Pico IPAX

Robust, Entry-level Intelligent Switching Gateway

Product Features

The NACT Pico IPAX is a robust, scalable switching gateway for service providers who need to launch new services quickly, easily and with minimal capital investment.

- Scales from 2 to 16 T1s or E1s or 480 simultaneous VoIP calls
- Flexible IP- and TDM-based network support
- Class 4 switching capabilities
- Toll quality voice transmission
- Fault-tolerant operation
- Dynamic call routing and rating
- Integrated applications
- Minimal capital requirements

The Industry's Best Price for Performance

The NACT Pico IPAX is a fully integrated entry-level switching gateway designed for emerging and high growth service providers who want to deliver low-cost TDM- and VoIP-based voice services with PSTN reliability and scalability. Supporting both circuit-switched and IP-based networks on a single platform, the Pico IPAX delivers the industry's best price-to-performance ratio for service providers who need to quickly and easily launch new services or expand into new markets with only a small upfront capital investment.

A Business Solution from the Name You Trust

NACT's robust, fault-tolerant and high availability architecture supports prepaid/postpaid long distance, prepaid Internet, and prepaid wireless applications that enable service providers to generate revenues, control costs, simplify management and improve customer service. Delivering a comprehensive set of feature functionality, the Pico IPAX is a "pay as you grow" platform that can function as a gateway or as a complete digital Class 4 switch at the same time. Unlike PC-based systems, the Pico IPAX enables greater bandwidth utilization, telecom-grade scalability and PSTN Quality of Service. Equally important, the integrated, field-proven applications suite provides feature-rich services over circuit-switched and IP-based networks to help service providers quickly and easily begin generating revenue at the lowest possible cost.

PSTN Reliability, Scalability and Quality of Service

- Easily scales from 2 to 16 T1s or E1s
- 480 simultaneous VoIP calls
- Distributed switching architecture
- Fast call connection via SS7/C7 for both IP and circuit-switched networks
- Unique end-to-end SS7/C7 transport using VoIP-7 signaling
- Unique IP and PSTN look-ahead and pull-back routing capabilities
- Sophisticated IP and PSTN least cost routing
- Toll quality voice transmission with up to 8:1 voice compression
- British Telecom and Telefónica Certified

Superior Configuration, Management and Reporting Capabilities

- Comprehensive end-to-end call detail records
- Management and engineering reporting
- Simultaneous multi-language/multi-currency support
- Multiple, simultaneous country-specific dialing plans
- Remote alarm notification

Feature-Rich Application Support

- Integrated, customizable, multi-language Voice Response Unit (VRU)
- Extensive fraud control
- ANI/CLI authorization
- Real-time credit card validation
- Robust, flexible real-time rating
- Least-cost routing

Integrated Applications

- Prepaid Calling Cards
- Prepaid Wireless
- Prepaid Dial-tone and Long Distance
- Prepaid Internet
- Toll-Free (Free Phone) Services
- Number Translation Services
- Call Re-origination
- Operator Services
- Long Distance Tandem

NACT Pico IPAX

Technical Specifications – Pico IPAX

Physical Attributes

- 5 Slots per Pico IPAX shelf card cage
- 19" (w) x 23" (d) x 7" (h) rack-mounted
- 5U form factor

Pico IPAX Shelf Capacities

- 6,000,000 prepaid calling cards
- 384 (T1) or 480 (E1) ports
- 192 (T1) or 240 (E1) simultaneous TDM calls
- 480 simultaneous VoIP calls
- 3,200,000 call minutes per month
- 90,000 BHCA (SS7)
- 2,048 TDM backplane timeslots

CPU Board

- MC68040 processor
- 128 MB RAM
- 2 x 10baseT Ethernet ports

Storage

- Dual 73 GB single-spindle disks
- 20/40 GB DAT tape

T1/E1 Board

- 2 T1/E1 boards per Pico IPAX shelf
- 8 programmable T1/E1 framers
- MPC860 processor
- 128 MB RAM
- 10baseT Ethernet
- G.823/824 framer jitter
- G.703/704 clock/framing
- Multiple clock sources

VoIP Compression Module

- 2 modules per Pico IPAX shelf
- Attaches to T1/E1 board
- 240 VoIP calls per module
- G.711, G.723.1, G.726, G.729A/B codecs
- T.38 fax codec
- G.168 echo cancellation with 128 ms tail
- DTMF relay per RFC 2833
- Per call codec and silence suppression
- MSC8103 StarCore™ processor
- 100baseT Ethernet
- 3 x MSC8102 StarCore™ DSPs

General-purpose DSP Board

- 1 board per Pico IPAX shelf
- 120 tone ports
- 64 voice ports
- MC68349 processor
- 8 MB RAM

PSTN SS7/C7 ISUP Signaling

- ANSI 96, ANSI 92, ANSI 88 (T1.113)
- ITU 93, ITU 92 (white book), ITU 88 (blue book) (Q.761-Q.764, Q.766, Q.730)
- ETSI ITU 92 (ETS 300 356)
- China ITU 92
- UK ISUP (BSI/PD6623 (2001))

PSTN SS7/C7 MTP3 Signaling

- ANSI 96, ANSI 92, ANSI 88 (T1.111.4)
- ITU 92, ITU 88 (Q.701, Q.704, Q.707, Q.782, Q.2140, Q.2210)
- China FG001-9001

PSTN SS7/C7 MTP2 Signaling

- ANSI 92, ANSI 88 (T1.111.3)
- ITU 92, ITU 88 (Q.701, Q.703, Q.781)

PSTN ISDN-PRI Signaling

- QSIG, Q.931
- NI2, DMS100 (NI1), 5ESS, ETSI (EuroISDN)
- NI2, DMS100, 5ESS with information digits

PSTN CAS Signaling

- R1 (LS, GS, E&M, E&M WS, FGA, FGB, FGD)
- R2 (optional 3rd-party product)

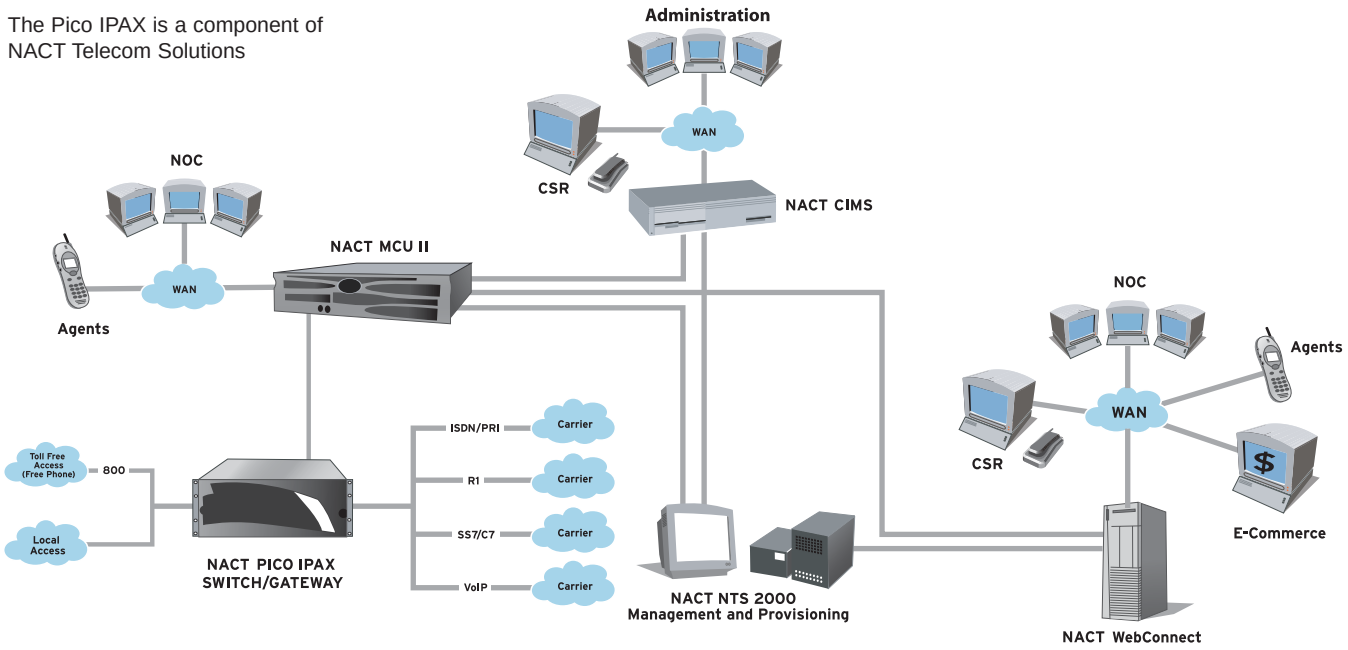
VoIP Signaling

- H.323
- SIP (2006)
- VoIP-7 (VoIP using SS7 over IP)

Environmental Requirements

- Power: 300 Watts, 120-140 VAC, 50-60 Hertz or -48 VDC, 10 Amps
- Operational temperature: 50°F-85°F/10°C-29°C
- Storage temperature: 32°F-120°F/0°C-120°C

The Pico IPAX is a component of NACT Telecom Solutions



Headquarters:
NACT Telecommunications
191 West 5200 North
Provo, UT USA 84604
Tel: +1.801.802.3000
Fax: +1.801.802.2000
Web: www.nact.com
Email: sales@nact.com

UK Office:
NACT Europe Ltd.
Suite 1 Second Floor
12 Station Road
Brighton-Portslade, BN41 1AG
United Kingdom
Tel: 0800.012.2000
+1.801.802.3000