

# ***Planning Guide***

## ***Oracle AutoVue 20.1, Client/Server Deployment***

ORACLE

February 28, 2011

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# **Preface**

The *Planning Guide* provides recommendations on how to deploy AutoVue, VueServlet, AutoVue client and AutoVue client components. For more technical information on how to deploy/configure AutoVue and its associated components, refer to the *Installation and Configuration Guide*.

For the most up-to-date version of this document, go to the AutoVue Documentation Web site on the Oracle Technology Network at <http://www.oracle.com/technetwork/documentation/autovue-091442.html>

## **Audience**

The *Planning Guide* is directed at integrators or administrators whose task is the configuration and deployment of Oracle AutoVue.

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## **Related Documents**

For more information, see the following documents in the Oracle AutoVue documentation library:

- *Installation and Configuration Guide*
- *Viewing Configuration Guide*
- *AutoVue Testing Guide*

# Conventions

The following text conventions are used in this document:

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Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in the text.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
[root directory]\[sub directory]	In Windows and Linux OSes, directory hierarchy is written with backward slashes (\) and forward slashes (/), respectively. In this document, unless mentioned otherwise, directory hierarchy for Windows and Linux OSes are written with the backward slash.
<angular brackets>	Indicates required entries but are not to be included in the entered information.
{curly braces}	Indicates mandatory information.
[square brackets]	Indicates optional syntactical elements.
	Indicates an either-or type of choice.
...	Indicates that information may be repeated.

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# **Introduction**

This document provides information that will help you plan your AutoVue deployment. Specific instructions for installing and configuring AutoVue are in the *Installation and Configuration Guide*.

This document is structured as below:

- **AutoVue Deployment Components**  
This chapter provides information on the various AutoVue components that need to be factored in as part of the deployment planning.
- **AutoVue System Requirements**  
This chapter contains the hardware and the software requirements for AutoVue.
- **Standard Deployment Architectures**  
This chapter has standard recommended architecture diagrams for an integrated and a non-integrated deployment of AutoVue.
- **Planning Your AutoVue Deployment**  
This chapter contains links to specific deployment scenarios.
- **Architectural Deployment Considerations**  
This chapter contains information around architectural deployment considerations such as an AutoVue server farm, distributed geographies, high availability, disaster recovery and secure communication.
- **Feature Deployment Considerations**  
This chapter contains information around features of AutoVue such as streaming files, Real-Time Collaboration, Intellistamps and Working Offline.

AutoVue can be integrated with DMS/UCM/PLM/ERP (DMS)<sup>1</sup> systems or can be deployed as a standalone application. The "[AutoVue Deployment Components](#)" chapter contains recommended deployment architectures for both integrated and non-integrated deployments. Most of the other architecture diagrams in this document are for integrated deployments. You can still refer to these architecture diagrams if you have a non-integrated deployment - you will just have to exclude the integration components from your planning.

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1. This document refers to document repositories, DMS/ERP/PLM/UCM systems as Document Management Systems (DMS).

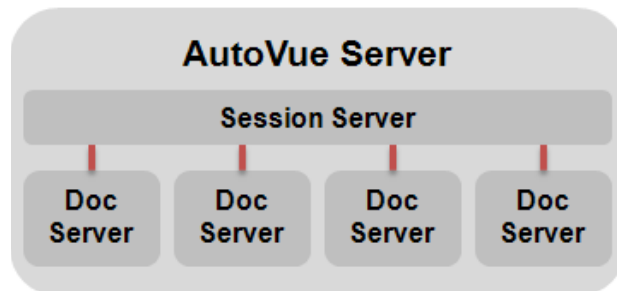
# AutoVue Deployment Components

The Oracle AutoVue Client/Server Deployment is a multi-tiered, client-server architecture. You can deploy AutoVue either as a standalone application or integrated with a DMS. AutoVue has several components: the AutoVue server, an application server hosting the VueServlet and DMS, a Web server or an application server hosting AutoVue client components, and the AutoVue client.

The following sections describe the components and deployment architectures of AutoVue.

## AutoVue Server

The AutoVue server is the core of the AutoVue solution. An AutoVue server instance is comprised of one session server and multiple document servers (by default, there are four document servers).



The session server receives all requests sent to the AutoVue server and then delegates the tasks to a document server. When a file is opened, all the processing is performed on the document server. It parses the file and generates the streaming file to send to the AutoVue client. A document server can be dedicated to streaming file generation. During AutoVue installation, AutoVue dedicates four document servers and one streaming file document server by default. You can increase/decrease this number by modifying the `ProcessPoolSize`. For more information, refer to the “Appendix A: AutoVue Server Configuration” section in the *Installation and Configuration Guide*.

When the AutoVue servers are setup in a server farm, the session servers communicate with each other to distribute the load across all the document servers in the server farm.

The AutoVue server is very CPU, I-O, Memory and Graphics intensive. Ensure that the machine hosting AutoVue server is dedicated to AutoVue and is not being used for other applications.

If the AutoVue server is running in a virtualized environment, ensure that the proper resources are allocated to the virtual machine hosting it. Note that virtualized environments may have slight degradation in performance compared to running on native hardware.

## VueServlet

The VueServlet acts as the main entry point for communication between AutoVue clients and the AutoVue server. The VueServlet must be configured for access to a firewall when used by external AutoVue clients to communicate with the AutoVue server.

Generally, the VueServlet can be deployed on any application server. For a list of application servers that are certified by Oracle, refer to section ["System Requirements"](#). The number of requests that the VueServlet can handle is limited by the capabilities of the application server that it is deployed on. You can configure the number of simultaneous connections from the VueServlet to the AutoVue server by setting the `InvokerCount` parameter. For more information, refer to the “Appendix B: Configuring the VueServlet” section in the *Installation and Configuration Guide*.

When deploying the VueServlet, your deployment steps should generally depend on whether you have integrated AutoVue with a DMS, or whether you are using it in a non-integrated environment. When AutoVue is integrated with a DMS, it is recommended to deploy the VueServlet on the application server (in a different context) that hosts the DMS. For more information, refer to the “Installing the VueServlet in an Integrated Environment” section of the *Installation and Configuration Guide*.

Depending on your peak usage, you may need to have multiple VueServlets that can serve requests to AutoVue. Since the VueServlet is hosted within an application server, you must rely on the application server’s load balancing capabilities or rely on an external load balancer. Ensure that the load balancer is configured for session stickiness.

## AutoVue Client Components

AutoVue client components need to be hosted within an application server or a Web server. The client components need to be configured to communicate with the VueServlet, which in turn communicates with the AutoVue server. End-users connect to AutoVue using the URL served by this application/Web server.

You can deploy the AutoVue client components in a DMS-integrated or in a non-integrated environments.

For a non-integrated environment, you must copy the required java archive files (JAR) and online help files to your Web server document root. For more information, refer to the “Installing AutoVue Client Components” section in the *Installation and Configuration Guide*.

When AutoVue is integrated with a DMS, you must copy over the required JAR and online help files to the application server that hosts the integration components and/or the DMS. For more information, refer to the “Installing AutoVue Client Components in an Integrated Environment” section in the *Installation and Configuration Guide*.

## AutoVue Client

The AutoVue client is a JAVA-based applet that is displayed via an Web page (HTML, ASP, and so on). The applet is fully customizable: you can modify the graphical user interface (GUI), setup a collaboration session, embed the applet in a Web page, modify the menu option and toolbars, and so on. For more information on the configurable parameters of the AutoVue client, refer to the “Customizing the AutoVue Client” section in the *Installation and Configuration Guide*.

# AutoVue System Requirements

## Hardware Requirements

Component	Oracle-Certified Hardware Requirements
<b>Server</b>	<p><b>Note:</b> The AutoVue server is very CPU-, I/O-, memory-, and graphics-intensive. Ensure that the machine running the AutoVue server is not being used for other applications. For optimal performance, we recommend that the machine running the AutoVue server should not be used by other applications.</p> <ul style="list-style-type: none"> <li>• 8 GB of RAM</li> <li>• Quad-core processor</li> <li>• 400 MB of disk space for installation</li> <li>• At least 30 GB of free disk space: <ul style="list-style-type: none"> <li>• 20 GB for streaming files (if you configure a larger size for AutoVue cache directory, ensure that the additional disk space is available).</li> <li>• Additional space required for managing markup symbols, user profiles, and markups.</li> <li>• AutoVue also stores temporary files (at the %TEMP% path on Windows operating systems and at \$TMPDIR path on Linux operating systems). These files are generally deleted after processing is complete. Ensure that there is available disk space for AutoVue temporary files.</li> </ul> </li> </ul>
<b>Client</b>	<ul style="list-style-type: none"> <li>• 1GHz CPU</li> <li>• 1 GB of RAM</li> </ul> <p>It is recommended that the Java Virtual Machine (JVM) used for the AutoVue client is configured for a maximum memory of 256 MB. If loading larger documents, you may need to increase this memory to a higher value (for example, 512 MB).</p> <ul style="list-style-type: none"> <li>• The AutoVue client is a Java applet and as such works on most operating systems and browsers that support Java applets. To see what is certified by Oracle, refer to "<a href="#">System Requirements</a>".</li> <li>• When running the AutoVue client on machines with non-Windows operating systems (OSes), ensure that these machines have a graphics card that supports OpenGL. This is necessary for loading 3D models.</li> <li>• On Windows machines, it is recommended to have a graphics card with OpenGL support. In the absence of a graphics card, Windows uses its OpenGL capability which is slower as compared to having a graphics card that supports OpenGL.</li> </ul>

# System Requirements

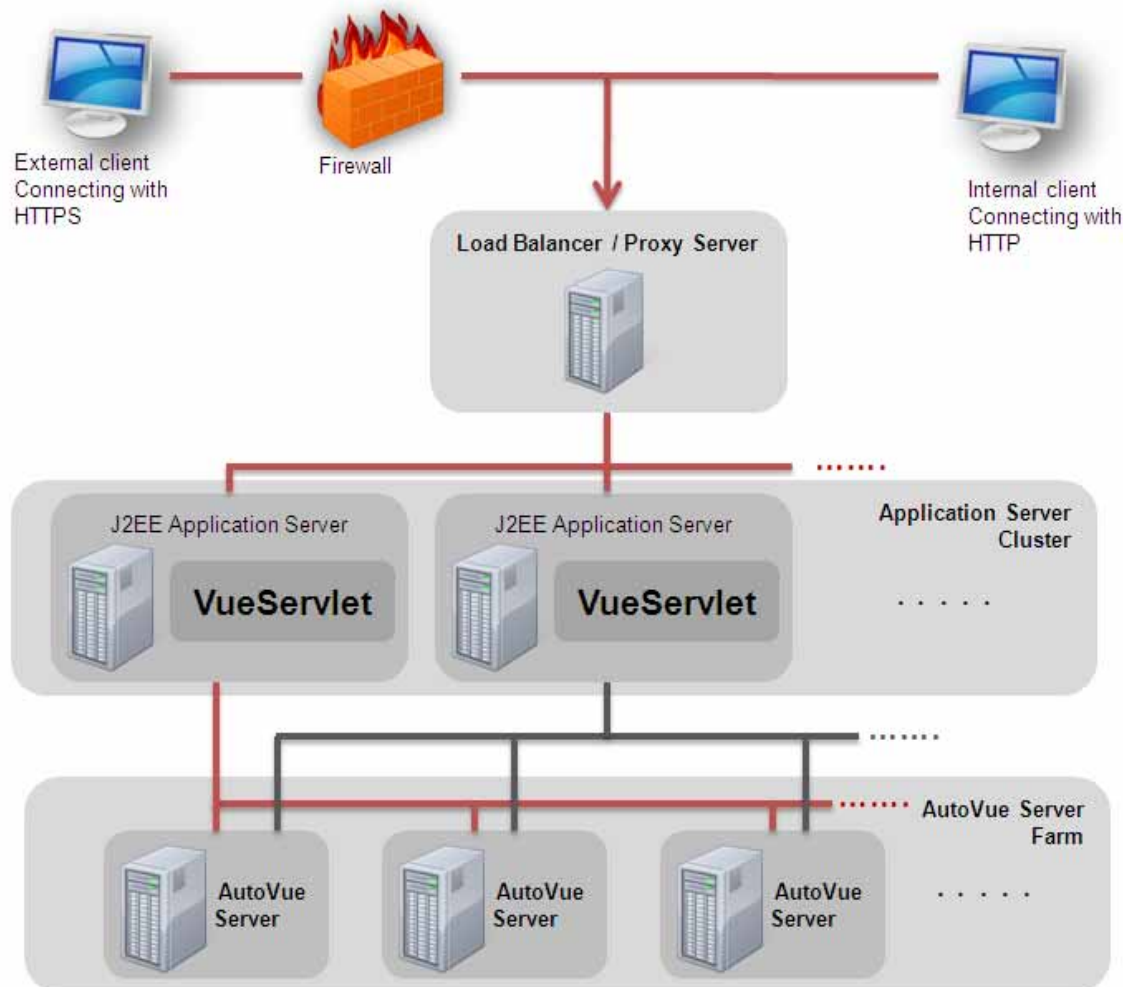
Component	Oracle-Certified Operating Systems and Software
<p><b>Server</b></p> <p>The installation requires about 400MB of free space. Additional space will be required by AutoVue for storing other data such as streaming files and markups.</p>	<p><b>Windows</b></p> <ul style="list-style-type: none"> <li>• Windows Server 2003 32-bit</li> <li>• Windows Server 2003 64-bit (AutoVue running in 32-bit mode)</li> <li>• Windows Server 2008 32-bit</li> <li>• Windows Server 2008 64-bit (AutoVue running in 32-bit mode)</li> <li>• Windows Server 2008 R2 64-bit (AutoVue running in 32-bit mode)</li> </ul> <p><b>Important:</b> Windows 2008R2 has much improved memory handling abilities compared to Windows 2008 and Windows 2003. It is recommended that you run AutoVue on Windows 2008R2 for better memory handling and long-term stability.</p> <p><b>Linux</b></p> <ul style="list-style-type: none"> <li>• Oracle Enterprise Linux 5.4 (x86)—32-bit</li> <li>• Oracle Enterprise Linux 5.4 (x86)—64-bit (AutoVue running in 32-bit mode)</li> <li>• Red Hat Enterprise Linux 5.4 (x86)—32-bit</li> <li>• Red Hat Enterprise Linux 5.4 (x86)—64-bit (AutoVue running in 32-bit mode)</li> </ul> <p><b>Virtualization</b></p> <ul style="list-style-type: none"> <li>• VMWare Server version 2.0.2</li> </ul>
<p><b>Client</b></p> <p>Clients running the following 32-bit Java Virtual Machines:</p> <ul style="list-style-type: none"> <li>• J2SE 6.0 update 21</li> <li>• J2SE 5.0 update 22</li> </ul>	<p><b>Windows OSeS (XP, Vista, and 7)—32-bit and 64-bit</b></p> <ul style="list-style-type: none"> <li>• Internet Explorer 7—32-bit only</li> <li>• Internet Explorer 8—32-bit only</li> <li>• Firefox 3.5—32-bit only</li> </ul> <p><b>MAC OS X 10.6</b></p> <ul style="list-style-type: none"> <li>• Safari 5.0</li> <li>• Firefox 3.5</li> </ul> <p><b>RedHat Enterprise Linux 5</b></p> <ul style="list-style-type: none"> <li>• Firefox 3.5</li> </ul> <p><b>Ubuntu 10.04 LTS</b></p> <ul style="list-style-type: none"> <li>• Firefox 3.5</li> </ul> <p><b>Solaris 10 (Sparc)</b></p> <ul style="list-style-type: none"> <li>• Firefox 3.5</li> </ul>
<p><b>Application Server</b></p> <p>The VueServlet has been certified on the following application servers: Refer to <a href="#">"Deploying the VueServlet on Application Servers"</a> for more information on application servers.</p>	<ul style="list-style-type: none"> <li>• WebLogic 9.x and up</li> <li>• Oracle Application Server 10g</li> <li>• Tomcat 6.x and up</li> <li>• WebSphere 6.1 and up</li> <li>• Jetty 6.0 and up</li> </ul>

Component	Oracle-Certified Operating Systems and Software
<p><b>Web Server</b></p> <p>The AutoVue client Web page is certified on the following Web servers:</p>	<ul style="list-style-type: none"><li>• Oracle HTTP Server</li><li>• Windows IIS</li><li>• UNIX, Apache v2</li></ul> <p>The AutoVue installer detects whether a Web server is installed on the AutoVue server machine. If one of the certified Web servers is found, the required AutoVue client components are installed. If you want to install AutoVue client components manually, or are using an integration with AutoVue, refer to the <a href="#">"Installing AutoVue Client Components"</a> section for information on installing the client components.</p>

# Standard Deployment Architectures

## Standalone/Non-Integrated Deployment

The following diagram displays a typical non-integrated AutoVue deployment with a VueServlet cluster and an AutoVue server farm<sup>1</sup>. For information on this deployment scenario, refer to section "[Configuring AutoVue for High Usage](#)".



In this scenario:

- Internal and external clients connect to a load balancer
- A load balancer routes requests to the VueServlet which is deployed in an application server cluster
- The VueServlet directs requests to an AutoVue server that is deployed in a server farm. The AutoVue server entries in the VueServlet configuration must be identical across all the VueServlet instances.

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1. The terms *cluster* and *server farm* are used interchangeably throughout this document.

# Integrated Deployment

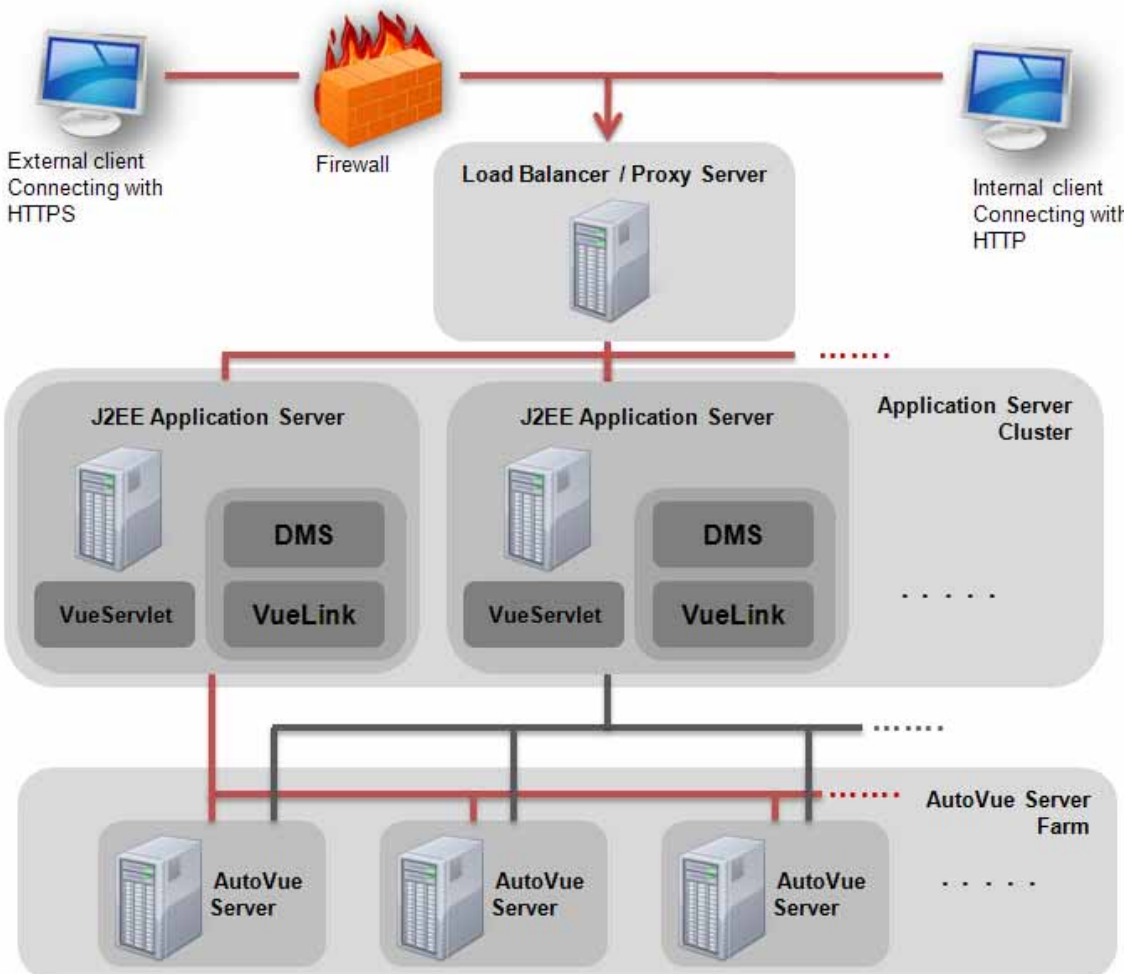
AutoVue can be closely integrated with various Document Management Systems using the Integration Software Development Kit (ISDK). For faster development cycles, you can leverage the ISDK to provide efficient integration of AutoVue with a DMS. For more information and sample code, refer to the ISDK documentation on the Oracle Technology Network: <http://www.oracle.com/technetwork/documentation/autovue-091442.html>.

Oracle develops some pre-integrated solutions that integrate AutoVue with popular Content Management Systems. These Oracle integrations are called VueLinks.

The following diagram displays a typical architecture for a VueLink-integrated environment with an application server cluster and an AutoVue server farm.

**Note:** If you are using your own integration or a third-party integration with AutoVue, refer to this architecture for generic guidelines. DMS deployment architecture may vary from one DMS to another—ensure that you refer to your DMS documentation and the VueLink/integration documentation for specific deployment instructions.

For more information on integrating AutoVue with a DMS, refer to section ["Integrations with a Document Management System"](#).



In this scenario:

- Internal and external clients connect to a load balancer
- A load balancer routes requests to the VueServlet which is deployed in an application server cluster

- The VueServlet directs requests to an AutoVue server that is deployed in a server farm.
- The AutoVue server in turn communicates with the VueLink and the VueLink communicates with the DMS to fulfill DMS requests.
- The VueServlet is deployed in the same application server cluster
- The AutoVue server entries in the VueServlet configuration must be identical across all the VueServlet instances.

# Planning Your AutoVue Deployment

Before installing and using AutoVue, you must identify your deployment requirements.

The following are architectural considerations for your deployment:

Deployment Considerations	Deployment Recommendations
<ul style="list-style-type: none"> <li>How to scale AutoVue for a high volume of concurrent users</li> <li>How to scale AutoVue for high peak usage</li> <li>How to configure AutoVue to support viewing of different document types</li> </ul>	<p>Depending on types of document to be viewed (2D, 3D, and so on), number of concurrent users of AutoVue, and peak usage, it might be necessary to have multiple instances of the AutoVue server.</p> <p>Refer to section <a href="#">"Configuring AutoVue for High Usage"</a> for more information.</p>
<ul style="list-style-type: none"> <li>How to integrate AutoVue with a DMS</li> <li>How to integrate AutoVue with a DMS that has distributed file systems</li> </ul>	<p>When your AutoVue solution includes an integration with a DMS, you must ensure that this integration component is part of your deployment planning. When viewing files from a document management system, it is important to take into consideration the geographical locations of the end-users and the application server that the DMS is deployed on.</p> <p>Refer to section <a href="#">"Integrations with a Document Management System"</a> for more information.</p>
<ul style="list-style-type: none"> <li>How to prepare AutoVue for failover and disaster recovery</li> </ul>	<p>For high availability, AutoVue must be deployed in a horizontal cluster (server farm). Refer to section <a href="#">"Failover and Disaster Recovery"</a> for more information.</p>
<ul style="list-style-type: none"> <li>How to achieve secure communication between the AutoVue client and the AutoVue server</li> <li>How to achieve secure communication between the AutoVue server and the VueServlet</li> </ul>	<p>You can configure all communications between the AutoVue server and client, and between the AutoVue server and VueServlet through HTTPS which uses SSL.</p> <p>Refer to section <a href="#">"Security Considerations"</a> for more information.</p>
<ul style="list-style-type: none"> <li>How to deploy over distributed geographies</li> </ul>	<p>When multiple users are connected to the AutoVue server, it is important to take into consideration their geographical locations with respect to the server. That is, having the server located in close proximity to end-users may improve performance (loading of AutoVue, rendering time of documents, and so on).</p> <p>Refer to section <a href="#">"Distributed DMS Repositories"</a> and <a href="#">"Failover and Disaster Recovery"</a> for more information.</p>

Additional deployment scenarios are described in section ["Feature Deployment Considerations"](#)

Once your deployment requirements are identified, you can plan your AutoVue installation and deployment. Since AutoVue can plug into and work with various other components, it is highly recommended to perform a Systems Integration Test and User Acceptance Test to ensure that AutoVue works well with all components and can reliably meet your technical and business/end-user needs. The *AutoVue Testing Guide* is included with your AutoVue installation and is located at <AutoVue Installation Directory>\docs folder.

The following sections describe the various deployment considerations for AutoVue. In most cases, more than one of these scenarios are applicable to your deployment. It is recommended that you review all of these various deployment scenarios and identify what is applicable to your deployment.

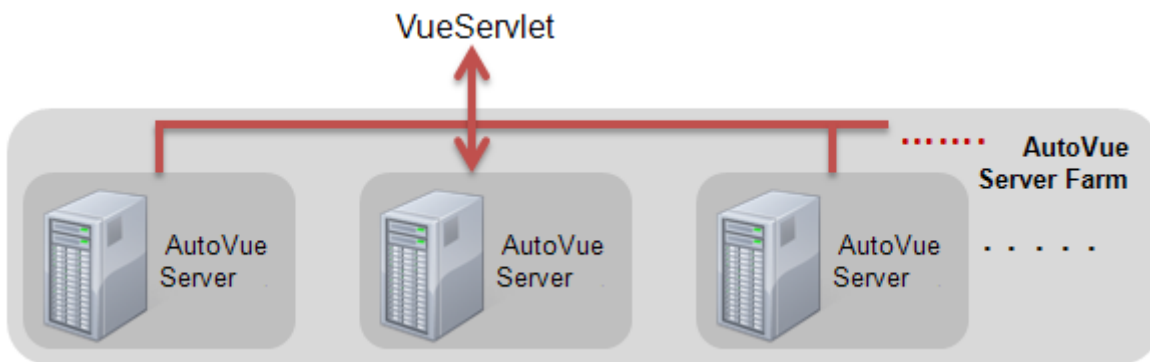
# Architectural Deployment Considerations

## Configuring AutoVue for High Usage

### AutoVue Server

Depending on the number of concurrent users, the kind and size of documents that users will typically view, and whether files will be loaded natively or from streaming files, an AutoVue Deployment Expert may recommend that you have multiple instances of AutoVue servers to meet your needs. A setup where multiple AutoVue servers are communicating with each other to handle the load is referred to as an *AutoVue server farm*.

The following figure shows the AutoVue server deployed in a server farm.



Each AutoVue server has a session server and multiple document servers. The session server accepts all requests to AutoVue and is responsible for distributing document requests across the document servers. When AutoVue is configured in a server farm, the session servers across the servers in the farm communicate with each other in order to distribute load across all the document servers in the server farm.

In order to setup AutoVue for load balancing, you must perform some configuration on the AutoVue server-side. Refer to the *Installation and Configuration Guide* for more information on configuring an AutoVue server farm.

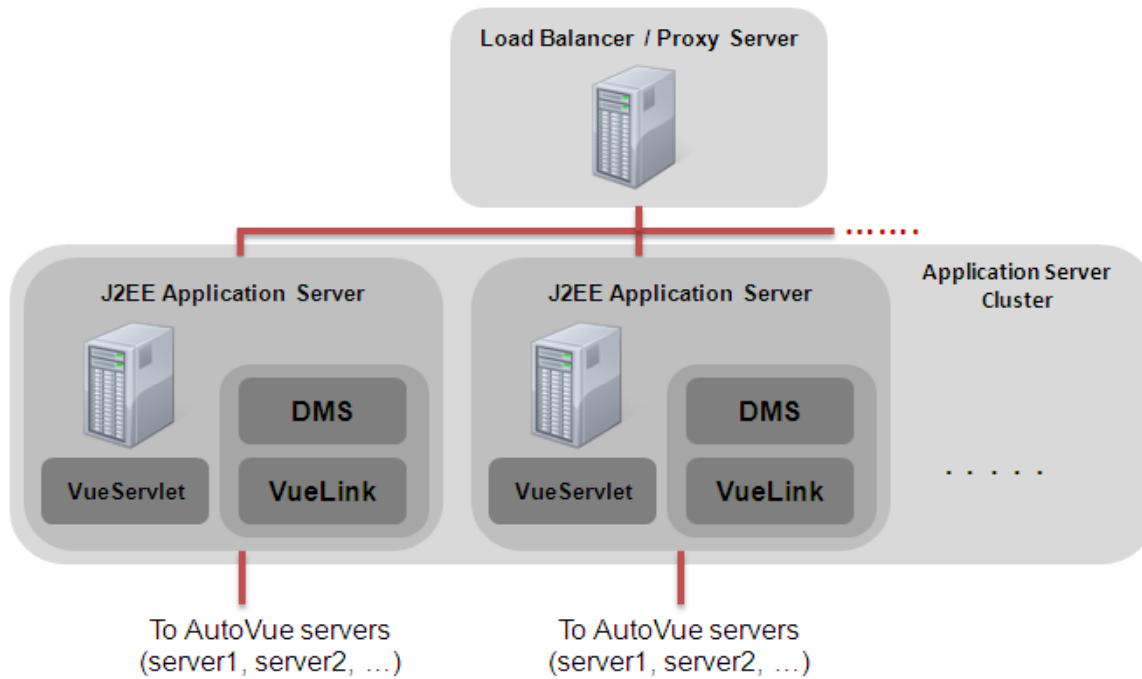
**Note:** Streaming files and user profiles are not shared between servers in the server farm.

### VueServlet

Based on your peak usage, it may be necessary to setup multiple VueServlets and distribute requests across the multiple VueServlet instances. You must rely on the load balancing capabilities of the application server or setup multiple VueServlet instances and rely on an external load balancer that is configured to distribute load across all your application server instances.

You must ensure that the AutoVue server entries in the VueServlet configuration are identical across all the VueServlets. For more information, refer to the “Appendix B: Configuring the VueServlet” section in the *Installation and Configuration Guide*.

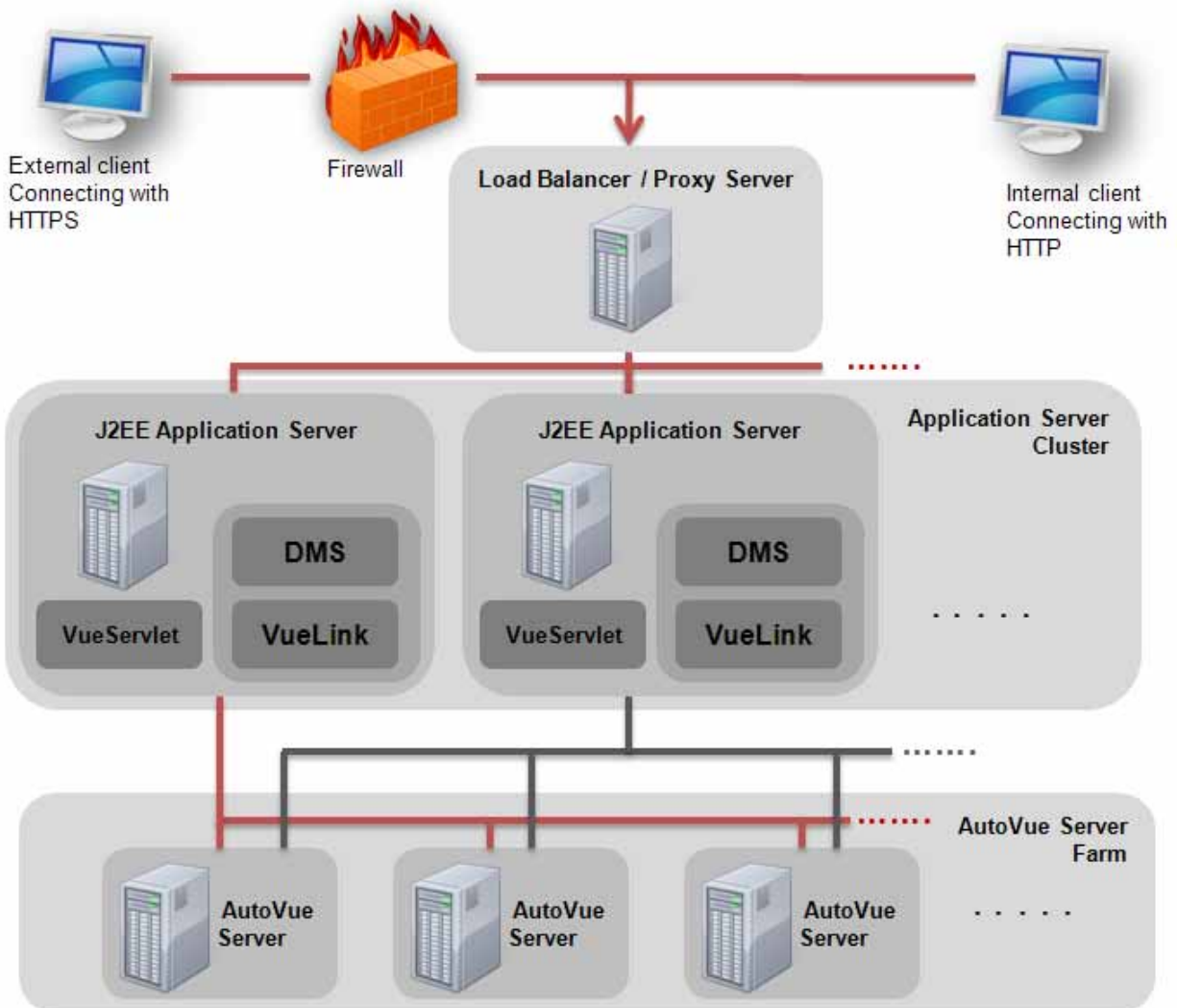
The following figure shows the VueServlet in a cluster with an external load balancer.



## Integrations with a Document Management System

AutoVue can integrate with various Document Management Systems. You must factor the integration component into your deployment planning. If you are building your own integration or using a third-party integration with AutoVue, follow the deployment architecture shown below for the Oracle-developed VueLinks. Note that the deployment of a DMS and its integration components vary from one DMS to another. The instructions here should serve as generic

guidelines and you should refer to your integration documentation for more specific information around deployments.



Most document management systems are designed as J2EE Web applications and can be deployed into a wide range of J2EE application servers. When setting up a cluster of application servers, a load balancer is the main entry point for all communications. When accessing the DMS from a Web browser, the request is dispatched by the load balancer to one of the application servers. If your DMS is deployed in a clustered environment, ensure that it works reliably in the clustered environment.

The VueLink is a connector that acts as a bridge between AutoVue and the DMS. When the AutoVue server needs to retrieve metadata or transfer files to/from the DMS, all communications go through the VueLink. For high availability, the VueLink should be deployed on multiple application server instances and configured in a horizontal clustered environment. The VueLink should be deployed on the same application server where the backend is deployed. If one node where the VueLink is deployed goes down, the load balancer automatically redirects requests to another available node.

In an integrated environment, the VueServlet can be deployed into the same application server as the VueLink and the DMS. It is recommended that the VueServlet is deployed as a separate Web application and not in the same Web application as the VueLink or the DMS.

For more information, refer to VueLink documentation on the Oracle Technology Network: <http://www.oracle.com/technetwork/documentation/autovue-091442.html>.

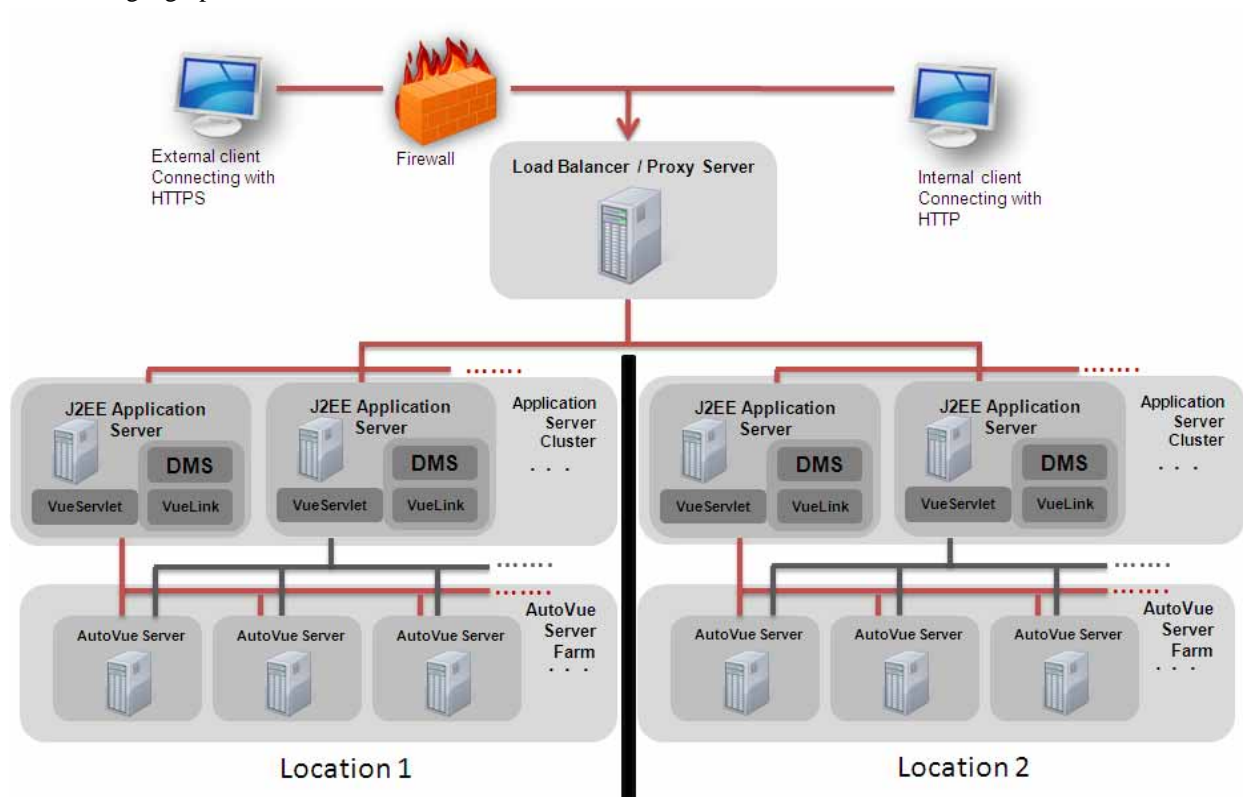
## Multiple DMS Integrations

AutoVue can work with multiple backend systems simultaneously.

You can also configure the AutoVue client so that it can browse and search DMS systems even if a connection to the DMS has not already been established. Refer to section “Multiple Document Repositories” in the *Installation and Configuration Guide*.

## Distributed DMS Repositories

If the DMS supports distributed geographies, you can configure AutoVue such that it works efficiently across these distributed geographies.



In this scenario:

- The load balancer is configured such that users at *Location 1* are always routed to the Application server cluster at *Location 1*.
- Location 1 and Location 2 should have equivalent configurations - AutoVue server farm, Application server cluster,...
- AutoVue servers at a location are not aware of and do not communicate with the servers at a different location.

For more information, refer to your DMS and your integration documentation.

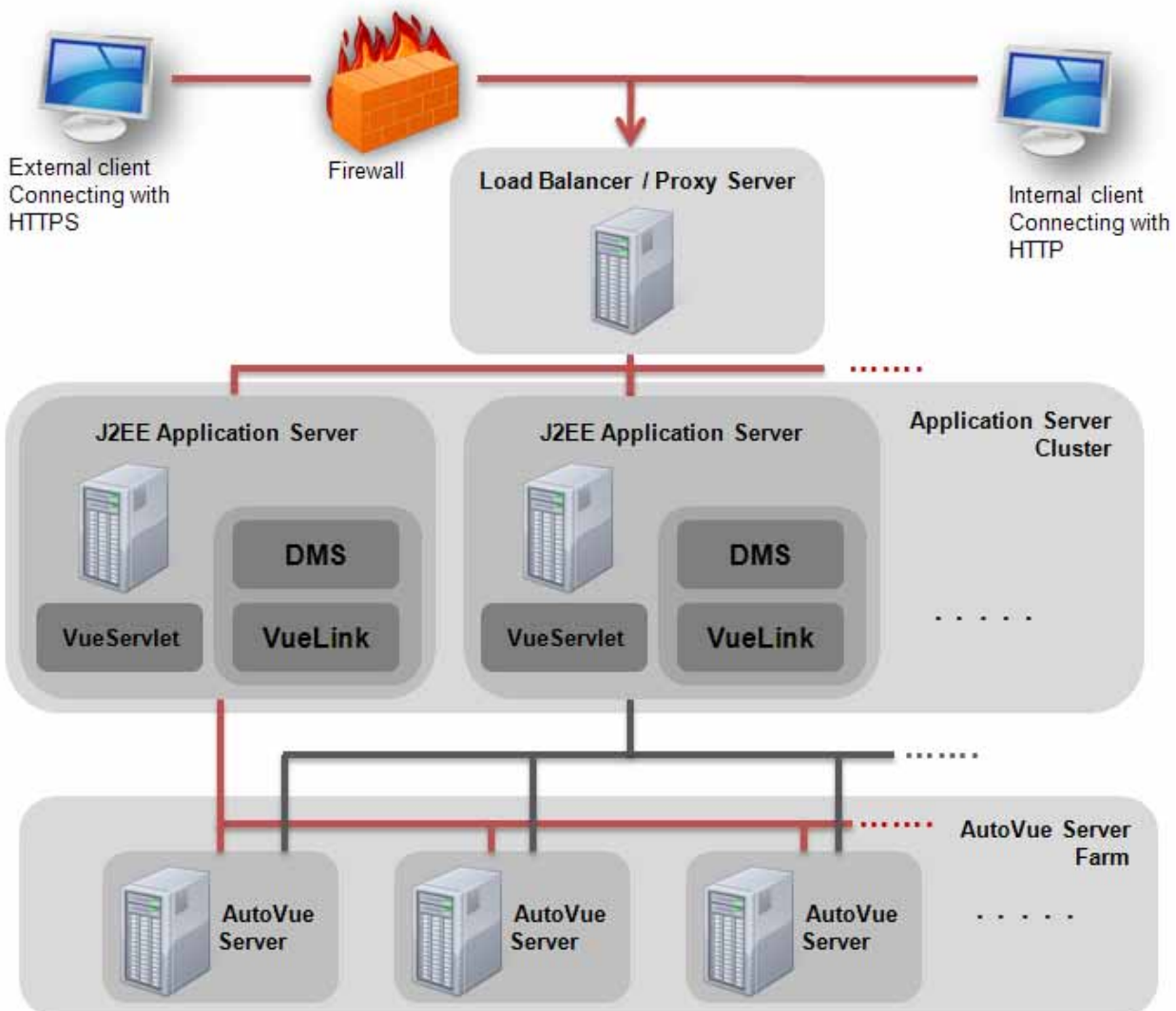
# Failover and Disaster Recovery

When planning for a failover/disaster recovery scenario, you must plan for backups of the AutoVue Server, VueServlet and the AutoVue client components. If there is a failure of any one of these AutoVue components, another instance will be able to handle requests so that work can continue with minimal or no disruption.

## Failover

If you setup a server farm in order to perform load balancing, it is important that you configure AutoVue servers and VueServlets for failover. In the event of a planned or unexpected shutdown of one or more of the servers in the server farm, the failover capability ensures high availability by switching to a backup or standby server.

The following diagram shows the components that are involved in a failover deployment.



## AutoVue Server Setup for Failover

For failover, AutoVue server should be deployed in a cluster. In a cluster, servers are spread over multiple machines and grouped together in a single server farm. All servers are identified as peer servers acting as multiple entry points for all VueServlet communications (that is, there is no primary AutoVue server handling all the VueServlet communication). Each server in the farm acts as a backup server so that if one server goes down, another server is available to continue serving clients.

**Note:** When a server goes down, the users on that machine, along with all their open documents, are moved over to another machine. Any markups not stored in a DMS, or any user specific settings, are not moved over to the backup machine.

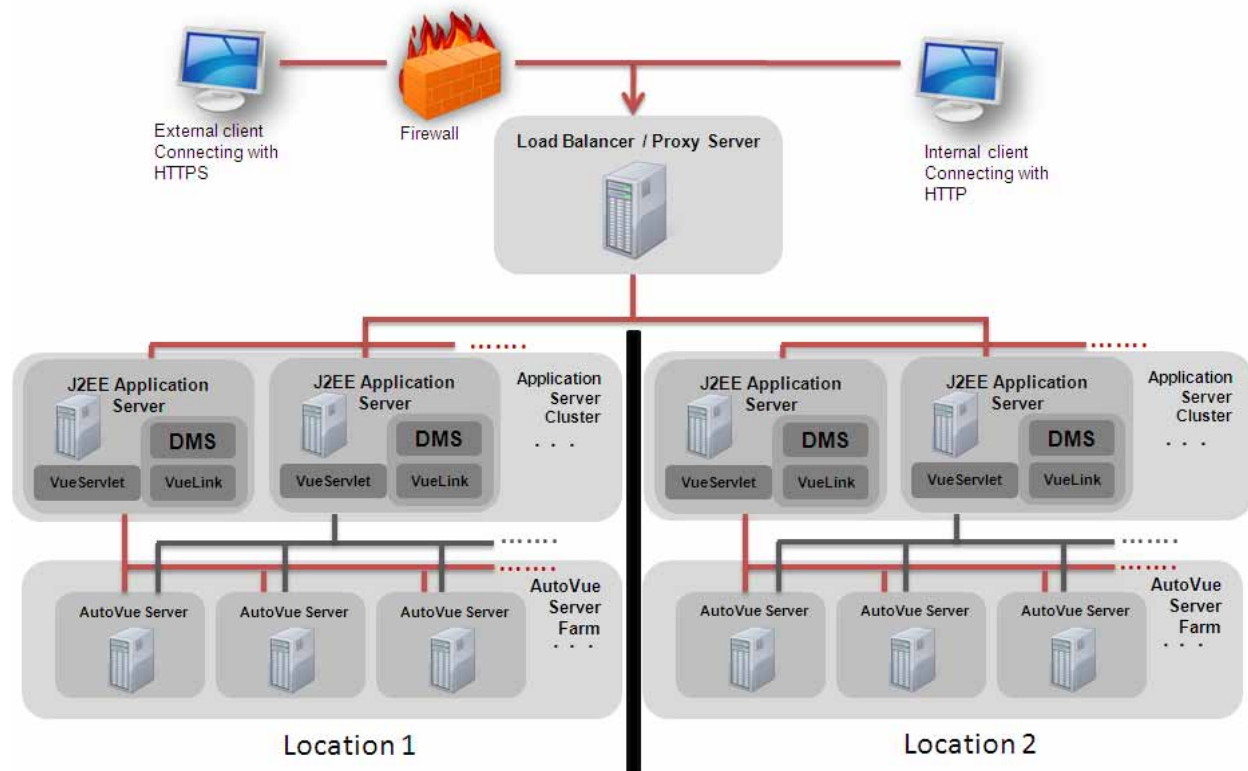
## VueServlet Setup for Failover

The VueServlet is invoked from the AutoVue client. When planning high availability deployments, the AutoVue client should be configured such that if one VueServlet instance is not available, requests get routed to another VueServlet instance. This implies that the VueServlet itself should be deployed over multiple machines.

Generally, when AutoVue is integrated with a document management system, the integration servlet and the VueServlet are deployed at the same location. In this scenario, ensure that the integration servlet and the VueServlet are deployed on multiple machines to ensure high availability.

## Disaster Recovery

You can deploy AutoVue in two locations: a host site and a secondary site. In the event of a planned or unexpected shutdown of the host site (Location 1), the secondary site (Location 2) automatically takes over the AutoVue processes from host site and ensures high availability. The following diagram shows all the components involved in a disaster recovery scenario.



In this scenario:

- The load balancer is configured such that users at *Location 1* are always routed to the Application server cluster at *Location 1*.
- In the event of a failure of a location, the load balancer is configured to route requests to another location.
- Location 1 and Location 2 should have equivalent configurations - AutoVue server farm, Application server cluster,...
- AutoVue servers at a location are not aware of and do not communicate with the servers at a different location.

## Security Considerations

To establish secure communication for your deployment, you must configure Secure Socket Layer (SSL) communication between the various components - AutoVue server, VueServlet, AutoVue client, VueLink and the DMS.

When integrating AutoVue with a DMS, you must ensure that your Single Sign-On (SSO) authentication and session cookies are properly configured, and that your integrations are updated with the latest ISDK/VueLinks to benefit from their security enhancements.

### Secure Communication

You can enable SSL communication between the AutoVue client and the VueServlet, and between the VueServlet and the AutoVue server. For more information, refer to the “Enabling SSL Communication” section of the *Installation and Configuration Guide*.

Your DMS and the VueLink component can also be configured for SSL communication.

By configuring SSL across all components, you can provide encrypted communication in your deployment.

### Integrations with AutoVue

When integrating AutoVue with a DMS, it is recommended that you follow the guidelines for secure communications. Although the security process depends on how the end-user deploys the DMS, it is recommended that Single Sign-On (SSO) authentication is leveraged. SSO authentication is done through the use of cookies. You can configure AutoVue to only allow SSO cookies to be sent between the AutoVue server and the AutoVue client by setting the DMS\_PRESERVE\_COOKIES applet parameter.

Valid user information must be passed to the AutoVue server using the USERNAME applet parameter.

For more information on these applet parameters, refer to the “Customizing the AutoVue Client” section of the *Installation and Configuration Guide*.

Take note of the following security recommendations when deploying AutoVue in an integrated environment:

- If you built a DMAPi-based or a version 19.3 or earlier compatible integration, we recommend that you upgrade your integration and build it on the ISDK version 20.0 framework.
- It is recommended that the VueServlet, VueLink, and DMS are protected by a SSO authentication.
- Attention must be paid to authentication when you are building an integration with AutoVue. Make sure to handle incorrect authentication situations properly and enforce encryption of authentication passwords.

### Identity Management System

If your deployment requires a non-integrated installation of AutoVue server, and that authentication must be enforced before connecting to the server, you can configure AutoVue with external identity management systems.

AutoVue provides some hooks that let you plug AutoVue into an LDAP system. When configured, users are prompted for user credentials as part of the process of connecting to the AutoVue server.

For more information on these applet parameters, refer to the “Security Considerations for AutoVue” section of the *Installation and Configuration Guide*.

# Feature Deployment Considerations

The following sections discuss how to leverage streaming files, Intellistamps, AutoVue in offline mode, AutoVue Mobile, and the AutoVue graphical user interface (GUI).

## Streaming Files

AutoVue generates streaming files by default for most of its supported file formats. A streaming file is created the first time you access a document in AutoVue. It contains all the information needed to display and to perform queries on the document. Streaming files provide the advantage that AutoVue can load from streaming files significantly faster than loading a file natively. Loading from streaming files also consumes a lot less memory on the server-side than when loading a file natively.

If you have an integration with a DMS, your integration component may check-in streaming files into the DMS. Your integration component may also pre-generate streaming files so that even the first load of the file is from the streaming file.

When planning your AutoVue deployment, you must determine how to size AutoVue's cache folder for streaming files. In most situations, AutoVue downloads the native document and its external references into the cache folder and then generates streaming files. You can specify various parameters for sizing the cache folder such as the size, number of files or last access date. For information on how to set these parameters, refer to the "Streaming Files Options" section of the *Installation and Configuration Guide*. A default installation of AutoVue specifies the size of the cache directory to 20GB. If you have a large deployment or your deployment involves loading of very large files, you must set this size to a bigger value. Note that you may experience performance issues if the cache folder is very big or if there are a large number of files in the Cache folder.

**Note:** Cache folders are not shared between servers in a server farm.

## Intellistamps

Intellistamps are dynamic stamp markup entities that can retrieve/update document metadata from the DMS. All images to be included in the stamp must be copied to the DMS. They should first be designed by the system administrator before they are accessible to end-users.

For more information on Intellistamps, refer to the "Creating an Intellistamp" section in the *Installation and Configuration Guide*.

## Offline Mode (Disconnected Use of AutoVue)

AutoVue provides the work offline capability that provides users the ability to view and markup files when they do not have access to the AutoVue server or DMS. When users select the **Work Offline** option from the **File** menu AutoVue is installed locally on the users machines and copies the files they need to their local system. Note that going offline is supported only from Windows-based clients.

If working offline is a requirement for your deployment, you must ensure that the installer for the offline mode is configured properly. This installer can be placed at the codebase location of the AutoVue client components.

For more information, refer the "Offline/Disconnected Use of AutoVue" section in the *Installation and Configuration Guide*.

## AutoVue Mobile

The AutoVue Mobile product is an add-on product that can be installed on top of AutoVue Client/Server Deployment to enable viewing and marking up of design documents in a disconnected mode. AutoVue Mobile enables users to share design documents and markups with their partners or suppliers that do not have access to their document management system. With the AutoVue Mobile product installed, from the Client/Server deployment, users can create a Mobile Pack for a file from their DMS. They can include review comments (markups) and external references in the Mobile Pack. Once the Mobile Pack is created, they can provide it to their suppliers/partners or access the file from a disconnected environment. They can use Oracle AutoVue Desktop Deployment in order to view and markup the file in the Mobile Pack when there is no access to the Client/Server Deployment. Users can create markups on the Mobile Pack and these can be synchronized back into their DMS.

If your deployment requires the AutoVue Mobile capability, you must download and install the Oracle AutoVue Mobile product on top of the AutoVue server installation. If you have a server farm, ensure that the AutoVue Mobile product is installed with all servers in the farm.

For more information, refer to the “AutoVue Mobile” section of the *Installation and Configuration Guide*.

## AutoVue GUI

AutoVue provides you the option of customizing AutoVue’s graphical user interface (GUI). By default, a GUI definition file is not set and AutoVue uses an internal GUI file for the menus and toolbars. The GUI definition file describes which controls are added to which context (such as MenuBar, ToolBar, and so on).

If you wish to have a customized GUI for AutoVue, you must create a custom GUI file and specify this custom file using the GUIFILE applet parameter.

For more information, refer to the “AutoVue Applet Parameters” and “Customizing the GUI” sections of the *Installation and Configuration Guide*.

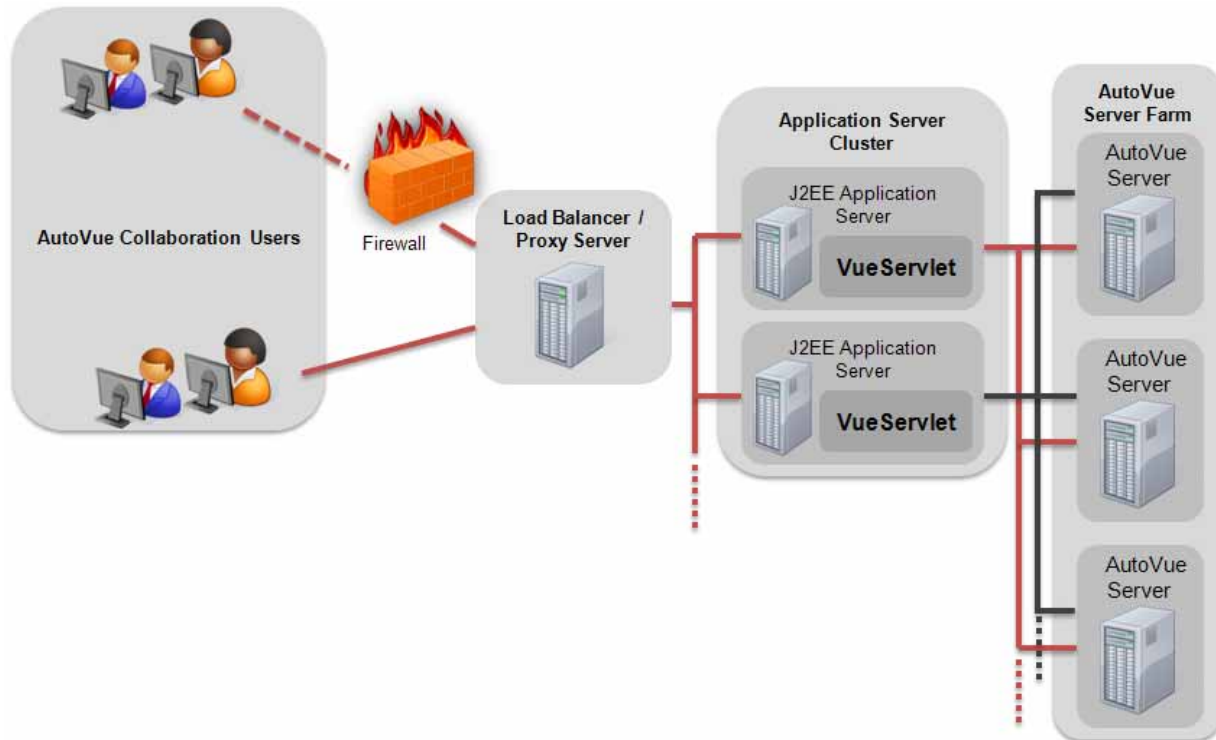
## Real-Time Collaboration

AutoVue provides a real-time collaboration (RTC) feature that enables multiple end-users to review files interactively over distributed geographies, from distributed Document Management Systems, and from behind a firewall. The following sections described how to plan your collaboration deployment.

For detailed information on configuring AutoVue for collaboration, refer to section “Configuring for Real-Time Collaboration” in the *Installation and Configuration Guide*.

## Default Configuration

The following diagram shows a default RTC deployment.

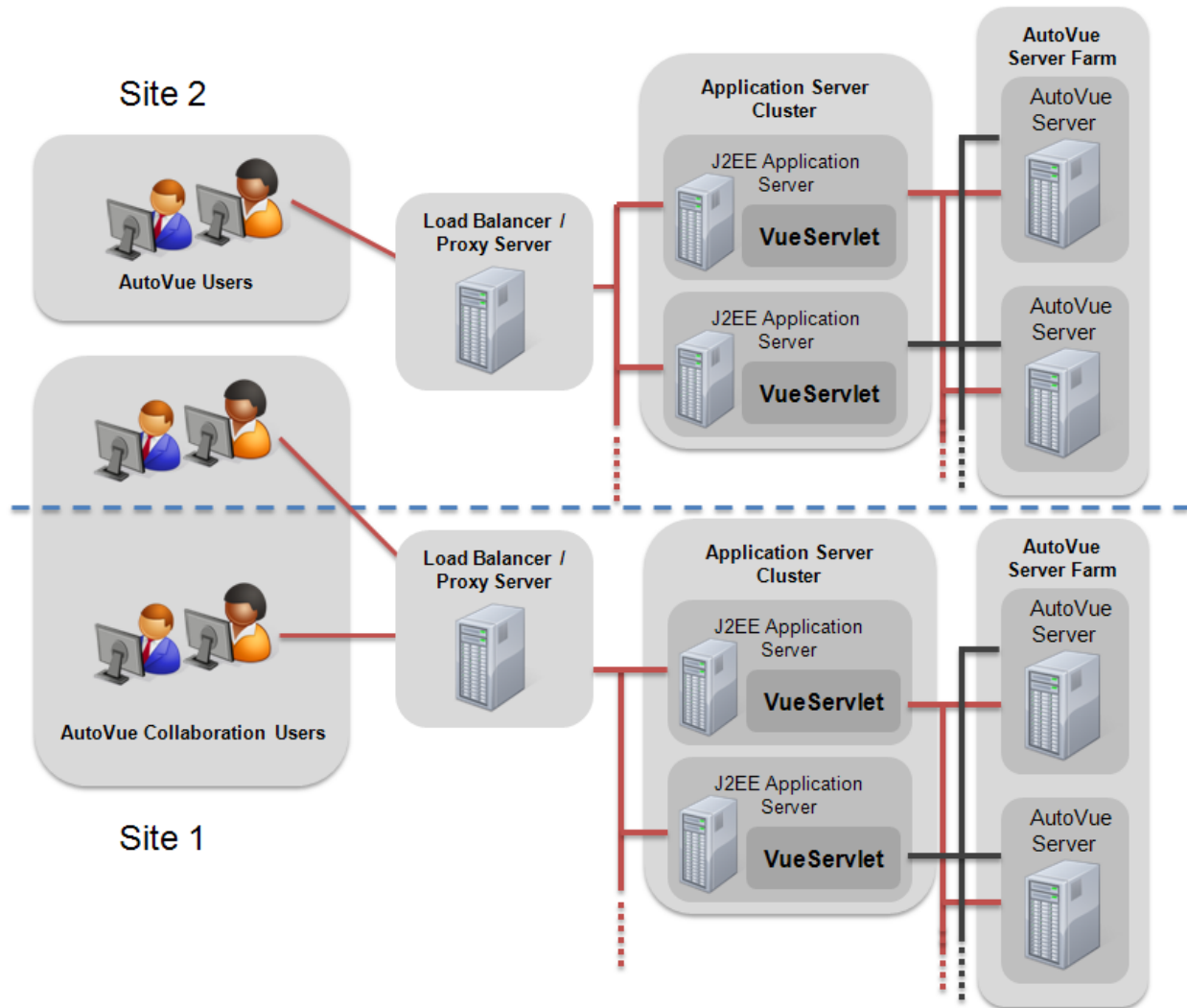


In this scenario:

- There is no need for extra configuration around RTC in this setup.
- Users connecting to AutoVue can initiate and participate in collaboration with the other users connected to AutoVue.

## Configuration for Distributed Geographies

The following diagram shows RTC between users over distributed geographies.

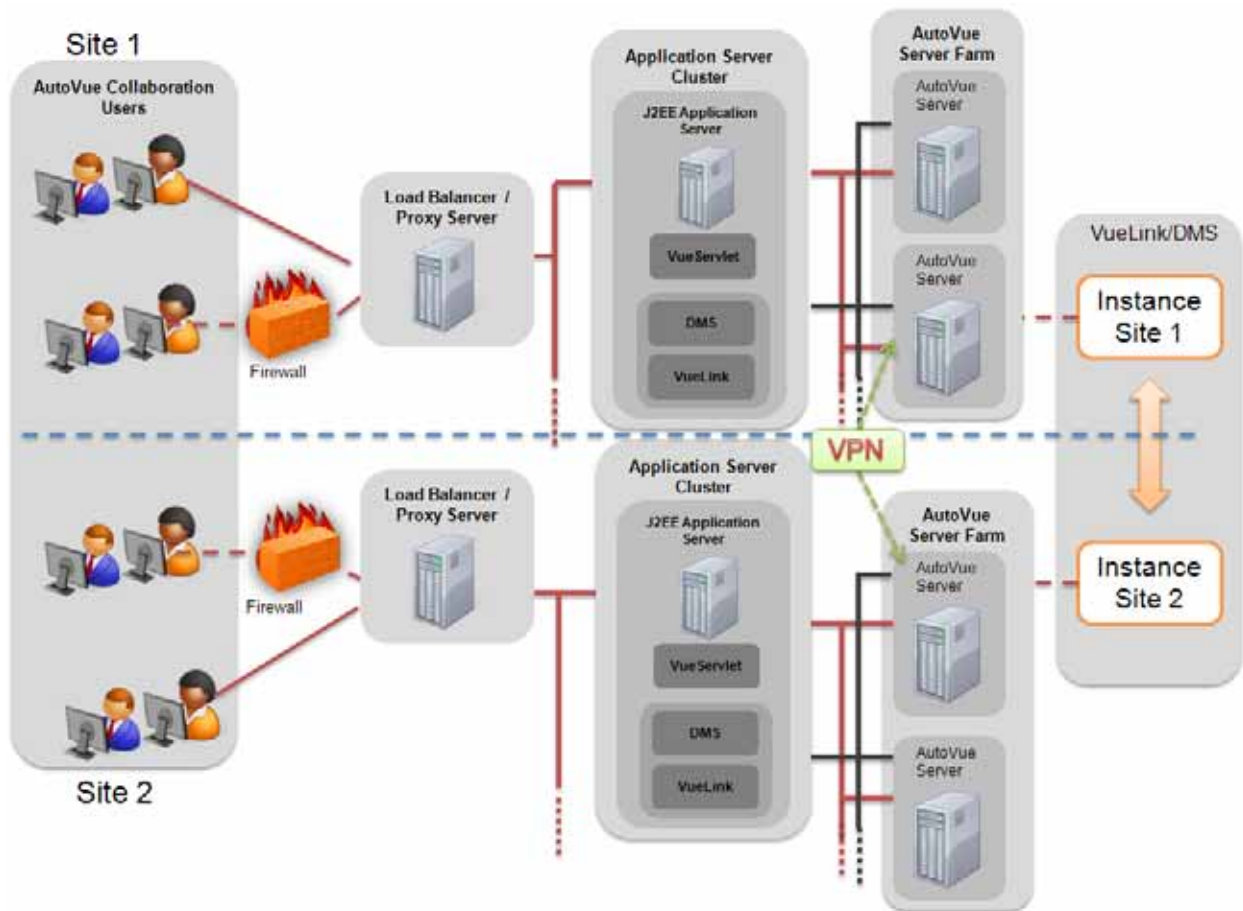


Note the following:

- Users are located over distributed geographies.
- AutoVue collaboration is done over a single location (Site 1). This ensures that users have access to the same files and do not require distributed DMS.
- This is the recommended deployment when there are distributed geographies and the DMS/VueLink do not support distributed scenarios.
- High bandwidth is required between Site 2 and Site 1 because users from Site 2 are connecting to Site 1 for RTC.

## Configuration for Distributed DMS

The following diagram shows a RTC deployment with a distributed DMS.

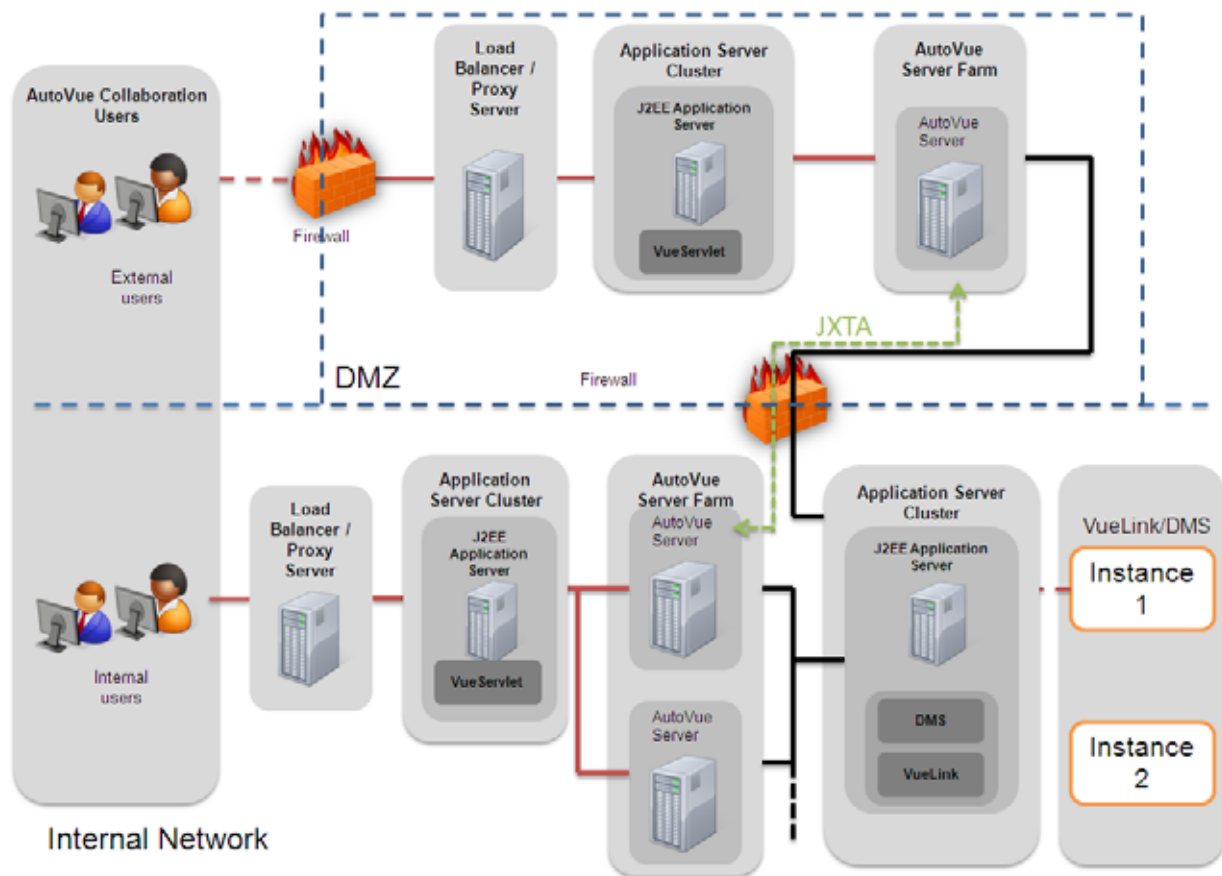


Note the following:

- This deployment uses JXTA for communication. However, no JXTA-specific configuration needs to be done.
- The two sites in this architecture diagram are separated by a firewall. Additional configuration is required for AutoVue for real-time collaboration across a firewall.
- The DMS/VueLink should support distributed geographies.
- The AutoVue server farms in Site 1 and Site 2 are able to communicate with each other through an internal virtual private network (VPN).
- The DMS is located over distributed geographies. The DMS/VueLink should support replication between the sites. Note that replication on the fly could cause some slow-down.
- Since only collaboration information is being communicated between AutoVue servers in site 1 and site 2, this deployment would fit situations where you do not have high bandwidth between the sites.
- This is the recommended RTC deployment for distributed DMS systems.

## Configuration for Distributed DMS using JXTA

The following diagram shows a collaboration deployment with a distributed DMS and JXTA (a peer-to-peer protocol specification).



Note the following:

- This should be used in situations where there is more than one firewall between the AutoVue servers
- This deployment uses JXTA for communication between the AutoVue servers. Additional configuration needs to be done for JXTA for this deployment.
- This is only supported for AutoVue servers running on Windows platforms.
- The DMS/VueLink should support distributed geographies.
- The DMS is located over distributed geographies. The DMS/VueLink should support replication between the sites. Note that replication on the fly could cause some slow-down.

## **Feedback**

If you have any questions or require support for AutoVue please contact your system administrator. Some customization and maintenance must be done on the server and cannot be implemented on the client machine. If the administrator is unable to resolve the issue, please contact Oracle Corp.

If at any time you have questions or concerns regarding AutoVue, call or e-mail us.

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