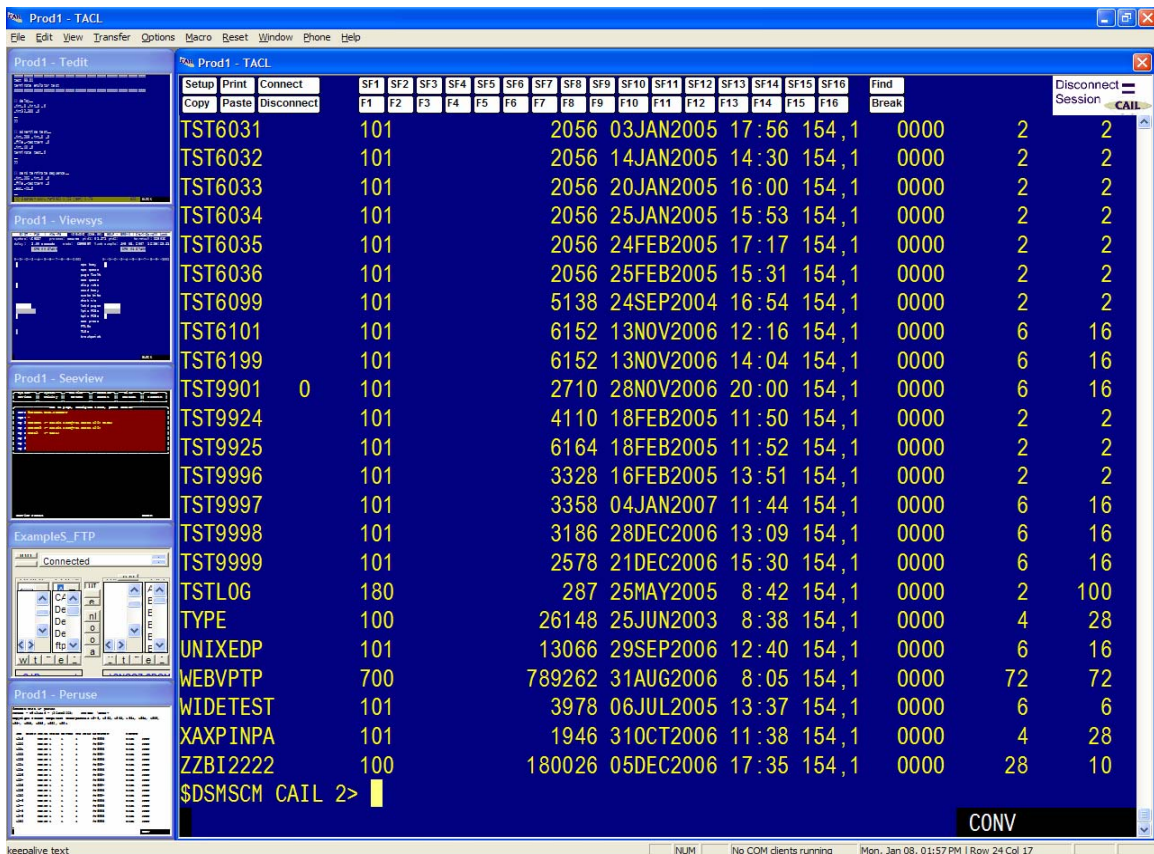


CAIL / Plus Highlights

CAIL / Plus has evolved for the past 5 years, with added functionality and features in each new version. Since some users may not be aware of these advantages, this document covers some of the best features.

IndexView

The IndexView feature simplifies a users interaction with the NonStop system by making it easier to see at a glance what sessions are open, and what the current status of each session is. The IndexView feature also switches between these sessions more efficiently.



The screenshot displays the IndexView window in a terminal environment. The window title is 'Prod1 - TACL'. The interface shows a list of sessions with columns for session ID, user, date, time, and status. The sessions are listed as follows:

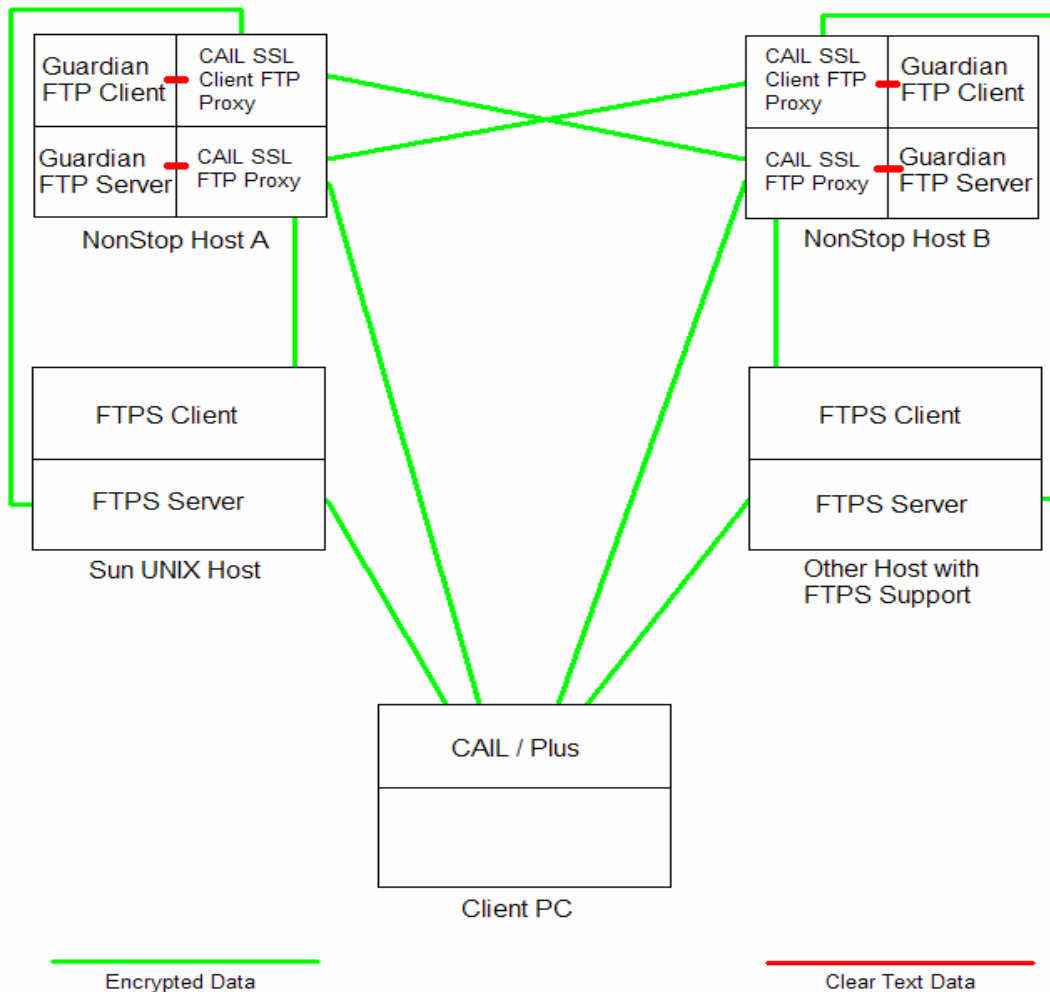
Session ID	User	Date	Time	Status
TST6031	101	03JAN2005	17:56	154,1 0000 2 2
TST6032	101	14JAN2005	14:30	154,1 0000 2 2
TST6033	101	20JAN2005	16:00	154,1 0000 2 2
TST6034	101	25JAN2005	15:53	154,1 0000 2 2
TST6035	101	24FEB2005	17:17	154,1 0000 2 2
TST6036	101	25FEB2005	15:31	154,1 0000 2 2
TST6099	101	24SEP2004	16:54	154,1 0000 2 2
TST6101	101	13NOV2006	12:16	154,1 0000 6 16
TST6199	101	13NOV2006	14:04	154,1 0000 6 16
TST9901	0 101	28NOV2006	20:00	154,1 0000 6 16
TST9924	101	18FEB2005	11:50	154,1 0000 2 2
TST9925	101	18FEB2005	11:52	154,1 0000 2 2
TST9996	101	16FEB2005	13:51	154,1 0000 2 2
TST9997	101	04JAN2007	11:44	154,1 0000 6 16
TST9998	101	28DEC2006	13:09	154,1 0000 6 16
TST9999	101	2578 21DEC2006	15:30	154,1 0000 6 16
TSTLOG	180	287 25MAY2005	8:42	154,1 0000 2 100
TYPE	100	26148 25JUN2003	8:38	154,1 0000 4 28
UNIXEDP	101	13066 29SEP2006	12:40	154,1 0000 6 16
WEBVPTP	700	789262 31AUG2006	8:05	154,1 0000 72 72
WIDETEST	101	3978 06JUL2005	13:37	154,1 0000 6 6
XAXPINPA	101	1946 31OCT2006	11:38	154,1 0000 4 28
ZZBI2222	100	180026 05DEC2006	17:35	154,1 0000 28 10

The interface also includes a menu bar with options like 'Setup', 'Print', 'Connect', and 'Disconnect'. The status bar at the bottom shows 'keepalive text', 'NLM', 'No COM clients running', 'Mon, Jan 08, 01:57 PM | Row 24 Col 17', and 'CONV'.

As you can see the active session uses the majority of the screen space, while the other sessions are miniaturized but still active. You can click on a miniaturized session to make it take over as the active session, or you can use Control-Tab.

To further simplify operation, if you have more than one NonStop system you can use named workspaces to run multiple instances of CAIL / Plus, one for each system, or if you prefer you can have all sessions to all systems in a single instance represented by a single workspace configuration file.

The following diagram illustrates the possible uses for the CAIL SSL FTP System.



The CAIL SSL FTP System supports encryption strengths up to AES and will always negotiate the strongest available that is supported at both ends.

Authentication is selectable, allowing you to only encrypt sessions, authenticate the client via a certificate without checking a Certificate Revocation List (CRL), or authenticate the client with a certificate with CRL check. At the PC client, if authentication is set to on and if the Windows Certificate Database does not include the certificate on the server, then the connection will be refused.

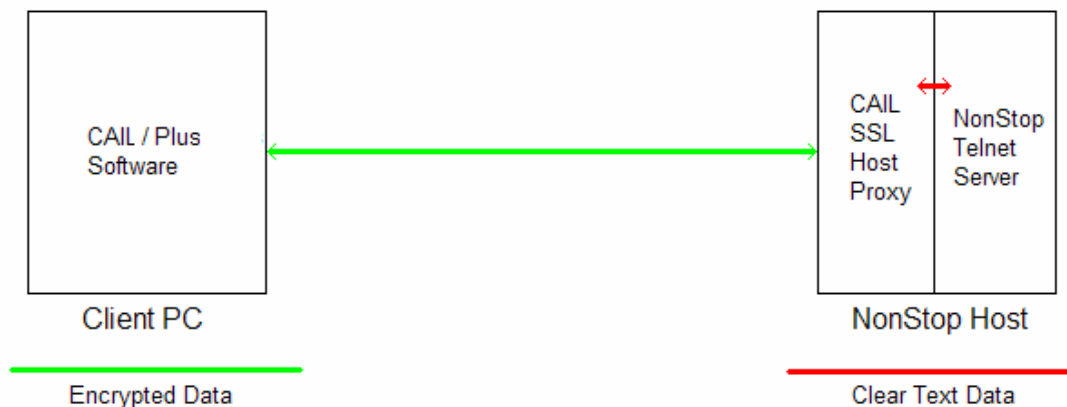
All CAIL SSL based software can run nonstop under Guardian, and is based on TLS 1.0 / SSL 3.1.

To make your projects more open-ended, and provide the most flexibility, CAIL provides both the embedded FTP engine and a closely related FTP engine as ActiveX controls which can be used in web pages and in new NonStop software development initiatives.

SSL Encryption for Telnet Sessions

The CAIL SSL Proxy is a NonStop resident software program that enables Telnet sessions between Windows based PCs and NonStop hosts to be encrypted. The Windows PC must have an SSL enabled terminal emulator such as CAIL / Windows, CAIL / Plus, CAIL / Java, or the CAIL 6530 ActiveX control. CAIL SSL Proxy operation is transparent to both PC and NonStop based application programs so there are no changes to any application software. The NonStop based CAIL SSL Proxy is implemented as a Guardian based process and can be run in nonstop mode.

The CAIL SSLProxy system operates by intercepting any TCP/IP traffic between the PC and the NonStop. The intercepted traffic is encrypted and forwarded to the remote machine. The encrypted traffic is then decrypted on the remote machine and passed to application. To intercept the traffic, the CAIL SSL Proxy listens for TCP/IP traffic on a particular port. When traffic is received, it encrypts the data and relays the encrypted data to a remote TCP/IP address and port. The remote session partner receives the encrypted data, decrypts the data, and forwards the data to the local application. The CAIL SSLProxy uses a single NonStop process for each CAIL SSL Proxy TCP/IP port.



As per the diagram above, to encrypt a NonStop Telnet session, the PC Telnet client would typically open the remote TCP/IP address using a special port, e.g. port 5023 (instead of the normal port 23). On the NonStop side the CAIL SSL Proxy process would accept data on port 5023, decrypt the data, and relay the clear text to the NonStop Telnet Server (Telserv) process on TCP/IP address 127.0.0.1 and port 23.

As with all our TLS 1.0 / SSL 3.1 based security products, the connection can be configured to encrypt only, or also authenticate the client using standard SSL certificates.

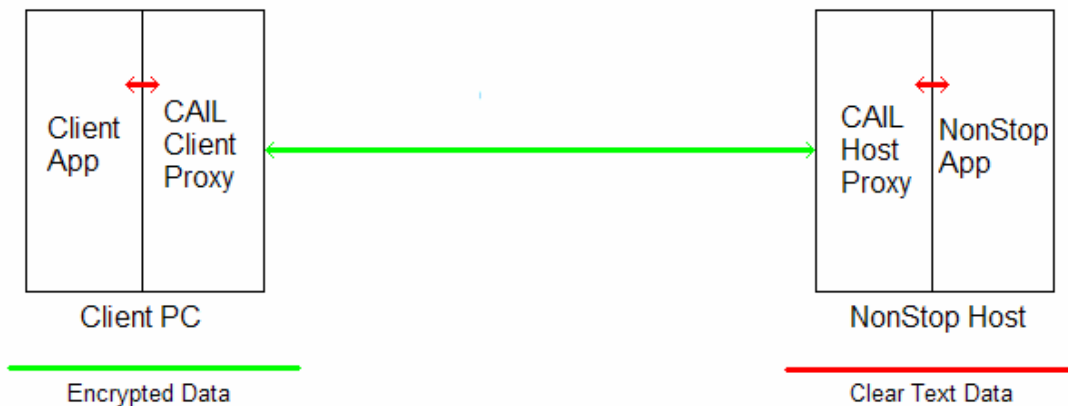
CAIL Socket Based Encryption

The CAIL Security Facility also includes an encrypted binary pipe to enable organizations to secure arbitrary binary data streams between the PC and a NonStop host. This can include any application that uses a single TCP/IP connection to communicate with the NonStop host.

The CAIL Socket Based Encryption supports encryption types from DES to AES, and will use fixed keys, or Diffie-Hellman key exchange technology.

The host portion is Guardian based and can run as a nonstop pair. The client portion runs as a service, so only needs to be installed once, and can be configured to automatically start when the PC is started.

Since the CAIL Socket Based Encryption Software runs as proxies on both sides, to the application software it seems like a normal connection, and therefore no application changes are needed on the PC or the NonStop Host for it to work.



This diagram shows a single application between the PC and the NonStop Host using the CAIL Socket Based Encryption software to secure the single socket based TCP/IP connection between them.

The primary advantage of using this facility is that it has been optimized for use on NonStop K-Series and S-Series hardware.

CAIL Adapter / CAIL Studio

The CAIL Adapter translates Host screens into XML or HTML and can be used to directly access NonStop Telnet screens with 6530 or VT protocols. (CAIL Studio extends this with screen aggregation and web automation). The CAIL Adapter provides a convenient Web based method with Browser or programmatic access using HTTP. This can be used for remote secure access to Host applications with no software downloads. As a result, this is a very appealing web-enabling building block for access to NonStop applications. A Java Class license is also available to use the CAIL Adapter as a programming object.