

Transaction Gateway 2.5

A Total Control® 1000 High-Density Solution

A POWERFUL HIGH-DENSITY PLATFORM DESIGNED FOR PROCESSING HUNDREDS OF MILLIONS OF SHORT-DURATION CALLS



KEY BENEFITS

Increased Density Within the Same Shelf

Supports up to 672 T1 or 630 E1 X.25 switched virtual circuits per chassis.

Speeds Transactions

Reduces modem handshake time by 70 to 75 percent and connection time to as little as one second, speeding transaction times and reducing costs.

DS3 Support

A cost-effective solution for terminating DS3s rather than individual direct E1/T1

Supports the Latest Standards

Supports the most recent VISA® standards and the Synchronous Transaction Protocol, reducing traffic to a processing host by up to 50 percent.

Automatic Call-by-Call Egress Selection

Supports both TCP/IP and X.25 egress in a single system, and automatically selects the egress on a call-by-call basis; TCP/IP or X.25 is selected automatically, based on DNIS.

System Redundancy

Provides maximum system reliability with load balancing, redundant components, and automatic failover.

Point of Sale (POS) Terminal Support

Supports most POS fixed and non-fixed terminals, eliminating the need for costly hardware replacements.

Encryption Support

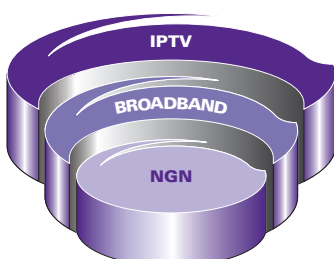
Provides optional encryption using IPSec

Improved Management tool

With a new Java® based management tool, customer can offline configure the gateway using any platform.

Hosting support

The new transaction accounting system allows customers who provide wholesale services to give their end users the ability to view their own traffic patterns in real time.



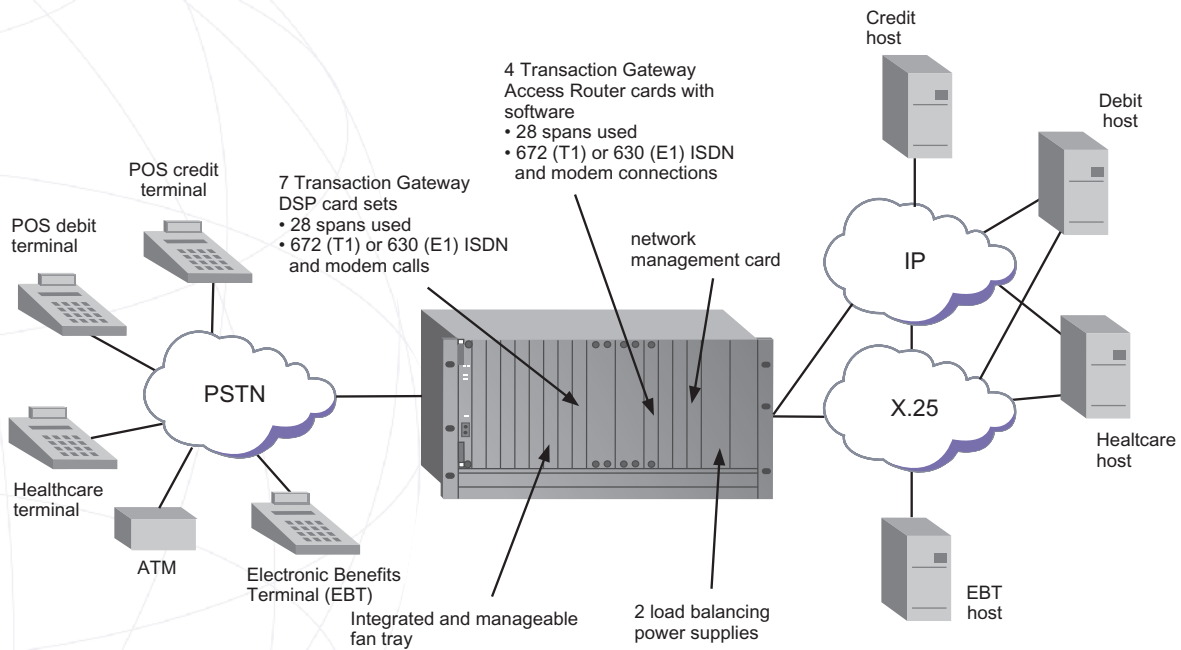
The UTStarcom high density Transaction Gateway 2.5, the new improved next generation payment platform, offers our customers the ability to remain competitive and add new functionality required by the industry. This specialized software suite can enable fast transaction processing of credit card authorizations, debit card fund transfers, health benefit authorizations, electronic benefits transfers, and other communications involving single-session transfer of small amounts of data.

High density Transaction Gateway 2.5 is designed to run on the industry-leading UTStarcom Total Control 1000 multiservice access platform. The transaction gateway speeds transaction times with features such as Fast Connect, (reduces or eliminates steps such as alerting, audible ring, billing delay, answer tone, and call termination); and can support transaction protocols such as VISA I/II and Synchronous Data Link Control (speeds calls and reduces traffic to a processing host by up to 50 percent) with full protocol emulation.

In addition to the features supported in the Transaction Gateway 2.0, the high density version offers improved scalability and better performance. It supports up to 672 (T1) or 630 (E1) X.25 switched virtual circuits on a fully functional X.3/X.28/X.29 PAD with a dual V.35 interface. The transaction gateway also provides maximum reliability with redundant access router cards capable of switching from load balancing to automatic failover and back.

TOTAL CONTROL 1000 TRANSACTION GATEWAY PLATFORM

The Total Control 1000 Transaction Gateway platform features a no-worry system, designed for future expansion with a flexible mid-plane architecture that supports emerging technologies and applications.



All Total Control cards are hot swappable

A fully configured Transaction Gateway 2.5 uses DNIS to route debit, credit, POS, healthcare, and EBT transactions to the host server over X.25 and IP networks.

The platform includes a powerful feature set, providing the following benefits:

- Enables software downloads for upgrades and problem resolution, making it easy for customers to add new functionality for a competitive edge.
- Integrates the functionality of channel banks, CSU/DSU modems, CODECs, ISDN equipment, access routers, and terminal servers to achieve an unprecedented level of call density in a compact platform that is only five rack units high.
- Features a modular chassis design that accommodates redundant hot-swappable cards.

The major components in the chassis are:

- **Power Supply Units:**

Transaction Gateway supports two redundant power supply units for load sharing. The power supplies are 130Amp, 110/220V AC or 48V DC

- **Network Management Card (NMC)**

A core component of the Total Control 1000 network management solution, the NMC provides complete SNMP based remote management, performance monitoring, and alarm reporting of the Total Control 1000 system.

- **Access Router Card (ARC)**

ARC set works with Total Control 1000 DSPM card sets to process packet content of dialup connections and route up to 672 calls. The ARC supports transaction protocols like Visa I/II and Synchronous transaction protocol (ISO 8583)

ARC sets can be configured to provide load sharing and redundancy for increased access router performance. Support for SNMP management, call activity logging and RADIUS accounting can ensure a high level of over-sight and control over network access activities.

ARC supports physical interfaces such as RS-232 Console, Ethernet 10/100 Base-T, and X.25 through V.35 wan.

DSP Multispan (DSPM)

The DSP MultiSpan modem card set contains a front-loaded NAC and an associated back-loaded NIC. Depending on individual application, the DSP multispan/NIC card set provides WAN ingress access through four T1 spans on a DSP multispan T1 NIC or three E1 spans on a DSP multispan E1 NIC. The card set supports a full range of trunk and communications standards, including V. Everything, V.34, V.90 and many variations.

DS-3 Ingress Card Set

The DS-3 ingress card can provide customers with a cost-effective solution for terminating DS3s rather than direct E1/T1 signals to Total Control 1000 DSP multispan card sets. The DS-3 ingress card terminates a DS-3 span consisting of 28 individual T1 spans, and then breaks it down into 672 individual channels, forwarding DS-0s to DSP multispan cards.

NO SINGLE POINT OF FAILURE

With 672 (T1) or 630 (E1) DSP ports, plus support for redundant Access Router cards, the Total Control system is fully reliable. Load sharing is the default condition, but if a failure is detected in the card, the X.25 connection, or the IP connection, the system will automatically fail over to the second Transaction Gateway Access Router card and NIC.

SUPPORT FOR ASYNCHRONOUS AND SYNCHRONOUS CALLS

Using the Auto Detect functionality, the Transaction Gateway automatically detects and supports asynchronous and synchronous calls on the same dialed number.

VISA PROTOCOL SUPPORT

Enhanced support for the most current VISA standard makes the Transaction Gateway the perfect solution for legacy, point-of-sale, and host applications.

TRANSPORT PROTOCOL DATA UNIT

The Transaction Gateway includes support for Transport Protocol Data Unit (TPDU) routing, providing the ability to complete transactions with greater efficiency and flexibility.

Off-Line Configurator

Off-Line Configurator (OLC) tool is used to manage the transaction specific settings in the system including the IP settings, X.25 settings and DNIS tables. Using OLC, customers provision the system offline. Then, the OLC uses the TFTP to communicate those settings to networked transaction gateways.

The main features of OLC are:

- It can run on any machines and JAVA compatible operating systems, such as Windows®, Solaris® or Linux®.
- Uploads and downloads a configuration file to and from a Transaction Gateway.

- Downloads a configuration file to multiple Transaction Gateways.
- Edits object attributes in a loaded configuration file.
- Provides an online help system.

The Transaction Gateway Accounting Server

The Transaction Gateway Accounting Server captures accounting and network statistics from the Transaction Gateway, and then processes and stores them in the database. The data captured by the accounting server can be used for the following operations:

- Transaction Accounting
- Customer Billing
- Transactions Monitoring.

The main features are:

- Statistics storage and forwarding
- Redundancy and database replication
- Support up to 40 Transaction Gateway Router Cards simultaneously
- Backup of accounting and network statistics

On a per-customer basis, transaction statistics not only supply the critical data for charging and billing, but provide information on usage patterns, as well. On a per-transaction basis, transaction statistics provide a fine granularity for tracking performance statistics, and can help pinpoint errant behavior of the system or an end user. On a system-wide basis, transaction statistics can be used for traffic analysis according to time of day, system components, offered load, and transaction routes, to name a few applications

TRANSACTION PROTOCOL SUPPORT

- Visa I/II
- Synchronous transaction protocol (ISO 8583)
- Full Emulation
- Full Emulation/No Acknowledgment
- ENQs Only
- ENQs Only No Framing
- ENQs Only No LRC
- ACK/ENQs Only
- ACK/ENQs Only No Framing
- Transparent
- Follow Application Type
- Full/No Ack Disconnect
- TPDU routing

CONFIGURABLE BASED ON DNIS

- Synchronous/asynchronous transaction calls
- Autocall/interactive call
- Primary and secondary IP destination address and range of TCP ports
- X.25 calling address
- X.25 facilities (NUI, reverse charging, OSI facilities, etc.)
- X.25 user data (up to 12 bytes)
- Abbreviated address list
- Disconnect on clear request
- X.25 profile
- Modem parameters
- Protocol emulation settings
- Accounting/reporting
- Buffers up to 4 MB of accounting statistics
- ANI Packet Verification

X.25 PAD

- In-dial function from PSTN
- Outdial to PSTN
- X.3 profiles with extensions 101-106
- X.28 PAD compliant with CCITT X.3/X.28/X.29 (80, 84, 88 versions)
- Call-by-call service selection
- Autocall
- Persistent SVC support
- Mnemonic-only addressing
- Reverse charge if no NUI

FAST CONNECT

- Fast Connect
- 1200 Fast Connect 2400

NETWORK INTERFACE CARD

- Two V.35 ports

- One 10/100 Ethernet port
- One RS-232 console port

V.35 INTERFACE

- Link rates from 2400 bps to 2 Mbps
- Physical DTE
- Logical DTE/DCE
- External clock required

TOTAL CONTROL 1000 MULTISERVICE ACCESS PLATFORM

- 17 slots
- Hot-swappable cards
- Dual 130A load balancing/sharing redundant power supplies
- No single point of failure

DSP MULTISPAN

- DSP and RISC processor card
- 96 modem or ISDN calls with T1
- 90 modem or ISDN calls with E1
- Integral trunk (T1/E1) interface
- Modems support high-speed standards such as V.34 and V.90

ACCESS ROUTER CARD

- 2 Mb V.35 interface for HiPer TRAX (capable of running at 8 Mb)
- SNMP Support
- Optional Redundant configuration
- X.25 and 10/100 Mbps Ethernet

ACCOUNTING SERVER

- Transaction Accounting
- Customer Billing
- Transactions Monitoring
- Offline Configurator
- JAVA based
- Supports multiple Transaction Gateways.

CHASSIS CAPACITY

- 630 E1 Channels
- 672 T1 Channels
- DS3 termination

ORDERING INFORMATION

- Transaction Gateway DSP Multispan T1 SKU 1223092200
- Transaction Gateway DSP Multispan E1 SKU 1223092300
- Transaction Gateway Access Router Card SKU 1223092400
- Transaction Gateway SW Kit SKU 1223092500
- Transaction Gateway X.25 Cable Kit SKU 1223092600
- Transaction Gateway 130 Amp AC Chassis SKU 1223092700
- Transaction Gateway 130 Amp AC Chassis-EU SKU 1223092800
- Transaction Gateway 130 Amp DC Chassis SKU 1223092900

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UTStarcom is a global leader in IP-based, end-to-end networking solutions and international service and support. The company sells its broadband, wireless, and handset solutions to operators in both emerging and established telecommunications markets around the world. UTStarcom enables its customers to rapidly deploy revenue-generating access services using their existing infrastructure, while providing a migration path to cost-efficient, end-to-end IP networks. Founded in 1991 and headquartered in Alameda, California, the company has research and design operations in the United States, China, Korea and India. UTStarcom is a FORTUNE 1000 company. For more information about UTStarcom, visit the company's Web site at www.utstar.com

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