



Virtual Telex Line(s)

Small/Medium Scale Telex Solution

No change in customer workflow

- Connects 1-8 lines of the UK customer system to the Swiss exchange
- No change of workflow in the customer system
- Connection over secure internet (encrypted)
- Your telex number and answerback stays the same
- Real-time telex (messages are not stored on the Internet)

Areas of application

The existing telex line(s) of the UK customer telex system can be connected to a SwissTelex **sub-ITL** box (**subscriber Internet Telex Link**) installed on the customer's premises.

The **sub-ITL** box provides a secure internet connection between the customer's telex system in UK and the SwissTelex exchange in Switzerland. Each customer telex line connection maps onto a dedicated physical line in the SwissTelex exchange. The standard **sub-ITL** can handle any customer system from 1 to 8 lines.

Because the customer's telex system is connected at the external telex line interface, no change in the customer's system is required. Consequently there is no change in the customer's current workflow.

Features

The connection between the **sub-ITL** and the telex exchange is over the Internet. The connection is authenticated as well as encrypted using standard X.509 certificates (issued by SwissTelex) and the Secure Socket Layer (SSL 128) protocol. The encryption (128 bits) is the same as that used for e-banking and e-commerce.

The connection is established in the direction of client (**sub-ITL** at the customer site) to server (**hub-ITL** at the telex exchange). Consequently, there is no requirement to open any port in the customer firewall to unsolicited incoming connections.

The **sub-ITL** is essentially a dumb transmission medium – it performs no message storage or switching functions. Telex messages are sent and

received in real time under control of the customer system and the telex exchange. In particular, responsibility for answerback tripping and response lie outside the **sub-ITL**.

Technical Description

UK Customer systems currently connect to the telex network in UK by means of standard V21 telex line(s).

The **sub-ITL** is a PC-based unit, which can be connected to the customer system via its existing V21 telex line(s). One **sub-ITL** can handle up to 8 telex lines.

The Unit converts V21 signalling to V28 and connects to a multi-port async card in the **sub-ITL**. The **sub-ITL** connects to a corresponding **hub-ITL** in the SwissTelex exchange via a permanent SSL connection.

The **sub-ITL** effectively enables long-lining to the telex exchange in Switzerland. Each customer line is assigned a unique virtual line over the internet SSL connection, which is in turn mapped to a unique physical line in a corresponding **hub-ITL** unit in the Telex Exchange.

Suitable Customer Systems

Any customer system with up to 8 lines is a suitable candidate for connecting via a **sub-ITL**. Even customers whose system consists of a simple teleprinter can be connected. However, such customers would be advised to consider converting to the SwissTelex PC-Package WinteleX32.



sub-ITL, the Small/Medium Scale Telex Solution

Facts & Figures

Line interface	
Connection	V21 connection(s) at customer premises
Protocol for connection to Telex Exchange	Internet TCP/IP: connection through SSL (Secure Socket Layer)
Connection setup	From Client (sub-ITL at customer site) to Server (hub-ITL at the telex exchange); the destination Server's IP address and the dedicated port number are assigned by SwissTelex and set up in the sub-ITL software.
Client Firewall settings	Since connections are only ever initiated from the Client, normally no changes are required on Client Firewall. In any case, no port need be opened for unsolicited connections.
Authentication	With X.509 certificates (512-bits keys)
Encryption	Communication through the Internet are encrypted with 128-bit key strength
Certification authority	Swisscom Fixnet SA/Telex Services
Transmission speed	50 baud
Code	ITA No. 2
Storage	
Reception storage/transmission storage	Telex messages are not stored. Telex characters transit the ITL at 50bd cadence.
Internal components	
PC Operating system	Microsoft XP Pro
PC – HW line interface	Sealink sync board
IP requirements	
IP connection	Permanent IP connection e.g. Broadband
Client IP Address	Normally a permanent IP Address, but not necessarily so
Server IP Address	Permanent IP Address

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