



The Power of We™

Avaya Aura® Application Enablement Services SDKs

Avaya Aura® Application Enablement (AE) Services is a software platform that provides connectivity between client applications and Avaya Aura Communication Manager acting as an access server. AE Services includes an enhanced set of Application Programming Interfaces (APIs), client-side libraries, protocols, and web services that expose the capabilities of Communication Manager to application developers.

AE Services provides application developers with a variety of Software Development Kits (SDKs), offering differing levels of programmatic control, protocol support, and programming language support. The table below can help you determine which AE Services SDKs are most appropriate for your application development needs.

AE Services SDK selection matrix

Functionality	Programming language/protocol				
	Java	C/C++	.NET	Any/XML	Web Services
Advanced third party call control	DMCC Java SDK JTAPI SDK	DMCC XML SDK TSAPI SDK	DMCC .NET SDK	DMCC XML SDK	
Basic third party call control	DMCC Java SDK JTAPI SDK	DMCC XML SDK TSAPI SDK	DMCC .NET SDK	DMCC XML SDK	
Simple call creation and maintenance					Telephony SDK
Physical device control	DMCC Java SDK	DMCC XML SDK	DMCC .NET SDK	DMCC XML SDK	
Media control	DMCC Java SDK	DMCC XML SDK	DMCC .NET SDK	DMCC XML SDK	
Communication Manager system management					SMS SDK

TSAPI and JTAPI SDKs

The TSAPI and JTAPI SDKs provide tools to help developers create applications that make use of the AE Services TSAPI (Telephony Services API) for Communication Manager and JTAPI (Java Telephony API) for Communication Manager interfaces, respectively. Each of these public interfaces enables access to the full complement of third party call control capabilities provided by Communication Manager. The interfaces are known collectively as the AE Services Computer Telephony Integration (CTI) APIs.

The following SDKs are available for the corresponding CTI APIs:

TSAPI SDK: for developing C and C++ applications. Windows and Linux versions of the TSAPI SDK are available.

JTAPI SDK: for developing Java applications. An operating system independent version of the JTAPI SDK is available.

DMCC SDKs

The Device, Media, and Call Control (DMCC) SDKs provide tools to help developers make use of the AE Services DMCC APIs and protocols. The DMCC APIs and protocols enable applications to access the physical device control, media control and call control capabilities of Communication Manager.

- **AE Services comprises various services that provide connectivity** between client applications and Communication Manager
- **The AE Services SDKs offer differing levels of programmatic control,** protocol support and programming language support
- **Available AE Services SDKs include:** TSAPI SDK, JTAPI SDK, DMCC Java SDK, DMCC .NET SDK, DMCC XML SDK, Telephony Web Service SDK and System Management Service SDK

About the Avaya DevConnect Program:

The Avaya DevConnect Program provides a wide range of developer resources, including access to APIs and SDKs for Avaya products, developer tools, technical support options and training materials. Registered membership is free to anyone interested in designing Avaya-compatible solutions. Enhanced membership options offer increased levels of technical support, compliance testing, and co-marketing of innovative solutions compatible with standards-based Avaya solutions. To learn more, or register for membership, please visit www.avaya.com/devconnect.

About Avaya

Avaya is a global provider of business collaboration and communications solutions, providing unified communications, contact centers, networking and related services to companies of all sizes around the world. For more information please visit www.avaya.com.

The following DMCC SDKs are available for developers:

DMCC Java SDK: for developing Java applications.

DMCC XML SDK: for developing applications in any language that supports the sending and receiving of XML data over a network connection.

DMCC .NET SDK: for developing .NET applications.

The DMCC Dashboard tool:

The DMCC .NET SDK includes the DMCC Dashboard tool. The Dashboard tool is a .NET application that allows users to exercise all the Communication Manager capabilities supported by the DMCC service.

The tool gives developers the ability to monitor the actual XML messages sent to and from the DMCC service, without having to use a third-party tool or having to inspect the DMCC logs. Developers can use the Dashboard tool to send XML messages to the DMCC service and observe the results, thus allowing them to discover and learn how the API works for applications under development.

Telephony Web Service SDK

The AE Services Telephony Web Service provides a high level interface to a subset of the third-party call control capabilities available on Communication Manager.

The Telephony Web SDK comprises tools, including sample code, to help develop SOAP clients that include simple call creation and control.

System Management Service SDK

The System Management Service (SMS) is a web service provided by AE Services that exposes selected management features of Communication Manager. The web service enables SOAP clients to display, list, add, change and remove specific managed objects on Communication Manager.

The SMS web service SDK comprises tools, including sample code, to help develop web applications that include Communication Manager management capabilities.

For more information on the AE Services SDKs, see the individual fact sheets available for each SDK.

Getting started with the AE Services SDKs

All of the AE Services SDKs, with the exception of the TSAPI SDK, are available as free downloads from the Avaya DevConnect web portal (registration required). DevConnect members can order the TSAPI SDK via their DevConnect procurement benefits.

To test and debug applications under development, developers also need access to an instance of AE Services connected to Communication Manager. See *Additional AE Services resources for developers*, below for information about options available through DevConnect.

Additional AE Services resources for developers

The DevConnect program offers members a range of additional resources to aid in development and testing activities, including:

- **Free community-based support Forums and Frequently Asked Questions (FAQs)** are available to all DevConnect members.
- **A software-only developer configuration of Communication Manager and AE Services**, known as the Avaya Aura Basic Development Environment, suitable for installation on a single server or desktop machine.
- **Free remote lab access options** to Avaya Aura Communication Manager and Application Enablement Services hardware and software configurations.
- **Sample applications**, additional to those included with the SDKs, that can be used to aid in the development of new applications.
- **Discounted procurement options** for enhanced level members.

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