Cisco IPICS Policy Engine

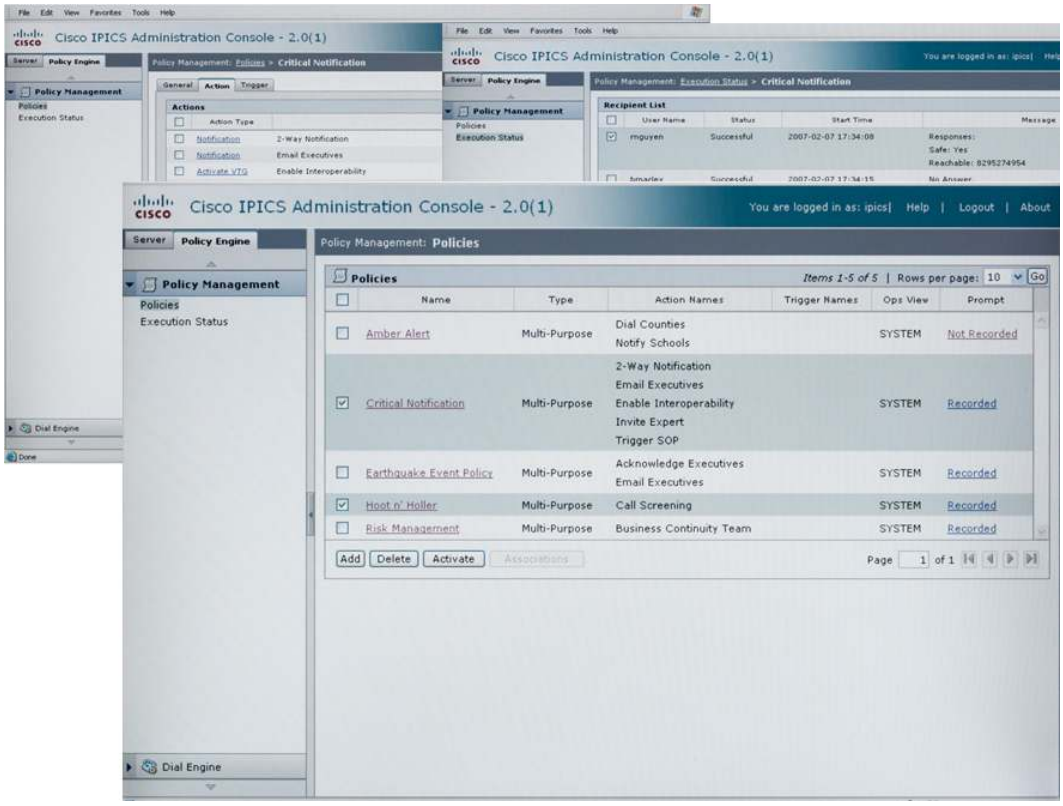
Product Overview

Cisco® IPICS Policy Engine enables operations managers to create policies for standard operating procedures—including talk group establishment and user notification—and then activate those policies with a single click. Cisco IPICS Policy Engine also enables public switched telephone network (PSTN) dial-in and dial-out.

Capabilities include:

- Policy definition: The agency defines its policies using an intuitive, Web-based interface (Figure 1). Policies reflect standard operating procedures, including which groups need to communicate, when, and on what devices. A fire department, for example, might define separate policies for residential fires, hazmat response, and methamphetamine lab fires (Figure 1). The policy includes notification methods for each individual, including radio, cell phone, PSTN phone, Cisco Unified IP phone, Cisco IPICS Push-to-Talk Management Center (PMC) client, pager, e-mail, or Short Message Service (SMS) text message. (Some notification methods require a Simple Mail Transfer Protocol [SMTP] gateway.)
- One-click policy invocation: When an incident occurs, the dispatcher or Cisco IPICS administrator can activate the policy from any Web browser—in the command center, another building, or even from home. Dispatchers who do not have access to the Web can activate the policy from a phone by dialing a number and then entering the code for that policy. Policies can also be activated automatically at a certain time of day—when an agency conducts a drill, for example. When the policy is activated, the Cisco IPICS Policy Engine automatically:
  - Notifies each participant
  - Sets up a virtual talk group; personnel who dial in with cell phones or PSTN phones enter an authentication code; the policy can stipulate that certain participants be included in listen-only mode
- Notification tracking: The Cisco IPICS Policy Engine keeps a record of notification status so that the dispatcher can determine which people were reached and are available. For example, personnel might enter “1” on their keypads if they are available or “2” if they are not available. Real-time notification tracking helps incident commanders determine whether more personnel are needed from outside the area.

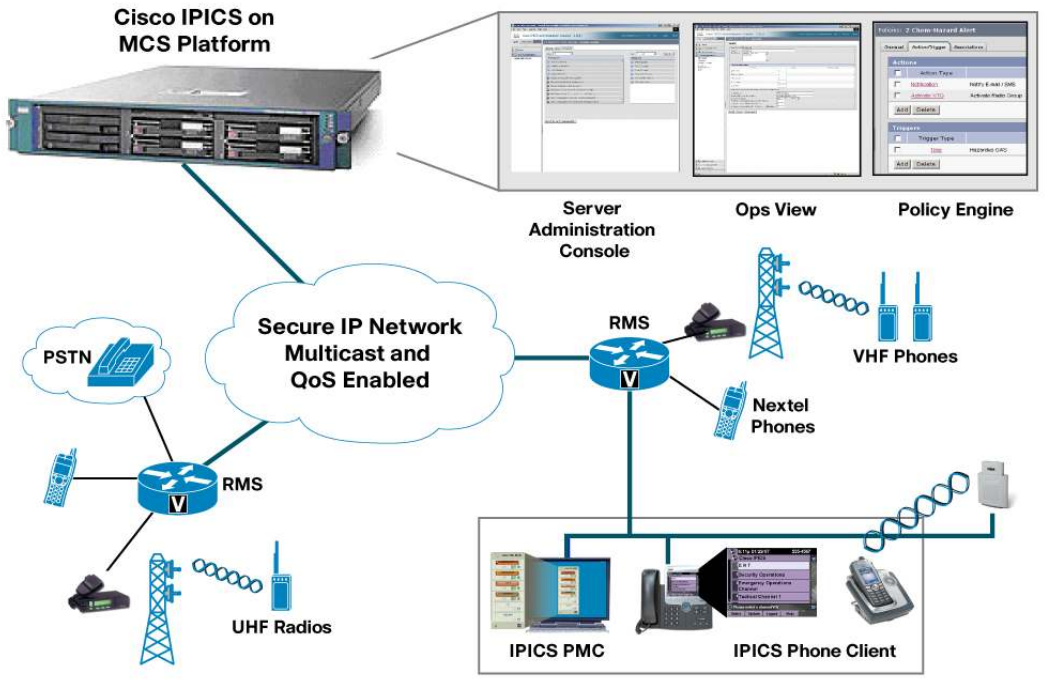
Figure 1. One-Button Activation of Predefined Incident Communications Plans



The Cisco IPICS Policy Engine was designed to meet stringent security requirements. Before admitting callers to a virtual talk group, the policy engine validates that they are calling from a phone number that has been added to the system, and then authenticates the user based on a password. Organizations that want to override the security features to patch in one-time participants—such as an expert on a certain type of hazmat spill or infectious disease—can customize Cisco IPICS Policy Engine to meet the need.

Cisco IPICS Policy Engine is an integral component of Cisco IPICS, an intelligent resource management tool that controls media and information. Other components of Cisco IPICS include Cisco IPICS Operational Views (OpsViews), Cisco IPICS PMC, Land Mobile Radio (LMR) gateways, Router Media Service (RMS), and Cisco Unified IP phones. Figure 2 shows the role of Cisco IPICS Policy Engine within the Cisco IPICS architecture.

Figure 2. Cisco IPICS Components



Applications

Extending Access Outside the Radio Range

With the ability to dial out to PSTN phones and cell phones, dispatchers can patch in personnel who are outside of radio range, including off-duty personnel and Department of Homeland Security agencies such as the FBI and Drug Enforcement Administration.

Automating Notification Processes

Cisco IPICS Policy Engine replaces manual notification processes, which often require a dispatcher to refer to a binder or database to identify the appropriate participants and then call each one sequentially. Automating notification shortens the time needed to assemble the response team.

Activating an Incident-Response Policy Remotely

An authorized dispatcher or incident commander can activate a preestablished policy—including notification and talk group establishment—from any Web browser or phone.

Enabling Notification Even if the Radio Channel Is Overloaded

The Cisco IPICS Policy Engine provides guaranteed message delivery using multiple channels, including cell phones, paging, and e-mail, enabling first responders to share crucial incident details with command even if the radio channel is overloaded during an emergency.

Enabling Silent Notification and Message

When personnel need to operate silently, they can continue to send and receive communication from command using SMS text messaging.

Including Agencies Not Connected to the IP Network

Personnel from agencies that are not connected to the IP network, including emergency medical services (EMS), can join the channel using a PSTN phone or cell phone. They simply dial the number of the channel and then enter a code to authenticate. This capability enables interagency collaboration on coordinated events even if the infrastructure has not been previously set up.

Features and Benefits

Primary benefits of the Cisco IPICS Policy Engine follow:

- Enhancing policy management and compliance with standard operating procedures: An authorized administrator, dispatcher, or operator can use a single, intuitive Web interface, from any connected PC, to create, modify, and activate policies and check their execution status.
- Automating manual notification processes: With the click of a single button, the operations manager or dispatcher can initiate notification policies such as sending e-mail to 100 users and dialing 50 others.
- Facilitating multiagency collaboration: Dispatchers can patch in personnel using any radio system, IP phones, the Cisco IPICS PMC client, cell phones, and PSTN phones.
- Supporting distributed command and control: The dispatcher can activate policies from any Web browser or preauthorized phone.
- Accelerating notification: Policies can stipulate notification through automatic dialing, e-mail, SMS messages, or pager notification, all initiated at the same time.

Other features and benefits appear in Table 1.

Table 1. Features and Benefits

Features	Benefits
Integrated telephony user interface (TUI)	Enables personnel using PSTN phones and cell phones to join virtual talk groups
Unified interface for notification, virtual talk group activation, dial-out, and adding participants	Simplifies operations and reduces training requirements
Real-time presence information for virtual talk groups	Provides an audit trail of user activities on the Cisco IPICS Policy Engine and included dial engine, accessible from the Cisco IPICS Administration Console
Virtual talk group management controls	Enables more efficient communications by allowing dispatcher or incident commander to moderate virtual talk groups by muting, un-muting, and terminating dial-in call sessions
User notification preferences: device, phone number, and so on	Improves the speed and efficiency of user notification
Queued and pool-based simultaneous and critical notification capability	Accelerates notification; note that e-mail, SMS, and pager-based notification requires an SMTP gateway
Session Initiation Protocol (SIP) support	Protects investment by ensuring interoperability with current and future SIP-compliant network components, including Cisco Unified CallManager and Cisco Unified CallManager Express
Spoken name prompt used with PSTN dial-in and dial-out	Increases security by asking personnel who join talk groups with cell phones or PSTN phones to confirm their identity after entering their authentication code
Dual tone multifrequency (DTMF)-based policy triggers	Allows dispatchers to trigger predefined policies using a phone
Support for custom scripts	Enables customized security or notification requirements, with assistance from Cisco Advanced Services or Cisco Advanced Technology Partners

Product Specifications

Table 2. Product specifications for Cisco IPICS Policy Engine

Item	Specification
Product compatibility	Linux operating system and Cisco IPICS Server 2.0
Software compatibility	Cisco IPICS 2.0(1)
Protocols	SIP trunk, SMTP, and HTTPS
Components	E-mail subsystem Dial-engine subsystem: requires a SIP trunk
Connectivity	Through Cisco IPICS 2.0(1) server on an IP standards-based network
Performance	Refer to the Cisco IPICS 2.0(1) performance
Programming interfaces	Customizable interfaces for the policy engine and dial engine are available through selected system integrators, Cisco IPICS Technology Developer Program partners, and Cisco Advanced Services

System Requirements

Cisco IPICS Policy Engine is a licensed component of the Cisco IPICS 2.0(1) server. The system requirements are same as those for the Cisco IPICS 2.0(1) server.

Ordering Information

The Cisco IPICS 2.0 with the policy engine can be ordered through the Cisco products and services ordering site. To download the software, go to the Cisco Software Center. Table 3 gives ordering information.

Table 3. Ordering Information

Product Name	Part Number
Cisco IPICS Policy Manager for IPICS 2.0(1) and four Dial Licenses (enables Policy Engine on Cisco IPICS server)	CIS-IPICS-PM1-K9
Cisco IPICS Policy Engine Dial Port	CIS-VIP-DIAL
Cisco IPICS Policy Engine Dial Port—10 Pack	CIS-VIP-DIAL-10
Cisco IPICS Policy Engine Dial Port—50 Pack	CIS-VIP-DIAL-50
Cisco IPICS Policy Manager Update, 1 Year Subscription	CIS-PM1-SUB

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 the business value and return on investment for your network. 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.

Contact your Cisco representative to engage with Cisco Advanced Services or Cisco Advanced Technology Partners for customization, deployment, training, and support.

For More Information

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

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