

## Connecting Legacy Lottery Terminals over IP Networks

### The Challenge

The vast majority of lottery systems in operation today are based on 'legacy' protocols and network architectures not compatible with IP-based networks. While there is a drive to enhance existing lottery systems with IP-based terminals offering a wider variety of consumer services, many lotteries are reluctant to embark on fork-lift replacement of their existing terminals and hosts, and instead look towards a solution which preserves and extends their investment in existing infrastructure. This cost effective approach takes immediate advantage of low cost IP connectivity to enhance performance and also allows a more controlled and less disruptive migration to IP based terminal and host systems.

### The Solution

NSGDatacom's TURBO products are designed to make this smooth migration possible and easy. The TURBO product line supports a wide range of protocols used by legacy lottery systems such as X.42 (including manufacturer specific variants), SNA, Bisynch, Frame Relay, X.25, TCP/IP and XOT (RFC 1613). Most importantly, the TURBO product line includes enhanced proprietary multi-drop and native spoofing modes of operation, which reduce network latency and speed up transaction times over terrestrial, wireless and satellite networks.

The TURBO products facilitate the transportation of legacy WAN protocols over IP via Ethernet, PPP, X.25, or Frame Relay, using either dial-up, leased line, Satellite, DSL, or Wireless networks. VPN security is also available.

The NSGDatacom PicoTURBO is a low cost, fully featured multi-protocol switch/router ideally suited for terminal locations, supporting one or several terminals by direct connection or multidrop lines. The basic PicoTURBO has three serial ports (synchronous or asynchronous up to 2Mbps) and one 10BaseT Ethernet port. It supports packet sizes up to 4096 bytes and has a maximum throughput of 60 packets per second for 128-byte data packets. The base unit can be upgraded to two 100BaseT Ethernet ports, plus one or two internal leased line, PSTN dial, ISDN, DSL, or cellular wireless modems.

The NSGDatacom PAC III TURBO is designed for use in host locations to provides host concentration for hundreds or thousands of terminals. It provides a modular, scalable communications platform that can operate simultaneously as a multi-protocol concentrator, PAD, FRAD and switch. Network connectivity is provided over IP, Frame Relay or X.25 public, private or hybrid networks. The PAC III TURBO has a mid plane design with dual redundant power supplies and hot swappable I/O and processor cards.

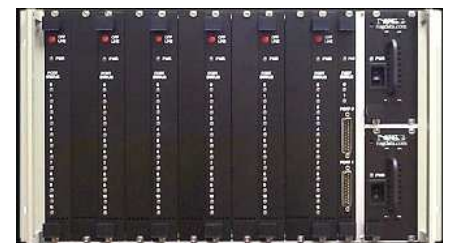
All TURBO products can be managed in-band or out of band from a centralized SNMP based management system with standard and private MIBs. All turbo products have sophisticated data logging, with in-built diagnostic and network management tools.

TURBO technology is constantly being updated and is widely deployed. Many thousands of TURBO units have been in continuous use throughout the world in carrier grade networks, lottery systems and banking applications for many years.

**Support for X.42  
(including  
manufacturer  
specific variants)  
with Spoofing**

**SNMP and  
Enhanced  
Management**

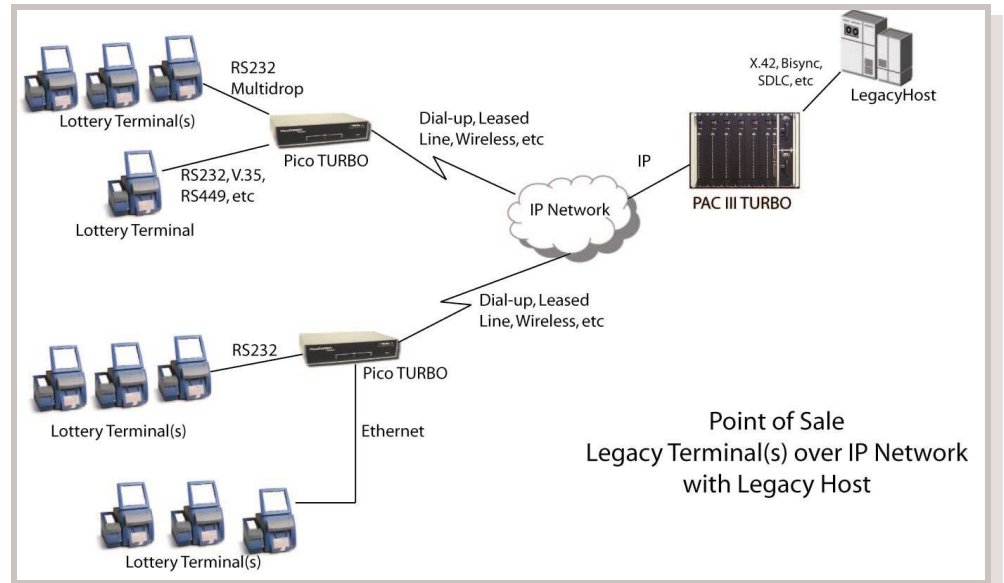
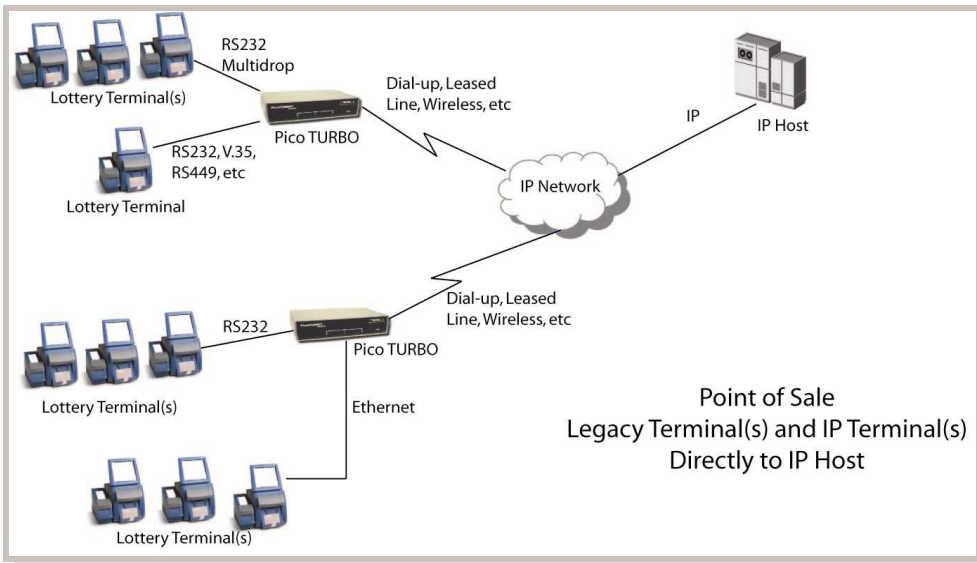
**Multi-Protocol  
Switch Router**



**PAC III TURBO**



**PicoTURBO**



## About NSGDatacom

NSGDatacom designs, manufactures, sells and supports a wide range of voice and data products focused on real world business communication needs.

Combining key strategic acquisitions with its own core development team, NSGDatacom utilizes a wide range of proven, stable technologies. NSGDatacom create solutions with these technologies to maintain and preserve organizations' network investments and mission-critical applications while enabling a smooth migration to newer technologies.

NSGDatacom products are deployed worldwide in corporate, financial, government, carrier, satellite, and cellular networks.

# NSGDatacom

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