

# Total Control STGi

Integrated Dial, IP Access Transaction Platform Designed for Small and Medium Transaction Volumes

## Supports Latest Standards

Integrates TLS/SSL processing, transaction protocol handling, Dial access, IP network routing, load sharing & redundancy, management and reporting on a single solution which effectively reduces the 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.

## Lower Cost of Ownership

Standards-based system delivers highest transaction density in 2U of rack space.

## Investment Protection

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

## Security Standards

### Compliance

PCI DSS compliant transaction routing gateway system with TLS/SSL processing.

NewNet's Total Control Secure Transaction Gateway version 4.0i (STGi) integrated Dial and IP Secure Transaction Aggregation and Intelligent Routing & Switching (STAIRS) system is the leading solution for carrier class transaction network solution deployment for acquirers, processors, carriers, financial institutions, payment service providers. This specialized software suite can enable fast transaction transport 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 system is a high density and session capacity secure transaction transport system designed to run on industry standard, highly reliable, high performance 2U rack mount hardware.

The Total Control STG is designed for future expansion with two Intel Sandy Bridge processors onboard that support emerging technologies and applications with advanced high speed modem processing, DSP capabilities and advanced crypto processing for security with Dial and IP downlink (ingress) capability. This solution offers capability to support transactions from dial, broadband/mobile IP, internet/mobile internet browser based POS terminals/POI devices, with the highest security.

## Secure Dial POS Transactions

Total Control STGi can be used for routing dial transactions to authorization servers over IP or legacy networks. It speeds dial transaction times with features such as Fast Connect, (reduces or eliminates alerting, audible ring, billing delay, answer tone, and call termination steps); and supports transaction protocols such as VISA I/II and Synchronous Data Link Control (speeds calls and reduces traffic to processing host up to 50%) with full protocol emulation, together with support of data encryption from POS using DUKPT standards for meeting P2PE needs.

## Secure Broadband/Mobile IP POS Transactions

Total Control STG solution transports 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 also for any data which requires high levels of data encryption over many network types. The system can route non-financial 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.

## Integrated Secure Transaction Transport & 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. The system support multiple protocols with a variety of capabilities to perform several types of intelligent transaction routing 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.

## Transaction Protocol Support

- VISA I/II
- Synchronous protocol (ISO 8583)
- Transparent
- ISO 20022(XML)
- 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
- Error Correction
- Data Compression

## Fast Connect

- Fast Connect 1200
- Fast Connect 2400

## 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
- TLS 1.0/1.1, SSL v3.0
- PCI DSS Compliant
- Digital Certification
- DUKPT

## Encryption

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

## Key Exchange

- RSA
- RSA (512)
- Diffie-Hellman

## MAC

- MD5
- SHA1/2

## 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
- WAN/LAN: RJ-45 (1Gbps)

## 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

