CISCO SYSTEMS

DATA SHEET

CISCO IP PHONE SERVICES SOFTWARE DEVELOPMENT KIT (SDK)

Cisco Systems IP Phone Services bring the power of the World Wide Web to Cisco IP Phones. An integral part of a Cisco AVVID (Architecture for Voice, Video and Integrated Data) solution, IP Phone Services provide access to intelligent network applications and dynamic and interactive communication tools.

Many attempts at personalizing traditional private branch exchange (PBX) solutions are available today. However, these solutions typically use proprietary technology and are expensive and complicated. Cisco IP Phone Services deliver customized content to Cisco IP Phones, enhancing employee productivity and unleashing the power of intelligent network applications.

Using the Cisco IP Phone 7940 and 7960, you can deploy customized client services with which users can interact from the keypad, soft keys, or a rocker key and display valuable information. IP Phone Services use a 145x100 pixel-based LCD display on the Cisco IP Phones 7940 and 7960. By pressing the services button on a Cisco IP Phone 7940 or 7960, a session is initiated and a menu of services that are configured for the phone appears. When you select a service from the listing, the phone's display is updated. The following is a list of compelling services that can be supplied to the Cisco IP Phones:

- Conference room scheduler
- E-mail and voice-mail messages list
- Daily and weekly schedule and appointments
- Personal address book entries
- Weather reports
- Stock information
- Company news
- Flight status
- Transit schedules

The Software Developer Kit (SDK) makes it easier for Web developers to format and deliver content to the phone by providing Web server components for Lightweight Directory Access Protocol (LDAP) directory access, Web proxy, and graphics conversion. It also contains several sample applications, which show how to use the various Extensible Markup Language (XML) tags that the phone supports.

FEATURES

The Cisco IP Phone Services SDK helps enterprise partners, developers, and customers deliver customized applications. The SDK includes tools, sample applications, and documentation.

Development Tools

The SDK includes the following tools:

- **LDAP Search**—provides a COM server object that performs queries on any LDAP-compliant directory server and returns the output in the Cisco IP Phones Services XML data format. LDAP Search enables you to search by:
  - Full name
  - First name
  - Last name
  - Phone number
  - E-mail
  - LDAP distinguished name (DN)
  - LDAP relative distinguished name (RDN)

  LDAP Search also includes sample code, which demonstrates how to use the LDAP search component, and programming notes.

- **Proxy Server Web Content Retriever (CiscoURLProxy)—**provides a COM object that retrieves Web documents from a proxy server for processing by the application.
- **Graphics Conversion Tools**—includes the Dynamic Graphics Image Converter (CIPX), Commercial Graphics Package Plug-ins, and Image Viewer.
  - Dynamic Graphics Image Converter (CIPX)—provides a COM server object, which dynamically translates various types of graphic image formats, including GIF, BMP, JPG, and PNG, to the Cisco IP Phone (CIP) format for display on the Cisco IP Phones 7940 or 7960.
  - Commercial Graphics Package Plug-Ins—enable you to manually modify graphics images using commercial graphics editing packages and save the files in the Cisco IP Phone format. Adobe PhotoShop and Paint Shop Pro are supported.
  - ImageViewer—provides a Windows application that enables you to view .cip graphic files on your desktop.

Sample Applications

This SDK provides five sample applications:

- Calendar—provides a graphical representation of the Gregorian monthly calendar on the Cisco IP Phone 7940 or 7960 LCD. It displays a single month at a time, allowing access to the previous and next months, and user-requested months, from the keypad.
- Stock quote—enables you to input stock ticker symbols from the keypad. Information on the current performance of the requested stock is displayed on the LCD of the Cisco IP Phone 7940 or 7960.
- Speed dials—enables you to increase the number of speed dials on your IP Phone using the services button.
- Graphics image converter—uses the CipX ActiveX library in the SDK for converting graphics images to or from the supported formats, which include CIP, GIF, BMP, JPG, and PNG.
- LDAP Search COM Server—enables you to retrieve information from a LDAP directory server and send it in the correct XML format to the Cisco IP Phone 7940 or 7960.

Documentation

This SDK includes two documents: "Cisco IP Phone Services Application Development Notes," and programming guides on the ActiveX components that are included within the Cisco IP Phones.

- "Cisco IP Phone Services Application Development Notes" describe how to develop and deploy new services. These notes are also a reference guide for the supported XML tags.
- Programming guides for the included ActiveX components document all the properties and methods of these components. Code samples demonstrate how to use the components.

SPECIFICATIONS

This SDK requires:

- Cisco IP Phone 7940 or 7960 with Cisco CallManager 3.05 software or later
- Microsoft IIS 4.0 (for most of the sample applications)
- Window Scripting Host (for graphic image converter application)

AVAILABILITY

To obtain the SDK online at the Developer Support Program Web Site for no charge. Visit http://www.cisco.com/go/developersupport/.

FOR MORE INFORMATION ON CISCO PRODUCTS

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DEVELOPER SUPPORT

The Developer Support Program provides formalized support for Cisco Systems interfaces to enable developers, customers, and partners in the Cisco Service Provider Solutions Ecosystem and Cisco AVVID Partner programs to accelerate their delivery of compatible solutions.

The Developer Support Engineers are an extension of the product technology engineering teams. They have direct access to the resources necessary to provide expert support in a timely manner.

For additional information on this program, refer to the Developer Support Program Web Site at http://www.cisco.com/go/developersupport/.

Developers using SDK are encouraged to join the Cisco Developer Support Program. This new program provides a consistent level of support while leveraging Cisco interfaces in development projects. Note that Cisco TAC support does not include SDK support and is limited to Cisco AVVID installation/configuration and Cisco-developed applications. For more information about the Developer Support Program, please contact Cisco at developer-support@cisco.com.

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