


# Getting Started with vSphere SDKs

## I am new to virtualization, where can I get more information ?

Start by reviewing VMware information on virtualization.

- [Introduction to Virtualization](#)
- [Managing your Virtualization through the VMware APIs](#) 

## What are the names of the VMware vSphere SDKs and Toolkits ?

The VMware SDKs are organized into two categories, for Developers and Administrators.

Audience	vSphere	VMware Infrastructure 3.x
Developer	vSphere Web Services SDK 4.0	VMware Infrastructure SDK
Developer	vSphere SDK for Perl 4.0	VMware Infrastructure Perl Toolkit
Developer	vSphere SDK for Java (Tech Preview)	VMware Infrastructure for Java (Tech Preview)
Developer	vSphere Guest SDK 4.0	VMware Guest SDK
Developer	VIX API 1.6	VIX API
Developer	Virtual Disk Development Kit 1.1	Virtual Disk Development Kit
Developer	VMware Studio 1.0	VMware Studio 1.0
Developer	CIM SDK 4.0	CIM SDK
Administrator	vSphere Management Assistant 4.0	VMware Infrastructure Management Assistant
Administrator	vSphere Command Line Interface (vCLI) 4.0	VMware Infrastructure RCLI
Administrator	VMware OVF Tool 1.0	Not Available
Administrator	vSphere PowerCLI 4.0	VMware Infrastructure Toolkit for Windows

## What can I do with the VMware vSphere SDKs and APIs ?

The VMware vSphere SDKs and APIs allow developers, and administrators to integrate and automate solutions using the vSphere APIs. Administrators can use our easy to use tools such as the vSphere PowerCLI to automate day to day tasks using PowerShell. Software developers can integrate with existing applications using standards based solutions. As a general rule of thumb our SDKs and Toolkits can do what the vSphere Client can do.

## Where can I download the latest SDKs, get Knowledge Base Articles, Code Sample and Community postings?

Visit the <http://developer.vmware.com/>

## Can you point me to the webinars, presentations on vSphere Web Services SDK ?

View our [recordings and presentation](#)

### Where can I find a high level overview of our APIs ?

Brief description of our APIs can be found [here](#)

### Where can I learn about latest webinar events ?

We have started a webinar program we call VMware Coffee Talk Webinars. Webinars are the first Wed of the month from 9:00 AM PST - 10:00 AM PST topics will range from Developer SDK to Administration automation products such as PowerCLI. We update the latest event on our calendar visit <http://developer.vmware.com/> Home page Events. You can also see our reference links for past recorded events: <http://communities.vmware.com/docs/DOC-10751>

### Can you briefly describe the VMware API architecture?

The VMware Infrastructure API (VI API) provides a complete set of language-neutral interfaces to the VMware Virtual Infrastructure Management (VIM) Framework. The VI API is implemented as industry-standard Web services hosted on VirtualCenter Server and ESX Server systems. The VI API complies with the Web Services Interoperability Organization (WS-I) Basic Profile 1.0, which includes XML Schema 1.0, SOAP 1.1, WSDL 1.1. For more information see the [WS-I Basic Profile 1.0](#)

The Web service provides all the operations necessary, including life-cycle operations, to monitor and manage virtual infrastructure components—compute resources, virtual machines, networks, and storage.



VMware has Perl (VI Perl Toolkit) and PowerShell (VI Toolkit for Windows) bindings to facilitate management for Perl and Windows administrators.

### What is the vSphere Web Services SDK, and what does it include?

The vSphere Web Services SDK facilitates development of client applications that target the vSphere API. The vSphere API is exposed as a Web service on the vSphere, VMware Infrastructure 3 platforms (ESX Server, VirtualCenter Server systems). The vSphere Web Services includes:

- Pre-compiled Java client libraries -- vim.jar, vim25.jar -- for development and testing;
- A complete set of documentation for setup, programming guide, and the API reference.
- Sample code for Web-services client applications Java and Microsoft C# environments.

### I am new to the VMware SDK. Where should I start?

0. Visit our newly created [Getting Started Guides](#)
1. [Download the Software Development Kit.](#)
2. [Understand the capabilities by reading the Programming Guide](#) 
3. [Set up your environment by reading the Developer's Setup Guide](#) 
4. [Review VI API Reference Guide](#) which provides a complete description of objects, methods, and properties.
5. [Read about VI SDK 2.5 New Feature Information](#)
6. [Review Release Notes for VI SDK 2.5](#)
7. Review the [latest Downloads](#), [Code Samples](#), and [Community Postings](#) from the [Developer Community](#)

### What programming languages does VMware recommend when using the vSphere Web Services SDK?

The following are recommended languages when interfacing with the VMware vSphere Web Services SDK.

- **Development Environment / Framework**
- Java: J2SE 1.5\_0\_08 or later
- C#: Microsoft Visual Studio 2005, Microsoft Visual Studio 2003, Microsoft Visual C#

- **Web services client development tool set**
- Java: Apache Axis 1.4
- C#: Microsoft .NET Framework 2.0

**Which versions of Apache Axis and Sun's JDK are used to generate and compile the VI SDK client stub in Java?**

- Apache Axis uses Apache Axis 1.4 (recommended) or Apache Axis 1.2.1
- Java uses Java Standard Edition 2, version 5.0 (J2SE 1.5.x) or J2SE 1.4.x. VMware recommends using J2SE 1.5.0\_08 (or later).
- For further details on the above please refer to the chapter "Setting Up for Java Development", chapter in the "Developer's Setup Guide."

**Where can I find more information about Web Services?**

See the following industry sites:

- [Web Services](#)
- [Web Services Tutorials](#)
- [.Net](#)
- [Axis](#)
- [Web Service Frameworks](#)

**Where can I find more information on the vSphere and VI SDK Licensing Agreements ?**

Please review our VMware SDK Frequently Asked Questions Document  
<http://communities.vmware.com/docs/DOC-7983>

**What is the VMware Perl Toolkit and when should I consider using it?**

The VI Perl Toolkit provides an easy-to-use Perl Scripting interface to the VMware Infrastructure API (VI API). Administrators and developers who may be more familiar with Perl can readily leverage the VI API. The VI Perl Toolkit has many uses ranging from day to day management, automation of VI, to prototyping concept projects and applications.

**What is the vSphere PowerCLI ?**

The VI Toolkit for Windows provides Windows administrators with a familiar and easy to use interface to manage VMware infrastructure. If you would like to download, please visit <http://vmware.com/go/powershell> for more information. We recommend you review our [Managing VMware with PowerShell Frequently Asked Questions](#).