**COMMON QUESTIONS FOR ALL INTERVIEWS**

**Tell me about yourself?**  
My self \*\*\*\*\*\*\*\* I have 4+ years of IT experience In that as a weblogic Administration in a production environment and currently working with swortech IT solutions as a senior software engineer.

we are the team members of 6, 4 in offshore 2 in on shore to provide 24/7 support to our client

Coming to my roles and responsibilities

.we do scanty test which includes all server details along with the health status and memory status we send this information to respective teams

. Installation, configuration of web logic servers on Linux environments

.have experience creation and configuration of domains in prod, pre prod & uat

Experience in configurations like nodemanager, jms, jdbc, and workmanager.

.having experience into configuration of clusters

experience handling on incident management, change management, and problem management with root cause analysis.

monitoring and troubleshooting using admin console

And good experience in deployments.

Having good experience to apply weblogic patches.

Having good knowledge on remedy ticketing tool.

**Day to day activities.**  
  
1.Taking shift handover from previous shifts.  
2.Health status check-up of all weblogic server instances  
 Login to admin console and will check the all server status.  
 All server status should be running  
 If any of the server is failed kill those servers first.  
 Bounce or restart the server manually.  
3. Checking the webservices and applications.  
4. Periodical deployment on Non prod  and production servers.  
5. Supporing and following ITIL concepts in Incidents, change and problem management.  
6. Providing on call support of 24\*7 Basis.  
7. Giving shift hand over to next shift.

**Working Environment**  
  
There are totaly 50 applications deployed on 10 domains.  
Each domain contains of 1 horizantal cluster.   
Each cluster contains 10-15 managed servers.  
  
Currently we are working on Linux 4.0 and 5.0  
Application server weblogic 9.2 and 11g  
webserver Apache 2.0 and 2.2.  
Backend DB is Oracle 9i.

**VODAFONE**

* **What is the use of swap memory?**

Ans :-Swap space in Linux is used when the amount of physical memory (RAM) is full. If the system needs more memory resources and the RAM is full, inactive pages in memory are moved to the swap space.

* **What is the difference between one way SSL and two way SSL(Secure Sockets Layer)?**

**One Way SSL** - Only the client authenticates the server

- This means that the public cert of the server needs to configured in the trust store of the client.

**Two Way SSL** - The client authenticates the server & the server also authenticates the client.

- This means that the public cert of the server needs to configured in the trust store of the client.

- Also the public cert of the client needs to be configured on the server's trust store

* **How you will able to see last 30 days logs?**

Find -i

* **What are the default files will be available in deployment.dll? What are those?**
* **What information will be available in web.xml and weblogic.xml files?**

**Web.xml** file provides configuration and deployment information for the Web components that comprise a Web application. Examples of Web components are servlet parameters, servlet and JavaServer Pages (JSP) definitions, and Uniform Resource Locators (URL) mappings. This is located in the WEB-INF directory.

**Weblogic.xml** is the configuration file for all the applications lying in the domain created. It lies in the META-INF directory and contains parameters such as auth-filter, charset-params, container-descriptor, context-root, description etc..

**Application.xml** descriptor file for an enterprise application contains basic configuration and deployment information for an application, such as the name and location of each module (Every EJB) in the enterprise application and application-wide security roles.

* **How to configure Horizontal cluster?**

Install weblogic server in machine a and machine b

Configure a domain along with manage servers in machine a and b

Pack the entire domain and transfer to machine b and unpack it

preferred clustering in Real Time Production ? Horizontal. Bcoz if one physical machine failed it will runs on other physical machine.

**Horizontal clustering :**

involves running multiple Java application servers that are run on two or more separate physical machines. Horizontal scaling is more reliable than vertical scaling, since there are multiple machines involved in the cluster environment, as compared to only one machine.

**vartical Clustering:**

however, consists of multiple java applications servers on a single physical machine.   
with vertical scaling, the machine's processing power, cpu usage, JVM heap memory configurations are the main factors in deciding how many servers instances should be run on one machine.

* **How to take heap dump from backend?**

A Heap Dump is a snapshot of the Java process heap memory at a given time.  It's a useful tool to troubleshoot memory leaks and other memory related issues.

“ ”(answer pending)

* **Difference between heap dump and thread dump?**

Heap dump is snap shot of the memory

Thread dump is snap shot of the threads

* **How to take thread dump?**

**1.Command line:**  use the below command when you know the port number. just run the same command 3 times in 5 sec intervel of gaps.

kill -3 PID

**2.WebLogic.Admin utility:**

java WebLogic.Admin adminurl -username WebLogic -password WebLogic1 THREAD\_DUMP

**3. Admin console:**

**Step1:** login to the admin console

**Step2:** Click on server

**Step3:** Navigate to servers

**Step4:** Click monitor tab

**Step5:** Click on tread

**Step6:** Click on the dumpthread stack.

**Location of the Thread Dump:**

/DOMAIN\_NAME/servers/logs/KK\_stdout.log

* **What is Thread dump?**

Thread Dump is a textual dump of all active threads and monitors of Java apps running in a Virtual Machine.

* **When we will take Thread dump? (Scenarios)**

1.  **Scenario 1:**when server is hang Position, i.e. that time server will not respond to coming requests.

**2.  Scenario 2**: While sever is taking more time to restart

3.  **Scenario 3:**When we are Getting exception like “java.lang.OutOffMemoryException”

4.  **Scenario 4:**Process running out of File descriptors. Server cannot accept further requests because sockets cannot be created

**5.  Scenario 5:** Infinite Looping in the code

* **What is an Incident?**

As per ITIL, “an Incident is an unplanned interruption to a service, or the failure of a component of a service that hasn’t yet impacted service”

On the other hand if the disruption is planned, for example, a scheduled maintenance, then it would not account to be an incident.

* **What is a Problem?**

A Problem is a condition from a number of incidents that are related or have common issues. This means that it is more serious than an Incident and needs separate follow up at a deeper level to avoid future Incidents.

However problems are not incidents. An incident can raise a problem, in cases where there is a high possibility that the incident might happen again.

Problem management function is tasked with identifying the underlying causal factor, which may relate to multiple incidents. It may take several incidents to transpire before problem management has enough data to understand the root cause. Once problem management identifies the factor and develops a work-around, then the problem becomes a “known error.”

* **What is the difference between problem management and Incident management?**

**Incident vs Problem**

Managing an Incident means fixing the system and to restore the service as soon as possible. While managing a Problem means finding the underlying root causes so that the Incidents do not reoccur.  
An incident needs to be fixed within a stipulated timeline. Problems can be left indefinitely until an incident happens.

The objective of the Incident Management Lifecycle is to restore the service as quickly as possible to meet Service Level Agreements. The process is primarily aimed at the user leve

l.

Problem Management deals with solving the underlying cause of one or more incidents. The emphasis Problem Management to resolve the root cause of errors and to find permanent solutions. This process deals at the enterprise level.

* **What is the use of change management? Which tool you are using?**

We are using BMC remidy for C R ,with the help of C R we will get to know down time , change (like patchin or any hardware or OS)

* **How to configure SSL certificates ?**
* Generate a JKS identity file
* Generate a CSR certificate signing request
* Send CSR file to authority team
* Receive .JKS file and import into the server
* Enable ssl port
* Select the custome identity and custom trust keys
* Restart server
* **What is an SSL ?secure socket layer?**

SSL (Secure Sockets Layer) is the standard security technology for establishing an encrypted link between a web server and a browser.

**NOTE:-**Most SSL server certificates will only secure a single domain name or sub-domain. For example, a certificate could secure www.yourdomain.com or mail.yourdomain.com but not both.

* **How to remove context path in weblogic?**

Go to console

Click on domain name

Go to advance tab

Remove console

un check that the console enable

save

Active changes

* **In JMS how can you able to see thread messages?**

Go to JMS Modules – queues – Monitoring

* **What is JVM?**

Jvm is nothing but java virtual machine and by using the jvm onlywe can deploy applications

* **How to check last 7days files?**

Find $dir –mtime -7 –type f

* **How to check the application status?**

Ps –ef | grep java

* **I am not able to open the application how can you trouble shoot it?**

Network issues

Check the log

Space issues

Data source

Any hogging or struck threads

* **I checked that space is free and application status is running and data source also connected even though iam not able to open the application?**

Need to check log file

* **How to edit the time stamp for particular file in Linux?**

For example the following command sets the access and modification date and time to a file **leena** as **17:30** (**17:30 p.m**.) **December 10** of the current year (**2012**).

# touch -c -t 12101730 leena

**Touch Command Options**

* **-a**, change the access time only
* **-c**, if the file does not exist, do not create it
* **-d**, update the access and modification times
* **-m**, change the modification time only
* **-r**, use the access and modification times of file
* **-t**, creates a file using a specified time
* **What is join command in sql?**

A **SQL join** clause combines records from two or more tables in a relational database.

**L&T**

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* **how to start admin server from second server?**
* **How the dependency work in ANT?**

**HCL**

**=================================================================**

* **1) How to configuare SSL step by step ?**
* **2) How to find linux server version ?**

     ANS :

        uname -a

inux svebs0000035np.nbndc.local 2.6.18-406.el5 #1 SMP Fri May 1 10:37:57 EDT 2015 x86\_64 x86\_64 x86\_64 GNU/Linux

          cat /etc/redhat-release

          Red Hat Enterprise Linux Server release 5.11 (Tikanga)

* **what is the horizontal cluster?**

In horizontally clustered environment, cluster-enabled application is deployed on multiple physical machines. Each machine is available for requests. Horizontal clusters offers protection over hardware failure, increases efficiency, provides load balancing and process failover.

* **what is the diff types of data sources and when will use each ?**

**Generic data source**

One to one communication

**GridLink data source**

It’s a rack database it provides Load balancing and failover

* Fast Connection Failover
* Runtime Connection Load Balancing
* Graceful Handling for Oracle RAC Outages
* GridLink Affinity
* SCAN Addresses
* Secure Communication using Oracle Wallet

A single GridLink data source provides connectivity between WebLogic Server and an Oracle Database service, which may include multiple Oracle RAC clusters. It uses the Oracle Notification Service (ONS) to adaptively respond to state changes in an Oracle RAC instance.

**multi data source**

one to many communication it provides fail over or load balancing

* **what is the use of nodemanager how to configuare it ?**
* **What is SLA time for p1 ,p2 and p3 p4 in you current project?**
* **what all are the linux commands u are using ?**
* **what are the possible issues you are resloved ?**
* **what is GC how you are working and what is the reason we need to clear GC ?**
* **What all are the possible reasons we are taking heap,thread and coredump ?**

**Heap dump:-** Collection of objects that are in memory. Uesfull to trouble shoot out of memory issues

Heap Dump can be generated to see the live objects at that specific time stamp

**Thread dump:-** Show what each thread in a process is doing at a given point in time along with the stack trace. Useful to trouble shoot slow running application

Thread Dump can be generated to see the threads present (runing, blocked everything) in a "live JVM" at any specific time stamp

**Core dump :-** os level dump file which has os level information additional to the negative calls information

Core Dump is generated when your JVM is shutted down abnormally, it contains recorded state of the working memory of a computer program at a specific time with some platform specific details

* **What is the ticketing tool you are working ?**
* **How to renewal ssl certificates in weblogic ?**
* **How to configure JMS ?**
* **what is the use of sub deployments in JMS ?**

**ORACLE**

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* **What is JVM and use of JVM?**

JVM is nothing but java virtual machine and by using the jvm only we can deploy applications

**HP**

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* **How to find out a file which is older than 30 days and delete?**

find /path/to/files\* -mtime +5 -exec rm {} \;

find \* -mtime +30 |xargs rm

* **How to find load average in Linux?**

**Uptime**

First let's check the load on your server using the uptime command.

**Top**

The top command displays real time information regarding the server's resource usage

**W (what)**

**Vmstat**

To know about only virtual memory size and free

**Free –m**

To know the current usage of memory

**NOTE:-** · 0.00 **means there's no traffic on the bridge at all**. In fact, between 0.00 and 1.00 means there's no backup, and an arriving car will just go right on.

· 1.00 **means the bridge is *exactly* at capacity.** All is still good, but if traffic gets a little heavier, things are going to slow down.

· over **1.00 means there's backup.** How much? Well, 2.00 means that there are two lanes

* **How to find 15 days back load average?**
* **How to find 15 days old log files?**

Find . –type f –iname “ \*.log “ –mtime +15 -particular directory

Find / –type f –iname “ \*.log “ –mtime +15 particular file

( - before days ex -15, + after days ex +15)

* M Modified and Minits
* A Accessed
* C Changed
* Mtime days
* **Apache integration with weblogic?**
* **What is the difference between hard link and soft link ?**

1. **Hard Links** have same inodes number.  
2. ls -l command shows all the links with the link column shows number of links.  
3. Links have actual file contents  
4. Removing any link, just reduces the link count, but doesn't affect other links.  
5. You cannot create a hard link for a directory.  
6 If original file is removed then the link will still show you the content of the file.

**1.Soft Links** have different inodes numbers.  
2. ls -l command shows all links with second column value 1 and the link points to original file.  
3. Soft Link contains the path for original file and not the contents.  
4. Removing soft link doesn't affect anything but removing original file, the link becomes "dangling" link which points to nonexistent file.  
5. A soft link can link to a directory.

* **What is the heap memory size?**

Set domainenv.sh check jdk xms-xmx value or jrocket xms –xmx or check xms and xmx value

To check xms or xmx values

* **Difference between sun Jdk and JRocket ?**
* **What is forward proxy and revers proxy?**

A reverse proxy is mostly a server-side concept, and is usually used in the context of CDNs (content distribution networks) for caching static HTTP content.

A forward proxy is usually a client side concept used for anonymity, to subvert censorship, and (back in the days of dial-up) as a web accelerator.

* **MPM In proxy ?multiple proxy modules?**
* **Difference between one way SSL and two way SSL?**

One Way SSL - Only the client authenticates the server - This means that the public cert of the server needs to configured in the trust store of the client for this to happen.

Two Way SSL - The client authenticates the server & the server also authenticates the client.

- This means that the public cert of the server needs to configured in the trust store of the client for this to happen.

- Also the public cert of the client needs to be configured on the server's trust store

* **How to check port?**

Natstat –na it will gives us information about all the ports which are using and free ports

Netstat –na | grep <port no>

It shows that the particular port is using or not

* **What is the difference between access log and error log?**

**Access Logs**

Access logs contain information about connections between an LDAP client and a directory server. A connection is a sequence of requests from the same client, and can contain the following components:

Connection index and the IP address of the client

Bind record

Bind result record

Sequence of operation request/result pairs, or individual records in the case of connection, closed, and abandon records

Unbind record

Closed record

**Error Logs**

Error logs contain a unique identifier of the error, warning or information message, and a human readable message. Errors are defined according to the following severity.

Error

The error is severe. Immediate action should be taken to avoid the loss or corruption of directory data.

Warning

The error is important. Action should be taken at some stage to prevent a severe error occurring in the future.

Info

An informative message, usually describing server activity. No action is necessary.

**Audit Logs**

Audit logs contain records of all modifications to configuration or suffix entries. The modifications are written in LDIF format.

Audit logging is not enabled by default.

* **What is the plan.xml file in weblogic what is the use full information on this?**
* **How to generate heap dump and what file will be generating and how to analyze the heap dump?**
* **404,403,401,500 errors when will face this errors?**

Ans:- 401 :- Un-authorized

The request is an a valid request but the server will not give you the response.

403 :- Forbidden

The request is a valid request but the server refusing the response we can say

access error

404 :-File not found

My application is down once the application comes up we can access the

Application with the same url

500 :- internal server error

A generic error message

* **Where data source information will be stored in web logic?**

Ans:- domain\_home directory/config/JDBC.XML

* **Where JMS information will be stored in weblogic?**

Ans:- domain\_home directory/config /JMS.XML

* **Where the session replication data will get store?**

Ans:- Cachy or temp

* **What is JMS bridge?**

A messaging bridge instance forwards messages between a pair of bridge source and target destinations. These destinations are mapped to a pair of bridge source and target destinations. The messaging bridge reads messages from the source bridge destination and forwards those messages to the target bridge destination. For WebLogic JMS and third-party JMS products

* **Where will you check how many users are accessing?**
* **How many ways will apply weblogic patches?**
* **What is the difference between offline and online in weblogic?**
* **What is the difference between .WAR .JAR .EAR and .RAR file?**

Breef ans:- .War web archive file used in jsp

.Jar java archivefile used for business logic

.Ear enterprise archive file its combination of jar+war

**Explination:-**

* **( Jar files (files with a .jar extension)** are intended to hold generic [libraries](http://searchsqlserver.techtarget.com/definition/library) of Java classes, resources, auxiliary files, etc.
* **War files (files with a .war extension)** are intended to contain complete Web applications. In this context, a Web application is defined as a single group of files, classes, resources, .jar files that can be packaged and accessed as one servlet context.
* **Ear files (files with a .ear extension)** are intended to contain complete enterprise applications. In this context, an enterprise application is defined as a collection of .jar files, resources, classes, and multiple Web applications.)
* **Where will able to see deployed applications after deployed?**

**MEGASOFT**

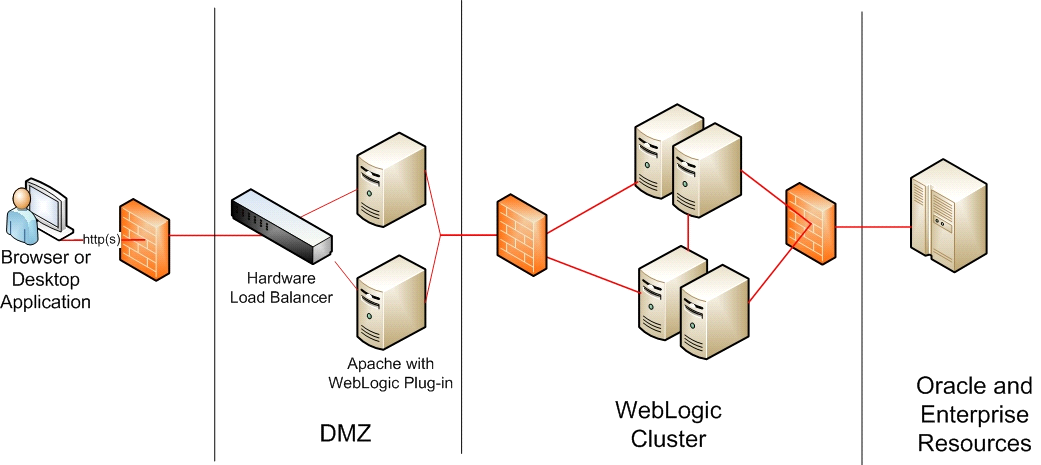
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* **How to find a content in the file which having more than 100 files in the folder?**
* **Once we deployed application what is the application state?**

Where as in console mode deployment its in prepared state

Where as in wlst deployment its starting state

* **What is your application architecture?**



* **How JMS will work from application to application?**

With the help of JNDI (java naming directory interface)

* **What is an subdeployment?**

**SMART SHIFT TECHNOLOGIES**

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* **What types of tuning you are doing in database?**
* **How to use command call find with grep?**
* **What is the network commands you are using in your architecture?**
* **What is the difference between weblogiclog and ug?**
* **What are the details you need from DB team to create data source?**

DB table name

Host name

Port

User name

Password

* **What is database cache?**
* **How to truncate afile( log file) ?**
* **What are all the network commands we are using in weblogic?**
* **What is the difference between SSL and open SSL?**
* **What is the difference between servicing all requests and servicing only admin requests?**

Ans :-**servicing all requests :-** specifies that the weblogic server make the application available to all clients

**Servicing only admin requests** :-weblogic server makes the application available in administration mode only

The admin users can access the application the other users cannot able to access .

* **How to configure active – active and active – passive cluster?**
* **How to change java from sun jdk to jrocket?**
* **How to configure external LDAP active directory?**
* **What is out bound connection pool?**
* **How to take SOA composites backup?**
* **Why manage servers went to unknown state?**

There are many scenarios which can lead to an UNKNOWN status. It normally means that your managed server is unhealthy and stopped to accept incoming requests.  
(JVM crash, OutOfMemoryError, too man Stuck Threads, too many sockets / file descriptors vs. your current limit)

* **How can you check server status without using admin console?**
* **What are the monitoring tools your are using?**
* **How to check server state in backend?**

Ps –ef | grep java

* **Up gradation document?**
* **Clone weblogic domain?**
* **How to configure one way SSL and two way SSL ?**

To configure SSL:

* Expand the Servers node.
* Select the name of the server for which you want to configure keystores (for example, exampleserver).
* Select the Configuration-->Keystores and SSL tab.

Information about the demonstration Identity and Trust keystores is displayed in the Keystore Configuration.

* Configure new Identity and Trust keystores for WebLogic Server. For more information, see [Configuring HYPERLINK "http://docs.oracle.com/cd/E13222\_01/wls/docs81/secmanage/ssl.html"Keystores](http://docs.oracle.com/cd/E13222_01/wls/docs81/secmanage/ssl.html).

**Note:** For the purpose of backward compatibility, private keys and trusted CA certificates can be stored in a file or in a JKS keystore accessed via the WebLogic Keystore provider. If you migrated from a previous version of WebLogic Server, WebLogic Server uses the existing security configuration and sets the Files or Key Store Providers option. In this circumstance, step 4 can be skipped.

* Click the Change... link in the SSL Configuration to configure attributes for SSL.

The Configure SSL page appears.

* Specify how the identity and trust for WebLogic Server is stored. The following options are available:
* Key Stores—Use this option if you created Identity and Trust keystores for WebLogic Server. If you choose this option, go to step 8.
* Files or Key Store Providers—Use this option if you stored private keys and trusted CA certificates in a file or in a JKS keystore accessed via the WebLogic Keystore provider (as supported in previous releases of WebLogic Server). If you choose this option, go to step 9. This option is available for the purpose of backward compatibility only and it automatcally set with security information from a previous release of WebLogic Server.

7. Click Continue.

* Specify the alias used to load the private key into the keystore in the Private Key Alias and the password used to retrieve the private key from the keystore in the Passphrase attibute. You may have specified this information when creating the Identity keystore; however, for the purpose of SSL configuration specify the information again. Skip to step 10.

**Note:** You do not have to specify this information for the Trust keystore because trusted CA certificates are not individually identified to WebLogic Server with aliases. All trusted CA certificates in a keystore identified as trusted by WebLogic Server are trusted. Therefore, WebLogic Server does not require an alias when retrieving a trusted CA certificate from the keystore.

* Specify information about the location of identity and trust for WebLogic Server.

**Note:** This step only applies if the Files or Key Store Providers option is specified.

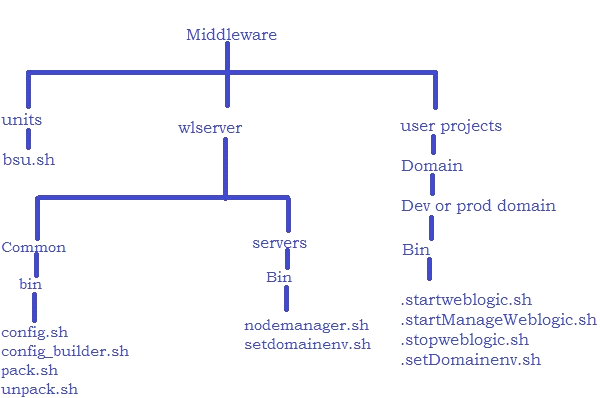
* Private Key File Name—The directory location of the private key for WebLogic Server. Specify a value for this attribute only if you stored the private key for WebLogic Server in a file (versus a WebLogic Keystore provider).
* Private Key Alias—The alias specified when loading the private key for WebLogic Server from the keystore. Specify a value for this field only if you stored the private key for WebLogic Server in a keystore accessed by the WebLogic Keystore provider.
* Passphrase—The password specified when loading the private key for WebLogic Server into the keystore. Specify a value for this field only if you stored the private key for WebLogic Server in a keystore accesssed by the WebLogic Keystore provider. Confirm the password. If you protected the private key file with a password, specify the weblogic.management.pkpassword command-line argument when starting the server.
* Server Certificate File Name— The directory location of the digital certificate for WebLogic Server. If you are using a certificate chain that is deeper than two certificates, you to need to include the entire chain in PEM format in the certificate file.
* Trusted CA File Name—The name of the file containing the PEM-encoded trusted certificate authorities.
* Click Continue.
* Click Finish.
* Reboot WebLogic Server.

To configure two-way SSL:

* If you have not already done so, in the Change Center of the Administration Console, click **Lock & Edit** (see [Use the Change Center](http://download.oracle.com/docs/cd/E24329_01/apirefs.1211/e24401/taskhelp/console/UseTheChangeCenter.html)).
* In the left pane of the Console, expand **Environment** and select **Servers**.
* Click the name of the server for which you want to configure SSL.
* Select **Configuration > SSL**, and click **Advanced** at the bottom of the page.
* Set the **Two Way Client Cert Behavior** attribute. The following options are available:
* **Client Certs Not Requested**: The default (meaning one-way SSL).
* **Client Certs Requested But Not Enforced**: Requires a client to present a certificate. If a certificate is not presented, the SSL connection continues.
* **Client Certs Requested And Enforced**: Requires a client to present a certificate. If a certificate is not presented, the SSL connection is terminated.
* Click **Save**.
* To activate these changes, in the Change Center of the Administration Console, click **Activate Changes**.
* **What happens when database down in weblogic?**

When DB is down the connection pool/Data source will go to SUSPENDED state waiting to re-establish the connection with DB. when DB is up it will automaticaly re-connect with DB . but in the middle if you re-cycle the server. the server will go to ADMIN mode

* **Oracle Fusion Middleware Directory Structure?**



* **Differences between major web logic versions?**
* **Difference between .out and .log files ?**

.out will print all logs related to your java application deployed whereas .log file will print all logs related to weblogic server like startup.stop,deployment etc.

* **What is the MSI (managed server independence mode)mode in Weblogic? How can you enable and disable this option?**

MSI is nothing but Managed Server Independence.  
A Managed Server instance can start in MSI mode if the Administration Server is unavailable. Configure MSI mode from the Administration Console.

**To start a Managed Server in MSI mode, perform the following:**

Ensure that the Managed Server’s root directory contains the config sub directory. If the config sub directory does not exist, copy it from Admin server's root directory. Start the MS at command line or script.

Environment--> Servers--> Server-Name--> tuning--> Advance--> Managed server independent Enable check box.

* **Weblogic  default ports (for secure and non secure)?**

For non secure 7001, secure 7002

* **How to check running weblogic server process id and also port number ?**

Netstat -plnt (program,listning,numeric,tcp), netstat -plnt |grep java

* **How to increase max and min heap values (xms,xmx) ?**

you can change the memory size by changing the parameters Xmx

the most important parameters are :

-Xms1536m -Xmx1536m -XX:MaxPermSize=512m

Xmx - is the max size of the heap.

Xms - is the initial size of the heap.( give it the same as Xmx )

.........

Any Way:

you can change XSS from config.xml

in this path : DOMAIN\_NAME/config/config.xml

but you have to shutdown the admin server when you change something in config.xml , then edit the start properties, or add it under <server> if it's not there:

<server-start>

<arguments>-Xms1536m -Xmx1536m -XX:MaxPermSize=512m -Xss4096k </arguments>

</server-start>

........

[[OR]]

you can change it from the admin console which is easier

access the admin console then go to Environment >> Servers

choose the server you want to change it

form Configuration >> Server Start

you will see box called Arguments:

Add -Xss4096k

* **difference between Jrockit and JDK ?**
* **Types of cluster?**

There are two method of clustering Horizontal and Vertical

Vertical

Horizontal

* **what is scalability, loadbalacing, failover ?**

A WebLogic Server cluster provides these benefits:

* Scalability

The capacity of an application deployed on a WebLogic Server cluster can be increased dynamically to meet demand. You can add server instances to a cluster without interruption of service—the application continues to run without impact to clients and end users.

* High-Availability

In a WebLogic Server cluster, application processing can continue when a server instance fails. You “cluster” application components by deploying them on multiple server instances in the cluster—so, if a server instance on which a component is running fails, another server instance on which that component is deployed can continue application processing.

Load balancing:-

A load balancer, which can be software or hardware based, sits between the Internet and the physical server cluster, also acting as a virtual server. As each client request arrives, the load balancer makes near-instantaneous intelligent decisions about the J2EE server best able to satisfy each incoming request. Software-based load balancers can come in the form of computers, routers, or switches with integrated load-balancing software or load-balancing capabilities. Hardware load balancers are separate pieces of equipment that provide advanced load-balancing features and additional reliability features such as automatic failover to a redundant unit.

Failover :-

* **How to create weblogic server ?**
* **out of memory issue ?**
* **what is native io ?**
* **what is session replication?**
* **Types of session replication ?**
* **Types of deployments?**
* Stage mode
* No- stage mode
* External state mode
* **what is connection pool?**
* **how to increase connection pool size?**
* **If you want to give new startup argument as per client request, where you will update?**
* **what is JMS?**

JMS (Java Message Service) is an API that provides the facility to create, send and read messages. It provides loosely coupled, reliable and asynchronous communication.

JMS is also known as a messaging service.

* **Types of JMS?**
* **how many ways we can create persistent store?**
* **what is JDBC, purpose of connection pool?**
* **What is JMS module?**
* **why we are using sub deployment?**

Ans) The reasons for subdeployments in the JMS area include avoiding network traffic between JMS components, group connection factories, queues and topics, and it simplifies the migration.

* **How to check if you have multiple domains in single machine?**

Ans) you can check domain-registry.xml file , located under middleware home path.

* **Different types of cluster messaging modes in weblogic?**

Ans) Unicast

Multi-Cast

* **What is the difference between system modules and application modules?**

Ans) The main difference between system modules and application modules comes down to ownership. System modules are owned and modified by the WebLogic administrator and are available to all applications. Application modules are owned and modified by the WebLogic developers, who package the JMS resource modules with the application's EAR file.

* **What is the major configuration file in WebLogic ?**

Ans: The WebLogic whole configuration stored into a repository file **Config.xml** in config folder present in the domain directory.

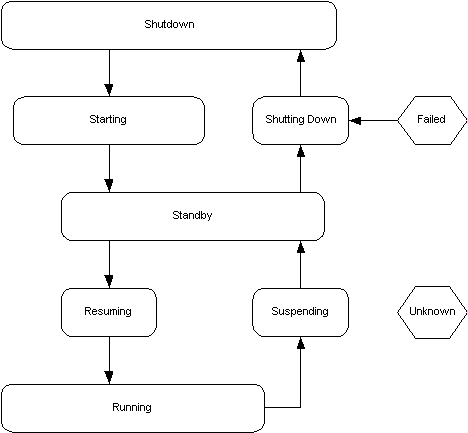
**Native memory**: This is the memory that the JVM uses for its own internal operations.

* **States of the Server?**

Ans:-**There are 9 states of server:-**

* Shutdown
* Starting
* Standby
* Resuming
* Running
* Suspending
* Shutting down
* Failed
* Unknown

The series of states through which a WebLogic Server instance can transition is called the *server life cycle*.

**The Server Life Cycle:-**  
 

* **How to access admin console?**

**Ans) Ssl enabled admin console accessed as**

https://hostname or ip address (where admin server running):(port on which admin server is ssl   
enabled admin console accessed as :  
Example - [**https://localhost:7002/console**](https://localhost:7002/console)  
mode:  
**non ssl admin console accessed as** :  
http://hostname or ip address (where admin server running):(port on which admin server is ssl enabled   
admin console accessed as :  
Example - <http://localhost:7001/console>

* **How Does a Cluster Relate to a Domain?**

Ans) A cluster is part of a particular WebLogic Server domain.A domain is an interrelated set of  WebLogic Server resources that are managed as a unit. A domain includes one or more WebLogic Server instances, which can be clustered, non-clustered, or a combination of clustered and non-clustered instances. A domain can include multiple clusters. A domain also contains the application components deployed in the domain, and the resources and services required by those application components and the server instances in the domain.

* **How do you set the classpath?**

Ans) WebLogic Server installs the following script that you can use to set the  
classpath that a server requires:  
WL\_HOME\server\bin\setWLSEnv.cmd (on Windows)  
WL\_HOME/server/bin/setWLSEnv.sh (on UNIX)

* **How do you differentiate between a server hang and server crash issue?**

Ans) When a Server crashes, the JAVA process no longer exists. When the Server is hung, it stops responding.  
We can use the WebLogic .ADMIN utility to ping the server. In case of a hang situation we can take multiple thread dumps and analyze the cause of hang.

* **How managed servers communicate with each other ?**

Ans) Managed servers communicate each other using **t3 protocol** internally.

* **Tell one** **recent error you got and how did you solved it?**

We were trying to make a domain, but when we ran config.sh, it showed some java error. /usr/lib/jvm/java….No such file or directory  .

On investigation , we found it is pointing to wrong java location. Actually we forgot to run env setting file. we ran commEnv.sh and than ran config.sh . It resolved the issue.

* **What is cross-cluster replication?**

Ans: It is the ability provided  by WL to replicate HTTP sessions across two clusters in separate domains.

* **How to recover password in weblogic?**
* **How to recover boot.properties?**
* **How to recover serializedini.dat, if the file is corrupted?**
* **How admin server knows that the managed server is down?**
* **What you can do if multicast buffer is full and how you know that?**
* **What is the Max amount of information that can be saved in a session object?**
* **How do u differentiate a out of memory and memory leak issue?**

**Out Of Memory** (OOM): An Out of Memory error occurs due to memory exhaustion, either in java heap or native memory. In the JVM, OOM errors are thrown when the JVM cannot allocate an object because it is out of heap memory, and no more heap memory could be made available by the garbage collector.  
**Memory Leak**: A memory leak occurs if memory is used by an application and not released by the application when it is finished with it. A memory leak can occur in either java heap or native memory, and either will eventually cause an out of memory situation.

* **Explain weblogic server?**
* **How can you differentiate server crash and server hang?**

Server crash there is no existence for th the java process and if its server hang then the java process stops responding.

* **What can be the various reasons for a server crash?**

a) Native IO  
b) SSL Native Libraries  
c) JVM  
d) Supported Configuration  
e) JDBC Driver issue

* **How do you troubleshoot a crash?**

JVM crash generates a hs\_err\_pid file. We need to look into the stack trace of the hs\_err\_pid file .  
If the thread is from a native io, we need to disable native io.  
if the stack trace is from the driver, we need to get in touch with the drive team.  
Quite possibly its a problem with driver. Changing the type of driver can be a workaround.  
If the thread shows it coming from an optimzed code, we can turn of optimization.  
If the stack is from native calls of application, its a bug with the application and it has to b modified.

* **Ho do you troubleshoot Server Hang?**

We can use java weblogic.Admin PING to check if we get a normal response.  
We need to take multiple thread dumps with kill -3 pid on unix and CTLR Break on Windows.  
Analyze the thread dump to find the root cause

* **What can be the reasons of Server hang?**

Memory leak, databse query taking a long time to return, Deadlock.

* **What are the various causes for OUT OF MEMORY?**
* Insufficient heap size, not able to match the extra load.  
  b) Objects licing too long, like HTTP Sessions.  
  c) Memory leak in application code.  
  d) Full GC not happening due to JVM Bug.
* **How to troubleshoot and overcome such issues?**

Gather memory data by enabling GC verbose.  
If its due to Http Session, timing out http session after certain interval might help.  
Look into the code for jdbc connection handling.  
Optimizing the heap size according to the load.

* **When does High CPU Usage occur?**

It occurs when one process or one thread utilizes unexpectedly high proportion of CPU.

* **How to troubleshoot it?**

In Solaris environment, we need to take **pstack and prstack** and see what the threads are doing.  
In Windows we need to use **pslist** and process explorer.

In linux environment we use **top** command

* **How does Cluster Communication Happen?**

Members of the Cluster communicate over the Cluster Multicast IP and Port by sending periodic heart beat messages.

* **How do you do performance tuning of WLS?**

It can be categorized in 4 parts.  
**a. Application Tuning**.  
jsp recompilation, ejb pool size cache..

**b. OS Tuning**

Setting tcp ip parameter.  
tcp\_time\_wait\_interval  
tcp\_conn\_req\_max\_q

**c. Core Server Tuning.**

tune work manager, tune chuck size and chunck pool size, using performance packs, connection backlog buffering.

**d. JVM Tuning**  
tuning gc strategy, monitoring garbage collection..

* **What is the difference between Development mode and Production mode of Weblogic Server?**

|  |  |
| --- | --- |
| **Development Mode:** | **Production Mode:** |
| 1. The default JDK for development domain is Sun Hotspot. 2. You can use the demo certificates for SSL. 3. Auto deployment(to admin server only) is enabled. 4. Server instances rotate their log files on start-up.  5. Admin Server uses an automatically created boot.properties during start-up.  6. The default maximum capacity for JDBC Datasource is 15. 7. The debugFlag which is used to start the WebLogic Workshop Debugger is enabled. 8. In Development Mode any configuration change being done by a user doesn’t need him to take a Lock and Edit session. 9. Availability of web service test client. 10. Nodemanger username and password: Default Admin credentials. 11. Availability of Classloader Analysis Tool: Yes. 12. Default start parameters when using Sun JDK and the default startWebLogic script : java -client -Xms256m -Xmx512m -XX:CompileThreshold=8000 -XX:PermSize=128m -XX:MaxPermSize=256m | 1. The default JDK for production domain is JRockit. 2. If you use the demo certificates for SSL a warning is displayed. 3. Auto deployment(to admin server only) is disabled. 4. Server instances rotate their log files when it reaches 5MB. 5. Admin Server prompts for username and password during start-up. 6. The default maximum capacity for JDBC Data source is 25. 7. The debug Flag which is used to start the WebLogic Workshop Debugger is disabled. 8. In Production Mode the user needs to procure a Lock and Edit session before trying to make any configurationally changes. 9. No Availability of web service test client. 10. Node manger username and password: Randomly generated 11. Availability of Classloader Analysis Tool: No. 12. Default start parameters when using Sun JDK and the default startWebLogic script : java -server -Xms256m -Xmx512m -XX:MaxPermSize=256m. |

* **What is HTTP tunneling? How can we configure it on Weblogic?**

HTTP tunneling provides a way to simulate a stateful socket connection between WebLogic Server and a Java client when your only option is to use the HTTP protocol. It is generally used to tunnel through an HTTP port in a security firewall. HTTP is a stateless protocol, but WebLogic Server provides tunneling functionality to make the connection appear to be a regular T3Connection.  
Steps to configure Http tunneling.

Login into the Admin Console, click on the server on which you want to enable he Http Tunneling feature   
Click on the Protocols tab ? General ? check the “Enable Tunneling” check box.

Now you can communicate with the JVMs (Server Instances) using protocols other than t3

* **What is the difference between T3 and HTTP protocol?**

WebLogic uses the T3 protocols for internal and external connections to the servers.

Http protocols are used primarily for HTTP communication between the browser and the web server.

Note: All of these protocols are, by default, multiplexed over the same connection to the server’s address and port.

* **What is Unicast?**

where there are cluster master and each server should ping to this cluster master for informing that the server is alive.

* **What is Multicast?**

where there is no cluster master and each and every server needs to ping each other for informing their existence

NOTE:-Multicasting has many messages to be sent in the form of ping as each server needs to inform all others about its existence. Its much traffic

* **What is a stage deployment?**

The Administration Server copies the deployment unit files to the staging directories of target servers and they are deployed using the local copy. This mode is useful when deploying small size applications. This is the default staging mode for Managed Servers.

* **What is non-stage deployment?**

The Administration Server does not copy the deployment unit files to the target servers. The deployment units are deployed directly from the source. This mode is useful when deploying very large deployments to multiple targets. This is the default staging mode for the Administration Server

* **What is external-stage deployment?**

In this mode you manually  copy the deployment units  to the staging directories and then deploy.

Note: If you wish to deploy an application or module with in external stage mode, use the weblogic.Deployer utility.

* **How can port number be checked?**

netstat-na|grep connected (or port no)

* **How to find out the listening ports?**

netstat-na | grep listen

* **How to check the version of Java?**

Java -version

* **How is it informed when the server is added to the cluster?**

The availability of the new server in the cluster is broadcasted by the WebLogic server – cluster.

* **How many WebLogic servers can be held inside a multi-processor machine?**

There is no limitation for the number of servers

* **What is application tuning?**

ejb pool – size cache and jsp recompilation

* **What is OS tuning?**

setting up TCP/IP parameters.

* **What is Core Server tuning?**

This is the process involving the tuning of work manager, chuck size, performance packs, chunk pool size and connection backlog buffering.

* **What is JVM tuning?**

This process involves monitoring of the garbage collection and the tuning of gc strategy

* **In order to see last 20 files what is the command?**

ls -lrt | tail -20

* **How to monitor the incoming traffic for webserver?**

netstat -an | grep 80

or

tshark 'tcp port 80 and (((ip[2:2] - ((ip[0]&0xf)<<2)) - ((tcp[12]&0xf0)>>2)) != 0)'

it takes the same arguments as tcpdump (same library) but since its an analyzer it can do deep packet inspection so you can refine your filters even more, i.e.

tshark 'tcp port 80 and (((ip[2:2] - ((ip[0]&0xf)<<2)) - ((tcp[12]&0xf0)>>2)) != 0)' -R'http.request.method == "GET" || http.request.method == "HEAD"'

* **What is Session replication in Weblogic Cluster?**

There are primarily two types of Session Replication in Weblogic Cluster

1. In-Memory replication, 2. DB based Session Replication

**1. In-Memory Replication**:

Here more than one Managed server in a cluster of Domain keep the http session details of a particular browser connection.

Primary server process the request and choose other server (randomly or based upon settings) to keep the backup of http session details

( Replication).

So, the secondary server will only keep the backup, not process the request. The info of (Replication) will be sent back to browser (cookies). In case, the primary server goes down, the LB( Load balancer) will direct the secondary server ,based upon cookies to process the request from the point where primary server stopped. It is called In-Memory Replication.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

weblogic.xml

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<replicate-if-clustered>true<replicate-if-clustered>

The file weblogic.xml is part of deployment document given by developer. Just by making multiple Managed servers, Session Replication will not happen. The above parameter have top be set to true.

**2. DB-based Replication**:

Instead of storing http session backup in other managed server , it can be stored in DB. Now, Load Balancer can direct any available server to continue the request, if primary server goes down.

It is called DB based Replication.

It is gives better availability as it will work even if secondary server goes down , as any server can process the request. But it is much slower than In-Memory replication.

Generally, In-Memory Replication is used.

3. which protocal used in multicaste?

udp-user datagram protocal.

4.

Xss is Thread Stack Size,, it is not the memory size

you can change the memory size by changing the parameters Xmx

the most important parameters are :

**-Xms1536m -Xmx1536m -XX:MaxPermSize=512m**

Xmx - is the max size of the heap, Xms - is the initial size of the heap.( give it the same as Xmx )

XX:MaxPermSize - is is used to hold reflective of the VM itself such as class objects and method objects ( it's independent from the heap size,, give it the 1/3 to 1/4 of the Xms size depend in your classes size)

Any Way:

1.you can change XSS from config.xml

in this path : DOMAIN\_NAME/config/config.xml

but you have to shutdown the admin server when you change something in config.xml , then edit the start properties, or add it under <server> if it's not there:

<server-start>

<arguments>-Xms1536m -Xmx1536m -XX:MaxPermSize=512m -Xss4096k </arguments>

</server-start>

........

[[OR]]

2. you can change it from the admin console which is easier

access the admin console then go to Environment >> Servers

choose the server you want to change it

form Configuration >> Server Start

you will see box called Arguments:

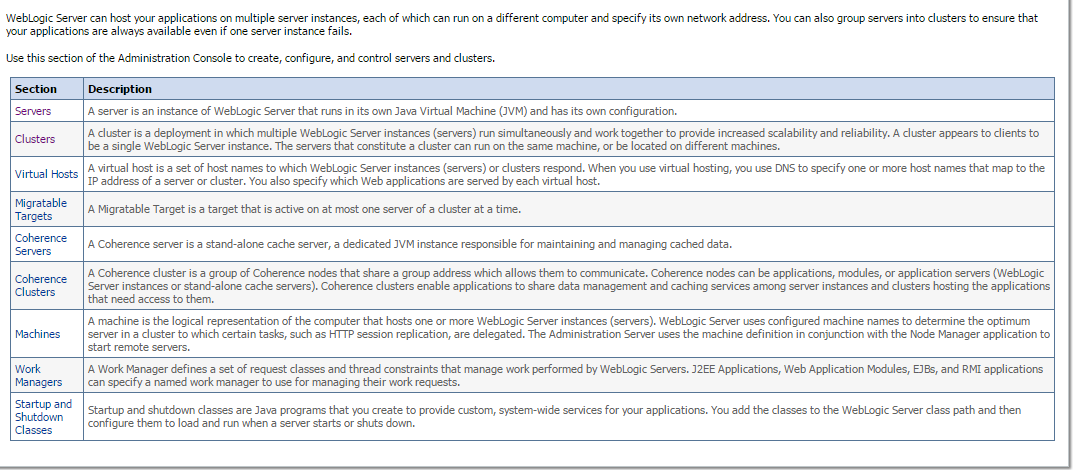
Add -Xss4096k

* what is jdbc?

Ans:- A JDBC data source is an object bound to the JNDI tree that provides database connectivity through a pool of JDBC connections.

Applications can look up a data source on the JNDI tree and then borrow a database connection from a data source.

* defination of all ?



* **Thread dump provides a snapshot of the current active live threads. It provides the stack trace of all the java threads in the JVM. It is used when the server is hung and we want to see the threads executing and take their dump.**

**There are different ways to take thread dump.**

**1.Command line: use the below command when you know the port number. just run the same command 3 times in 5 sec intervel of gaps.**

**kill -3 PID**

**2.WebLogic.Admin utility: javaWebLogic.Admin adminurl -username WebLogic -password WebLogic1 THRED\_DUMP**

**3.Admin console:**

**Step1: login to the admin console**

**Step2: Click on server**

**Step3: Navigate to servers**

**Step4: Click monitor tab**

**Step5: Click on thread**

**Step6: Click on the dumpthread stack.**

**Location of the Thread Dump:**

**/DOMAIN\_NAME/servers/logs/KK\_stdout.log**

* **ssl confiuration?**

**1. Generate public & private key OR you can say generate a Keystore**

**2. Create CSR ( Certificate Service Request ) & send to certificate authority**

**3. Authority will send you ssl certificate, root certificate & intermediate certificate**

**4. Import all certificates to your keystore**

**5. Create/import trust using root certificate**

**6. Configure Weblogic for SSL which includes**

**i) Keystore tab configuration**

**ii) SSL tab configuration**

**iii) Enable SSL option with SSL port**

* **PATH - CLASSPATH**

**The name itself indicated the functionality...**

**CLASS-PATH : It contains the paths of class files which are stored**

**Ex: CLASSPATH="C:\Program Files\Java\jdk1.7.0\_51\jre\lib\rt.jar"**

**PATH : It contains the path for the executables**

**Ex: PATH="C:\Windows\System32\notepad.exe"**

**PATH is the OS related..It contains executable file information like bin etc..**

**CLASSPATH is also related to OS only but it contains information like ZIP, JAR file..**

**PATH=$PATH: <JDK bin path>**

**CLASSPATH=$CLASSPATH: <WL-Home\server\lib>**

**Set PATH as follows:**

**$export PATH=$PATH:/usr/java/jdk1.5.0\_07/bin**

**To check the path Env variable(view the contents of PATH):**

**$ echo $PATH**

**ANSWER :**

**WebLogic Server installs the following script that you can use to set the classpath that a server requires:**

**WL\_HOME\server\bin\setWLSEnv.cmd (on Windows)**

**WL\_HOME/server/bin/setWLSEnv.sh (on UNIX)**

**PATH=$PATH: <JDK bin path>**

**CLASSPATH=$CLASSPATH: <WL-Home\server\lib>**