

Version 3.0

Comverse® ONE™ ME

Mediation



notification is sent to the destination (single  
multiple destination) and the message is  
received via A-E... The message recipient may retrieve the message either  
using the 'quick click' direct access to the message.

# Mediation and Roaming IBM-AIX Installation Guide

Manual

# Notational Conventions



Useful information appears in this format.



Provides direction to important information



Important information appears in this format.



Indicates possible risk of damage to data, software, or hardware.



Indicates serious risk of damage to data, software, or hardware.

**Table 1** Notational Conventions

Notation	Explanation of Convention
<i>References to printed documents</i>	<i>Helvetica italic</i> <b>Example:</b> See <i>Database Reference Volume 2</i> .
<KEYS>	UPPERCASE HELVETICA, in angle brackets <b>Example:</b> Press <CTRL><Q><SHIFT><P> to create an em dash.
<b>User-entered text</b>	<b>Courier bold</b> <b>Example:</b> Enter <b>Total Charges</b> in the field.
<i>Placeholders for user-determined text</i>	<i>Courier italic</i> , in angle brackets <b>Example:</b> Enter your <password>.
Code samples, TABLE_NAMES, field_names, file and directory names, file contents, user names, passwords, UNIX ENVIRONMENT_VARIABLES	Courier
<i>Placeholders for system-generated text</i>	<i>Helvetica italic</i> <b>Example:</b> Messages appear in this form: <i>timestamp messageID &gt;&gt; text</i> .
<b>Buttons, Icon Names, and Menu items</b>	<b>Helvetica bold</b> <b>Example:</b> Choose <b>Reports</b> from the main menu.

## Special Markers

The Comverse ONE Billing and Active Customer Management solution has the three derivatives shown in [Table 2, “Labels in Markers.”](#) For user convenience, any content that is specifically included in a derivative is highlighted with special markers so that it can readily be distinguished.

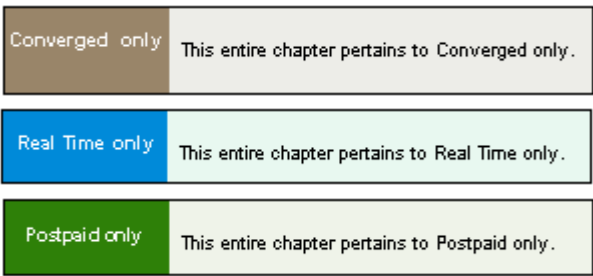
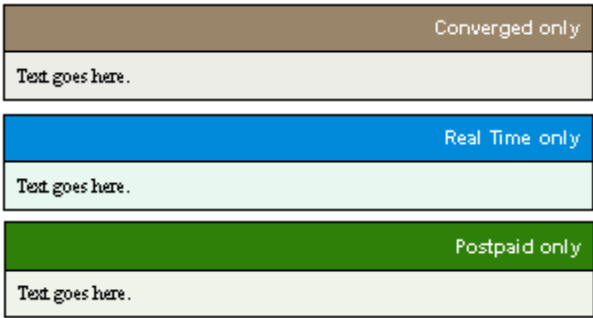
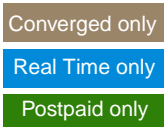
**Table 2** Labels in Markers

Derivative	Label Shown in Markers
Comverse ONE Converged Billing derivative	<b>Converged only</b>
Comverse ONE Real-Time Charging derivative	<b>Real Time only</b>
Comverse ONE Postpaid Billing derivative	<b>Postpaid only</b>

Each derivative has a set of three color-coded markers, as shown in [Table 3, “Types of Markers.”](#) The markers are used individually or in combination to highlight derivative-specific content by:

- Entire chapters
- Selected portions of chapters
- Tables, either entire or partial

**Table 3** Types of Markers

Marker	Example	Description
Alert		<ul style="list-style-type: none"> <li>■ Placed at the beginning of an entire chapter that pertains only to a specific derivative.</li> <li>■ Placed just before a table that partially or entirely pertains only to a specific derivative.</li> </ul>
Block		A shaded box that encloses sections of documentation that pertain only to a specific derivative.
Flag		<ul style="list-style-type: none"> <li>■ Designates a shaded table row whose contents pertain only to a specific derivative.</li> <li>■ In a bulleted list, designates an item that pertains only to a specific derivative.</li> </ul>

# Comverse ONE Documentation List

The documents described below reference the Comverse ONE solution products. All documentation available with the Comverse ONE solution is described in the following pages, organized by the following categories:

- Infrastructure Domain
- Rating, Charging, and Promotions Domain
- Billing and Financials Domain
- Customer and Order Management Domain
- Self-Service Solutions Domain
- Mediation and Roaming Solutions Domain

## Infrastructure Domain

Download every document in the Infrastructure domain if you purchase the Comverse ONE solution. Documentation for this domain includes the following (in alphabetical order):

- *Alarms Reference*  
Contains tables of alarm IDs, descriptions, likely causes, and recommended resolutions for systems and components.
- *Billing Operations Guide*  
Describes how to schedule and run billing operations modules, which are the modules that retrieve usage, calculate balances, generate invoices, execute collections events, process payments, and perform other tasks.
- *Database Reference*  
Describes all database tables and fields in detail.
- *Glossary*  
Provides a list of terms used specifically for the Comverse ONE solution
- *Operation Reference*  
Describes the processes in the Comverse ONE solution.
- *Platform Operations Guide*  
Describes the back-end operations and maintenance functionality of the core Comverse ONE solution components. Includes AIX/HACMP platform and cluster operations, Linux/Veritas platform and cluster operations, backup/recovery, shared storage and fiber switch operations, and tape backup operations.
- *Product Catalog Overview*  
Provides a high-level description of the Comverse ONE solution Product Catalog, which is the primary mechanism for creating, configuring, managing, and propagating Product Catalog versions.
- *Product Catalog User Guide*  
Instructions on using the Product Catalog application to define and manage all aspects of service provisioning.
- *Schedulable Entity Reference Manual*  
Documents all the jobs, monitors, and workflows, for each component.

- ***Security Platform Operations Guide***  
Technical overview of the security platform and information on how to provision and administer the platform.
- ***Signaling Gateway Unit Guide***  
Describes the hardware, installation, configuration, and maintenance of the Signaling Gateway Unit (SGU) used to connect Comverse real-time systems to the SS7 signaling network using either traditional SS7 protocols or Sigtran (SS7 over IP).
- ***System Measurements Guide***  
The Comverse ONE Solution automatically collects statistical data from the Service Logic Unit (SLU) and the Service Gateway Unit (SGU). This includes service statistics on the SLF layer and platform data on the IPF layer.  
This guide describes the format and location of this measurement information and provides a description of the meaning of the data. The measurement data can be used to create reports. It can also be imported into other applications (such as Excel) to be viewed.
- ***Unified API Guide***  
General overview of the Unified API, a brief description of its architecture, and information about:
  - Framework classes and the functionality they provide
  - Two standard interfaces provided with the Unified API (client SDK and web services)
  - A subset of Unified API business methods most commonly usedAlso provides information about using the Bulk Operations portion of the Back Office Administration GUI.
- ***Unified Platform Guide***  
Technical overview of the Unified Platform and information on the procedures to manage core systems operations in the Comverse ONE solution.

## Rating, Charging, and Promotions Domain

Documentation for this domain includes the following (in alphabetical order):

- ***Batch Provisioning Utility Guide***
  - The *CC Batch* utility enables bulk creation of recharge vouchers and subscribers.
  - The *Bulk Provisioning* Utility enables bulk creation of anonymous accounts to support the pre-activation of pre-paid SIM cards.
- ***Call Flows Reference***  
Callflows detail the logic flow of specific scenarios. Multiple access numbers can map to the same callflow. Different resellers have the option to publish different numbers but share the same logic.
- ***Charging Interfaces Guide***  
Describes the four interfaces that enable external services to support real-time authorization, rating, and charging for transactional usage: (1) the Event Charging Interface, a simple TCP/IP-based interface, (2) Open Services Access (OSA), (3) a Diameter-based interface version enhanced to take advantage of features of the Comverse ONE solution, and (4) a Diameter-based interface packet-switched version.
- ***Diameter Gateway Unit Guide***  
Describes the hardware, installation, configuration and maintenance of the Diameter Gateway Unit (DGU) used to connect Comverse real-time systems to external services, using the diameter protocol over IP.

- ***Network Interfaces and Notifications Guide***  
Describes the operation, features, and provisioning of notifications, CAMEL-enabled services, and USSD-enabled services.
- ***Network Self-Care Guide***  
Describes the configuration, structure, features, and callflows for the Network Self-Care application.
- ***Rating Technical Reference***  
Describes the Unified Rating Engine, which is the subsystem responsible for gathering incoming CDRs and processing them for billing.
- ***Real-Time Reports and Data Extracts Guide***  
Describes the real-time Operational Reports Interface (ORI) and the Data Warehouse Extract Utility.
- ***Voucher and Recharge Guide***  
Describes the process by which subscribers add funds to accounts using recharge vouchers through IVR, interaction with Customer Service, and other methods. Provides details of the Recharge Control Table, which allows resellers to provision the effects of recharges so that bonuses, discounts, and other changes to offers can result from a successful recharge. Also describes the Card Generator software used to create batches of vouchers and calling cards.

## Billing and Financials Domain

Documentation for this domain includes the following (in alphabetical order):

- ***Advanced Statement Numbering Guide***  
Describes how to configure and use Advanced Statement Numbering.
- ***Billing Reports and File Layouts User Guide***  
Describes control reports and other file formats.
- ***Billing Technical Reference***  
Describes the inputs, the outputs, and the processing flow of all billing modules.
- ***Collections Guide***  
Contains information on configuring Collections database tables, running the Collections module, and using the Collections interface.
- ***Configurator Guide***  
Describes how to install and use the Configurator.
- ***Invoice Designer Strings and Filters Reference***  
Describes the static strings, dynamic strings, and filters in the Invoice Designer.
- ***Invoice Designer Technical Reference***  
Describes how to configure and run Invoice Designer.
- ***Invoice Designer User Guide***  
Describes the Invoice Designer and how to perform the tasks needed to create an invoice template.
- ***Journals Guide***  
Describes the theory, configuration, and running of Journals processes.
- ***Miscellaneous Configurable Entities***  
Instructions for configuring late fees, adjustments, and several other database entities used in postpaid and converged billing.
- ***Recurring–Non-Recurring Charges Server Guide***  
Describes all processes commonly available through the Recurring —Non-Recurring Charges Server.
- ***Taxation Guide***  
Describes the configuration, operation, structure, and features of Taxation.

## Customer and Order Management Domain

Documentation for this domain includes the following (in alphabetical order):

- *Application Integrator Add/Copy Header Adapter User Guide*  
Describes the adapter that adds or copies header information in messages.
- *Application Integrator Aggregator Adapter User Guide*  
Describes the adapter that aggregates multiple input messages as a single composite output message.
- *Application Integrator File Adapter User Guide*  
Describes the configuration process and rules for the file adapter.
- *Application Integrator Generic Services User Guide*  
Describes the Null adapter, Trash adapter, and Initiator adapter generic services.
- *Application Integrator Operator Guide*  
Describes the commands that operate the Application Integrator at creation and runtime.
- *Application Integrator Retry Adapter User Guide*  
Describes the use of the Retry adapter to resend messages in case of failed transmissions.
- *Application Integrator Sequence Adapter User Guide*  
Describes the use of the Sequence adapter to generate unique sequence numbers for messages.
- *Application Integrator System Administrator Guide*  
Outlines installation, sizing, operation, and administration of the Application Integrator and logging. Describes configuration of the user environment and commands for creation and operation of the Application Integrator.
- *Application Integrator Unified API Client Adapter User Guide*  
Describes the Unified API Client Adapter.
- *Application Integrator Unified API Server Adapter User Guide*  
Describes the Unified API Server Adapter.
- *Application Integrator User Guide*  
Describes creating integration specifications, creating instances of the Application Integrator, and commands for operation of the Application Integrator. Provides a complete user guide for the iMaker compiler.
- *Customer Center User Guide*  
Detailed task-oriented instructions for using Customer Center.
- *Customer Care Client Provisioning Guide*  
Detailed task-oriented instructions for using Customer Care Client.
- *Inventory Guide*  
Describes the configuration, operation, structure, and features of Inventory.
- *Inventory Replenishment Guide*  
Describes the operation, structure, and features of Inventory Replenishment.
- *Orders Services Guide*  
Describes the structure and features of Orders Services.
- *Request Handling and Tracking and Service Fulfillment User Guide*  
Describes the configuration, operation, structure and features of Request Handling and Tracking and Service Fulfillment.
- *Serviceability Guide*  
Describes the configuration, operation, structure and features of Serviceability.
- *Workflow Developers Guide*  
Helps new users understand the rules-based business process management system so users can create solutions and integrate Workpoint within those solutions.

- *Workflow User Guide*  
Describes the configuration, operation, structure, and features of Workpoint.

## Mediation and Roaming Solutions Domain

Documentation for this domain is subdivided into Mediation/Roaming and Revenue Settlements.

### Mediation and Roaming

Mediation and Roaming documentation includes the following (in alphabetical order):

- *Collection API Guide*  
Provides the concepts and functions for the Collection Application Programming Interface (CAPI).
- *Data Manager GUI Reference*  
Contains detailed information about GUI screens and form fields that appear in the Data Manager interface
- *GRID Mapping Language Developer Guide*  
Describes the mediation feature components, semantics, and general syntax of the GRID Mapping Language (GML).
- *Installation Guide for HP*  
Describes how to install and configure the application, components, and some third-party applications associated with the HP platform.
- *Installation Guide for HP Itanium*  
Describes how to install and configure the application, components, and some third-party applications associated with the HP Itanium platform.
- *Installation Guide for HP PA-RISC*  
Describes how to install and configure the application, components, and some third-party applications associated with the HP PA-RISC platform.
- *Installation Guide for IBM*  
Describes how to install and configure the application, components, and some third-party applications associated with the IBM platform.
- *Installation Guide for SUN*  
Describes how to install and configure the application, components, and some third-party applications associated with the SUN platform.
- *Mediation and Roaming User Guide*  
Provides information on how to use the GUI interface, including information on using the Data System Manager application pages.
- *Mediation API Guide*  
Contains reference information on using the Mediation API.
- *Roaming Database Reference*  
Provides reference information on the Roaming database.
- *Roaming Setup Guide*  
Describes how to configure the Roaming Setup application pages. It also provides information on working with TAP, RAP, and CIBER statistics.
- *Scripts Guide*  
Provides information on script files, which contain additional instructions on functions for data collection and transmission.
- *Socket-Based API Guide*  
Explains the building applications using the Socket-Based Record Transmission API.



Programmers can use the guide to use the records received from the Data system for their own customized downstream application solutions.

- *System Manager GUI Reference*  
Contains detailed information about GUI screens and form fields that appear in the System Manager interface
- *Variable-Length GRID Guide*  
Provides information on how to configure the control files for variable-length GRID.

## Revenue Settlements

Revenue Settlements documentation includes the following (in alphabetical order):

- *Comverse Revenue Settlements Billing System Adapter Guide*  
Describes the configuration, operation, and installation for the Billing System adapter.
- *Comverse Revenue Settlements Data Model Guide*  
Overview of data model entities (such as partners, accounts, revenue sharing, and rate schedules) and how to configure them in the database.
- *Comverse Revenue Settlements Database Reference*  
Detailed descriptions of fields and tables in the database.
- *Comverse Revenue Settlements Technical Reference*  
Instructions for installing and operating Revenue Settlements. Also contains processing descriptions.
- *Comverse Revenue Settlements User Guide*  
Instructions for using the Revenue Settlements GUI.

## Self-Service Solutions Domain

The Comverse ONE Self-Service Solutions domain consists of the core products plus the optional separately licensed premium products. The core products consist of the following:

- Self-Service Solutions Platform
- Self-Service Solutions Applications

## Self-Service Solutions Platform Documentation

The Self-Service Solutions Platform has a comprehensive set of documentation covering the installation, configuration, and use of our products. The documentation set is divided into the following categories:

- **Manuals:** These manuals cover installing and using the platform.
- **Reference:** These reference documents contain information about APIs, databases, configuration files, and so on. These documents are delivered in HTML.

## Self-Service Solutions Platform Manuals

Self-Service Solutions Platform manuals include the following (in alphabetical order):

- *Administration Guide*  
Provides operations and maintenance instructions for Web applications using the Self-Service Solutions Platform.
- *Communications Billing and Usage Reference*  
Provides detailed descriptions of the data models and structure of the Self-Service Solutions Platform Communications Billing and Usage (CBU) database.

- ***Connectors Development Guide***  
Provides instructions for developing and customizing Connectors of the Self-Service Solutions Platform.
- ***Core Module Development Guide***  
Provides instructions for configuring and developing features of the core module of the Self-Service Solutions Platform.
- ***Customer Interaction Datastore Reference***  
Provides detailed descriptions of the data models and the structure of the Self-Service Solutions Platform Customer Interaction Datastore (CID).
- ***Database Modules Development Guide***  
Provides instructions for configuring, customizing, and developing features of the database module of the Self-Service Solutions Platform.
- ***Platform Installation Guide***  
Provides installation and configuration instructions for the Self-Service Solutions Platform.
- ***Platform Services Guide***  
Provides instructions for configuring, customizing, and developing features that use the services provided by the Self-Service Solutions Platform.
- ***Processors Development Guide***  
Provides instructions for developing and customizing Processors of the Self-Service Solutions Platform.
- ***Reports Development Guide***  
Provides instructions for developing and customizing Reports of the Self-Service Solutions Platform.
- ***Self-Service Solutions Overview Guide***  
Provides a high-level architectural and functional description of the Comverse ONE Self-Service Solutions. It also includes a detailed description of the concepts and development process to create and deploy Self-Service Solutions.
- ***Web Applications Development Guide***  
Provides instructions for configuring, developing, and deploying Web applications that use the Self-Service Solutions Platform.

## Self-Service Solutions Platform Reference

Self-Service Solutions Platform reference documentation includes the following (in alphabetical order):

- ***Base Logic Manager Reference***  
Describes usage syntax and configuration files for the Base Logic Manager (BLM) APIs. These APIs are the core services of the Self-Service Solutions Platform.
- ***CID2CBU Object Mapping Reference***  
Describes the default mapping of Customer Interaction Datastore (CID) and Communications Billing and Usage (CBU) objects.
- ***Communications Billing and Usage Reference***  
Provides detailed descriptions of fields and tables in the Communications Billing and Usage (CBU) database.
- ***Customer Interaction Datastore Reference***  
Provides detailed descriptions of fields and tables in the Customer Interaction Datastore (CID).
- ***Integration Services Framework API Reference***  
Describes usage syntax of the set of APIs to program connectors and other components of the Intelligent Synchronization Framework (ISF).

- *Integration Services Framework Message Cache Reference*  
Provides detailed descriptions of fields and tables in the Intelligent Synchronization Framework (ISF) Message Cache.
- *Integration Services Framework Script API Reference*  
Describes usage syntax of the Intelligent Synchronization Framework (ISF) script APIs to program the ISF connectors.
- *JavaServer Page Framework for Internet Application API Reference*  
Describes usage syntax for the JavaServer Page Framework for Internet Application (JFN) APIs. These APIs are used to build JSPs using the JFN. This framework provides basic application functions and services as the foundation of user interfaces.
- *Logger Message Reference*  
Provides detailed descriptions of the Self-Service Solutions Platform log messages.
- *QRA API Reference*  
Describes usage syntax for the Query, Reporting, and Analysis (QRA) Engine APIs. These APIs are used to build reports.
- *UTIL API Reference*  
Describes usage syntax for the UTIL package used by different components of the Self-Service Solutions Platform. This package contains a set of utilities including the logger.

Each Self-Service Solutions Application comes with a comprehensive set of documentation covering the installation, configuration, and use of the product. The application documentation expands and complements the Self-Service Solutions Platform documentation.

The documentation set is divided into the following categories:

- **Manuals:** These manuals cover installing and using the application.
- **Reference:** These reference documents contain information about APIs, databases, configuration files, and so on. These documents are delivered in HTML.

## Self-Service Solutions Application Manuals

A full set of these manuals is available for each Self-Service Solutions Application. The documentation set includes the following (in alphabetical order):

- *Business Objects Model Reference*  
Provides a detailed description of the models and entities that make up the Self-Service Solutions Application.
- *Catalog Loader Reference*  
Provides information about the Catalog Loader, including a functional description as well as installation, configuration, and use instructions.
- *Configuration and Development Guide*  
Provides instructions for configuring and developing Self-Service Solutions Application features.
- *Feature Reference*  
Describes the logic and provides use cases for the functional domains of the application.
- *Comverse ONE Installation Guide*  
Provides detailed installation, configuration, and deployment instructions for the Self-Service Solutions Application alongside other elements of the Comverse ONE solution.
- *Installation and Deployment Guide*  
Provides detailed installation, configuration, and deployment instructions for the Self-Service Solutions Application.
- *Introduction*  
Provides a high-level architectural and functional description of the Self-Service Solutions

Application. It covers common features, order management, account management, and bill presentment.

## Self-Service Solutions Application References

A full set of these references is available for each Self-Service Solutions Application. The reference documentation set includes the following (in alphabetical order):

- *API Reference*  
Describes usage syntax for the Self-Service Solutions Application APIs. These APIs are used to program the user interface and manage data.
- *Invoice Schema Reference*  
Describes the invoice schema reference of the Self-Service Solutions Application.
- *Presentation Layer Page Flow Reference*  
Describes the page flows of the Self-Service Solutions Application.
- *Specification Entity Relationship Diagrams*  
Provides diagrams describing the actors, use cases, user activity, and storyboard in IBM Rational Rose format.

## Self-Service Solutions - Separately Licensed Products

Documentation available with optional, separately-licensed premium products in the Comverse Self-Service Solutions is listed below.

## Online Catalog Manager

Online Catalog Manager (OCM) documentation includes the following (in alphabetical order):

- *Introduction to the Online Catalog Manager*  
Provides a high-level architectural and functional description of the Online Catalog Manager.
- *Online Catalog Manager Getting Started Guide*  
Describes the best way to build product catalogs in the Online Catalog Manager. This manual is a template for creating end-user documentation.
- *Online Catalog Manager Installation and Configuration Guide*  
Provides installation and configuration instructions for the Online Catalog Manager.
- *Online Catalog Manager User Documentation Template*  
Describes the use of the Online Catalog Manager. This manual is a template for creating end-user documentation. This manual covers many common concepts and procedures of the OCM.
- *Online Catalog Manager User Guide*  
Provides a detailed description of the concepts and use of the Online Catalog Manager. The topics include:
  - Managing Media Files
  - Managing Offers
  - Managing Prices
  - Managing Products
  - Managing Properties
  - Managing Reference Data
  - Publishing



# Chapter 1

## IBM-AIX Installation Overview

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This chapter provides an overview of the Comverse ONE ME Mediation IBM-AIX installation, including information on:

- An overview of the IBM-AIX installation
- The intended audience for this manual
- Software and hardware configuration requirements
- Information for setting up the file systems, permissions, logins, and passwords
- Configuring the `vfstab` file
- Providing an overview of the Oracle database software installation

**NOTE**

Until the software has been revised, some references to CSG or CSG Systems may remain in this documentation in areas such as Java package names, scripts, log files, and filenames



## Installation Overview

The installation procedures in this book deal with a general installation for a site. Details may vary in the installation process for your site.

### Phases

An application installation involves three phases:

- Installing and configuring the operating system and platform software
- Installing and configuring third-party software, databases, and system files
- Installing the application software

### What is included in a Comverse ONE ME Mediation installation

- Comverse ONE ME Mediation system software:
  - Data Manager
  - Roaming
  - Rating Adapter
  - Rating Server
  - System Manager
- Embedded third-party software that Comverse ONE ME Mediation supports (e.g., *BaseWorX*)
- Third-party software purchased by the customer that the customer supports (e.g., *Oracle*)
- Third-party hardware/software purchased by the customer supported by Comverse

### System Software

Use this installation guide to load the software for Comverse ONE ME Mediation. The installation instructions included in this document are for these software packages:

- *Oracle*
- The application's core features, mediation features, optional features, and interface software

**Table 4** Installation References

References	
→	See the Release Notes accompanying the software for system hardware and software releases certified as compatible with the application software.
→	For any additional information about hardware requirements for your configuration, contact your Comverse, Inc. representative.

## Relationship Between Mediation Products

The Comverse ONE Mediation solution consists of three products: Data Manager, Roaming, and System Manager.

- System Manager is required for all Data Manager and Roaming installations. One SM application can manage one or more DM and Roaming applications.
- SM can be installed standalone or co-resident with a DM or Roaming installation.
- DM must be installed as a base for the Roaming application

- For a host the following configurations are supported:
  - SM only (Chapters 2, 3, 4, 7 & 8)
  - DM only (Chapters 2, 3, 5, 7 & 8)
  - DM with Roam (Chapters 2, 3, 5, 6, 7 & 8)
  - SM and DM (Chapters 2, 3, 4, 5, 7 & 8)
  - SM and DM with Roam (Chapters 2, 3, 4, 5, 6, 7 & 8)

## Audience

This document is designed to be used by personnel designated as system administrators by the customer for the Data Manager, Roaming and System Manager implementation.

The Data Manager, Roaming and System Manager Administrator handles the following tasks in addition to regular *UNIX* administrative practices.

## Responsibilities of Data Manager Administrators

This guide recognizes three distinguishable types of administrators for Data Manager, Roaming and System Manager:

- [System Administrators](#)
- [Application Administrators](#)
- [Oracle Database Administrators](#)

Although the responsibilities are divided between these three types of administrators, it is essential for the administrators to coordinate their activities.

## System Administrators

System Administrators are expected to be familiar with the Comverse Mediation hardware, operating system, the third-party software that interfaces with Comverse Mediation, and any special procedures or conditions that are required in order to install, run, monitor, or maintain Comverse Mediation in their local hardware and software environment.

System Administrators are *not* necessarily expected to be thoroughly familiar with the underlying logic of the Data Manager, System Manager and Roaming components, just with the hardware and software platform.

System Administrators are generally responsible for activities such as:

- Installing new releases of operating system and other third-party software that Data Manager, Roaming and System Manager runs on
- Starting up and shutting down the application or operating system
- Monitoring the operating system, including system performance
- Creating and configuring groups, users, and file systems
- Setting up and managing disk and swap space
- Making Kernel Parameter updates
- Setting up third-party software
- Reviewing error logs
- Backing up and restoring the files
- Troubleshooting system-level process problems
- Administering printers
- Administering network/communication
- Configuring the server
- Partitioning disk drives
- Administering device files
- Scheduling jobs (the cron facility)
- Using vi editor or equivalent
- ksh history mechanism and command line editing
- File system concepts and file manipulation

- File name generation characters
- Setting file permissions
- Understanding of IBM hardware and architecture
- Device addresses and special files
- Resolving IBM workstation and server boot problems
- Support media to repair the root disk and recover unbootable systems
- Using log files on the IBM system
- Resolving problems such as: system panic and hangs, tree structure problems, fixing corrupt file systems, reading data from corrupt file systems
- System upgrade procedures
- Handling patch management
- Job scheduling
- Local volume manager
- Installing and upgrading IBM
- Terminals and modems
- Assigning network addresses and subnetwork masks
- Using TCP/IP network administration commands (**netstat, ping, ifconfig, rwho, ruptime**)
- Using file transfer commands to transfer files between systems
- Using remote login commands to access other systems
- Setting up a Domain Name Service (DNS) name server and resolver
- Setting up Remote File Sharing (RFS) and Network File System (NFS) over TCP/IP
- Using UUCP over TCP/IP
- Handling IP and subnet addressing
- Implementing IP routing
- Understanding dynamic host configuration protocol
- Handling IP address and name resolution
- Understanding internetwork browsing
- Handling host name resolution problems

## Application Administrators

Application Administrators are expected to be thoroughly familiar with the underlying logic of the current Data Manager, System Manager and Roaming components.

Application Administrators are generally responsible for:

- Installing new Data Manager, Roaming and System Manager releases
- Starting up and shutting down the Data Manager, Roaming and System Manager applications
- Monitoring the Data Manager, Roaming and System Manager applications
- Reviewing Data Manager, Roaming and System Manager application error logs
- Troubleshooting Data Manager, Roaming and System Manager application-level problems
- Configuring and maintaining User Managed Tables that support Data Manager, Roaming and System Manager, such as user profiles or the job function
- Security Server installation, troubleshooting and upgrades
- Troubleshooting routine Data Manager, Roaming and System Manager end-user problems
- Upgrading Data Manager, Roaming and System Manager databases

They should understand topics such as:

- Tasks performed from the GUI
- Details of workflows, including job functions for manual tasks

## Oracle Database Administrators

Oracle Administrators are expected to be thoroughly familiar with any special procedures or conditions that are required in order to install, run, monitor, or maintain the database for the Comverse ONE ME Mediation application.

# Software Configuration Requirements

## Operating System

Comverse ONE ME Mediation requires the *IBM-AIX 5.3 Operating System* with any release, at any patch level.



### NOTE

It is up to the customer to update and maintain the latest patches for the *IBM-AIX 5.3 Operating System*.

Comverse ONE ME only works with 64-bit operating system. We recommend that a IBM-AIX representative perform the *IBM-AIX 5.3 Operating System* installation because IBM-AIX has a standard configuration procedure for installing the Comverse ONE ME Mediation system.

## BaseWorX

When loading the BaseWorX package, the load procedure requires that you enter a path name for the directory where the BaseWorX software will be loaded.

The BaseWorX software uses about 12M of disk space, so it can be put into its own file system (25M), or it can be included the `/app1` file system (recommended) with other Data Manager, Roaming and System Manager software packages (4G). The file system should not be on the same disk as the OS.

## Directory Structure and Size Requirements

The typical directory names and size requirements are:

**Table 5** Directory Structure and Size Requirements

Directory Name	Info stored within	Min. Size	Owner	Group	Perm
ORACLE_HOME	Oracle software	3 GB	The owner, group and permissions for the ORACLE_HOME directory are at the discretion of the Oracle Database Administrator. See the Oracle Configuration section below for details		
/appl	BaseWorX Correlation Memory Manager Comverse ONE ME Mediation	4 GB	appadm	appgrp	775
/data	Comverse ONE ME Mediation data files	4 GB	appadm	appgrp	775
/logs	Comverse ONE ME Mediation log files	2 GB	appadm	appgrp	775
/CMMdb	Correlation Memory Manager Database	2 GB	appadm	appgrp	775
/realtime	Real time	10 MB	appadm	appgrp	775
/archive*	Archive creation information	4 GB**	appadm	appgrp	775
/archiver*	Archive recovery information	4 GB**	appadm	appgrp	775
/billing01; /billing02; etc.	Billing data directory — There may be several of these directories depending on the size of the billing system.	4 GB	appadm	appgrp	775



### NOTE

The file system names can be changed to whatever you want, as long as the mountpoint length is 25 characters or less.



### NOTE

\* The /archive and /archiver directories can be combined into one generic /archive file system if you don't want to create and recover archives at the same time.



### NOTE

\*\* Since these directories are rarely used, you can make the size of these directories the size of the smallest file system you want to create.

## Oracle Configuration

The Oracle system requires a lot of setup and configuration to work smoothly with the Converse ONE ME Mediation application.

- A database administrator group, `dba` must be created.
- An `oracle` user ID must be created.
- Space for the Oracle software must be reserved, a minimum of 3 GB of disk space.
- These file systems tablespaces for database data must be created, and owned by the user “`oracle`”, group “`dba`”:
  - System information — for Oracle’s internal use, a minimum of 1 GB.
  - Application configuration data — a minimum of 500 MB. Completely empty, the configuration space consumes 19 MB.
  - Application source data — a minimum of 1 GB. This data is frequently accessed and requires the most room for growth.
  - Application destination data — a minimum of 100 MB. This space is used for the queue of primary data to destinations, and is accessed frequently, but normally does not grow and require additional space.
  - Application customer defined statistics (if required) — The size of this space is determined by the customer.
  - Application table storage—A minimum of three tables are needed with a minimum of 1 GB of disk space. This data is frequently accessed and requires room for growth (for Roaming only).
  - Application index storage—A minimum of three tables are needed with a minimum of 1 GB of disk space. This data is frequently accessed and requires room for growth (for Roaming only).
  - Application data storage for Rating Server—Requires a minimum of 50 MB. This data is frequently accessed and requires room for growth (for Roaming only).
  - Application index storage for Rating Server—Requires a minimum of 50 MB. This data is frequently accessed and requires room for growth (for Roaming only).
  - Oracle control files — Oracle recommends the data be kept on three separate file systems so the system is not affected if one is lost. Each control file is approximately 2 MB.
  - Oracle redo logs — Logs are written to in a round-robin cycle. Ideally, the logs do not contend with other disk access, for performance reasons. Each log file should be at least 10 MB. There should be four log groups, with two files each, for redundancy. Larger log sizes will result in fewer checkpoints while operating, and better performance; however, there is a longer startup time after a system failure.



### CAUTION

These file systems/tablespaces can be combined, but be aware of the performance issues due to contention for the same file system and disk devices. For demo and lab systems, the sizes can be reduced and combined into one file system/tablespace. A complete installation of the application with no data requires 310 MB for database space.

## Roaming System Application (/appl)

The Converse ONE ME Mediation application software executables and configuration files are installed in the `/appl` file system (4 GB).

## /data

The downloaded application software and the application data files are installed in the `/data` file system. The `/data` is also used for the application working files. This file system should be a minimum of 4 GB in size.

## /logs

The path of the application's log files is required when Comverse ONE ME Mediation is installed. The default is `/var/spool/BDDM`, but if the customer wants the application log files separated from the operating system, then it can be put into the `/logs` file system (2 GB).

## Correlation Memory Manager (/CMMdb)

The *Correlation Memory Manager* (CMM) is a part of the correlation package (*LUbdcorr*).

The CMM software's file system is used to store correlation data. The size of this file system depends on the correlation needs of the customer. This file system should not be on the same disk as the operating system.

## Real-Time Transmission (/realtime)

The Comverse ONE ME Mediation application can use `/realtime`, and this file system is required for the system configuration. The file system size can be small (10 MB).

## Archive (/archivec and /archiver)

When loading the *LUbdtparc* package, the system asks for the name of the archive creation and archive recovery directories. Archive creation uses the `/archivec` file system and archive restoration uses the `/archiver` file system.

The `/archivec` and `/archiver` directories can be combined into one generic `/archive` file system if you don't want to create and recover archives at the same time.

We recommended that these file systems be the same size as the storage capacity of a single DAT tape (about 4 GB). These file systems are rarely used and usually do not contain system recovery data.

## In-Core File System

Also, for all system types, this procedure is optional, to improve the performance of transmission sessions. The size of the file system limits the size of the files being sent; obviously, they can't exceed the size of the file system, and if multiple sessions are using the file system concurrently, then the combined size of their files can't exceed the size of the file system. It's best used when transmissions send smaller files; destinations which are sent large files should use a standard file system.



This procedure would have to be done whenever the system is rebooted, before the application is started.

If an in-core file system is used, the system administrator must create a script that is executed whenever the system is rebooted to re-create and mount the file system. Consult the IBM documentation for more information.



To set up an in-core file system:

1. Make the `/billtmp` directory mountpoint
2. Make a 2G ram disk by typing: `/usr/sbin/mkramdisk -u 2G`
3. Get the newly created ramdisk device name by typing the following (for example):  
`ls -l /dev | grep ram`
4. Create a file system on the ramdisk device by typing the following (for example):  
`mkfs -V jfs /dev/ramdiskx` (where `/dev/ramdiskx` is the new ramdisk device from step 3)
5. Mount the file system by typing the following (for example):  
`mount -V jfs -o nointegrity /dev/ramdiskx /billtmp`  
Change ownership and permission on `/billtmp` by typing:
  - ❑ `chown appadm:appgrp /billtmp`
  - ❑ `chmod 775 /billtmp`

## Data Storage (/billing01, /billing02, etc.)

The amount of data storage depends on how much data the customer wants to maintain on the application. The customer determines the size and naming of the data storage file systems.

If the customer does not have preferences for the file system naming, use `/billingX` (where X is a number from 00 or 01 to however many file systems are required).

The minimum size of each file system must be 4 GB or larger. The data storage file systems must be on their own disks, separate from the operating system and the application.

## Install the Oracle Software and Patches

The Comverse ONE ME Mediation software uses the Oracle 64-bit server.

The customer is responsible for installing and configuring the Oracle software and patches. If you need additional information, contact TSS according to the terms outlined in your maintenance contract. They will help connect you to the appropriate resources to help resolve your problem.

Here are some guidelines about the roles and responsibilities with Oracle in respect to Comverse ONE ME Mediation installations:

- Customer pays maintenance to Oracle.
- Customer must provide an Oracle release based on the requirement of a specific Comverse ONE ME Mediation release.
- Oracle software is not distributed with the application software in this scenario.
- Oracle utilities control the installation of the Oracle software.
- Oracle software must be installed, configured and running before installing the applications.
- The customer is not required to install the Oracle software. Comverse consultants and/or TSS personnel can install the Oracle software, if desired.
- Application installation procedures provide basic guidelines on how to install Oracle relative to the Comverse ONE ME Mediation applications.
- Application installation scripts create all of the tables required by the application.
- The customer is not required to create tables for the application through Oracle admin tools.
- The customer must provide the Oracle software, or the installation of the application cannot proceed.
- Comverse will work only Oracle problems related to how Oracle is used with the application.
- Comverse will not work issues with the customer's custom implementations within Oracle.

## Set Up the Oracle Database

Before setting up the Oracle database, you must verify that you have:

- Created the Oracle database, see for details.
- Created the tablespaces for Oracle, see for details.

The following database parameters must be set upon database installation, and need to be set to the exact values listed in this table. If they are not set at that time, they can be set by editing the `init<SID>.ora` (e.g., `initdmdb.ora`) file. This file is located in `$ORACLE_HOME/dbs`.

If any values are changed in this file, you must stop the database and start it using the command `SQL> startup pfile=init<SID>.ora` (e.g., `SQL> startup pfile = initdmdb.ora`)

**Table 6** NLS parameters for Oracle

Parameter	Value	Comments
<code>nls_date_format:</code>	YYYY-MM-DD HH24:MI:SS	
<code>nls_timestamp_format:</code>	YYYY-MM-DD HH24:MI:SS.FF	
<code>optimizer_index_caching:</code>	90	
<code>optimizer_index_cost_adj:</code>	30	
<code>optimizer_mode:</code>	CHOOSE	
<code>os_authent_prefix:</code>	<Leave Blank> (Use two single quotes, e.g., ' ')	The default value is <code>ops\$</code> This parameter is only required to be set if using OS authentication. If using password authentication, these do not need to be set, or can be set to meet the customer's needs
<code>remote_os_authent:</code>	TRUE	This parameter is only required to be set if using OS authentication. If using password authentication, these do not need to be set, or can be set to meet the customer's needs

Parameter	Value	Comments
cursor_sharing	EXACT	<p>Setting CURSOR_SHARING to EXACT allows SQL statements to share the SQL area only when their texts match exactly. This is the default behavior. Using this setting, similar statements cannot be shared; only textually exact statements can be shared.</p> <p>Setting CURSOR_SHARING to either SIMILAR or FORCE allows similar statements to share SQL. The difference between SIMILAR and FORCE is that SIMILAR forces similar statements to share the SQL area without deteriorating execution plans. Setting CURSOR_SHARING to FORCE forces similar statements to share the executable SQL area, potentially deteriorating execution plans. Hence, FORCE should be used as a last resort, when the risk of suboptimal plans is outweighed by the improvements in cursor sharing.</p>

## Client Requirements and Settings

### Browser Requirements and Settings

- Use *Microsoft Internet Explorer 7.0*.
- Set the browser to check for newer versions automatically, go **Tools ==> Internet Options ->Temporary Internet files --> Settings** and click the **Automatically** radio button in the in the Check for newer versions of stored pages fields.
- Adjust the Amount of disk space to use by going **Tools ==> Internet Options -->Temporary Internet files --> Settings** and adjust the amount of disk space to be between 50 and 128 MB.
- Disable script debugging by selecting **Tools--> Internet Options** and click the **Advanced** tab. Under Browsing check the Disable script debugging checkbox.
- Java Virtual Machine (JVM) must be installed, either SUN JVM (recommended) or Microsoft JVM.

### Setup Java Virtual Machine

- Enable the SUN JVM by selecting **Tools--> Internet Options** and click the **Advanced** tab. Under **Java (SUN)**, check the *Use JRE x.x.x for <applet>*

### Client Performance

One of the advantages of using this application is the flexibility in configuring the various packages and features that the application supports. This support includes flexibility when setting up the hardware to support these configurations.

### GUI Access Minimum Requirements

- PC: Processor speed at least 700 Mhz (Faster than 1 Ghz preferred)
- RAM: 1 GB preferred
- Network speed faster than 700 kbps

### Other GUI Performance Improvement Suggestions

- Close all other applications while running the application
- Disable script debugging tools by going to **Tools --> Internet Options --> Advanced --> Disable script debugging**
- Turn off all application-level debugging
- Defragment the hard drive at least once each month

## Using a NT Server to Speed up Remote Access

To improve the overall speed of the BBGUI with a POTS (Plain Old Telephone Service) dial-up, use an NT server that is located inside your network. Many database transactions that take place between the system and the user's PC are fairly time consuming. This is magnified dramatically if the link speed is low (for example dialup or multiple router hops in network).

If you use an NT server co-located within the system's network, the two-way database traffic that normally occurs between the dial-in PC and the UNIX system (through POTS) would be done using the local LAN. Using a remote desktop connection, you can export the display from the NT server to the end-user, and this vastly improves the BBGUI speed.

Some functions run faster on a standard dial-up connection. For example, if you have a window that loads a selection list onto your PC, after it finally loads it, the scrolling on that window runs very fast. Ultimately, it still runs faster on the NT server because you do not have to wait for the whole selection list to load.

This setup can help speed up the BBGUI if you are using DSL or VPN, and can help reduce the speed degradation caused by Router Hops between the system and the user PC.



### NOTE

This assumes that you have a NT server within your network that has access to the system. If this is not the case, you will need to work with your system administrators to configure this.

To configure your NT server to speed up remote access:

1. Verify that the browser has been configured according to the requirements listed in the "Client Requirements and Settings" (1-16) section.
2. If you do not have XP, you can download the Remote Desktop Protocol client software package from Microsoft for Windows 95, 98 & 2000)  
<http://www.microsoft.com/windowsxp/pro/downloads/rdclientdl.asp>
3. Access your network by dialing in or starting VPN.
4. Start the Remote Desktop Connection software., by selecting **Start --> Programs --> Accessories --> Communications --> Remote Desktop Connection.**
5. Enter the name of the NT server that you want to connect to (for example colcitrix01) then click **Connect.**
6. Log in to the system using your local log in procedures.  
At this point, you can connect to any system in the office.

## Application Pre-Installation

The pre-install checklist is a list of tasks that need to be completed before any installation tasks can begin.

1. You need to know the following information:

- The “root” login and password
- The “oracle” login and password
- Node name for the system
- Host ID for the machine type

You also need to know the following encrypted passwords for DM and SM:

- All DM encrypted passwords in the SM \$FOC\_ROOT
- The DM encrypted password in the DM \$FOC\_ROOT to which it applies
- The SM encrypted password in all DM \$FOC\_ROOT
- The SM encrypted password in the SM \$FOC\_ROOT

2. You need to know the full path names and sizes for *Oracle*.
3. You need a copy of the software to be installed. This can be in a CD or FTP format. The software files are usually in a tar format.

Uncompress the tar file. For example, type:

```
uncompress IBM.CSdmCORE100.tar.Z  
tar xvf IBM.CSdmCORE100.tar
```

Make sure that this is in a file system with a lot of space. This creates the directories and places the designated files in them that are ready to be installed.

4. Create a database administrator user for Converse ONE ME Mediation (for example: **dm11adm**), and tablespaces for the following information:
  - Configuration data (**DMDB\_CONFIG\_DATA**)
  - Destination data (**DMDB\_DESTIN\_DATA**)
  - Source data (**DMDB\_SOURCE\_DATA**)
  - Cstats data (**DMDB\_CSTATS\_DATA**)
5. If System Manager is to be installed on this host, you will need to create a System Manager administrator user (for example **sm11adm**), and the following tablespaces:
  - Administrator data (**SM11ADM\_DATA**)
  - Administrator index (**SM11ADM\_INDEX**)

## Application Pre-Installation — Check File Systems and Permissions

To check the logins and passwords:

1. Verify that the owner, groups and permissions for the file systems listed in the [Directory Structure and Size Requirements](#).
2. Check the groups by typing `cat /etc/group`.
3. Check the users by typing `cat /etc/passwd`.

### NFS Access

If any file system used by the Converse ONE ME Mediation application is accessed via NFS, permission for `root` to write to the file system and to create set-user ID files must be granted. Contact the administrator of the NFS server system to have this done.



## General Installation Overview

This overview provides generalized steps for each portion of the installation process.

### IBM Server staging

Use this general task process to stage the *IBM* server, if needed.

1. Install hardware
2. Install the *IBM AIX 5.3 TL03* 64-bit operating system software with the following patches  
*PTF U806125 xIC.aix50.rte.8.0.0.0*  
*PTF U806129 xIC.rte.8.0.0.0*  
*PTF U806127 xIC.msg.en\_US.rte.8.0.0.0*
3. Install any OS or hardware patches (if applicable)
4. Verify that the AIX fileset `bos.svpkg` is installed with the OS



#### NOTE

This is an optional package that is not installed by default, but is required to install the Comverse ONE ME software.

5. Create the UNIX OS user logins.

### System Manager application installation

The System Manager application installation is performed as follows:

1. Install System Manager application software.

### Data Manager Application installation

The Comverse ONE ME application installation is performed as follows:

1. Install any Data Manager application-related software.
2. Install the Data Manager base application packages.
3. Install the Data Manager core application packages.

### Roaming Application Installation

1. Install the Rating Server application.
2. Install the Rating Server Adapter.

### Parameters needed for installation

Before the installation, you need the parameter information for the system.

#### Example

- Hostname: **hostname**
- IP Address: **123.456.78.9**

## Variables

- *hostname* = The host name of the IP address associated with the machine.



# Chapter 2

## Installing Third-Party Software Interfaces

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This chapter describes the Comverse ONE ME Mediation IBM-AIX installation operating system, database and platform software information, including information on:

- Uncompressing the software packages
- Using the **pkgadd** command
- Installing the *CSGSdmora* software package
- Installing *BaseWorX* software

## Uncompressing Software Packages

To make the installation process easier, the software packages are uncompressed in directory (with at least a 4G capacity, typically the `/data/DM11software` directory).

You have the option of naming these directories whatever you want. However the documentation in this guide assumes that you have uncompressed these packages using this directory structure.

1. Create directories for the Comverse ONE ME Mediation software:

```
mkdir /data/<product_name_release>
mkdir /data/<product_name_release>/3p
mkdir /data/<product_name_release>/base
mkdir /data/<product_name_release>/core
```

This is an example of how these directories would be set up for Data Manager:

```
mkdir /data/DM11software
mkdir /data/DM11software/3p
mkdir /data/DM11software/base101s
mkdir /data/DM11software/core11
```



### NOTE

When untaring a file, it is best to make sure that you create a separate directory for each tar file. For example:

```
mkdir /data/DM11software/3p/JAKARTA;
mkdir /data/DM11software/3p/APACHE;
mkdir /data/DM11software/3p/ODBC;
mkdir /data/DM11software/3p/OPENSSL;
mkdir /data/DM11software/3p/NETSNMP
mkdir /data/DM11software/3p/BIRT
```

2. Copy the software from its distribution source to the `mkdir /data/<product_name_release>` directory.
3. Extract the files from the compressed archived files in the `/data/DM11software` directory.

If the file name extension is `.tar.Z`, use the following command to extract the files:

```
zcat <filename> | tar xvf -
```

For example, type the following to extract the Python files from this `.tar.Z` package:

```
zcat PYTHON2.3.5_mxBase2.0.6_pyXML0.8.4_AIX5.3_64BIT.tar.Z | tar xvf -
```

If the file name extension is just `.tar`, use the following command to extract the file:

```
tar cvf <filename>
```

For example, type the following to extract the Python files from this `.tar` package:

```
tar cvf PYTHON2.3.5_mxBase2.0.6_pyXML0.8.4_AIX5.3_64BIT.tar.
```

4. As you extract the files, move the files to the appropriate directory or subdirectory. You can determine which directory or subdirectory by the file name.

For example: If the file name has `3p` in it, move the file to the `3p` subdirectory. If the file name has `CORE11` in it, move the file to the `core11` subdirectory. If the file name has `base` in it, move the file to the `base` subdirectory. If the file name has `RATING SERVER, RS, RATING ADAPTER, KRA, perl, python`, or other rating server indicators in the file name, move that file to the `/appl/RS` directory.

**NOTE**

As you move the files to the appropriate directories and subdirectories, check for new compressed archive files.

Compressed archive files may have been nested in the archive files that you just uncompressed. If you find any, extract them and check for new compressed archive files.



## The pkgadd Command

The Data Manager, Roaming and System Manager application software is delivered on one or more CD-ROMs or via FTP format in *UNIX tar* package format.

The **pkgadd** command installs the Data Manager, Roaming and System Manager application software and optional third-party software.

The **pkgadd** command copies files from the installation media to a local system's disk. The **pkgadd** command also stores information about a product that has been installed in a software product database.

Example: **pkgadd -d /data/<software\_name\_release>/packageCmMora**



### NOTE

The default basedir for the Converse ONE ME Mediation packages is **/app1**. If you choose to install them elsewhere and **/app1** does not exist, it will be created automatically. To prevent this, specify the new basedir in an admin file and install the Converse ONE ME Mediation packages with the command:

```
pkgadd -d <download directory> -a  
<admin file name> <package name>
```

## Install the *BaseWorX* Software (CSGSbswx)

This procedure assumes that the *BaseWorX* (CSGSbswx) software has been uncompressed, tarred, and copied to the drive where it will reside.

To install the *BaseWorX* software:

1. Log into the system as **root**.
2. Move to the directory with the unpacked software.
3. Type **pkgadd -d . CSGSbswx** to begin installing the package.
4. Enter **/app1** when prompted for a directory.
5. Enter **Y** for the question: Do you want to continue? [Y].  
Installation of BaseWorX was successful.
6. To verify the *CSGSbswx* installation, type: **pkginfo -l CSGSbswx**.  
The STATUS line should display: Completely installed

## Installing the Comverse Platform Package (CSGSpltfm)

To install the *CSGSpltfm* package:

1. Type **cd /data/downloads**

Locate the directory where the package add (*pkgadd*) files are and type: **pkgadd -d . CSGSpltfm**

The system displays: Enter the path for the Application executables/files (default: /appl/KDM) [?]

2. Enter the path or press [ENTER] for the default value.

The system displays: Do you want to continue with the installation of this package [yes,no,help]

3. Type **y**.

The system displays a series of installation messages ending with: Installation of Comverse(R) Data Mediation - Platform Support Programs (CSGSpltfm) was successful.

## Install the Oracle Interface Package (CSGSdmora)

Install the *CSGSdmora* package to finish the *Oracle* installation.

To install the *CSGSdmora* package:



### CAUTION

Verify that the Oracle database is configured as described in the "Set Up the Oracle Database" (1–16) procedure before continuing with the installation of this package.

1. Log in to the system as `root`.
2. Move to the directory with the unpacked software.
3. Type `pkgadd -d . CSGSdmora` to begin installing the package.

```
The system displays: Comverse(R) Data Mediation - Oracle Configuration
(ibm64) 11.0
```

```
Copyright (c) 2008 Comverse
All Rights Reserved
```

```
Should the database server be started on system boot? (default=yes)
```

4. Type `n`



### NOTE

The Oracle Administrator should control when Oracle is started and stopped.

If the Oracle database software is installed on the same system as the Comverse ONE ME Mediation software, and you wish to install a script to start up the Oracle database whenever the system is rebooted, enter [Y] here.

```
The system displays: Enter the directory containing the Oracle software
(default: /app/oracle/product/10.2.0.1) [?]
```

5. Enter the path to where the Oracle software was installed

```
The system displays: Is the Data Mediation system and/or the Roaming system
being installed? (default = yes)
```

6. Type `y` or press [ENTER].

```
The system displays: Enter the name for the Data Mediation Oracle database
SID (default: dmdb) [?]
```

7. Enter the Oracle SID, typically the default value: `dmdb`.

```
The system displays: Enter the unix login name of the Application Group
Administrator (default: appadm) [?]
```

8. Enter the login to be used for the application administrator, typically: `appadm`.

```
The system displays: Enter the Data Mediation database login to be used by
the Data Mediation application (default: appadm) [?]
```

9. Enter the DM database login used by the application or press [ENTER] to use the default value.

```
The system displays: Enter the database login to be used for System Manager
access (default: sm_access) [?]
```

10. Enter the DM database login to be used for System Manager or press [ENTER] to use the default value.  
The system displays: Enter the System Manager database login to be used for Data Mediation access (default: dm\_access) [?]
11. Enter the SM database login for DM or press [ENTER] to use the default value.  
The system displays: Is the System Manager being installed? (default = no) [y,n,?]

**NOTE**

System Manager is required for installing the Roaming application.

12. Enter **y** or **n** depending on if System Manager will be installed on this host.  
The system displays: Enter the unix login name of the System Manager Applications Group Administrator (default: smadm) [?]
13. Enter the unix login name for the SM Oracle Applications Group Administrator or press [ENTER] to use the default value.  
The system displays: Enter the name for the System Manager Oracle database SID (default: dmdb) [?]
14. Enter the name for the SM Oracle database SID or press [ENTER] to use the default value.  
The system displays: Enter the System Manager database login to be used by the System Manager application for database access (default: smadm)
15. Enter the System Manager database access login or press [ENTER] to use the default value.  
The system displays: Enter the tablespace for the Data Mediation application's configuration data (default: DMDB\_CONFIG\_DATA) [?]
16. Enter the table space for DM's application configuration data or press [ENTER] to use the default value.  
The system displays: Enter the tablespace for the Data Mediation application's source data (default: DMDB\_SOURCE\_DATA) [?]
17. Enter the table space for DM's application source data or press [ENTER] to use the default value.  
The system displays: Enter the tablespace for the Data Mediation application's destination data (default: DMDB\_DESTIN\_DATA) [?]
18. Enter the table space for DM's application destination data or press [ENTER] to use the default value.  
The system displays: Have you created a tablespace for Customer Defined statistics? (default = no)
19. Enter **y**.  
The system displays: Enter the tablespace for the Customer Defined Statistics database (default: DMDB\_CSTATS\_DATA) [?]
20. Enter the table space for the Customer Defined Statistics database or press [ENTER] to use the default value.  
The system displays: Enter the tablespace for the System Manager application's configuration data (default: DMDB\_CONFIG\_DATA) [?]  
SMADM\_DATA
21. Enter the table space for the SM configuration data or press [ENTER] to use the default value.

The system displays a series of installation messages that end with the following prompt: Do you want to continue with the installation of this package [yes,no,help]

22. Enter **y**.

The system displays a series of installation messages that end with the following message: Installation of Converse(R) Data Mediation - Oracle Configuration(CSGSdmora) was successful.

## Configuring the Oracle Interface (CSGSdmora)

The application's access to the Oracle database must be configured, with database user IDs, passwords, and access to the specified tablespaces.



### NOTE

If the database user has already been created, the *RUN\_DBA* script should not be run.

This can be accomplished in one of the following two ways:

1. Run the *FOC\_ROOT/bin/RUN\_DBA* script as the application administrator (where *FOC\_ROOT* is the installation path specified when installing the package, or */appl/KDM* by default). The script prompts for the Oracle SYS user password and passwords to be used by the application DB users, creates the DB users, grants access to the specified tablespaces, and stores the encrypted user passwords for application use. Use this option if the database administrator does not create the users, and you are given the Oracle SYS user password.

OR



### CAUTION

The Converse ONE ME Mediation user has an environment defined for it that may not be what other applications need. Be careful if using this login to administer other applications.

2. If the Oracle Database Administrator has already created the database user and granted them access to the spaces, complete the following tasks:

- Navigate to the **FOC\_ROOT**.
- Run the following command as the application administrator to store the user password for application access by typing: **LD\_LIBRARY\_PATH\_64=<FOC\_ROOT>.. /MEora/lib:\$LD\_LIBRARY\_PATH\_64 <FOC\_ROOT>.. /MEora/bin/makepwe \$HOME/.<DMDBUSER>pwe**

Replace the *<FOC\_ROOT>* with the package installation path, and *DMDBUSER* with the database user ID entered when installing the package. You will be prompted for the password twice:

Enter password (must be less than 31 characters)

Reenter (for verification):

HOME/.DMDBUSERpwe made.

- For System Manager, run the following command: **LD\_LIBRARY\_PATH\_64=<FOC\_ROOT>.. /MEora/lib:\$LD\_LIBRARY\_PATH\_64 <FOC\_ROOT>.. /MEora/bin/makepwe \$HOME/.<SMDBUSER>pwe**