

Carrier-grade integrated signaling and media platform



Features and Benefits

Improved Time to Market

By integrating multiple network protocols in a single system while employing a feature-rich development environment, the time and effort required to develop communications applications is significantly reduced.

Reduced Costs

With all signaling and media supported on a single platform, the cost and complexity of implementing new services are reduced, along with training, environmental, service agreements, and other costs that multiply with each platform.

High Reliability

The CSP 2090 is built for central office-class environments, meeting the rigorous standards of 99.999% ("five nines") reliability, and includes NEBS Level 3 compliance, no single point of failure and hot-swappable cards. Developers can assure service providers of a secure and robust operating environment. An embedded, real-time, multi-tasking operating system supports fault monitoring, fault isolation and automatic switchover.

Investment Protection

The CSP allows developers to build revenue-generating services on a single platform bridging existing and new network infrastructure, efficiently leveraging service provider assets. With the IP Network Interface Series 2 (IPN2) card, the CSP 2090 becomes fully IP-enabled, supporting both circuit-switched and VoIP services. Customers protect their existing application investments while being able to create solutions for tomorrow's networks — all on a single platform.

Scalable and Flexible

The CSP 2090 is highly scalable. A single CSP 2090 can be configured to support as few as 96 ports, and can grow to thousands of IP and/or TDM ports. This scalability enables network operators to deploy services cost-effectively, even at introduction.

A Distributed Signaling Architecture

The CSP 2090 separates the physical network interfaces from the logical signaling operations, distributing telephony services across all service resources. This architecture enables flexible configuration while enabling seamless integration of IP and TDM signaling protocols.

Programmable Protocol Language (PPL)

One of the most significant features of the CSP 2090 is its industry-leading, patented, PPL. PPL is a unique protocol development tool that allows developers to rapidly create and/or customize signaling variants using an object-oriented GUI. PPL can be used in the office or in the field, significantly improving deployment time and expediting network compliance.

(continued)

Cantata Technology's Excel Converged Services Platform (CSP) 2090 is a high-performance, carrier-grade open platform for profitable enhanced telecommunication services. The CSP bridges existing wired and wireless networks with next-generation IP networks, integrating protocols for IP (SIP and H.323) TDM (SS7, PRI, and R2) mobility, and IN. Its twenty-slot chassis supports up to 2,048 physical voice channels, and up to 10,000 physical and virtual channels. The CSP 2090 supports the highest levels of call control and integration with external resources, media and any-to-any network protocols. It provides application developers with both IP and PSTN call control, media processing, and signaling, enabling them to implement feature-rich, network-based converged services.

Flexible in every respect, the CSP 2090 delivers on Cantata's vision of an open programmable architecture designed to meet the demands of all types of communications services over any type of network. From unified messaging to web-based services, the CSP 2090 is the ideal solution for carrier-class services. The CSP can expedite time to market, reduce costs, increase revenues and protect the carrier's investment.

Excel Converged Services Platform 2090

The CSP platform has a range of optional products including cards, software and a development environment that can be used to enhance the platform. These include:

IP Network Interface Series Card

Offers a comprehensive set of features that support IP gateway requirements.

Digital Signal Processing Series Card

Provides integrated rich media processing.

Call Agent Mode Software

Allows the bearer (voice) path for SIP-based calls to physically bypass the CSP, enabling service providers to reduce both their equipment and operating costs.

SwitchKit

High-level software development environment that speeds application development by providing a set of integrated tools for Operations, Administration, Maintenance and Provisioning.

Specifications

SYSTEM FEATURES

- Multi-function platform: PSTN/IP service node, media server, media gateway
- Standards-based, NEBS compliant, carrier grade architecture
- Scalable from 96 to thousands of non-blocking ports
- T1-E1/J1/DS3/RTP network interfaces
- Multi-protocol (PSTN and IP)
- Dual 10/100 Ethernet LAN interfaces per VoIP card (IP Media)

SYSTEM REDUNDANCY FEATURES

- All components hot-swappable
- No single point of failure
- 1+1 CPU active standby
- N+1 (T1, E1, J1, DS3) card redundancy
- 1+1 SS7 and ISDN active standby
- 1+1 power supply, load sharing, dual power feeds
- DSP load sharing
- IP Media load sharing

PACKET PROTOCOLS

- SIP: RFC 2543 and RFC 3261 (partial)
- H.323 v2: H.323 devices and endpoints (H225.0, Q.931, H225.0 RAS, H.245)

SIGNALING PROTOCOLS

- SS7/C7: ISUP ANSI (T1.113) and ITU-T (White Book 1993), ISUP-ETSI with country variants, TUP, SCCP/TCAP
- IN wireless protocol stacks: MAP/CAP, WIN ANSI-41, INAP
- ISDN PRI Q.931, Euro ISDN, National ISDN, other international variants programmable by GUI
- R1/R2 with international variants

IP NETWORK INTERFACE 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

MEDIA PROCESSING

- Dynamic Recording and Playback
- Conferencing
- Tone Generators & Receivers

OAM&P FEATURES

- Windows/NT GUI (LLC also supported in Linux and Solaris)
- Real-time alarm monitoring via SNMP
- Local and remote management
- Resource utilization reporting

PHYSICAL SPECIFICATIONS CSP 2040

- Height: 17.8 cm (7.0 in.)
- Width: 43.5 cm (17.125 in.)
- Depth: 48.2 cm (19.0 in.)
- Weight: 18 kg (40 lb.) (loaded chassis)
- Maximum Power Capacity: 250 Watts
- Power Ratings: -48vdc@10 amps rated
- Environmental: 0°C to 50°C operational

PHYSICAL SPECIFICATIONS CSP 2090

- Height: 39.9cm (15.7")
- Width: 43.8cm (17.25")
- Depth: 48.6cm (19.125")
- Weight: 30kg (65lb) unloaded; 45kg (100lb) loaded
- Maximum Power Capacity: 450 Watts
- Power Ratings: -48vdc@25 amps rated
- Environmental: 0°C to 50°C operational

COMPLIANCE

- United States: FCC Part 15; CSA 60950-1
- Canada: ICES 003; CAN/CSA-CSS.2 No. 60950-1-03
- NEBS: NEBS Level 3
- European Union: CE Mark

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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.