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