CoGR-303

GR-303 TMC Protocol Stack and Hardware/Software Testbed for next-generation iDLC Devices

Product overview

CoGR-303 is a 'C' language software implementation of the industry GR-303-CORE specification that meets TMC operational criteria for creating host-side integrated digital terminal (IDT) or remote digital terminal (RDT) digital loop carrier signaling devices.

CoGR-303 software modules and test programs are designed and created using industry-standard STREAMS, an efficient and well documented resource manager. For platforms that lack native STREAMS, CoSystems offers CoSTREAMS, a small footprint implementation that provides a common operating environment for all CoSystems protocol stacks and third-party applications.

To shorten project development and reduce time-to-market, CoGR-303 is available in pre-ported binary format or source code for pSOS, VxWORKS, Nucleus (call for availability) and Solaris (x86, SPARC). To further accelerate development, CoGR-303 is compatible with several COTS hardware platforms including:

*   Artesyn Baja64 adapter family
*   ATLAS Darwin family of SCBs
*   Sun Workstation with CoSystems programmable T1 communications adapters (SBus or PCI Bus)
*   Motorola 68xxx and MPC860/8260 designs.

CoGR-303 is a robust, field-proven solution that has been extensively tested by customers across North America using AT&T 5ESS and Nortel DMS-100 switches. CoGR-303 is a complete, layered implementation that offers:

*   IDT and RDT Call Processing support (GR-303-CORE Chapter 12 Compliance Matrix available).
*   Q.931 Call Control (Layer 3) with sample application.
*   Fault-tolerant Link Multiplexor (LMUX) with complete Link Management Application.
*   Q.921/LAPD Layer 2 Stateless Multiplexor, optimized to support GR-303 fault tolerant PPS and physical redundancy.
*   Physical Layer Interface Primitives (Data Request, Data Indication, Activate Request, Activate Indication, Deactivate Request and Deactivate Indication).
*   HDLC Layer 1 interface with generic I/O driver or pre-integrated drivers for popular processors and T1 framers.
*   CRV/DSO Mapping and Link State information via APIs.
*   Detailed statistics available at Physical Layer, Q.921/ LAPD Layer, LMUX Layer and Q.931 Call Control Layer.
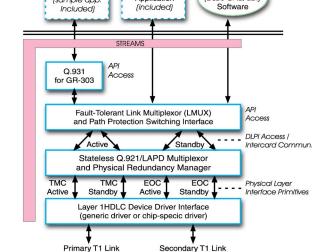*   POTS, ISDN, NxDSO and nailed-up support.

*   **Multiple Interface Group (MIG)** support for up to 32 groups; ability to dynamically start and stop groups.
*   Configurable number of LAPD logical links.
*   Well-documented API access to Call Control, Management functions (Make Call, Break Call…) and Link Multiplexor for efficient path protection switching.
*   **Physical Device Redundancy Support** option.
*   **Pre-integrated EOC Support** for software, agent testers and PPS modules from DSET, ONE and EDI.
*   Common Signaling Channel (CSC) support in future release.
*   Built-in "soft" Protocol Analyzer with symbolic display of decoded TMC/ EOC messages with time stamps; dynamic setting of protocol timers and retry counts.
*   Menu-driven monitor displays statistics for each layer; debug routines can be easily integrated into a craft interface.
*   Complete or partial GR-303 hardware/software design, integration, and test services available; proven track record with numerous customers and products.

A low-cost hardware/software **CoGR-303-Testbed** is also available, allowing you to bench test your GR-303 RDT or IDT product without the need for expensive protocol analyzers. The CoGR-303-Testbed runs on a Solaris Workstation, and includes two CoSystems T1 adapters (PCI or SBus) for testing active/standby path switching, device drivers and a sample test application. Command-driven software permits real-time and profile simulation, functional/stress testing, debugging, system tuning and compliance testing.

CoSystems
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