Total Control STG

Enhanced Integrated Dial & IP Secure Transaction Aggregation & Intelligent Routing & Switching

Faster-Secure Easier-Economical
A Powerful High-Density, Ultra High Capacity Platform Designed for Transporting Hundreds of Millions of Secure Transactions

Scalability for Future Volumes
Extra high capacity system with millions of transactions handled with Dial and IP/Mobile/Internet during peak hours and the extremely high concurrent sessions capacity in the industry.

Uniquely Bridging Future with Legacy
Integrates TLS/SSL processing, transaction protocol handling, Dial access, IP network routing, load sharing & redundancy, with management and reporting on a single solution. Effectively reduces number of network elements.

Faster Transactions
Fast connect mechanisms reduces modem hand shake time by ~75% and faster transactions result in reduced costs.

Supports Latest Standards
Transaction protocols supported include VISA I/II, synchronous transaction protocols like ISO 8583, TPDU, web transactions using HTTPS with ISO20022/XML.

System Redundancy
Maximum uptime achieved through cluster based architecture providing load balancing, redundancy and resilience.

Investment Protection
Full compatibility to existing host servers. Supports all types of currently deployed POS terminals and emerging mobile, contactless or NFC devices supporting Host Card Emulation (HCE) modes.

Security Standards Compliance
PCI DSS compliant transaction routing transport system with embedded TLS processing engine.

Next Generation Payments Transport

NewNet's Total Control Secure Transaction Gateway (STG) version 5.0e enhanced integrated Dial, IP Secure Transaction Aggregation and Intelligent Routing & Switching (STAIRS) system is the extended capacity, path breaking, newer generation, market leading solution for carrier class transaction network solution deployment for acquirers, processors, carriers, financial institutions, payment service providers. This specialized software suite can handle per hour millions of credit card authorizations, debit card fund transfers, health benefit authorizations, electronic benefits transfers, and other communications involving single-session transfer of small and large amounts of data. The Total Control STG system is a high density and ultra-high session capacity secure transaction transport system designed to run on industry standard, highly reliable 2U rack mount hardware.

The Total Control STG is designed for high performance uses with two Intel dual core processors onboard that support emerging technologies and applications with advanced high-speed modem processing, DSP capabilities etc along with state of the art HW Crypto processor for high speed security handling with Mobile/Internet accesses. This secure transaction aggregation and intelligent routing & switching solution offers capability to support transactions from dial, broadband/mobile IP, internet/mobile internet browser based POS terminals/POI devices, which need to be completed rapidly and economically with highest security.

Secure IP/Mobile POS & mPOS/Smart POS/Web Transactions

Total Control STG solution is designed to transport millions of mobile, broadband IP based POS transactions, m-commerce and e-commerce payments transactions, mobile wallet payments etc, while delivering the fundamental security capabilities needed to enable safe and reliable transport of financial transactions, security verification, and for any data which requires high levels of data encryption over many network types. Designed with flexibility as one of Total Control STG's core features, the system can also route non- financial based transactions including, business-to-business verifications, security verifications, point- to-point encryption, insurance & healthcare transactions and a variety of custom applications that require the highest level of security and efficiency.

Secure Dial POS Transactions

Total Control STG System version 5.0e can be used for routing transactions from PSTN and SIP trunks to Authorization servers. The transaction system speeds dial 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 supports 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%) with full protocol emulation, together with support of data encryption from POS using DUKPT standards for meeting P2PE needs.

Integrated Secure Transaction Transport & Intelligent Routing

Total Control STG uses DNIS number, IP Address, transaction data fields like TPDU NII to route debit, credit, POS, healthcare, and EBT transactions to the host server over IP networks. This system support multiple protocols with a variety of capabilities to perform several types of intelligent transaction routing with routing decisions made on the fly based on data received from terminals including tokens in place of card data. The system offers security to POS and Host Servers with SSL/TLS and IPsec; handles secure TCP/IP and HTTPS transaction transport; advanced IP routing for network traffic using network routing protocols of RIP, OSPF; supports transaction protocols like VISA I, VISA II, ISO 8583, TPDU (Transport Protocol Data Unit), and several custom protocols. The system is compliant with PCI DSS standards and provides secure remote access using Secure Shell(SSH). Transaction transport systems are managed via SNMP and generate transaction specific Call Detail Records to Accounting server for transaction reporting, billing, monitoring.

Clustered Architecture & Omnichannel Handling

Multiple STG systems can be deployed in a clustered architecture with load distributed across these systems along with high availability and redundancy. All the deployed systems can be managed from one location by a single web based management GUI. This provides for easy scalability – scaling up is simply a matter of adding new systems.

Transaction Protocol Support
- VISA I/II
- Synchronous protocol (ISO 8583)
- Transparent
- TPDU with NII Routing

DNIS Based Configurable
- Synchronous/asynchronous
- Auto Detection
- Host selection
- Address and range of TCP ports
- Modem parameters
- Protocol emulation settings
- Accounting/reporting

Modem Capabilities
- V.92 upstream
- V.90D, V.90AoDTM
- V.34, V.32, V.32bis
- V.22, V.22bis, V.21, V.23
- Bell 212.A, Bell 103
- V.29, V27 ter and V.21
- Bell, ITU-T, V.8
- Error Correction
- Data Compression

Fast Connect
- Fast Connect 1200
- Fast Connect 2400
- Fast Connect 9600

Management
- SNMP
- SSH
- GUI
- Alarm/Traps
- Syslog
- NMS Integration

IP Protocol Suite
- RIP, OSPF
- NTP
- Radius
- SSH
- IPSec
- DNS
- SNMP
- SSL/TLS
- HTTPS
- VRRP

Security
- TLS v1.2
- PCI DSS Compliant
- Digital Certification
- DUKPT

Encryption
- AES (192,256)
- 3DES (168)
- RCA (128)

Key Exchange
- RSA
- RSA (512)
- Diffie-Hellman

MAC
- MD5
- SHA 256/384

Cryptographic Operation
- 200K RSAs/second (optional)

Transaction Routing Rules
- TPDU NII
- Ingress IP/Port
- Default Host
- Allowed/Blocked List
- NII Override
- DNIS
- E1 Span ID(optional)

Custom Header Data
- DNIS
- ANI
- Modem Channel
- Source IP/Port
- Destination IP/Port
- Multi type length header

Host Load Sharing
- Round Robin
- Priority
- Response Time

Internet Transactions
- HTTPS/HTTP
- Standard Protocol Messages
- XML Messages
- Value Added Contents(optional)

Hardware Chassis
- 2U Rack Mount Server
- Dimensions:
    - Height: 3.44"
    - Width: 17.54" (Std 19" rack mount)
    - Depth: 29.5

Operating Requirements
- 100-120 VAC, 200-240 VAC
- Max power consumption:
    - 526W @100 VAC
- Nominal operating range:
    - Temperature: 10 to 35°C
    - Humidity: 10% to 90%
- Non-nominal operating range:
    - Temperature: -30 to -60°C
    - Humidity: 5% to 95%
- Shipping Conditions: -40 to 60°C

Regulatory Approvals
- FCC
- CE
- UL
- RoHS EN50581:2012
- TUV TBR 4, TBR 4/A1 Layer 1,2,3
- CCC
- ANATEL
- NTC, ESD-CPE-1202665
- SIRIM ISTH/17B/0813/(13-1294)
- IDA DA101094
- ID - 30670/SDPPU2013 PLGID 4408
- NTC TS 4001-2550, TS 3001-2550

Physical Interfaces
- E1/T1 PRI, E1 R2
- WAN/LAN: RJ-45 (1Gbps/10Gbps)
- SIP Trunks (G.711)

Additional Options
- Analog Line support
- X.25/SNA Interfaces

Advanced Features
- Logical Segregation
- Multiple Server Certificates
- Always On sessions
- Access Controls
- Hardened OS
- Audit Logs
- Routing for Legal/Risk Handling

NewNet
SECURE TRANSACTIONS