Prerequisites for Oracle FLEXCUBE Installer
Oracle FLEXCUBE Universal Banking
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1.   Prerequisites for Oracle FLEXCUBE Installer

1.1   Environment Setup

This section helps you to configure various Operating system parameters and the setting to be prepared before Starting the Oracle FLEXCUBE installation. This chapter explains the various configurations that are required to be performed at OS and Application or DB serve level.

1.2   Operating System Supported for Database

FLEXCUBE is supported on following operating systems:

Component
HP Unix
IBM AIX
Sun Solaris
LINUX
Windows

1.3   Operating System Prerequisite for Database Setup

Following are the main kernel and database initialization parameters that you need to setup as part of the environment.

1.3.1   Sun Solaris Kernel Parameters

Kernel Parameter	Suggested Starting Value	Description
SHMMAX	4294967295 or 70% of physical memory (whichever is larger)	Maximum size of a single shared memory segment
SHMMIN	1	Minimum size of a single shared memory segment
SHMMNI	100	Maximum number of shared memory segments in entire system

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Kernel Parameter	Suggested Starting Value	Description
SHMSEG	10	Maximum number of shared memory segments one process can attach
SEMMNS	2000	Maximum number of semaphores in entire system
SEMMSL	1000	Maximum number of semaphores per set
SEMMNI	100	Maximum number of semaphore sets in entire system
Swap Space	Twice the physical memory present	
Patches	Verify as per Oracle's platform specific release notes	

1.3.2 IBM AIX Kernel Parameters

Unlike other UNIX platforms, AIX does not have the ability to directly configure Kernel parameters. Instead, the AIX Kernel dynamically allocates and reallocates resources as they are needed, up to a predefined limit, making the traditional practice of tuning parameters unnecessary. The only tuneable Kernel parameter is 'maxuprc' (maximum number of processes per user ID) which can be modified via SMIT (AIX's menu-based system administration utility) or the command line utility.

Swap Space	Twice the Physical memory present
Patches	Verify as per Oracle's platform specific release notes

1.3.3 HP UNIX Kernel Parameters

Kernel Parameter	Suggested Starting Value	Description
aio_max_ops	2048	Maximum number of queued AIO ops
dbc_min_pct	2	Minimum percentage of system memory used for buffer cache
dbc_max_pct	ensure <= 128MB	Maximum percentage of system memory used for buffer cache
Fsasync	0	Asynchronous i/o on file systems
max_async_ports	1024	Maximum ports for asynchronous I/O operations
maxdsiz64	1Gb	Shadow process heap size
Maxfiles	512	Soft limit number of open files per process

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maxfiles_limit	1024	Hard limit number of open files per process
Maxusers	no of Oracle connections+64	Influences nproc, nfile, ninode and maxuprc
Maxuprc	maxusers*5	Number of processes per user ID
nfile	use SAM formula	Open files system wide
Nflocks	>= (200 + (sum of db files))	File locks system wide
Nproc	use SAM formula	Processes system wide
Shmmax	4294967295	Maximum size of a single shared memory segment
Swap Space	Twice the physical memory present	
Patches	Verify as per Oracle's platform specific release notes	

1.3.4 Linux Kernel Parameters

Kernel Parameters	Recommended Value	Description
nproc (Soft)	2047	Shell Limits (/etc/security/limits.conf)
nproc (Hard)	16384	Shell Limits (/etc/security/limits.conf)
nofile (Soft)	1024	Shell Limits (/etc/security/limits.conf)
nofile (hard)	65536	Shell Limits (/etc/security/limits.conf)
fs.file-max	6815744	Kernel Parameter (/etc/sysctl.conf)
kernel.shmall	2097152	Kernel Parameter (/etc/sysctl.conf)
kernel.shmmax	2147483648	Kernel Parameter (/etc/sysctl.conf)
kernel.shmmni	4096	Kernel Parameter (/etc/sysctl.conf)
kernel.sem	250 32000 100 128	Kernel Parameter (/etc/sysctl.conf)

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Kernel Parameters	Recommended Value	Description
net.ipv4.ip_local_port_range	9000 65500	Kernel Parameter (/etc/sysctl.conf)
net.core.rmem_default	262144	Kernel Parameter (/etc/sysctl.conf)
net.core.rmem_max	4194304	Kernel Parameter (/etc/sysctl.conf)
net.core.wmem_default	262144	Kernel Parameter (/etc/sysctl.conf)
net.core.wmem_max	1048576	Kernel Parameter (/etc/sysctl.conf)
SWAP Space RAM Between 1 GB and 2 GB Between 2 GB and 16 GB More than 16 GB	 1.5 times the size of RAM Equal to the size of RAM 16Gb	SWAP space requirement
Patches	Verify as per Oracle's platform specific release notes	http://support.oracle.com/

1.4 Database Setup

For Datable recommendations please refer the 1-7 section of FCUBS Database Practices document.

1.5 Application Servers

Oracle FLEXCUBE is supported on the following Application servers

Component
Weblogic
Websphere

Application srever needs to be configured to use JDK1.7.

Component	Required for	Installation Details
JDK1.7	Oracle FLEXCUBE Installation	Download JDK and set it as the environmental variable JAVA_HOME and append PATH with {JAVA_HOME}\bin

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For websphere recommendations refer the document FCUBS_WAS_Practices_V1.

Before starting the Application deployment, it's mandatory to have the necessary application resources created on the application server. Please refer to the document Resources To Be Created under Environment Setup >> Application Server folder for the details of the resources.

The steps for creating these resources are found under :

Weblogic_Configurations and Websphere_Configurations documents under the same folder. Please use the right document based on the application server. Also, repeat the steps mentioned for each type of resource and ensure all the necessary resources are created.

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1.5.1 <u>Third-Party Applications</u>

This section explains the steps which have to be followed before the actual installation of Oracle FLEXCUBE Application; the following steps have to followed for setting up additional applications using installer.

Refer the 'Prerequisite' chapter of Security Guide user manual for further information on enforcing security for web. All Third Party setup documents referred below are available in the Third Party Software Installation folder.

🛑 For installing any third-party or pre-requests list is provided for generic information however for detailed steps refer vendor install page.

Oracle BPEL	This section explains the instructions for SOA Setup and it also explains the steps for integrating with various external enterprise solutions. Refer to the SOA_Setup document.
Oracle IPM	This section describes the steps for configuring Oracle IPM. Please refer to the document Internal_Guide_UCM_Installation
Oracle Web Service Manager	This section describes the steps for configuring Oracle web service manager. It explains about a policy framework to manage and secure Web services consistently across organization. Please refer to the document FCUBS_V.UM_Oracle_Web_Service_Manager_Integration.
Oracle Service Bus	This section explains the detailed instructions for configuring Oracle Service Bus (OSB) - An enterprise-class service bus that connects, manages, and mediates interactions between heterogeneous services. Please refer to the document FCUBSV.UM_OSB
BIP Web Service Reports	This section explains the instructions for setting up BIPWebService Reports. It explains the process of setting up BIP Web Services Reports Server, deploying of reports , Creating Roles and Users in Oracle BI Publisher and setting up Server for Web Service Based BIP Reports.Please refer to the document BIP Web Service Reports.
OBIEE Application	This section explains the detailed guidelines for OBIEE Metadata Repository Deployment .This explain the prerequisites required and also explains the steps for deploying in OBIEE10g and OBIEE 11g.Please refer to the document OBIEE Metadata Repository Deployment Guide.
Oracle Audit Vault	This section explains the setting up of Oracle Audit Vault. Oracle Audit Vault is an audit solution that consolidates, detects, monitors, alerts, and reports on audit data for security auditing and compliance. Please refer to the document Oracle_Audit_Vault.
Oracle Access Manager and LDAP	FLEXCUBE supports single sign-on integration. The steps related to setting up the Oracle Access Manager and LDAP are covered in this section.Please refer to the document Oracle_Access_Manager.

Oracle Identity Manager	Oracle Identity Manager is an identity management product that automates user provisioning, identity administration, and password management, integrated in a comprehensive workflow engine. Steps related to configuring Oracle Identity Manager covered.Please refer to the document FCUBS_V.UM_OIM_Integration_Implementation
Oracle Service Registry	The Oracle Service Registry provides a UDDI v3-compliant platform for publishing, categorizing and discovering Web services and related resources across the enterprise. Steps for configuring same are mentioned.Please refer to the document FCUBS_V.UM_Oracle_Service_Registry_Integration
Oracle Enterprise Manager Grid Control	Oracle Enterprise Manager Grid Control to monitor the Performance of FLEXCUBE by capturing the time elapsed for executing a particular operation. Its configuration steps are detailed are here.Please refer to the document FCUBSV.UM_10.3.0.0.0.0.0_OEMGC_Integration_Implementation
Oracle Virtual Machine	This section outlines the steps for installation of Oracle Virtual Machine server, and oracle Virtual Machine manager. It also explains Oracle virtual Machine to create a server pool, and managing the resources of the machine creating multiple Virtual machines. Please refer to the document FCUBS_V.UM_OracleVM_Approach
Total Recall Approach	This section describes the features of Oracle Total Recall and feasibility of enabling it for FLEXCUBE modules. It also describes the POC conducted by enabling the same for DE upload module of FLEXCUBE and also lists its results in terms of performance and storage overheads. Please refer to the document FCUBS_V.UM_Total_Recall_Approach
General Ledger Adapter	This section explains the detailed description of General Ledger Adapter Deployment Patterns. It provides a detailed description of the software requirements, environment setup and steps involved in deploying any of the FLEXCUBE UBS Oracle GL Adapter patterns. Please refer to the document ADOGL_Installation under Oracle_GL_Adapter_Installation folder.
Siebel CRM Adapter	This section describes the details step by step description Siebel CRM Adapter for Installing the FLEXCUBE UBS Gateway infrastructure, BPEL Middleware required for Siebel CRM integration, Installation of FLEXCUBE backend components required for Siebel CRM integration and it also explains the steps for updating of Domain Value Map FLEXCUBE maintenances specific to Siebel CRM integration. Please refer to the document SIEBELCRM-IFLEXUBS_Installation_Document
SSIMH Adapter	This section explains the instructions for setting up SSIMH Adapter for implementation of all FCC – FC SSI MH Integration Adapter Deployment patterns. Please refer to the document SSIAD_Installation under SSIMH_Adapter_Installation_Docs folder.

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1.6 <u>Client Browsers Settings</u>

Following browsers are supported:

Component
Google Chrome
Microsoft Internet Explorer
Mozilla Firefox
Opera
Apple Safari

1.7 <u>Installer Installation Pre-requisites</u>

Component	Required for	Installation Details
JDK	Oracle FLEXCUBE Installation	Download JDK and set it as the environmental variable JAVA_HOME and append PATH with {JAVA_HOME}\bin
Weblogic	Oracle FLEXCUBE Installation	Installer home needs to be specified for using the Deployment feature of installer. **Note**: During Weblogic Installation, Weblogic server and Oracle coherence should be installed in same path(for the installer test connection to be successful during deployment of EAR using installer).
Oracle Client	Oracle FLEXCUBE Installation	Oracle client is required to install database objects of Oracle FLEXCUBE.
Environment Variables	Oracle FLEXCUBE Installation	Create environment variables as given below. NLS_LANG = AMERICAN_AMERICA.UTF8

Note: Please use appropriate text editor to open the installer log file. If there are any issues in opening, close the installer and open the log file from log folder of installer. It's recommended to use notepad as default program for .log extension in windows operating system.

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