

# Protocols for Developers



"TeleSoft gets a very high grade for being solid, reliable, and dependable... rocksolid throughout the whole project. Performance was also quite good. Didn't have to touch the TeleSoft code."

- 3COM Primary Access

"Telesoft has always been a great partner helping us to integrate the ISDN stack into our application. Their code and support is superior. That's what sets them apart."

Voyant Technologies

"TeleSoft code reduced our time-to-market by at least two man years."

WorkstationTechnologies

# eNewsletter #8

## **NEWS ITEMS**

- \* CompactSIP
- \* Frame Relay (FR) Enhancements
- \* QSIG Supplementary Services (SS)
- \* SIGTRAN
- \* Tloop
- \* Market trends

Presentation: Freescale Embedded Connectivity Summit

**Austin TX 4-6 Oct 2004** 

Tel: 512.373.4224 sales@telesoft-intl.com

**URL**: www.telesoft-intl.com

#### **SIP Source Code**

At the Freescale ECS TeleSoft will present a paper describing their CompactSIP stack specifically designed to be a very efficient and compact solution for embedded applications. Platforms will include a Coldfire-based solution.

#### FR Enhancements - Multi-Link FR

At SUPERCOMM2004, TeleSoft officially announced availability of the Multi-Link extension to the TsLink3 Frame Relay stack.

## **QSIG Supplementary Services**

In addition to QSIG BC + GF, TeleSoft now offers QSIG SS for OEMs developing products which are QSIG-enabled endpoints. QSIG (also known as "PSS1") is the universal standards-based interconnection network signaling in demand worldwide for both CO and CPE equipment.

## **SIGTRAN IUA**

SIGTRAN IUA is an industry-standard means of communicating between Layers 2 and 3 when the Layers are on separate processors. Written in conformance with IETF RFC 3057, TeleSoft's implementation of SIGTRAN ISDN User Adaptation (IUA) layer eases separation of the Q.921/I.430/I.431 lower layers of ISDN from the signaling portion (Q.931) allowing the use of different transport mechanisms between Q.921 and Q.931.

## **TLoop Development Environment**

A software tool that accelerates application development and enables demonstration without final hardware. TLoop uses TeleSoft Null Drivers to simulate hardware. When final hardware is available, real drivers are substituted for the Null Drivers and applied to the final hardware configuration.

#### **Market Trends**

While VoIP dominates the headlines, we also see is a demand for *Multi-Link Frame* Relay (MFR) to enable companies to handle increased bandwidth on their existing infrastructure and have more flexibility in adding bandwidth while keeping costs down. Bandwidth needs continually increase and the increments of bandwidth typically available from the Central Office (CO) are too large to be cost-effective. Using MFR on PBXs/Gateways and clear channel through the Central Office meets the need for cost-effective bandwidth.

#### **POPULAR PROTOCOLS**

A sampling of protocols and pre-ported OS interfaces available from TeleSoft. Contact TeleSoft (sales@telesoft-intl.com) and check the website www.telesoftintl.com for information on additional modules and devices supported.

Multi-Link Frame Relay Support for PVC + SVC including FRFs 1.1 through 16.1

Q.931 TsLink3 ISDN switch variants are run-time selectable and include BRI and PRI. support of Network and Terminal sides for:

North America
Japan

Europe

South America
Africa

- Taiwan

Australia

China

Korea

## EuroISDN ETSI DSS1 NET3 (TBR3) includes deltas for:

UK

FranceChinaGermanyHong Kong Hong KongKorea

**E1 CAS R2 Signaling** is still in use in many areas of the world. Currently we offer ten R2 country variants for Asia and S. America with more in development.

**ML-PPP with BACP** provides a standard software channel aggregation mechanism allowing in-band address passing and dynamic channel allocation.

# **OS Interface Support**

MontaVista Linux

RedHat Linux

VxWorks

• OSE

• Nucleus Plus • MQX

TsRITE

ATMOS

VRTX

Q.921 Available with Q.931 or as a standalone module. Increases efficiency of customer's application due to handling both fixed and automatic TEIs in a single task to decrease the number of overall OS tasks.

Q.932/Supplementary Services Available for EuroISDN, 5ESS, US NI-1

QSIG BC + GF + Supp Svcs Contact us for the most recent list of QSIG SS supported.

- **T1 Robbed-bit Signaling (RBS)** supports in-band signaling (56 Kbps on each B-channel) on T1 lines, comprehensive support includes both tone and pulse dialing.
- X.25 with X.31 access to ISDN B-channels Supports X.31 to provide the option of performing call control through the BRI or PRI ISDN network, removing the need for a permanent connection to an X.25 router. Network and Terminal Side support.

TeleSoft International – Your source for Protocol Source Code Stacks

## Contact Information

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