Cisco IP Interoperability and Collaboration System (IPICS)—Release 4.0

The Cisco IP Interoperability and Collaboration System (IPICS) solution streamlines radio dispatch operations and improves response to incidents, emergencies, and facility events. Cisco IPICS dissolves communication barriers between land mobile radio systems and devices including mobile phones, landline phones, IP phones, and PC users, helping enable communications among users of all devices, wherever they are located. When time is critical, Cisco IPICS delivers information into the hands of the right people, at the right time and the right format. By providing flexible, scalable communication interoperability, Cisco IPICS enhances the value of existing and new radio, telephony, and IP communications networks.

What's New with IPICS 4.0

Cisco IPICS Dispatch Console (IDC)

The IPICS Dispatch Console is a state-of-the-art end-to-end radio dispatching solution designed for mission-critical radio communications. It is the vital link between dispatchers and field personnel, helping coordinate field response and ensuring personnel safety. Running on a standard PC platform, it extends existing push-to-talk (PTT) radio channels so that users with a variety of communication devices can participate in the event.

The IPICS Dispatch Console provides control of radio resources through an easy to use on-screen interface (see Figure 1). It allows users to monitor and coordinate emergency response across incompatible radio systems and between multiple agencies, jurisdictions and departments. An intuitive GUI provides access to all dispatch features including:

- PTT and monitor up to 50 radio channels and talkgroups
- Channel patching
- Integrated telephony client for incoming and outgoing calls
- Radio to telephone patching
- Receive and transmit on-screen indicators for channel activity
- Handset, headset, or desktop microphone operation
- Individual channel mute/All mute
- All talk
- Instant recall recording per channel
- Last call transmit
- Alert tones
- Channel Multi-select
- Confirmation tones for trunked systems
- Unit ID/talker ID
- Emergency alert/acknowledge
- Coded/clear channels
- Frequency select

Figure 1. Cisco IPICS Dispatch Console

The Cisco IPICS Dispatch Console integrates with virtually any analog or digital radio system enabling dynamic any-to-any PTT communications. It also introduces rich media IPICS incident support giving dispatchers the power to consolidate information relating to an incident and instantly share that information among IPICS incident participants. Incident dispatch enables the sharing of multimedia data such as:

- Live video sent from surveillance cameras, Access Control gateways and mobile clients
- Archived videos such as Flip Video or YouTube
- Photos
- Alarm monitoring
- Journal and live statuses
- Website links to resources such as FEMA and hazardous material databases, standard operating procedures and maps

Cisco IPICS Mobil Client

Incidents can happen anywhere and at any time. The IPICS Mobile Client application, when introduced into an IPICS incident, complements a radio by giving the responder access to an incident talkgroup and all supporting media such as current incident status, related live and stored videos and pictures. Responders may also use the IPICS Mobile Client to add their own status, videos and pictures to an incident, instantly making the information available to all other incident participants. (see Figure 2)

Figure 2. Cisco IPICS Mobile Client for I-Phone

High Availability

The IPICS 4.0 system has the option of adding a secondary hot standby server to provide high availability with no single point of failure. If a primary server fails, the secondary server automatically takes over service without communication interruption. The servers can be geographically separated or located together. Administrative functions and data logs are constantly synchronized to avoid any loss of information should a server go down.

Loop Prevention

As multiple dispatchers patch channels together, there is always the possibility of creating a channel loop that causes audio feedback into the communication path. The IPICS 4.0 system automatically identifies potential audio loops and resolves them before they become an issue. Audio channels and talkgroups remain clear without feedback.

Radio Pooling

Radio pooling enables the IPICS system administrator to group dispatch radio assets together into logical radio pools. Dispatchers, when accessing specific radio channels, no longer require tone or serial radio control to specific radios but may instead select specific channels or talkgroups. IPICS then locates a radio asset and performs tone/serial control without user intervention.

Enhanced IPICS API

A web service API is available to integrate IPICS with third party applications, for example Command and Control, Physical Security Information Management (PSIM) and Computer Aided Dispatch (CAD) applications.

System Capabilities

IPICS Users in DB	50,000 users
Active Users	1000 users
Active Dispatch Consoles	250 Dispatch Consoles
Virtual Talkgroups	150 VTGs
Radio Channels	1500 Channels
Dial-in / dial-out users	200 dial users
Mobile Clients	1000 users (included in active users above)

Licensing Information

The Cisco IPICS server checks the license count for proper software and resource licenses. For example, one dispatch console license is required for each IPICS Dispatch Console client logged into the IPICS server. This means that the Cisco IPICS Dispatch Console can be installed on as many PC's as needed and the licensing is only based upon the Cisco IPICS Dispatch Console sessions that are in use at any given time.

Ordering Information

The IPICS solution is only available direct from Cisco Advanced Services or through select technology partners. To place an order, visit the Cisco Ordering Homepage or contact your IPICS Account Manager.

Table 1. Ordering Information

Product Name	Part Number
Physical Security Multi-Service Platform Server	CPS-MSP-1RU-K9
Physical Security Multi-Service Platform Server	CPS-MSP-2RU-K9
1 TB Hard Drive	CIVS-HDD-1000
6x1TB Hard-Drive Bundle for PhySec MSP	CPS-HDD-6TB-BNDL
IPICS 4.0 Basic Bundle	IPICS4.0-BDL1-K9
IPICS 4.0 Medium Bundle	IPICS4.0-BDL2-K9
IPICS 4.0 Large Bundle	IPICS4.0-BDL3-K9
High Availability Secondary Server Bundle	CIS-IPICS4-HA-K9
Policy Engine 4.0 Server SW	CIS-IPPE4.0-K9
Cisco Dispatch Console Silver License	CIS-CON4.0-SIL
Cisco Dispatch Console Platinum License	CIS-CON4.0-PLA
Mobile Client IPICS License	CIS-MC
Mobile Client IPICS License 100 Units	CIS-MC-100
IP-Phone Client License	CIS-PHN
IPICS Channel/Radio Port	CIS-VIP-CHNL
IPICS VIP Dial-out Ports	CIS-VIP-DIAL
Virtual Talk Group VTG	CIS-VIP-VTG
IPICS Operational Views	CIS-OPSVIEW2

Service and Support

Using the Cisco Lifecycle Services approach, Cisco and its partners provide a broad portfolio of end-to-end services and support that can help increase your network's business value and return on investment. This approach defines the minimum set of activities needed, by technology and by network complexity, to help you successfully deploy and operate Cisco technologies and optimize their performance throughout the lifecycle of your network.

For More Information

For more information about the Cisco IPICS, visit http://www.cisco.com/go/ipics or contact your local account representative.

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