

EXCEL IP NETWORK INTERFACE SERIES 2 CARD

Platform to Enable Integrated Media Services for the Converged Services Platform (CSP)



Cantata Technology's Excel IP Network Interface Series 2 (IPN2) is an IP line card for the Converged Services Platform (CSP). The IPN2 card IP-enables the CSP, performing two-way conversion between circuit-switched and packet-switched media. Developers can use the IPN2 card to build revenue-generating voice, fax, and modem over IP services, where the CSP is a gateway or media server in a converged services network.

The IP Network Interface Series 2 card is a "gateway on a card." It transcodes data from PCM to packet technology, compresses it, and provides silence suppression, echo cancellation, and jitter buffering to improve quality. The IPN2, along with SIP and H.323 signaling, provides a true gateway environment. Developers can deliver an application server, signaling engine, gateway, and media server, all in a single system. This unified architecture translates into significant cost savings, reduced development time, and simplified operation for developers and service providers.

Features and Benefits

The IP Network Interface Series 2 card offers a comprehensive set of features for CSP-based solutions that support IP gateway requirements. Highlights include:

High Density

The IP Network Interface Series 2 card supports up to 1024 IP media ports without compression (G.711 only), and up to 512 ports with compression (G.723.1, G.726, G.729, and T.38 fax) providing DTMF with RFC 2833 support.

Modularity

Unlike products that combine signaling, DSP, and IP services on a single card, the IPN2 card focuses on IP media only, optimizing IP media resources to achieve industry-leading performance, capacity, and flexibility.

Expandability

Each CSP supports two IPN2 cards without compression (plus one for redundancy), or four IPN2 cards with compression (plus one for redundancy).

Flexibility

The IP Network Interface Series 2 card enables codec changes "on the fly," and adapts to codec changes received on RTP packets. The transmit and receive paths are codec-independent, allowing codecs and packet rates to be different.

Reliability

The IP Network Interface Series 2 card uses resource pooling to achieve reliability, which is managed by the Excel SwitchKit software.

Technology Re-Use

The IP Network Interface Series 2 supports the introduction of new codecs without re-design. New services can be added via a software load, enabling new wireless codecs to be introduced as required to meet market needs.



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TECHNOLOGY

Excel IP Network Interface Series 2 Card

Specifications

ARCHITECTURE OVERVIEW

The Excel IP Network Interface card uses two VoIP modules per card, and three external 100 Mbps Ethernet ports. It supports fax relay via T.38, as well as fax and modem in either transparent or bypass configurations. The IPN2 card supports multiple resource profiles, defining the terminal capabilities for a VoIP endpoint (each VoIP module is considered an endpoint), including:

- Maximum number of spans
- List of supported codecs and packet rates
- Size of a channel's jitter buffer
- Size of a channel's echo cancellation tail length
- Features including fax, modem, or digit relay, and RTP redundancy Integrated Services

ENVIRONMENT

The IP Network Interface 2 card can be used together with:

- DSP resources for media management
- Signaling resources for signaling engine support
- The powerful Cantata application development environment for service implementation

CODECS

- Selectable codecs; G.711, G.723.1, G.726, G.729
- Group 3 Fax Relay via ITU T.38
- DTMF digit relay via RFC 2833
- RTP redundancy via RFC 2198
- Adaptive jitter buffer
- Echo cancellation (G.168 compliant)
- Silence suppression
- Comfort noise generation

ELECTRICAL

- Supply Voltage, Vcc: 5.00V
- Supply Current, Vcc @ 5.0V: 5.0A (typical) with two modules; 1.0A (typical) Multi-Function I/O card

PHYSICAL

- Height: 236.2mm (9.3"); 318.5mm (12.54") I/O card
- Width: 317.5mm (12.5"); 105.2mm (4.14") I/O card
- Depth: 19.7mm (.775")

ENVIRONMENTAL

- Temperature (Storage): -40°C to 70°C (-40°F to 158°F)
- Temperature (Operation): 0°C to 50°C (32°F to 122°F)
- Temperature Shock (Operation): 0°C to 50°C (32°F to 122°F) at 30°C/hr.
- Humidity (Operating): 5% to 85%
- Altitude: Up to 1,800m (5,905ft)

COMPLIANCE

- United States: FCC Part 15; UL 1950 3rd edition
- Canada: ICES 003; CSA 22.2 No. 950
- NEBS: Level 3
- European Union: CE Mark

ORDERING INFORMATION

Beginning with Release 8.3.0, the IP Network Interface Series 2 (IPN-2) card is available in (1) module and (2) module options with licensing for incremental growth.

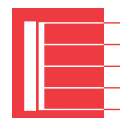
- IP Network Interface Series 2 card with 1 module (96 VoIP ports): CSP-IPC-1010
- IP Network Interface Series 2 card with 2 module (192 VoIP ports): CSP-IPC-1020
- IP Network Interface Series 2 card with 2 modules and full license capacity: CSP-IPC-1120
- License for additional 96 VoIP ports: CSP-LIP-1000
- Multi-Function Media I/O Card: CSP-BIO-1000

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Cantata Technology, established in 2006 as a result of the combination of Brooktrout Technology and Excel Switching Corporation, provides market-proven enabling technology that serves as the foundation for anytime, anywhere IP-based communications applications. Leveraging more than 20 years of experience, Cantata offers the broadest range of products, along with a worldwide network of partners that enables service provider and enterprise customers to develop new products, introduce new services and cost-effectively transition networks to IP. Cantata Technology maintains multiple locations worldwide in North America, Asia and Europe.

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