# LoopStar<sup>®</sup> Network Management

LoopStar 800/1600/3600 Provide Flexible Options for Network Management



LoopStar 800



LoopStar 1600



LoopStar 3600

## Overview

ADC's LoopStar next generation SONET product family provides service providers and enterprise customers several choices when deciding how to manage their networks. The choices include: 1) A full GUI-based Element Management System (EMS) for large complex networks; 2) An EMS- Local Craft Terminal (LCT) for centralized management of relatively small networks via a single layer solution; 3) Web-LCT which is resident on the LoopStar system and provides GUI control using a PC- based web browser; and 4) Transaction Language (TL-1) command language with direct serial communication between a PC or higher layer NMS and the LoopStar SONET system. These flexible options enable customers to select the right level of network management for their LoopStar systems, based on their considerations of complexity and cost.

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### LoopStar EMS and EMS-Local Craft Terminal (LCT)

The LoopStar EMS is an advanced userfriendly Graphical User Interface (GUI) Element Management System (EMS) for controlling and managing networks consisting of LoopStar 800/1600/3600 SONET access systems. The LoopStar EMS provides users with sophisticated centralized control capabilities for configuring, monitoring, testing, and managing multiple LoopStar 800/1600/3600 systems from a single management platform.

The LoopStar EMS-LCT is an element management layer (EML) management system for LoopStar 800/1600/3600 SONET Access Systems. The LoopStar EMS-LCT is intended for small, relatively simple networks. It provides users with single-layer management network solutions to the LoopStar 800/1600/3600 of up to eight NEs and manages the systems in a centralized manner.

LoopStar 800/1600/3600 systems are highly advanced next-generation SONET Access Systems that allow service providers to costeffectively deploy and manage TDM and Ethernet services to end-user customers.

With the LoopStar EMS or EMS LCT, service providers can perform advanced management control functions for their entire network of LoopStar 800/1600/3600 systems, all from a common management platform. Specific capabilities of the LoopStar EMS and EMS-LCT include:

- **Configuration Management:** Network connections, system and circuit provisioning, system inventory
- Fault Management: Alarm management and control, alarm history database management
- **Performance Monitoring:** Real-time traffic management, monitoring and alarming, PM database management
- Security: System access and password control
- Testing: Circuit and test management control



Network Configuration Management and System Alarming





LoopStar Network

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LoopStar<sup>®</sup> Network Management  $\triangleleft$ 0 • 4



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The LoopStar EMS is a Windows®-based software application designed to operate in standard client-server-based configurations. The system is a scalable platform consisting of a central database/server software application with options for multiple client servers hosted from the central server. The total number of LoopStar 800/1600/3600 elements to be managed by a common LoopStar EMS is a function of the server/client system and memory capacity. Standard network configurations are approximately 1-32 systems per LoopStar 800 EMS.

Communications between the LoopStar EMS and network LoopStar 800/1600/3600 systems is via TL1 or SNMP message control over Ethernet LAN/WAN communications. The LoopStar EMS can also funnel network configuration, alarms and performance monitoring information to higher-order network management systems via TL1/CORBA/MML north-bound LAN/WAN interface communications.

The LoopStar EMS-LCT is a PC-based software application designed to work on Windows 2000 or Windows XP system. The LoopStar EMS- LCT provides management and configuration functions at the NE layer to a single concurrent session.

## Web-Local Craft Terminal

The Web-LCT is a JavaScript application embedded in LoopStar Network Element (NE) software. Through the Web-LCT, customers can manage, maintain and configure the LoopStar 800 using Microsoft Internet Explorer. Users can access the LoopStar 800 and configure services or query alarms on it just by opening Microsoft Internet Explorer on their terminal computers and then entering the IP address of the NE. Once accessed, the Web-LCT provides configuration management, fault management, performance monitoring, security and testing management. Web-LCT will be available on the LoopStar 1600 in the near future.

# Transaction Language (TL1)

TL1 is a derivation of the CCITT Man-Machine Language (MML). The LoopStar SONET product family TL1 specification is derived from Telcordia standards referenced in the TL1 Command Set Technical Publication. The LoopStar 800/1600/3600 can be managed directly via TL1 commands by technicians who log into the NE LAN port using terminal emulation on a PC. They can perform all of the network management functions referenced in the EMS/ EMS-LCT section of this document. Using TL1 the LoopStar 800 has complete integration into Telcordia 's TIRKS and NMA OSS systems for inventory and network monitoring.



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# System Requirements

### LoopStar EMS

#### Server

PC Desktop PC-P4 2.4GHz or above, or PC Server-P4 PE6600-4xXeon 1.9GHz or above, or HP Workstation-xw6000-2xP4 Xeon 2.4GHz or above

512M-40G-FDD/DVD/Video adapter 10&100BT Network adapter Windows2000 Professional

#### Client

Desktop PC-P4 2.4GHz or above 512M-40G-FDD/DVD/Video adapter, or HP Workstation-xw6000-2xP4 Xeon 2.4GHz or above 1GB-2x36GB

#### LoopStar EMS-LCT

#### Personal Computer

Pentium 1.3 GHz or above 256M/30G/FDD/DVD Windows 2000 or XP

#### Web-LCT

#### **Personal Computer**

Microsoft Windows 9X, 2000, XP or NT Microsoft Internet Explorer 5.5 or later 800x600 pixel resolution (minimum) Pentium II 600 or higher 128 MB memory (minimum)

# Ordering Information

Description	Catalog Number		
LoopStar EMS Items			
LoopStar EMS Server (Server SW and SQL Database)	LPS-EMS800SRV-L1		
LoopStar EMS Client (Client SW and ILOG Tools)	LPS-EMS800CLNT-L1		
LoopStar NE License Authorization Charge (RTU) per NE, first 30 NEs	LPS-EMSRTU-L1		
LoopStar NE License Authorization Charge (RTU) per NE, NE 31 and above	LPS-EMSRTU-L2		
LoopStar EMS-LCT Items			
LoopStar EMS- LCT Software (PC)	LPS-EMSLCT		
Web-LCT			
LoopStar Web- LCT Software (PC)	NA - resident on NE		



#### Website: www.adc.com

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