Cisco IP Interoperability and Collaboration System: Release 4.6 Data Sheet

The Cisco® IP Interoperability and Collaboration System (IPICS) solution simplifies radio dispatch operations and improves response to incidents, emergencies, and facility events. Cisco IPICS dissolves communication barriers between land mobile radio systems and devices such as mobile phones, landline phones, IP phones, and PCs, supporting communications among users of all devices, wherever they are located.

When time is critical, IPICS delivers information into the right hands at the right time and in the right format. By providing flexible, scalable communication interoperability, IPICS enhances the value of existing and new radio, telephony, and IP communications networks.

Cisco IPICS System

Figure 1 shows the IPICS system.

Figure 1. Cisco IPICS
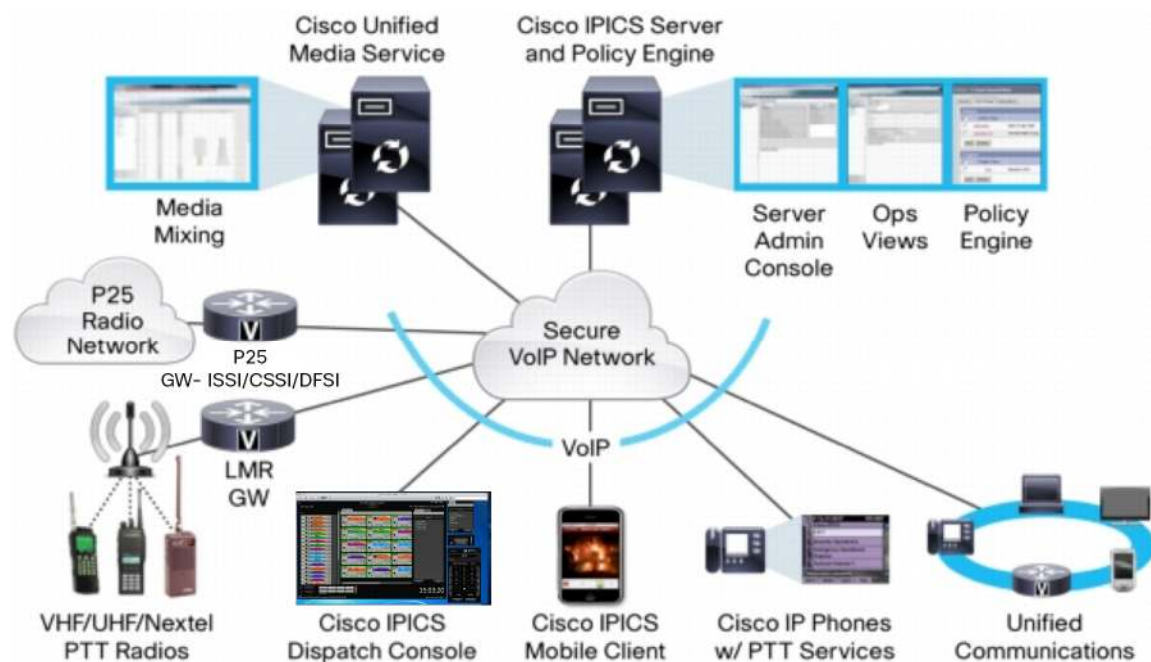
The Cisco IPICS system consists of several hardware and software components.
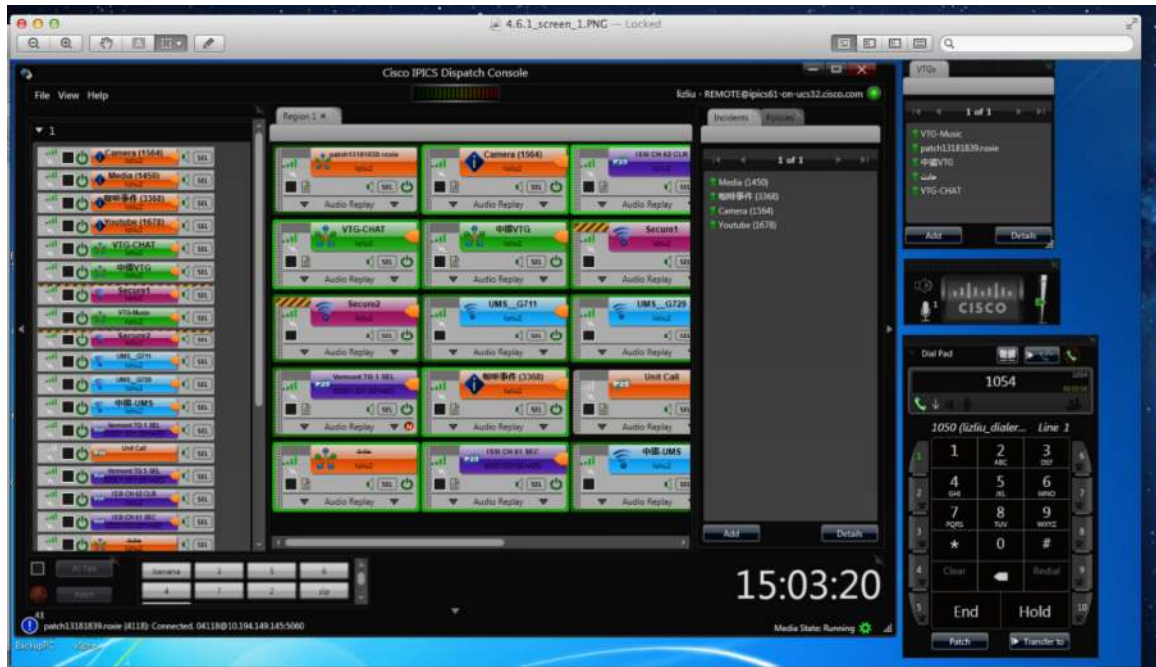
Cisco IPICS Dispatch Console

The IPICS Dispatch Console is an end-to-end radio dispatching solution designed for mission-critical radio communications. It is a vital link between dispatchers and field personnel, helping to coordinate field response and safeguard personnel.

The IPICS Dispatch Console runs on a standard PC platform. It extends existing push-to-talk (PTT) radio channels, so users with a variety of communication devices can participate in an event. The console provides control of radio resources through an easy-to-use on-screen interface (Figure 2). Users can 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 monitoring for up to 50 radio channels and talkgroups
- Channel patching
- Integrated telephony client with up to 10 lines for incoming and outgoing calls
- Radio-to-telephone patching
- On-screen receive and transmit 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 multiselect
- Confirmation tones for trunked systems
- Unit ID/talker ID
- Emergency alert/acknowledge
- Coded/clear channels
- Frequency select
- End-to-end encryption

Figure 2.   Cisco IPICS Dispatch Console

The Cisco IPICS Dispatch Console integrates with virtually any analog or digital radio system, supporting dynamic, any-to-any PTT communications. It introduces rich interactive media support for IPICS incidents, giving dispatchers the power to consolidate information relating to an incident and instantly share that information among IPICS incident participants.

Incident dispatch supports sharing of multimedia data, including:

- Live video sent from surveillance cameras, access control gateways, and mobile clients
- Archived videos
- Photos
- Alarm monitoring
- Journal and live statuses
- Web links to resources, such as FEMA and hazardous material databases, standard operating procedures, and maps
- IPv4 IP Compliance (IANA)

New in IPICS 4.6

Cisco IPICS 4.6(1) includes these major new features:

- **Direct radio network interoperability**—This release supports Inter-RF Subsystem Interface (ISSI), Console Subsystem Interface (CSSI), and TIA P25 Digital Fixed Station Interface (DFSI) standards.

- **DFSI gateway**—This release includes a new P25 conventional DFSI gateway.

- **Support for Cisco Video Surveillance Manager 7**—Video Surveillance Manager videos can be integrated with IPICS incidents.

- **Key management**—This release provides features to manage the storage and distribution of keys for IPICS Dispatch Console users in "end to end" ISSIG mode, on ISSI gateways, and on DFSI gateways. These keys are used to encrypt and decrypt voice traffic on P25 talkgroups and P25 fixed stations

- **TETRA radios**—This release supports the configuration and use of TETRA radios.

- **SNMP**—The new SNMP tab in the Cisco IPICS Administration Console allows the configuration of SNMP V2 options for Cisco IPICS.

- **Language support**—Support for internationalization of the IPICS Dispatch Console, dial engine prompts, and IP phone services is expanded to include French (Canadian), Portuguese, Russian, and Spanish.

- **Cisco IP Phone high availability**—The IPICS IP Phone client now supports high availability.

- **Updated Cisco Unified Communications Manager support**—This release supports Cisco Unified Communications Manager 9.x.

- **Updated Cisco UCS™ support**—This release is extended as a virtualized application on the Cisco UCS E-Series.

- **IP Command Touch Screen Dispatch Console**—This new touch-screen dispatch capability is available through IP Trade, a Cisco SolutionsPlus partner.

- **IPICS Dispatch Console features**—New or updated features in the IPICS Dispatch Console include:

  - **Tear-away items**—You can customize the appearance of the console by moving various items from the main window to any location on your computer screen.

  - **IPICS Dispatch Console dialer updates**—Call transfer features allow consultative and blind call transfers.

  - **Address book**—You can access and manage multiple contact lists and quickly call or send email to a contact.

  - **Do not disturb**—Allows an incoming call to be handled in the way that the DND feature is configured in Cisco Unified Communications Manager.

IP Command Touch Screen Dispatch Consoles

IP Command Touch Screen Dispatch Console is a new IPICS capability from IP Trade, a Cisco SolutionsPlus partner. This new console supports advanced incident management and telephony features such as call queuing, call priority queuing, multiple line appearances, and hold and transfer capabilities. These capabilities are integrated with Cisco Unified Communications, allowing dispatchers to prioritize their work and achieve higher productivity.

IP Command Touch Screen Dispatch Console is a complete dispatch unit with integrated audio and customizable layouts to meet any dispatch environment. Dispatch teams have access to integrated, collaborative features for radio communications, unified communications, and telephony.

Cisco IPICS Mobile Client

Incidents can happen anywhere and at any time. The IPICS Mobile Client application complements a radio by giving the responder access to an incident talkgroup and all supporting media such as current incident status and 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 (Figure 3).

Figure 3.   Cisco IPICS Mobile Client for iPhone

High Availability

The IPICS system has the option of adding a secondary hot standby server for both the UMS and IPICS 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 synchronized to avoid any loss of information.

Enhanced IPICS API

A web service API integrates IPICS with third-party applications such as command and control, physical security information management (PSIM), and computer-aided dispatch applications.

Table 1 lists the capabilities of Cisco IPICS.

Table 1. IPICS System Capabilities

System Capabilities	Specification
IPICS Users in Database	Up to 50,000
Active Users	Up to 1000
Active Dispatch Consoles	Up to 250
VTGs	Up to 150 active
Radio Channels	Up to 1500 active channels
Dial-In/Dial-Out Users	Up to 200 active dial users
Mobile Clients	Up to 1000 active (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 PCs as needed, and the licensing is only based upon the Cisco IPICS Dispatch Console sessions that are in use at any given time. Table 2 provides licensing options.

Table 2. IPICS Licenses

Bundle	IPICS Server License	Virtual Talk Groups	Policy Engine	Radio Channel Ports	Silver Consoles	Platinum Consoles	IP Phones	Dial Ports
IPICS4.X-BDL1-K9	1	1	1	2	1	0	1	1
IPICS4.X-BDL2-K9	1	10	0	8	10	4	10	10
IPICS4.X-BDL3-K9	1	50	1	10	10	4	10	10

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 3 lists ordering information.

Table 3.   Ordering Information

Part Number	Description
CIS-IPICS-VM	Virtualized IPICS Software. Order this for a virtualized version of the IPICS system. Structure all software as options to this part number for physical delivery of software licenses.
L-CIS-IPICS-VM=	Virtualized IPICS Software. Order this for a virtualized version of the IPICS system. Structure all software as options to this part number for eDelivery of software licenses.
IPICS4.X-BDL1-K9	IPICS basic bundle used for small deployments. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
IPICS4.X-BDL2-K9	IPICS medium bundle used for Cisco Unified Communications Manager integration. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
IPICS4.X-BDL3-K9	IPICS large bundle used for large deployments. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-IPICS4-HA-K9	High availability secondary server bundle. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-IPPE4.0-K9	Policy engine server software, which provides the policy engine feature. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-CON4.0-SIL	Cisco Dispatch Console Silver License, used for primary dispatchers. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-CON4.0-PLA	Cisco Dispatch Console Platinum License, used for supervisors or dispatchers that need telephony features. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-MC	Mobile Client IPICS License. Order one per each Android and iPhone mobile client needed in the system. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-MC-100	Mobile Client IPICS License, 100 units. This includes 100 mobile client licenses for Android or iPhone devices. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-PHN	IP Phone Client License. This is used for each Cisco IP phone that needs to access talkgroups and channels. Order one per each Android and iPhone mobile client needed in the system. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-VIP-CHNL	IPICS Channel/Radio Port License. Order one for each channel or radio needed on the IPICS system. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-VIP-DIAL	IPICS VIP dial-out ports. This is used for each dial-out port connected to a telephony system. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-VIP-VTG	Virtual talkgroup (VTG). Order one for each desired VTG. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-OPSVIEW2	IPICS operational views. This feature allows administrators to segment dispatchers in the IPICS system. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.
CIS-NATIVE-IDC	Native dispatch position for end-to-end P25 encryption. Order one for each desired dispatch position to have end-to-end encryption. Order this as an option to a 2-RU MSP (CPS-MSP-2RU-K9), as an option to the CIS-IPICS-VM for physical delivery, or as an option to the L-CIS-IPICS-VM= for eDelivery.

Service and Support

Using the Cisco Lifecycle Services approach, Cisco and 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 (ROI). 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 Cisco IPICS, visit http://www.cisco.com/go/ipics or contact your local account representative.

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