

Mercury 800

Mercury 3600+

Mercury 3630

Mercury 3630E

Mercury 3820

DACS

- Non-Blocking DS0/DS1 digital cross-connection
- Scalable modular design, with 2, 5, or 10 I/O slots
- Hot swappable service modules supported
- Link Protection works on E1, G.SHDSL, Fiber, STM-1
- Provide FXO/FXS for PBX voice extension application
- Tainet Universal NMS software, TFTP software upgrade available



TAINET Mercury Cross Connect System offers high capacity I/O non-blocking cross connection and a wide range of access technologies for rapid rollout of voice/data/video service enhance Teleco Carrier operator's competitiveness. Mercury's modular design enable fast service launch and OpEx reducing, besides Mercury family satisfies a wide range of broadband and narrowband applications for Energy industrial, Railway/Airport authorities and various dedicated networks' communication need. Mercury DACS supports user-programmable routing at the level of the individual E1 time slot, and thus allow DS0/1 time slot interchange and grooming.

As an advanced Integrated Access Device, Mercury supports more applications, like carrying voice channels, T1-to-E1/Data Interface conversion, industrial SCADA, Optical Mux and Mobile network connection. Plug-in interface modules supporting n x 64 Kbps, E1, T1, sub-rate and STM-1 trunk transmission over Copper, G.SHDSL, Fiber Optical. Available with the channalized Router Module, which provides the IP routing up to maximum 32 PPP links with 64 kbps data rate, or any combinations with time slots cross connect to the DDN (E1/T1, V.35 or RS-530). Router modules provide flexible solution for network management, SCADA or small branch office routing solution. For campus network, a variety of voice interfaces - E1/T1 for digital PBX, analog voice interfaces (FXS, FXO or E&M) for connecting an analog PBX or telephones are exist. Carrier-class link protections are available on E1, G.SHDSL, Fiber and STM-1. On-board router supports SNMP agent for TAINET Universal Network Management System. Mercury provides bandwidth utilize in the majority of the time.



DACS product family

Mercury 800 is designed with two embedded E1 interfaces and two optional interface slots to fulfill various applications, with one on-board non-channelized router. The cross connection capacity can be increased up to 10 E1/T1. This compact device is the best solution for customer end.

Mercury 3600+, 1U high rack mount platform with 5 generic slots up to 16 E1. Mercury 3820, 3U high rack mount platform with 10 generic slots up to 32 E1, with one on-board channelized router. The Mercury 3600 series is cost-effective solution for carrier class users, when Mercury 3820 are for service provider's edge office or POP sites.

Mercury 800



Mercury 3600+



Mercury 3820



Mercury 3630 / 3630E is workable on TM and Linear mode, which can multiplex all tributary interfaces into STM-1 trunk card. STM-1 data streams shall follow the SDH standard and thus it can inter-connect with others STM-n level equipment. Up to 21 E1, all Mercury DXC features and modules are supported. Mercury 3630E build in EoS interface enable transport of Ethernet and Time-Division Multiplexing (TDM) traffic over Fiber Optical networks. High capacity platform designed for applications inside service provider's edge office or POP site.

Mercury 3630



Mercury 3630E



➤ Digital Access Cross Connection, Grooming

The Mercury series consist of multi-service interface cards providing non-blocking DS0 cross connection from 10 E1 lines, 16 E1 lines, up to 32 E1 lines. This programmable DXC table connects any incoming 64kbps to any outgoing 64kbps timeslot to enable drop-and-insert, distribute and collect voice or data traffic. The Mercury series enables grooming fractional traffic from the customer side into full E1/T1, xDSL cards or fiber trunks, for connecting the network.

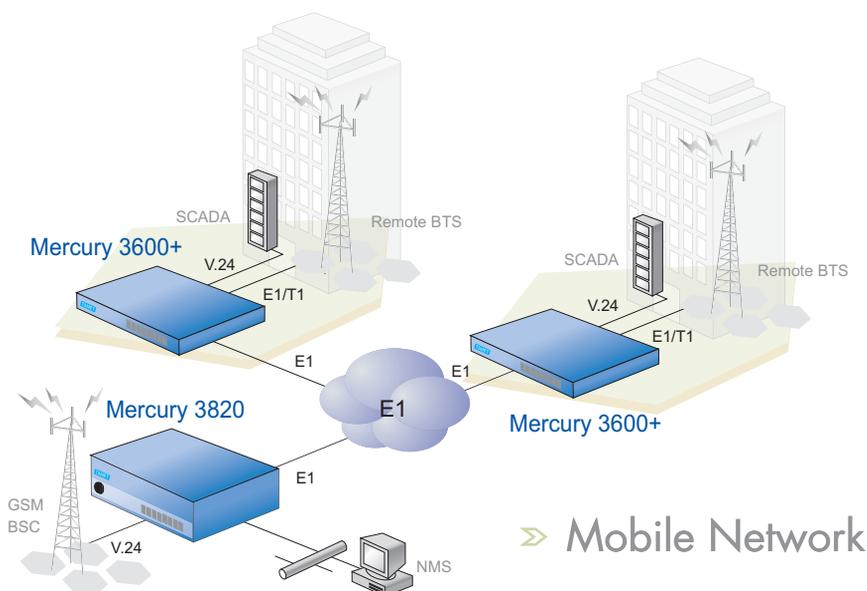
➤ DSL Leased Line Modules

4IDSL: four-port module enabling IDSL extension to remote modems at a range up to 7.8km over 0.5mm wire; connection with remote standalone unit, DT-128.

2P-SHDSL: dual-port SHDSL module, fully compliant with ITU-T G.991.2 TC-PAM, can be acted as a LTU for transmitting 2Mbps voice or data over a pair of copper wires; supporting nx64kbps transmission, and thus allowing users to freely configure data rates for any application; connection with remote DACS units or Scorpio 1400. The SHDSL-1-V enhances signaling forwarding for PBX extension.

➤ Fiber (Fiber-1-V, Fiber-1-B, Fiber-2, Fiber-1-VWxx)

The Mercury series provide various fiber interfaces. The Fiber-1-V module supports point-to-point application for carrying 4E1 with voice signaling. The Fiber-2 module is equipped with two optical interfaces for two different destination links with 4E1 capacity for each. The Fiber-B module supports 1+1 fiber link protection, in 50ms. The Fiber-1VWA20/B20 modules are designed for using the WDM optical line and support point-to-point application for carrying 4E1 with voice signaling.



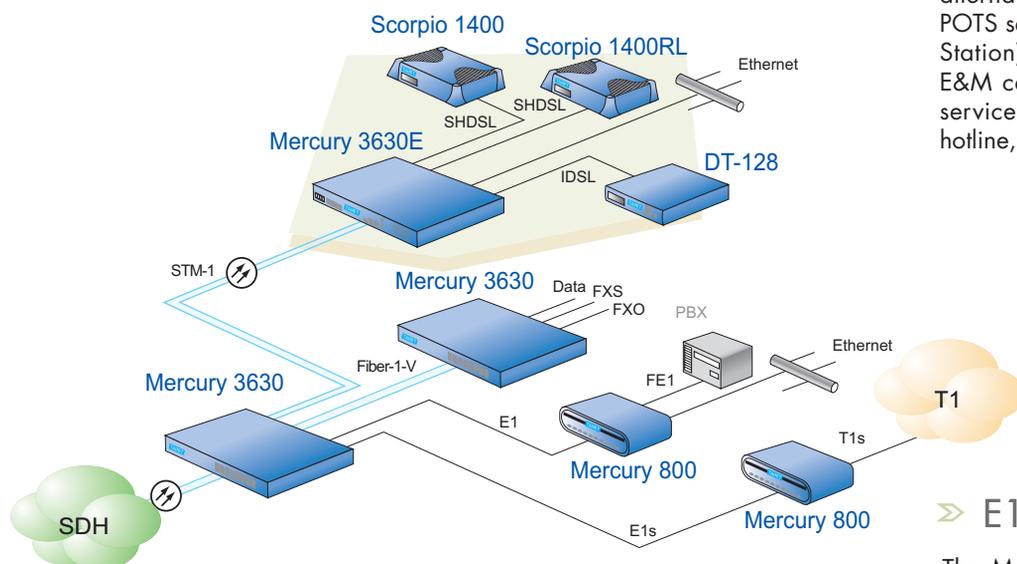
➤ Mobile Network

➤ Multiplexer Voice + Data into G.SHDSL or Fiber

Mercury series modules are designed to channelize function in multiplexing and demultiplexing of DS0 traffic. For voice and data applications, the Mercury series enable multiplexer 64k voice and nx64kbps data over an E1 link to connect with Microwave, xDSL or Fiber. Therefore, the POTS interface includes FXS, FXO and E&M. The interface data type is software dependent: V.35, RS-530, or X.21.

➤ Voice

The Mercury POTS series card provides an alternative solution for Utility campus networks. POTS series cards include FXS (Foreign Exchange Station), FXO (Foreign Exchange Office), and E&M card, which are used to extend the voice service over E1 networks. Voice cards support hotline, and PBX extension through E1.



➤ Multi-Access Network

➤ E1/T1 Converter

The Mercury series are able to convert multiple T1 and E1 links. A-law/μ-law card and voice signaling conversion are performed according to E1 and T1 standards. E1 to V.35 conversion is also available.

➤ Sub-rate Interconnection

Sub-rate multiplexing functions support in Mercury 4P-V24 and X.50 interface cards. The 4P-V24 can transmit asynchronous or synchronous sub-channel data into different time slots or combine into a time slot for saving bandwidth. Purpose in addition, the X.50 interface card is able to aggregate DACS or the asynchronous/synchronous sub-channel into different terminations.

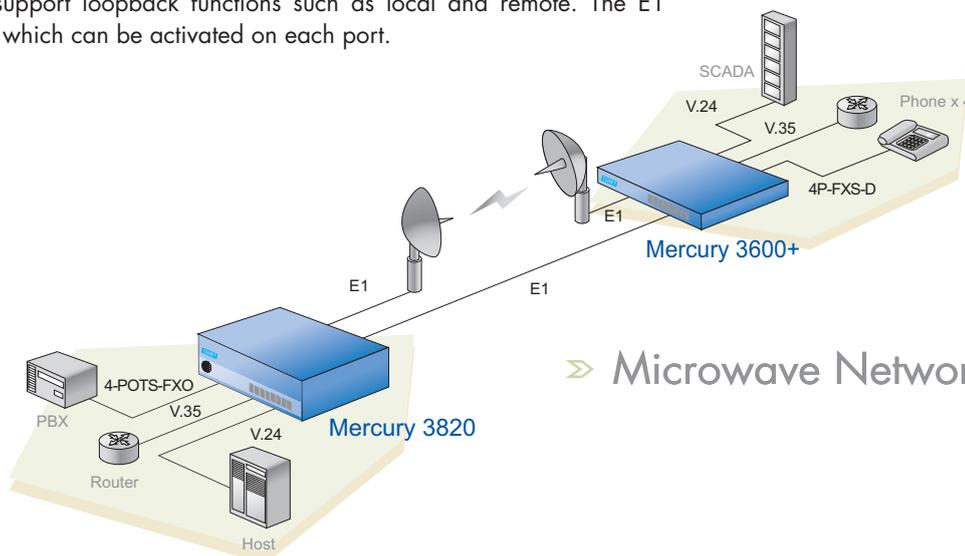
➤ Data

Four-port universal data card is supported in the Mercury series. Users can configure diverse service types such as V.35, RS-530, and X.21. It maps with other service cards based on 64k time slot interchange.



» Setup, Management, and Diagnostic

Setup, control and diagnostics can be performed via an ASCII terminal or Ethernet port. Its built-in SNMP agent allows it to be controlled by TAINET Universal Network Management System. Alternatively, the VT100 command line enables users to real-time control and monitor IADs. Configuration and diagnostics of remote services are provided through a dedicated timeslot that can be groomed by DXC alongside the payload traffic (up to 16 management links). Out-of-band management is available as well. For diagnostic, all modules support loopback functions such as local and remote. The E1 module features BER Test, which can be activated on each port.



» Microwave Network

	Mercury 800	Mercury 3600+	Mercury 3630	Mercury 3630E	Mercury 3820
Height	1U				3U
Number of I/O ports	2 Slots	5 Slots			10 Slots
STM-1 interface	N/A		2*STM-1		N/A
EoS interface	N/A			4 Ports	N/A
Cross-connection capacity	Up to 10 E1/T1	Up to 16 E1/T1	Up to 21 E1/T1		Up to 32 E1/T1
Time slot interchange capacity	608 * 608	1024 * 1024			2048 * 2048
ASCII, SNMP, UNMS management	Supported				
Firmware upgrade available	TFTP firmware upgrade available				
Hot swappable I/O modules	Not supported		Supported		
Voice card	FXS, FXO, E&M		Supported		
Data card	Supported				
ON-board router module	Non-channelized		Channelized		
Dimension (WxDxH) mm	218 x 206 x 59	443 x 320 x 44	443 x 320 x 44	445 x 320 x 132	445 x 320 x 132

