

PLANETJ CORPORATION

# WOW

# Architecture, Security, and Deployment Overview

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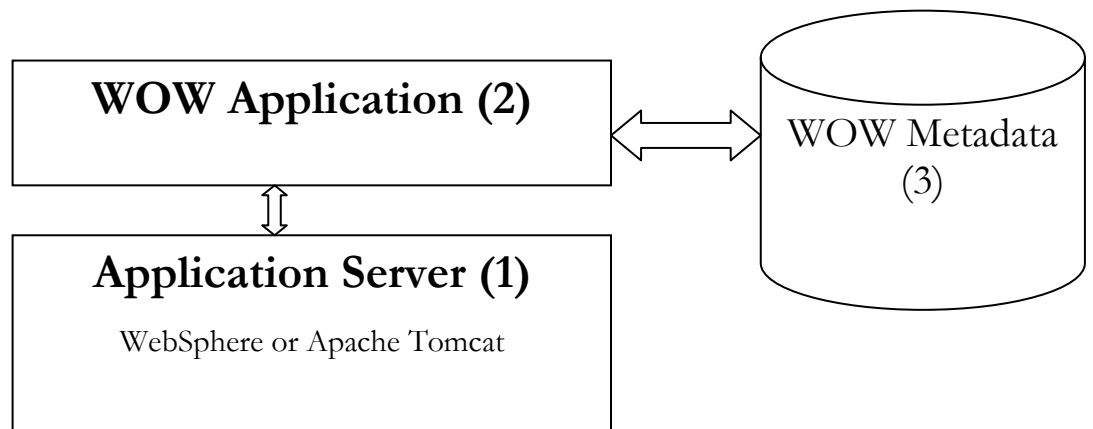
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## WOW Overview:

WOW (Web Object Wizard) is a 100% Java™ based web application development tool and runtime engine that creates "data centric" Internet/Intranet/Extranet applications. If you need to put data on the web, WOW is your answer. Using a Web based development interface, applications are created by specifying JDBC/SQL operations and configuring application metadata. Customers can easily access and manipulate data stored in any relational database including DB2, Oracle®, and SQL Server. Applications execute within WebSphere™, WebLogic™, or Tomcat™ application servers. Interactive product demonstrations can be viewed at: <http://www.planetjavainc.com/support.htm>

For additional information about WOW, or to report problems with WOW, please contact [support@planetjavainc.com](mailto:support@planetjavainc.com) for customer support.

## WOW Components:



## **1) Application Server**

WOW produces browser/web-based applications. An underlying application server is needed to provide the infrastructure and web Servlet services that WOW utilizes at runtime. WOW supports both IBM's WebSphere application server as well as Apache's Tomcat server. IBM WebSphere is a chargeable product and supported by IBM while Apache Tomcat is a free open source product supported by Apache open source community. The application server component can run any virtually any Java enabled platform including Windows, OS/400, LINUX, UNIX, and OS/390.

## **2) WOW Application**

WOW is a development and runtime product that runs on top of an application server. WOW is written in 100% pure Java and can run on any Java enabled platform including Windows, OS/400, LINUX, UNIX, and OS/390. WOW was developed and is supported by Planetj Corporation.

## **3) WOW Metadata**

WOW stores all application-based data in a relational database. The WOW Metadata can be stored any relational database supported by JDBC including all forms of DB2, Oracle, and MYSQL.

Users have their choice of where each component will run based on their environment.

## **WOW Security**

Security is an essential requirement for all applications. WOW and its associated server elements provide robust and complete features to ensure applications conform to the highest of security requirements includes the Sarbanes-Oxley requirements. Following are the elements that combine to provide security. Depending on your environment, you may implement a combination of these elements.

WOW can operate in Intranet/Extranet or Internet configurations. WOW runs applications on standard user defined ports such as 80 and 443 for SSL.

### **SSL Security**

SSL can be configured at the web server or application server level. SSL enables all transmitted data over the network to be encrypted therefore securing all data from outside viewers. Setup and configuration of SSL is performed according the instructions provided by the application or web server.

### **Operating System**

WOW runs on any Java enabled platform and can fully utilize the underlying OS security features. Metadata is accessed in a special user profile that only has limited ability to access the metadata. Users should

secure the operating system using standard security practices for their environment and platform. Information on securing Windows server: <http://www.microsoft.com/technet/security/chklist/default.mspx>

## **Database**

Databases such as DB2/400 provide built into utilities to administer and control security. Database files/tables can be secured to allow access only to authorized users. Further security can restrict usage to READ ONLY access if appropriate. Journaling and commitment control provides full audit and recovery facilities. All access is recorded and can be reversed if needed. WOW uses JDBC drivers that can be configured to restrict access to READ ONLY as well.

## **WOW**

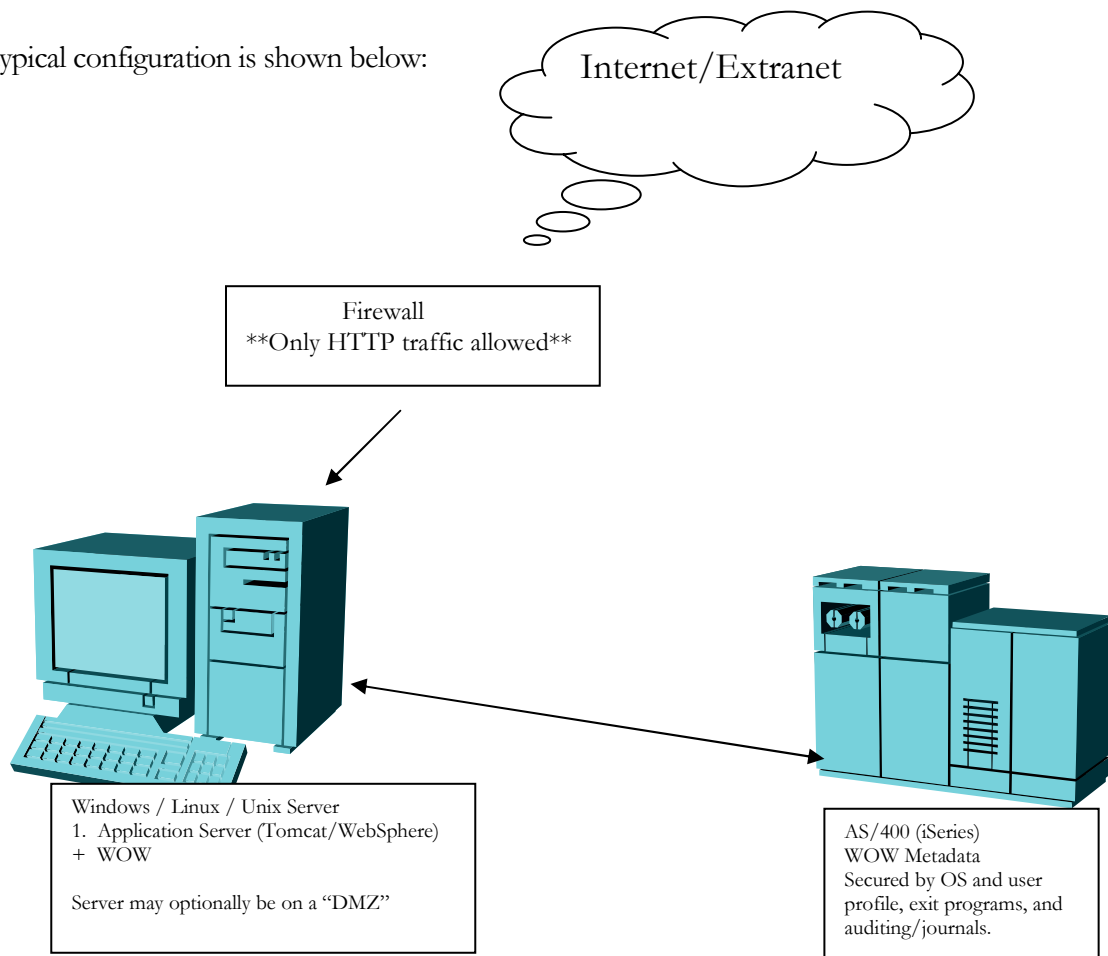
WOW has built-in security to restrict users in the following ways:

1. Control ability to insert, update, read, and delete data
2. Control ability to view and update database fields
3. Control ability to view and update database records. Access can be enabled to allow users to view only the records that they are authorized to

## **Firewall/Gateway Security**

A firewall can be placed between the WOW runtime environment and the Internet. This further allows Internet/Extranet traffic to be restricted to HTTP only ports such as port 80 or port 443 for SSL. In this configuration, users from the Internet do not have direct access to either the WOW server or IBM iSeries. The firewall blocks all unauthorized ports and forwards appropriate HTTP request to the WOW server. When desired, another level of security can be implemented by placing the WOW server into a "DMZ". The "DMZ" serves to further isolate the WOW server from the rest of the internal network. If the "DMZ" server was compromised, the internal network is still protected. Firewalls can be configured to allow certain ports from the "DMZ" server to connect to specified ports on the i5 or other systems. Consult your firewall provider for details specific to your hardware and environment.

A typical configuration is shown below:



## WOW Server Sizing

The following charts show minimum and recommended server configurations for running WOW applications. Since each WOW based application is custom built and unique in its features, database environment, and database optimization; these recommendations should only be used as general guidelines. Your application may require specific load testing to determine server sizing. Obtaining a server with the maximum processor and memory available is always recommended for peak performance. The following assumes a server with maximum optimization. See this document for optimization instructions.

[http://www.planetjavainc.com/wow\\_docs/Optimize\\_Tomcat.pdf](http://www.planetjavainc.com/wow_docs/Optimize_Tomcat.pdf)

## Minimum Configurations

Operating System	Application Server	Memory	Processor	Comments
Windows 2000, XP, 2003, LINUX	Tomcat or WebSphere Express	512MB	600MHZ	
OS/400 or iSeries V5R2 or above	Tomcat or WebSphere Express	512MB	300CPW or above	
OS/400 or iSeries V5R2 or above	WebSphere Base with EJB support	1GB	750CPW or above	

## Recommended Configurations

Operating System	Application Server	Memory	Processor	Concurrent Users	Comments
Windows 2000, XP, 2003, LINUX	Tomcat or WebSphere Express	1 GB	2GHZ	0 – 20	
Windows 2000, XP, 2003, LINUX	Tomcat or WebSphere Express	2 GB	2GHZ	0 – 75	Custom load testing needed for usage above 75.
OS/400 or iSeries V5R1 or above	Tomcat or WebSphere Express	512MB	300CPW or above	0-20	
OS/400 or iSeries V5R1 or above	Tomcat or WebSphere Express	2GB	750CPW or above	0-75	
OS/400 or iSeries V5R1 or above	WebSphere Base with EJB support	1GB	750CPW or above	0-20	

OS/400 iSeries V5R1 or above	or WebSphere Base with EJB support	2GB	1400CPW or above	0-75	
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© PlanetJ Corporation  
1821 Kelson Place, Escondido, CA 92029  
Phone: 760-432-0600 • Fax: 760-432-0600