

CA Business Service Insight

Installation Guide

8.2



This Documentation, which includes embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by CA at any time.

This Documentation may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of CA. This Documentation is confidential and proprietary information of CA and may not be disclosed by you or used for any purpose other than as may be permitted in (i) a separate agreement between you and CA governing your use of the CA software to which the Documentation relates; or (ii) a separate confidentiality agreement between you and CA.

Notwithstanding the foregoing, if you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all CA copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to CA that all copies and partial copies of the Documentation have been returned to CA or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is CA.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2012 CA. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At <http://ca.com/support>, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at <http://ca.com/docs>.

Contents

Chapter 1: Introduction 9

Target Audience	9
Package Contents	9

Chapter 2: Prerequisites 11

Backup	11
Server Software Prerequisites	11
Database Server Prerequisites	11
Application Server Prerequisites	14
Web Server Prerequisites	16
Hardware Prerequisites	20
Client Software Prerequisites	21

Chapter 3: Typical Installation From Scratch 25

Before You Begin	25
3rdPartyCD	26
Stop Services	26
Installation and Regional Settings	26
Installing on more than one server	27
Create a New Database Manually	29
Installation Dialog Boxes	30
Typical Installation Windows	31
Server Installation - Typical	32
Number of Servers (Topology)	33
64-bit Server Limitation	35
Install CA Business Service Insight Servers	37
Client Installation - Typical	41
Components	41
Install the CA Business Service Insight Client	42
Post Installation Activities (from-Scratch)	43
Select Language	49
SMILoader	49

Chapter 4: Upgrade from Previous Versions 51

Before You Begin	52
------------------------	----

Database Job Reorganization	55
Stop Services	56
Installation and Regional Settings	56
Upgrade to CA Business Service Insight	57
Upgrade Dialog Boxes and Configurations.....	59
Time Zone Tool.....	61
Post-Installation Activities (from Upgrade)	62
Upgrade Log Files	64

Chapter 5: Update Password Utility **64**

Chapter 6: Custom Installation **67**

Custom Installation Dialog Boxes	69
--	----

Chapter 7: High Availability **73**

Overview	73
Database Server	74
Application Server	74
Web Server	75
Installation from Scratch	75
Prerequisites	76
Application Server Installation	76
Web Server Installation	76
Adapter Server Installation	77
Configuration	77
Upgrade from Previous Versions.....	81
Application Server Upgrade	82
Upgrade the Web Servers	82
Adapter Servers Upgrade	83
Configure the Servers.....	83
Additional Information.....	88
Configurable Parameters For High Availability	88
Known Issues.....	89

Chapter 8: Silent Installation **91**

Installation and Regional Settings	92
Server Silent Installation	92
Record the Server Answer File	93
Change the Company Name	95
Change the Directory	95

Change Features	96
Change a User Name and Password	96
Change Database Parameters	97
Change the Reboot Options	98
Run the Server Installation in Silent Mode	98
Post Installation Activities	98
Application Server Silent Installation (Upgrade)	100
Record the Server Answer File	100
Run Migration	101
Change the Server Name	102
Change the Schema User Name	102
Change the Schema Password	102
Change the System Password	102
Change the User Name	103
Change the Password	103
Client Silent Installation	103
Recording the Client Answer File	104
Change the Destination Path	105
Run the Client Installation in Silent Mode	105

Chapter 9: Required Post Installation Activity 107

1-Tier Installations	107
Multi-Tier Installations	108
Server contains both App and Web Components	108
APP and WEB Components are Separate and Installed on Different Servers	109
3-Tier Installations: Advanced Settings	110
MSMQ Configuration	110
ACE2 Configuration	111
Dashboard: Addresses	112
Dashboard: Current Status	112
Registry Keys	113
Select Language	113

Appendix A: MS Word Add-in 115

Installing the MS Word Add-in	115
-------------------------------------	-----

Appendix B: Important Information for Windows 2008 Server R2 117

Installation and Regional Settings	117
Prerequisites	117
Install and Configure Internet Information Services (IIS)	118

Appendix C: Installing CA Business Service Insight Database on Linux Servers	119
Linux Installation	119
Download Media to DB Server	119
TNSNames Setup	119
Setup	120
Install Sub-script fix	120
Installation	121
 Appendix D: Ports and Protocols	 123
Architecture	124
Communications Details	126
ACE2 & Oblisync	129
Additional Communications (Optional)	129
 Appendix E: Temporary-Uninstall	 131
 Appendix F: The CA Technologies Naming Conventions Policy for Database Objects	 133
 Index	 139

Chapter 1: Introduction

This guide provides instructions for installing CA Business Service Insight from scratch or as an upgrade.

This section contains the following topics:

[Target Audience](#) (see page 9)

[Package Contents](#) (see page 9)

Target Audience

This guide is intended for people who are installing or upgrading CA Business Service Insight.

Package Contents

Verify that you have all the required folders as listed in this table before you install CA Business Service Insight.

Folder Name	Description
Server	Server installation folder.
Client	Client installation folder.
Prerequisites	Folder containing files required before installing or upgrading to CA Business Service Insight.
Setup database	Folder containing files for the installation or upgrade of CA Business Service Insight database instance, and other database tools. Refer to the Setup folder.
Silent	Folder containing the examples of silent installation answer files.

Chapter 2: Prerequisites

This section lists the prerequisites for CA Business Service Insight servers and client computers. All prerequisites must be met before you attempt to install CA Business Service Insight.

This section contains the following topics:

[Backup](#) (see page 11)

[Server Software Prerequisites](#) (see page 11)

[Hardware Prerequisites](#) (see page 20)

[Client Software Prerequisites](#) (see page 21)

Backup

In order to be able to revert to your original system, CA recommends performing backups to the Database, Application, and Web servers.

The purpose of the backups is to enable you to revert to your original system, quickly and safely, in the unlikely event of an installation issue.

Backing up

1. Backup your server (Database, Application, or Web) before you start any CA Business Service Insight Server prerequisite installation.
2. Backup your server (Database, Application, or Web) before you start the installation of the CA Business Service Insight Database, Application, or Web features and after you have completed the prerequisite installations.

Server Software Prerequisites

The following sections list the software prerequisites for the database, application and web servers. Verify that all servers meet all prerequisites.

Database Server Prerequisites

RDBMS Vendor/ Database	Database Version/ Edition	Database Software Version	Platform	Character Set
Oracle				

Oracle 10 Standard, Enterprise, or RAC	10.2.0.5	Oracle certified operating system	AL32UTF8 WE8MSWIN1252
Oracle 11 Standard, Enterprise, or RAC	11.1.0.7	Oracle certified operating system	AL32UTF8 WE8MSWIN1252
Oracle 11 Standard, Enterprise, or RAC	11.2.0.3	Oracle certified operating system	AL32UTF8 WE8MSWIN1252

The minimum required database, version, character set, server prerequisites are listed in the table on this page.

The database installation scripts were tested on the following platforms:

- Microsoft Windows 2003 (32-bit and 64-bit).
- Microsoft Windows 2008 (32-bit and 64-bit).
- Microsoft Windows 2008 R2 Enterprise edition SP1 (64-bit).
- Unix-Sun Solaris 10.5.
- Linux

**** Note:** Tested on Microsoft Windows 2003 only.

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Notes:

- Before you install CA Business Service Insight, ensure that the Oracle server, Oracle client and the database connection configuration components such as TNSnames.ora, listener.ora, are installed and configured correctly. Then establish a connection to the database using OLEDB and verify that the listener is configured to recognize the instance you are creating.
 - TNSnames.ora must be present on all CA Business Service Insight servers
 - Listener.ora must be present on the CA Business Service Insight DB server.
- Install the Oracle client for Windows, 32-bit, even when the server (specifically, the OS of the machine on which the database instance resides) is 64-bit.

Note: For new databases you can select AL32UTF8 or WE8MSWIN1252. We highly recommend using the AL32UTF8 character set as AL32UTF8 enables you to store non western European characters. AL32UTF8 requires more space

Note: Installing the database on other platforms sometimes requires adjustments in the scripts.

Additional Database Server Prerequisites

Your database server must have at least 10 GB of free space available before beginning the installation process.

Important: The database server must have sufficient free space available to complete the installation and fully install the database.

For more information about Oracle supported platforms, see Oracle online documentation at <http://www.oracle.com/technology/documentation/index.html>.

Application Server Prerequisites

Operating System

The supported operating system platforms to host the application server are listed in the table on this page.

OS Platform	OS Version	Patch Level	OS Language Pack
Microsoft	Windows 2003 Standard or Enterprise edition	SP2	According to the requested regional setting
	Windows 2008 Standard or Enterprise edition	SP2	According to the requested regional setting
	Windows 2008 R2 Enterprise edition	SP1	According to the requested regional setting

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Notes:

- For Windows 2003 Standard or Windows Enterprise edition SP2, CA Business Service Insight supports the 32-bit version.
- For Windows 2008 Standard or Windows Enterprise edition SP2, CA Business Service Insight supports the 32-bit and 64-bit versions (*except for single tier installations*).
- For Windows 2008 Enterprise edition R2 SP1; CA Business Service Insight supports the 64-bit version (*except for single tier installations*).
- This product is IP Version 6.0 tolerant.
- Time-synchronize the Application and web servers when installing on three or more servers.
- Microsoft .NET Framework 3.5 SP1 must be installed.
- This product requires a dedicated account for its services and entities.
 - CA Technologies recommend that you use a domain account for CA Business Service Insight entities instead of a local account during installation. The same account must be used for all CA Business Service Insight servers.
 - Any account in use must be a member of the local administrator group. Record the user name and password of the member.

Notes:

- Before you install CA Business Service Insight, refer to the section [Installation and Regional Settings](#) (see page 26).
- Before you install CA Business Service Insight, ensure that the Oracle server, Oracle client (see Note2) and the database connection configuration components, such as, TNSnames.ora, listener.ora, are installed and configured correctly. Then establish a connection to the database using OLEDB and verify that the Listener is configured to recognize the instance you are creating.
 - TNSnames.ora must be present on all servers
 - Listener.ora must be present on the DB server.

Oracle

Install the 32-bit Oracle client listed here.

RDBMS Vendor/ Database	Database Version/ Edition	Database Software Version	Platform	Character Set*
------------------------------	---------------------------------	---------------------------------	----------	----------------

Oracle	Oracle 11 Standard, Enterprise	11.2.0.3	Oracle certified operating system	AL32UTF8 WE8MSWIN1252
--------	--------------------------------------	----------	--	--------------------------

Notes:

- To establish a connection to the [database server](#) (see page 11), the Oracle Client and Oracle OLEDB driver must be installed before you install CA Business Service Insight.
- The Oracle OLEDB version must be the same or a later version of the [Oracle database](#) (see page 11) software. The TNSname must already be defined in the TNSnames.ora file. Verify the definition with a TNSping [CA Business Service Insight database name] from the command line or using the Oracle Net Configuration Assistant.
- Oracle OLEDB Provider must be installed on the application server.
 - If you are adding the Oracle OLEDB Provider to an existing Oracle client, install it to the existing Oracle home. For any assistance with the Oracle OLEDB Provider installation, contact the CA Technologies support team.
 - The CA Business Service Insight application server NLS_LANG settings must be identical to the database NLS_LANG settings.
- Application Server Memory must be at least 2-GB RAM

Note: Verify that TNSnames.ora is present on all servers.

Note: MSMQ uses the following ports:

- TCP: 1801
- RPC: 135, 2101/2112, 2103/2114, 2105/2116
- UDP: 3527, 1801
- JDK 1.6.16 Environment (32-bit)

Note: In ACE2, JBoss is used as an application server. Verify that the following ACE2 ports are available to accommodate the servers on which JBoss runs: 4073, 1298, 1299, 8283, 4744, 4645, 3728, 19201, 1361, 1363, 8293, 8280, 1300, 5546, 4657.

Web Server Prerequisites

This section describes the prerequisites that must be present on the Web Server before installing CA Business Service Insight 8.3.

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Operating System

The operating system platforms that can host the web server are listed in this table.

OS Platform	OS Version	Patch Level	Web Server	OS Language Pack	Additional Settings
Microsoft	Windows 2003 Standard or Enterprise edition	SP2	IIS 6.0	According to the requested regional setting	IIS (web server)
	Windows 2008 Standard or Enterprise edition	SP2	IIS 7.5	According to the requested regional setting	IIS (web server); IIS 6 compatible mode
	Windows 2008 Server R2 Enterprise edition	SP1	IIS 7.5	According to the requested regional setting	IIS (web server); IIS 6 compatible mode

Oracle

Install the 32-bit Oracle client listed in this table.

RDBMS Vendor/ Database	Database Version/ Edition	Database Software Version	Platform	Character Set*
Oracle	Oracle 11 Standard, Enterprise, or RAC	11.2.0.3	Oracle certified operating system	AL32UTF8 WE8MSWIN1252

Notes:

- Windows 2003 Standard or Enterprise edition SP2: CA Business Service Insight supports the 32-bit version.
- Windows 2008 Standard or Enterprise edition SP2: CA Business Service Insight supports the 32-bit and 64-bit versions (except for single tier installations; only 32-bit is permitted on 1-tier installations of CA Business Service Insight).

Notes:

- TNSnames.ora must be present on all servers.
- Listener.ora must be present on the DB server.

Additional Information for Windows 2008 Server R2

This section contains relevant additional information about CA Business Service Insight Web Servers.

Notes:

- This software is IP Version 6.0 tolerant.
- The Active Server Pages extension must be set to Allow on the web server.
- You must time synchronize the Application and web servers when you install on three or more servers.
- This product requires the use of a dedicated account for its services and entities.
 - CA Technologies recommend that you use a domain account for CA Business Service Insight entities instead of a local account during installation in the account. The same account must be used for all CA Business Service Insight servers.
 - Any account in use is a member of the local administrator group. Record the user name and password of the member.

Note: MSMQ uses the following ports:

- TCP: 1801
- RPC: 135, 2101/2112, 2103/2114, 2105/2116
- UDP: 3527, 1801
- JDK 1.6.16 Environment (32-bit)
- JBoss version 7.0 GA release
 - JBoss Messaging 1.4.5
 - JBoss Remoting 2.2.3 SP1
 - Set the JBoss version 7.0 GA release for JAVA 6 that was ported to use JBoss Messaging 1.4.5.GA.

Note: Content Transfer uses the following ports on the JBoss application server:

1198, 1199, 1200, 1201, 1261, 1262, 3628, 3973, 4544, 4545, 4548, 5546, 4557, 8180, 8183, 8193, 19101.

To install JBoss

JBoss 7 is installed automatically as part of the current release.

Oracle

- Oracle OLEDB Provider must be installed on the application and web servers.

Install the Oracle client listed here.

RDBMS Vendor/ Database	Database Version/ Edition	Database Software Version	Platform	Character Set*
Oracle	Oracle 11 Standard, Enterprise, or RAC	11.2.0.3	Oracle certified operating system	AL32UTF8 WE8MSWIN1252

Notes:

- We support the 32-bit client only.
- If you are adding the Oracle OLEDB Provider to an existing Oracle client, install it to the existing Oracle home. If you need any assistance with the Oracle OLEDB Provider installation, contact the CA support team.
- The CA Business Service Insight server NLS_LANG settings must be identical to the database NLS_LANG settings.

Hardware Prerequisites

This section describes the minimum and recommended hardware requirements for each type of CA Business Service Insight servers. In addition, this section describes the required network connectivity.

The data provided here are a generic guideline. The data do not replace performing project-specific assessments and sizing.

Database Server Hardware Requirements

The following table describes the minimum and recommended hardware requirements to host a CA Business Service Insight Database server. The database capacity depends on various parameters, such as:

- Number of metrics
- Volume of Raw Data
- Period for which historical data is kept

Component	Minimum	Recommended
Processors	Two 2.4 GHz Intel cores or equivalent	Four 2.4 GHz Intel cores or equivalent
Memory	4 GB RAM	8 GB RAM
Storage	40 GB	120 GB*
Network	100 Mbps Fast Ethernet connection	1 Gbps Fast Ethernet

* RAID 5 controller, or a comparable high-availability/high-throughput disk configuration, is strongly recommended.

For more information on Oracle hardware supported platforms, refer to:
<http://www.oracle.com/technology/documentation/index.html>

Application Server Hardware Requirements

The following table describes the minimum and recommended hardware requirements to host an CA Business Service Insight Application server.

Component	Minimum	Recommended
Processors	Two 2.4 GHz Intel cores or equivalent	Four 2.4 GHz Intel cores or equivalent
Memory	4 GB RAM	8 GB RAM
Storage	18 GB	40 GB*
Network	100 Mbps Fast Ethernet connection	1 Gbps Fast Ethernet

* RAID 5 controller, or a comparable high-availability/high-throughput disk configuration, is strongly recommended.

Web Server Hardware Requirements

The following table describes the minimum and recommended hardware requirements to host an CA Business Service Insight Web server.

Note: The number of servers and the CPU and memory resources that are required for operation of CA Business Service Insight servers increases with the number and types of users.

Component	Minimum	Recommended
Processors	Two 2.4 GHz Intel cores or equivalent	Four 2.4 GHz Intel cores or equivalent
Memory	4 GB RAM	8 GB RAM
Storage	18 GB	40 GB*
Network	100 Mbps Fast Ethernet connection	1 Gbps Fast Ethernet

* RAID 5 controller, or a comparable high-availability/high-throughput disk configuration, is strongly recommended.

Client Software Prerequisites

The Client prerequisites are listed in this table.

OS Platform	OS Version	Patch Level / Version
Microsoft	Microsoft Windows XP SP3 (32-bit version only)	SP3
	Microsoft Windows Vista (32-bit version and 64-bit versions)	
	Microsoft Windows 7 (32-bit version and 64-bit versions)	

	Microsoft .NET Framework 4 Runtime. This .NET framework is required to create booklets using the Microsoft Word 2010 add-in. The add-in appears as a tab in the ribbon and enables you to create templates in .docx format and to use the predefined tags to design templates. In addition, there is an enhancement to the metric Notes in the CA Business Service Insight web system. You can edit metric notes in MS Word and save it as a document. You can then upload it to the system as metric notes. This option is configurable by the administrator. For more information about .Net 4, see the Microsoft website.	
	Microsoft Office web Components 2003 For more information about Microsoft Office Web Components, see the Microsoft website.	Version 10 or higher.
	Microsoft Silverlight Microsoft Silverlight is a free .Net Framework plug-in for creating interactive user experiences. For more information about Silverlight and its installation, see the Microsoft website.	Version 4.0 or higher.
Adobe	Adobe Flash Player. For more information, see the Adobe website.	Version 8 or higher.
Java	JRE (Java Runtime Environment) 1.4.2.3 For more information about Java Runtime environment, see http://java.com/en/download/help/sysreq.xml http://java.com/en/download/help/sysreq.xml.	Version 1.4.2.3 or higher.

- The Client supports the following versions of Internet Explorer web browser:
 - 7.0
 - 8.0
 - 9.0
- The Client requires the following security settings:
 - Client Scripts Executing (Allowed)
 - IIS Session State Availability (Enabled)
 - Session Cookies (Enabled)
 - Persistent Browser Cookies (Enabled)
 - Pop-up Blocking (Disabled). CA Business Service Insight is defined as a trusted site or no pop-up blocker is installed or enabled.
 - ActiveX Executing (Allowed). If you are not allowed to set this item due to company policy, then run the Client.
 - Java Applets Enabled (Enabled)

Chapter 3: Typical Installation From Scratch

This section describes the prerequisites and steps required to install CA Business Service Insight servers.

This section contains the following topics:

- [Before You Begin](#) (see page 25)
- [Installation Dialog Boxes](#) (see page 30)
- [Server Installation - Typical](#) (see page 32)
- [Client Installation - Typical](#) (see page 41)
- [Post Installation Activities \(from-Scratch\)](#) (see page 43)

Before You Begin

- When you create a database manually read the section Create Database Manually, before you begin the installation. Refer to the parameter description for OBLICORE_ROOT in that topic.
- If you are not planning on using the CA default configuration, print the [The CA Technologies Naming Conventions Policy for Database Objects](#) (see page 133). Complete the form and consult the CA Support before the installation if your database naming convention differs from the CA Technologies policy.
- Print the chapters relevant to your installation ([Client Installation - Typical](#) (see page 41), [Upgrade from Previous Versions](#) (see page 51), [Custom Installation](#) (see page 67), [High Availability](#) (see page 73), [Silent Installation](#) (see page 91)).
- Exit all Windows programs before running the setup program.
- Verify that the installation directory name does not contain the '&' (ampersand) character or the '.' (dot) character.

Note: The default installation folder location is C:\Program Files\CA \Cloud Insight\Setup (or: %ProgramFiles%\CA \Cloud Insight\Setup). Copy all contents of the installation folder (including all subfolders) from the installation CD to the Installation folder. The installation scripts cannot create necessary dynamic scripts and log files when run from a CD.

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

3rdPartyCD

Before you install CA Business Service Insight, download the folder named "CA Business Service Insight" and the folder named "CA Business Service Insight - Third Party". During installation, a message displays. Enter the location of the appropriate folder to download files that you need for proper installation of the product.

The folder "CA Business Service Insight - Third Party" contains files for third party products used with CA Business Service Insight.

Follow these steps:

1. Log in to Support (support.ca.com).
2. Go to the Download Center link (on the left).
3. Enter the Product: CA Business Service Insight - WINDOWS-ALL.
4. Select the version.
All available files for download display.
5. Download the required folders and record the location of each for later use.

Stop Services

Verify that you have stopped all the services mentioned in the instructions in the section [Before You Begin](#) (see page 52).

Installation and Regional Settings

In some cases, regional language settings other than English sometimes change certain installation commands and disrupts the installation.

When your regional language setting is not English you must temporarily change your regional settings to English (USA) and adhere to the following installation sequence.

1. Before installing CA Business Service Insight, change your regional settings to English (USA).
2. Install according to the procedures described in this Guide.
3. Reboot.
4. Revert to your local regional settings.
5. Reboot.
6. Use CA Business Service Insight

Installing on more than one server

When installing on more than one server:

1. Go to the web server; set the Distributed Transaction Coordinator service to Start.
2. Go to the web server; set the World Wide Web Publishing service to Start.
3. Install and configure the Oracle client and the database connection configuration components correctly (for example, TNSnames.ora, listener.ora) so you can establish a connection to the database through OLEDB.
 - a. Install and configure [TNSnames.ora](#) (see page 28) on all servers
 - b. Install and configure [Listener.ora](#) (see page 28) on the Database server

Application and Web servers

1. Make sure the local naming configuration file (\$ORACLE_HOME\network\admin\TNSNAMES.ORA) contains the service alias, with the correct host name and the correct port (default 1521).

Note: See the example TNSNAMES.ORA file, below.

DB Server

1. Make sure that the listener configuration file (\$ORACLE_HOME\network\admin\LISTENER.ORA) is configured correctly and that it recognizes the instance to be created (See the example LISTENER.ORA file, below).
2. Run the following command from the command line
`lsnrctl status`
A list of services summary is displayed. The following message displays.
 - "The command completed successfully"
3. If the message does not appear, run the following command:
`lsnrctl start`
The following message appears:
 - "The command completed successfully"
4. Verify that the file (\$ORACLE_HOME\network\admin\SQLNET.ORA) contains the line:
`SQLNET.AUTHENTICATION_SERVICES = (NTS)`
5. Test communication between the Oracle client and the Listener.
 - a. Run the following command from the command line:
`Tnsping <tns_entry_name>`
The system responds with "OK" followed by the response time.

TSNAMES.ORA File

```
OBLICORE =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = server12.ca.com)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = oblicore)
    )
  )
```

LISTENER.ORA File

```
SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (GLOBAL_DBNAME = OBLICORE)
      (ORACLE_HOME = C:\app\Administrator\product\11.2.0\dbhome_1)
      (SID_NAME = oblicore)
    )
  )

LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP)(HOST = server12.ca.com)(PORT = 1521))
      (ADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1521))
    )
  )
```

Create a New Database Manually

This procedure is optional and (if you choose to use it) must be performed before you install any other element (servers or client) of CA Business Service Insight.

Note: This procedure (create database manually) does not use the Cloud_Insight_Server_8.2.exe file; it uses the Main.bat file (Windows) or the Main.sh File (Unix).

Note: The location of the bat and sh files is in the CA Business Service Insight main installation CD under Server\program files\CA\Cloud Insight\Setup\InstallDB.

Note: This procedure does not install the Application server or the Web server.

Follow these steps:

1. Edit the parameters in the start_parameter.ini file so that the parameter values you enter are in accord with the Parameter Descriptions.

Note: Only the parameters listed in the table should be present in the start_parameter.ini file; erase any other parameters.

Parameter	Parameter Description
OBLICORE_ROOT	Desired database location. Setup creates a folder with the database name under this folder. For example: c:\Oblicore. Note: Create this folder before beginning the installation. The installation setup does not create this folder.
DB_NAME	The database name. Length of name must be less than or equal to eight characters.
ORACLE_HOME	This is the folder where "Oracle Home" is located (in Windows: according to the registry). "Oracle Home" is the location of the Oracle <i>Server</i> software used to create and to run the BSI instance, is not the Oracle <i>Client</i> software used to connect to the instance.
SYS_PASS	SYS user password.
OBLICORE_USER	Name of user-schema where the CA Business Service Insight database objects are to be located.
OBLICORE_PASS	The schema password.

OBLIDBADMIN_PASS	Administrative database user password.
DB_CHARSET	Select UTF-8 or MSWIN (1252). UTF-8 is recommended.
DB_SYNONYM	Select Public or Private Synonym.

1. Run the Main file appropriate to your operating system:
 - Windows-based systems: Main.bat file (location: in the Setup\InstallDB folder).
 - UNIX-based systems: Main.sh file (location: in the Setup\InstallDB folder).

Note: Run the file from within the Setup\InstallDB folder.
2. Review the parameters indicated in the command line window.
3. Type Y to start the database creation process.
4. Click any key, at the prompt, to complete the process.
5. Check the log file for errors.

The file's location is shown in the pop-up screen.

Installation Dialog Boxes

This section describes the Typical and Custom Installation dialog boxes and explains their use.

Typical Installation Windows

The following table lists Typical installation dialog boxes and related information (parameters, values).

Note: Do not use double-byte any characters for any entry marked with a double dagger (‡).

Note: Oracle does not support the use of certain characters in its naming conventions. Refer to Oracle's literature for their specific requirements (e.g. ASCII) and limitations (special characters, double-byte characters, etc.).

Note: The Organization name cannot contain any double-byte characters.

Name	Parameters	Possible Values	Remarks
Database Creation ‡	■ Oracle Version	■ Default: server default	The standard Microsoft Enter Network Password window opens at various times while using the Select User window.
Opens When Installing:	■ DB File Location	■ Location of DB file ‡	
DataBase	■ DB server name	■ Name of DB server ‡	
	■ Character Set	■ UTF8 or MSWIN	
	■ Synonym	■ Public or Private	This window opens if you are not currently logged on to the Domain. If necessary, enter a valid domain user and password to access the domain.
Database Connection ‡	■ Oracle Version		Enter the TNS name of CA Business Service Insight in the TNSNAMES.ORA file. ‡
Opens When Installing:	■ CA Business Service Insight Database Instance TNS Name ‡		
Database Application Website			
Logon Information ‡	■ User Name	■ Name of user that ran installation ‡	The default assigned user name is the user of the account that performed the installation.
Opens when Installing:	■ Password	■ User password ‡	
Application Website	■ New User Information button	■ See New User Information row	

Name	Parameters	Possible Values	Remarks
Select User	Object types	Within the logon information screen after selecting the Select User button.	The user must be a member of the Administrator Local Group.
Opens When Installing:	Location		
Application Website			
New User Information	Domain or server		This dialog enables you to create a new CA Business Service Insight user name.
Opens When Installing:	- Group - User Name		Note: This dialog is accessed only from the Logon dialog.
Application Website	- Password - Confirm Password		
Log Server Configuration	Log server Network Address	Default is localhost which is valid for single tier and any tier including the Web server.	If the log server is not on the local host, change the address to the correct server.
Opens When Installing:	Log server Network Port	Default is 4040	Note: The address must be the address of the log server installation.
Website			
Enter Network Password	- User Name - Password		This screen opens only if you are not currently logged-in to the Domain. This screen sometimes opens more than once.

Server Installation - Typical

This section describes the steps required to install the CA Business Service Insight servers from scratch.

Note: The servers and client can be installed in Silent Mode.

Number of Servers (Topology)

CA Business Service Insight 8.2 can be installed in topologies of one, two, three, and four or more servers as detailed in the Topology table.

Notes:

- If you are upgrading and intend to change the topology type (number of servers), contact CA Support before performing the upgrade.
- When you install from scratch on more than one server, you must install in the sequence:
 - Database (see [Before you Begin](#) (see page 25))
 - Application
 - Web

Before installation, use this table to determine the installation sequence for the number of servers (topology) you intend to use.

Topology Type (Number of Servers)	Description	Installation Sequence (for each server)
One server	Database, Application, and web components are installed on same server.	Run Cloud_Insight_Server_8.2.exe on this server.
Two servers	Distributed on two servers: ■ First server: Database component ■ Second server: Application and web components	Installation from scratch: ■ Create database on the database server. ■ Install application and web servers.
Three servers	Distributed on three servers: ■ First server: Database component ■ Second server: Application component ■ Third server: Web component	Installation from scratch: ■ Create database on database server. ■ Install application server. ■ Install web server.

Topology Type (Number of Servers)	Description	Installation Sequence (for each server)
Four or more servers	Distributed on four or more servers: ■ First server: Database component ■ Second server: Application component ■ Third server: web component ■ Four or more servers: Additional application components	Installation from scratch: ■ Create database on database server. ■ Install application servers. ■ Install web server. ■ Install additional application components.

64-bit Server Limitation

Important: Oracle 64-bit servers are not supported on single tier installations.

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Follow these steps:

1. Install an Oracle 32-bit client to a new Oracle home. Refer to the Oracle website for instructions.
2. Copy the directory (located in BSI main installation CD) "\Server\program files\CA\Cloud Insight\Setup\InstallDB" to the database server.
3. Open the file "start_parameters.ini" in edit mode.

The file contains this list of parameters at the top of the file under the heading [DataBaseDetails].

- OBLICORE_ROOT=c:\oblicore
- DB_NAME=oblicore
- ORACLE_HOME=c:\oracle\product\11.1.0\db_1
- SYS_PASS=sys
- OBLICORE_USER=oblicore
- OBLICORE_PASS=oblicore
- OBLIDBADMIN_PASS=oblidbadmin
- DB_CHARSET=utf8
- DB_SYNONYM=public

Verify that the parameter values are the same as in the list, here, in these instructions.

4. Verify that the ORACLE_HOME parameter is set to the oracle_home of the server you will be using when installing the actual Insight database instance (not the oracle_home you will be using for client components).
5. Make any necessary changes to the above, then save the file and exit.
6. Double-click the file "Main.bat".

A command prompt window displays showing the "Main.bat" parameters and their values. Verify that all parameters are correct.

7. Enter "Y" to begin the installation.

Note: If you need to change the parameter values, click N to abort; make the necessary changes and restart the installation.

8. After the database Installation finishes, perform a [Custom installation](#) (see page 67) of CA Business Service Insight. Select only the Application components and the web components; do not select Database components.
9. When a message appears and states that more than one Oracle exists, select the correct Oracle SERVER home.
10. Continue the installation.
11. Verify the Oracle client path.
 - a. Go to My Computer, right-click Properties, Advanced System Settings, Environment Variables. Go to the System Variables panel, locate the Path and click Edit.
 - b. Verify that the Oracle client path comes before the database path, then click Save.

Important: Do not select the database components.

Install CA Business Service Insight Servers

This section describes the steps required to install CA Business Service Insight from scratch.

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Notes:

- If you are not going to create a database automatically, see [Create Database Manually \(Optional\)](#) (see page 29).
- Use the typical installation procedure unless want to distribute your system to four or more servers or if CA Support recommends this option.
- Use these instructions on each server.

Follow these steps:

1. From the server directory, double-click Cloud_Insight_Server_8.2.exe.
The Select Language dialog opens.
2. Select the installation language and click OK.
When required applications are required for installation to proceed, they are listed in the next dialog.
3. Click the Install button to install the required programs automatically.
The Installation Wizard displays.
4. Click Next to proceed.
The End User License Agreement window opens.
The Welcome window opens.
5. Click Next.
The End User License Agreement window opens.
6. Read the agreement. If you agree, then select "I accept the terms of the license agreement" and click Next.
The Organization Information window opens.
7. Enter your organization name. If your organization name contains special characters (for instance, &), add the ^ character before each special character. For instance, AB&C is referred to as AB^&C).
Note: Do not use double-byte characters here.
8. Click Next.
The Setup Type window opens.

9. Select Typical and click Next.

The Destination Folder window opens.

10. Click Browse to open the select/create destination folder dialog.

- a. Select or create a destination folder and click Next.

The Select Features window opens.

or

- b. Click Next to use the default destination folder.

The Select Features window opens.

11. Select the installation features you require (from Database, Application, Web) and click Next.

Note: From this point forward, only dialog boxes related to the features you select will open. Dialog boxes will not open if the associated features have not been selected. For example, if you have not selected the Database feature, the Database Creation dialog will not open.

Servers Selected	Related Dialog Boxes
Database + Application + Web	Logon Information, Database Creation
Application + Web	Logon Information, Database Connection
Database	Database Creation
Application	Logon Information, Database Connection
Web	Logon Information, Log Server Configuration, Database Connection

12. For the Logon Information dialog, enter the User account to be used by CA Business Service Insight.

- a. Click the New User button to open a dialog to create a new user, click Next and enter information as needed.

Note: Record the information entered for future reference.

13. For the Database Creation dialog, enter the required information for all fields and click Next.

The Start Copying Files dialog opens.

14. Enter the or browse to the location / path of the Third Party CD and click Next.

Note: If JBoss is already installed and you install a new version, installation overwrites the environment variable "JBOSS_HOME". The environment variable points to the new JBoss after installation.

Note: When components from a previous JBoss version are detected, you are prompted to select the checkbox and enable Installation to clean them up.

- a. To clean up Select the checkbox and click Next.
 - b. To proceed without cleanup, check Next.

Installation installs JBoss and displays the Current Settings when complete.

15. Review the settings (Current Settings) that were made so far. To change any of the previous settings, click Back.

- a. To cancel the installation, click Cancel.
 - b. Otherwise, click Next. The Setup Status window opens and the installation begins.

Note: The installation continues for several minutes, please be patient.

16. For the database, follow the instructions in the command line window.

Note: The database installation continues for several minutes, please be patient.

A window opens when the installation finishes confirming a successful installation.

17. Click Finish to restart the computer at the prompt (Yes is the default).

The system restarts.

Note: If you select Custom, the Destination Folder window opens. Proceed with the [Custom Installation procedure](#) (see page 67) or press Back to return to the previous dialog box..

Additional Application Server Installations

The following are Additional Application Server installations. Use these instructions only when you install on four or more servers.

Divide Services

Carry out these instructions when you divide services onto several Application servers.

Follow these steps:

1. Begin a Custom application server installation.
2. Install the first application server.
3. Install additional Application servers using the Custom installation procedure. In this step, install only the additional services/features needed.
4. Open the operating system Services dialog and clear or stop any unnecessary components that are installed on the additional application servers.

Component	Description
Adapter	Installs the Adapter services options (Text File, SQL, Manager, Expression Checker).
Adapter Listener	Installs the Adapter Listener. Note: The Adapter Listener service can be installed only once.
Alerts	Installs the Alert service. Note: Do not install the Alert more than once.
Dashboard Engine	Installs the Dashboard Engine service. Note: Dashboard Engine service can be installed only once.
Log Server	Installs the Log Server service.
Penalty Writer	Installs the Penalty service.
PSL Writer	Installs one instance of the Calculation Engine service.
Report Scheduler	Installs the Report Scheduler service.
ACE Engine on JBoss Application Server	The JEE Application Server that runs the ACE2 Manager.
Tomcat 6	The Apache Tomcat 6.0.32 Server (http://tomcat.apache.org).
Oblisync on JBoss Application Server	Enables the Content Transfer feature to run.
ScriptHost	Installs the Script Host service. Note: The Script Host can be installed only once.
Tasks Host	Installs the Task Host service. Note: The Task Host can be installed only once.

Place Adapters on Different Servers

Carry out these instructions on each server that is installed with adapters.

Follow these steps:

1. Start a Custom Web Server installation.
2. Go to the Select Features window; clear the Website, Services, Administration Tools, and Database features.

Note: Verify that one of the Additional Application servers includes the Adapter Listener.

Client Installation - Typical

This section describes the installation instructions for installing the client.

The client can be installed in Silent Mode. For more information, see [Silent Installation](#) (see page 91).

Note: CA Business Service Insight pages require the installation of additional third-party applications on the end-user browser. These applications can be retrieved from the specific pages or from the client installation kit.

Components

This table lists required components installed for use by Client HTML pages.

Component Name	Third Party Application	Used In these features
Time Slot Editor	Applet	Design, Foundation Entities, Timeslots Templates, View always timeslot
TeeChart Pro	ActiveX	Reports, Report Wizard, Generate
Flowchart	ActiveX	Service Level Management, Contracts Navigator
Script Editor	ActiveX	Catalog, Template Library, Business Logic Templates, Add Business Logic Template
DataSourceAnalyzerAX	ActiveX	Design, Data Acquisition, Adapters, Add New, Text File/SQL Adapter
ActiveQueryBuilderXControls	ActiveX	Design, Data Acquisition, Adapters, Add New, Add New SQL Adapter

Install the CA Business Service Insight Client

The CA Business Service Insight Client must be run on any end-user computer before logging on to the website.

Note: Verify that a user who has administration privileges performs the installation.

Follow these steps:

1. Exit all Windows programs before running the setup program.
2. Double-click Cloud_Insight_Client_8.2.exe.
3. Follow the on-screen steps.

Post Installation Activities (from-Scratch)

This section describes how to perform post-installation activities.

Follow these steps:

1. Verify that the services you selected were installed properly as follows:
 - a. Click Start, Run and type services.msc.
 - b. Click OK.
The Services window opens.
 - c. Verify that the services corresponding to the components you selected during installation were installed properly.

Note: All CA Business Service Insight services are listed in the service control panel with the word "Oblicore" as prefix to their name.

Note: The server location of each service is given after the Service Name.

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
ACE Transition Service	The ACE Transition Service is an installed service as of version 8.2. The service detects and sets recalculation date requests that arrive while in the process of assigning a metric from the ACE1 engine to the ACE2 engine.			

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
Adapter Listener (Adapters) / Application Server	Communicates with the adapters. The service reads data from the adapters and stores it in the CA Business Service Insight database. This service communicates with adapters through a TCP/IP socket.	No	Yes	No
Adapter Deployment (Adapters) / Application Server	Responsible for creating adapters. The service receives requests to create, update, or delete adapters from the adapter wizard. Communication with this service is done through a web service interface.	No	Yes	Yes
Alerts (Events) / Application Server	Receives events from various parts of the system. The service compares data in those events to the set of system Alert Profiles. When an event matches an Alert Profile, the service generates an alert. The service receives events from a database queue.	No	Yes	Yes

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
Current Status Engine (Dashboard) / Application Server	Calculates the Current Status indicators on the Dashboard.	No	No	Yes
Dashboard Engine (Dashboard) / Application Server	Calculates the severity of each dashboard entity.	No	No	Yes
Log Server (Logs) / Application Server	Writes log messages from various parts of the system into the database. Each CA Business Service Insight component communicates with the Log server through a TCP/IP socket to log a message.	Yes	Yes	Yes
Penalty Writer / Application Server	Provides backward compatibility. The deprecated penalty writer functions are now done using metrics.	No	No	Yes

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
PSL Writer (PSL) / Application Server	The old main calculation engine. It calculates the service level of each metric in each contract in the system. To scale up, install more than one PSL Writer service on an application server. The services are then typically named "PSL Writer N" where N is a unique ID given to each service.	No	Yes	Yes
Reports Scheduler (reports) / Application Server	Runs scheduled reports.	No	No	Yes
PSLWorker <number> (ACE2) / Application Server	Calculates the provided service level for ACE2 metrics.	No	Yes	Yes
ScriptHost / Application Server	Hosts engine tasks	Yes	Yes	Yes
Oblisync on JBoss Application Server (Content Transfer) / Web Server	Enables the Content Transfer feature to run.	No	Yes	No

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
ACE on JBoss Application Server / Application Server	The JEE Application Server; it runs the ACE2 Manager.	No	Yes	Yes
Tomcat 6 / Application Server & / Web Server	This service is the Apache Tomcat 6.0.32 Server (http://tomcat.apache.org).	Yes	Yes	No
Tasks Host / Application Server	Does asynchronous, system maintenance operations including: ■ Changing the status of a contract when it expires ■ Analyzing raw data to for missing events ■ Calculating indicators that verify if a contract is up-to-date. You can the see the data when you view the contract. ■ Runs "Translation Scripts"	Yes	Yes	Yes

1. Verify that the hour offset (hours from GMT) you select for the time zone matches the definition of the hour-offset of the time zone name. When you define the beginning and end dates for the daylight savings periods, set the dates as defined in the country of the selected time zone. If the beginning or end date fields contains incorrect information, the system can malfunction and metric calculations can be delayed.
2. To support requests that the reverse proxy forwards to the CA website, enter the prefix string as the ProxyPrefix key value (web.config file, AppSettings section). The prefix string is configured to route the request to the CA website in the proxy configuration.

- a. Verify that the website is routed correctly to the reverse proxy by confirming that the proxy value is spelled correctly and is entered between the two slashes ("/prefix/").

For example, if the prefix mapped to the CA website is "ca" update the web.config file as follows:

```
<appSettings>
  <add key="ProxyPrefix" value="/ca/" />
</appSettings>
```

If the ProxyPrefix key does not exist, or if its value is an empty string, then the website functions in normal mode.

- b. Add a header to the proxy configuration. The header key must be as follows:
"X-Forwarded-CA-Oblicore-Proxy".

For example, when the Oblicore web application proxy access URL is `http://proxy/ca/` ("ca" is the prefix), then the web.config file is updated as follows:

```
<appSettings>
  <add key="ProxyPrefix" value="/ca/" />
</appSettings>
```

In addition to this update, a new header is added in the proxy web application configuration with the following key name:

"X-Forwarded-CA-Oblicore-Proxy".

Select Language

1. To select the language of the CA Business Service Insight interface, move the mouse cursor to the Username (Organization) menu item (left of the "logout" menu item).

The Settings menu item displays.

2. Click Settings.

The User Preferences dialog displays.

3. Select the interface language from the Preferred Language option.

4. Click Save.

A message appears and CA Business Service Insight now displays the selected interface language. This continues to be the default language until you change it.

SMILoader

The SMILoader is not included in the current installation. Run the loader manually after your installation has completed.

Follow these steps:

1. On each CA Business Service Insight server open a command prompt and go to C:\Inetpub\wwwroot\Oblicore\bin.
2. Run SmiContentLoader.exe and follow the on screen instructions.

The SMI content loads automatically.

Chapter 4: Upgrade from Previous Versions

This section describes the steps required to upgrade from previous versions of CA Business Service Insight.

You can upgrade from these versions:

- 7.0 SP1
- 8.0
- 8.0.110
- 8.1
- 8.1.1

The upgrade file recognizes which server is running the program and updates the necessary files.

Important:

- Upgrading must be performed on the application server that contains the Alerts service first and only afterwards on all other servers.
- The migration script automatically runs on the application server that includes the Alerts service.
- We recommend printing the section [Upgrade Dialog Boxes and Configurations](#) (see page 59) before the installation.
- If you are upgrading to a multi-server environment, perform the upgrade process on the application server and then perform it on the web server. The database migration is performed automatically when the application server is upgraded.

This section contains the following topics:

[Before You Begin](#) (see page 52)

[Installation and Regional Settings](#) (see page 56)

[Upgrade to CA Business Service Insight](#) (see page 57)

[Post-Installation Activities \(from Upgrade\)](#) (see page 62)

[Upgrade Log Files](#) (see page 64)

Before You Begin

Important: In 1-tier installations, Windows, Oracle Server, and Oracle client must be 32-bit. Do not use any 64-bit version of the applications. Oracle Server must be version 11.2.0.3.

Important: Verify the following before you begin an upgrade to ensure that it goes smoothly.

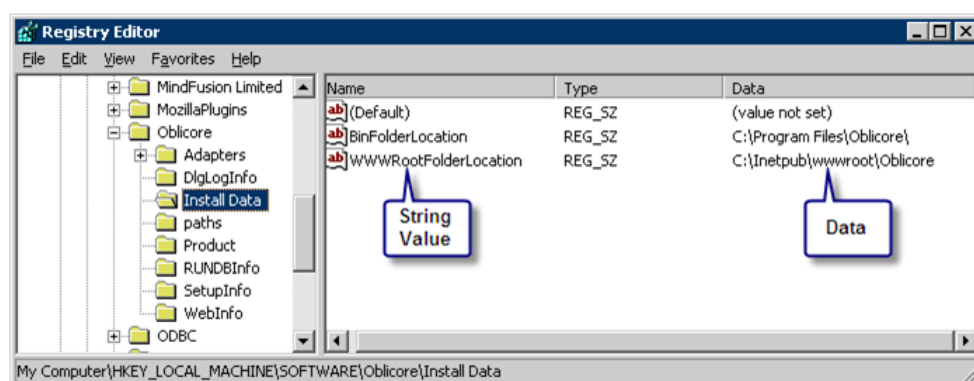
1. Verify that all CA Technologies folders and files are backed up and a database dump is created before the upgrade, to enable rollback.

Note: The installation process includes database changes. Back up the database before upgrading; reboot the servers after installation.

2. Verify that all [server software prerequisites](#) (see page 11) and [hardware prerequisites](#) (see page 20) for the upgrade version are in place before you start the upgrade procedure.
3. Verify that you back up all customized files. The following files can be customized:
 - LoginCommon.asp
 - RedirectToLogin.asp
 - SilentLogin.asp
 - AcceptLogin.asp
 - Web.config
 - Registry.xml
 - Index.asp (for single sign-on)
 - logo.jpg
 - logo.gif
 - logobg.gif
 - logout1.gif
 - logout2.gif
 - Reportlogo (and other logo like dash/report export)
4. If you made changes in the Language package, backup this data.
5. Verify that at least 15 percent of each table space in the database is free. If autoextend is on, verify that the datafile maxsize is set to at least 15 percent more than the current size of the datafile.
6. Verify that the free space on each physical device containing database tablespaces is at least 15 percent of the total size of all tablespaces in the device.
7. Before installing CA Business Service Insight, check the task manager/processes list for any live JAVA processes (ACE2, Oblisync, and Tomcat) and stop them all before you start the installation

8. Stop all "Oblicore" services.
9. Stop the web site (the WWW publishih service).
 - a. Set the Distributed Transaction Coordinator service to Start.

Note: This Distributed Transaction Coordinator service is required for upgrading only. If your company policy is to have this service disabled, contact your system administrator for assistance.
10. Shut down the COM+ applications - Oblicore engine.
11. If your CA Business Service Insight topology DOES NOT include a server designated solely as an Application server:
 - a. Open the web or web services server registry to the entry:
HKEY_LOCAL_MACHINE\SOFTWARE\Oblicore\Install Data.
 - b. For 64-bit systems the entry is:
HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432node\Oblicore\Install Data.
 - c. Verify that the WWWRootFolderLocation exists.
 - d. Verify that the data for this string value contains the folder path for the web folder. For example: "C:\inetpub\wwwroot\Oblicore" (see capture).



12. If your CA Business Service Insight topology DOES include a server designated solely as an Application server:
 - a. Open the application server registry to the entry:
HKEY_LOCAL_MACHINE\SOFTWARE\Oblicore\Install Data.
 - b. Verify that the WWWRootFolderLocation string value does NOT exist. If it does exist, delete it.
13. Verify that the Oracle OLEDB Provider is installed on the application and web servers.

Note: You need SYSDBA privileges to perform the following steps.
14. Run the oblicore_privs.sql. This file is located under the migration root directory (for example: C:\Program Files\Oblicore\Database Installation\Migration). You can get the script from the Installation CD in the Setup\Migration folder.
15. When you upgrade from version 7.0SP1 you can also execute the portion of the migration which requires the sys password separately as follows:
 - Run the OG8.0MigrationSys.bat file.
 - Run OG8.xMigration.bat (no SYSDBA privilege required).
16. In the Init.ora file, verify that the job_queue_processes parameter is set to 2. If it has any other value, change it to 2.

Database Job Reorganization

Customers sometimes disable database jobs because they refer to features that are irrelevant for that specific customer.

In some versions (not all) before version 8.2, the designated database login user and designated privileged user were oblbadadmin. In the current version, database jobs are created so that the designated database login user and designated privileged user are Oblicore.

When upgrading to version 8.2, all current jobs (10) created under schema Oblicore or oblbadadmin are automatically removed and are resubmitted under the user Oblicore. As a result, disabled jobs become active.

Therefore, redisable all jobs that were deliberately disabled in the past.

To disable the jobs, we recommend that you set the 'broken' attribute and not delete the job altogether. During future migrations, missing jobs can be recreated automatically.

Example:

```
-- Before upgrade.
-- This searches for broken jobs.
-- Record the results.
select what
      from dba_jobs
where schema_user = 'OBLICORE'
      and broken    = 'Y'

-- After upgrade. This selects the jobs
select job
      from dba_jobs x
where schema_user = 'OBLICORE'
      and what      = 'oblicore.db_mng_forecast_pkg.cre_forecast_new_partition
('PSL');'

-- This is a possible result.
JOB
---
48

-- This resubmits the job.
begin
  dbms_job.broken (48 , true);
  commit;
end;

-- or:
-- This resubmits the job (SQLplus).

exec dbms_job.broken (48 , true);
```

```
commit;
```

Stop Services

Verify that you have stopped all the services mentioned in the instructions in the section [Before You Begin](#) (see page 52).

Installation and Regional Settings

In some cases, regional language settings other than English sometimes change certain installation commands and disrupts the installation.

When your regional language setting is not English you must temporarily change your regional settings to English (USA) and adhere to the following installation sequence.

1. Before installing CA Business Service Insight, change your regional settings to English (USA).
2. Install according to the procedures described in this Guide.
3. Reboot.
4. Revert to your local regional settings.
5. Reboot.
6. Use CA Business Service Insight

Upgrade to CA Business Service Insight

This section explains how to take advantage of the new features and functions by upgrading to CA Business Service Insight.

Note: You should be a DBA and be familiar with SQL commands to perform upgrades.

Starting the Upgrade:

1. Double-click Cloud_Insight_Server_8.2.exe from the server folder.
The Welcome window opens.
2. Click Next.
The Select Language dialog opens.
3. Select the installation language and click OK.
When required applications are required for installation to proceed, they are listed in the next dialog.
4. Click the Install button to install the required programs automatically.
The Installation Wizard displays.
5. Click Next to proceed.
The End User License Agreement window opens.
6. Read the agreement. If you agree, select I accept the terms of the license agreement and click Next.
The JBoss Install Configuration window displays.
7. Enter the or browse to the location / path of the Third Party CD and click Next.
Note: If JBoss is already installed and you install a new version, installation overwrites the environment variable "JBOSS_HOME". The environment variable points to the new JBoss after installation.
Note: When components from a previous JBoss version are detected, you are prompted to select the checkbox and enable Installation to clean them up.
8. To clean up Select the checkbox and click Next.
 - a. To proceed without cleanup, check Next.The upgrade dialog window opens and displays the dialog boxes appropriate to your installation.
9. Refer to the section [Upgrade Dialog Boxes and Configuration](#) (see page 59) and continue with the installation process.
10. After you made your selections, the Ready to Install the Application window opens.
11. Review the settings that were made so far and then click Next.
The Updating System window opens and the installation begins.

If the Run Migration Script check box was selected, a window opens. Follow the on-screen instructions.

12. When the installation finishes a window opens to confirm a successful installation and prompts you to restart the computer (by default Yes is selected).

13. Click Finish.

The system restarts.

Topology Type (Number of Servers)	Description	Installation Sequence (for each server)
One server	Database, Application, and web components are installed on same server.	Run Cloud_Insight_Server_8.2.exe on this server.
Two servers	Distributed on two servers: ■ First server: Database component ■ Second server: Application and web components	Installation from scratch: ■ Create database on the database server. ■ Install application and web servers.
Three servers	Distributed on three servers: ■ First server: Database component ■ Second server: Application component ■ Third server: Web component	Installation from scratch: ■ Create database on database server. ■ Install application server. ■ Install web server.
Four or more servers	Distributed on four or more servers: ■ First server: Database component ■ Second server: Application component ■ Third server: web component ■ Four or more servers: Additional application components	Installation from scratch: ■ Create database on database server. ■ Install application servers. ■ Install web server. ■ Install additional application components.

Upgrade Dialog Boxes and Configurations

The following table lists the upgrade dialog boxes and related information (parameters, values) that can open during installation.

Note: Only dialog boxes related to the features you select will open. Dialog boxes will not open if the associated features have not been selected. For example, if you have not selected the Database feature, the Database Creation dialog will not open.

1. Enter the values for each parameter in each dialog box that displays and click Next.

Note: Do not use double-byte any characters for any entry marked with a double dagger (§).

Note: Oracle does not support the use of certain characters in its naming conventions. Refer to Oracle's literature for their specific requirements (e.g. ASCII) and limitations (special characters, double-byte characters, etc.).

Note: The Organization name cannot contain any double-byte characters.

Dialog Name	Parameters	Values	Remarks
Database Creation	Run Migration Script	Checked or un-checked.	The check box is automatically checked on the application server that includes the CA Business Service Insight Alerts service.
	Oblicore Database instance TNS name	Enter the TNS name as it appears in the TNSNAMES.ORA file. §	CA Business Service Insight Database Instance TNS Name.
	Schema user name	Enter the name of the schema user for the upgrade.	This password is usually Oblicore.
	Schema password	Enter the password of the schema user you are using for the upgrade.	
	System password	Enter the system user password.	If you do not have this password, see the Before you Begin section.
Logon Information	User Name	Name of user. §	Default: User of account that ran installation. We recommend changing user and password to a dedicated domain account.

Dialog Name	Parameters	Values	Remarks
New User Information	Password	User password. ‡	
	New User Information button	See New User Information row.	
	Domain or server	Name of local server.	
	Group	Administrators	
	User Name	Name of user.	
	Password	User password.	Conforms to company policy.
	Confirm Password	Confirm password.	

The following table describes configuration files and their related parameters.

Note: Do not assign any double-byte character to any of the entries in the configuration table below.

Note: In addition, Oracle does not support the use of certain characters in its naming conventions. Refer to Oracle literature for their specific requirements (e.g. ASCII) and limitations (special characters, etc.).

Config File	Parameters	Default Values	Remarks
Config_Ini.ini	ORGANIZATION_NAME	The organization name	If your organization name contains special characters (for example, &), add the ^ character before each special character (for example, AB&C is written as AB^&C).
	TEMPLATE_PATH*	'<installation directory>\Export Templates\'	The location of the export templates folder.
	BOOKLET_TEMPLATE_PATH*	'<installation directory>\Booklet Templates\'	The location of the booklets templates folder.
	WEB_SERVER	The web server name	
	DB_NAME		

Config File	Parameters	Default Values	Remarks
	OBLICORE_USER		
	OBLICORE_PASS	Oblicore	The CA Business Service Insight user password in the database.
	MPX_CONFIGURATION_DIRECTORY*	'<installation directory>\Packages\Configuration\'	The location of the packages configuration folder.
	MPX_INPUT_DIRECTORY*	'<installation directory>\Packages\'	The location of the packages input folder.
	MPX_LOG_DIRECTORY*	'<installation directory>\Packages\Log\'	The location of the packages log folder.
	MPX_OUTPUT_DIRECTORY*	'<installation directory>\Packages\'	The location of the packages output folder.
	MPX_TEMP_DIRECTORY*	'<installation directory>\Packages\Temp\'	The location of the packages temporary folder.

Note: The values entered for these parameters must begin with a single quote and end with a backslash and a single quote (for example, 'C:\Temp\').

Time Zone Tool

All metrics migrating into ACE2 must have time zone definitions.

The ACE Time Zone Tool launches during application server installation as part of the ACE database migration and upgrade process.

The tool displays a warning notice when any metric in the system contains a time zone definition without a corresponding time zone name. A note also appears in the Installation Log.

The tool creates a log file (%OG_HOME%\ bin) and writes a warning to the log table when it fails due to database connection problems.

Post-Installation Activities (from Upgrade)

This section explains the activities you must perform after upgrading in order to complete the upgrade and restart CA Business Service Insight.

Follow these steps:

1. Start the website.
2. (Optional step) To change from a public to a private synonym, invoke one of the following procedures on the database:

```
begin
prc_recreate_all_synonyms ('YES');
end
```

-OR-

```
exec prc_recreate_all_synonyms ('YES');
```
3. (Optional step) Lock the OBLIDBADMIN account in the database, run the following while connected to the database as sysdba:

```
alter user oblidbadmin account lock
```
4. (Optional step) Change the OBLIDBADMIN password, run the following while connected to the database as sysdba:

```
alter user oblidbadmin identified by '<new_password>'
```
5. Verify that the hour offset (hours from GMT) that you select for the time zone matches the definition of the hours offset from the time zone name you select. When defining the start and end dates for the daylight savings periods, verify that you set the accurate dates as they are defined in the country of the time zone you select. Failure to enter accurate information in either one of these fields leads to system malfunctions and can delay metric calculations.
 - a. At the location where you installed ACE2 or Content Transfer, go to %OG_HOME%\log and open the file ace2_wrapper.log, or oblisync_wrapper.log. If a message regarding the Metric Registration Information formatter appears in the log, go to %OG_HOME%\bin and run MigrateClusterMetrics.exe. Once the execution is completed, the service resumes start up.
6. (Optional step) Support requests forwarded by a reverse proxy to the website, place the prefix string into the value of the ProxyPrefix, key in the AppSettings section of the web.config file. This prefix string is configured to route the request to the website in the proxy configuration.
 - a. Verify that the website is routed correctly to the reverse proxy; verify that the proxy value is spelled correctly and is entered between the two slashes ("/prefix/").

For example, if the prefix mapped to the website is "ca", then the web.config file is updated as follows:

```
<appSettings>
<add key="ProxyPrefix" value="/ca/" />
</appSettings>
```

If the ProxyPrefix key does not exist, or if its value is an empty string, the website functions in normal mode.

- b. Add a header to the proxy configuration. The header key must be as follows: "X-Forwarded-CA-Oblicore-Proxy".

For example, if the Oblicore web application proxy access URL is `http://proxy/ca/` (ca is the prefix), then the `web.config` file is updated as follows:

```
<appSettings>
  <add key="ProxyPrefix" value="/ca/" />
</appSettings>
```

In addition to this update, a new header is added in the proxy web application configuration with the following key name: "X-Forwarded-CA-Oblicore-Proxy".

7. Update the API interface in order to take into account the changes done to the current version (for detailed information, see API Backwards Compatibility in the CA Business Service Insight SDK Guide). This is mandatory if you want to use the API code from versions before version 8.1.

Update the API to version 8.x

1. Use the WSDL from 8.2 to create the Proxy classes for the Contract Service, Portfolio Service and Repository Service. If you are upgrading from a version earlier than 8.0, use the WSDL from the last installation.
2. Recompile your API code.

If there are compilation errors:

1. Locate the code that requires manual changes and update it according to the changes made to the new API (field order, type, and so on.).
2. Recompile your API code again after making these changes.

Upgrade Log Files

When you upgrade from previous versions, CA Business Service Insight generates two log files:

OG8.xMigration.log

- The OG8.xMigration.log file is always present and always contains the entries of the last run only.
- For the first upgrade (or when no log files from a previous upgrade exist) all upgrade log entries are written here. No other log file is present upon completing the first upgrade.
- Starting at upgrade #2 (or whenever the log file OG8.xMigration.log already exists) the contents of this file are moved and appended to the OG8.xMigrationHist.log file before the upgrade begins.

**OG8.xMigrationHist.log
(upgrade history)**

- The file OG8.xMigrationHist.log is a historical upgrade file; it is created at the second upgrade and contains the entries of all upgrades previous to the current upgrade.
- At the beginning of each subsequent upgrade, the contents of OG8.xMigration.log (the previous upgrade) are moved and appended to this file.

Chapter 5: Update Password Utility

The Update Password utility modifies passwords in the CA Business Service Insight services, the CA Business Service Insight COM+ engine and Oracle DB. The utility works with CA Business Service Insight versions 8.x and higher.

Run the Update Password utility after you change any of the following passwords:

Windows password After you change the Windows password, run the Update Password Utility and enter the new password. The utility modifies services account, passwords, and COM+ engine credentials according to the password you enter. Only CA Business Service Insight services which using the user account credentials and not 'Local system' account are changed.

Oracle credentials The Update Password utility enables you to change the Oracle DB password for each of the various database users that CA Business Service Insight uses:

- Sla, Mtn, Csl, Edr, Psl, Rpt 'Obl'

Note: When you change the Obl (oblicore) password, the utility modifies the registry.xml and these two files:

- oblisync-ds.xml
- ace2-ds.xml.

Note: The 'insight' user DBSource.properties also changes.

On clean installations, the path to the utility is
C:\Program Files\CA\Cloud Insight\Utilities\PassUpdate\PassUpdate.exe.

For upgraded installations, the path to the utility is
C:\Program Files\Oblicore\Utilities\PassUpdate\PassUpdate.exe.

Chapter 6: Custom Installation

The following explains how to perform a custom installation. Use the custom installation procedure if you are installing four or more servers, or if CA support recommends this option to you.

Follow these steps:

1. Click Browse to select/create a destination folder and click Next.

or

Click Next to use the default destination folder. The Select Features window opens. Select the features you want to install.

Note: If you want to divide CA Business Service Insight services or place adapters on different servers, see [Additional Application Server Installations](#) (see page 39).

2. Select the components you want to install and click Next. Use the following table and [Custom Installation Dialog Boxes](#) (see page 69) to continue with the installation process according to the features you selected.

Selected Servers	Related Windows
Database	Database Creation
Database + Application + Web	Logon Information, Website Configuration, Services Startup Type, Log Server Configuration, Database Creation
Application	Logon Information, Services Startup Type, Log Server Configuration, Database Connection
Application + Web	Logon Information, Website Configuration, Services Startup Type, Log Server Configuration, Database Connection
Web	Logon Information, Website Configuration, Log Server Configuration, Database Connection

3. After you made your selections, the Ready to Install the Application window opens. Review the settings that were made so far. Click Next.

The Updating System window opens and installation begins.

If you chose to create a database, a command line window appears during installation.

4. Follow the on-screen instructions.

Note: If you decided not to create a database automatically, see [Creating a New Database Manually](#) (see page 29).

5. When installation finishes, a window opens, confirming a successful installation and prompts you to restart the computer (by default, Yes is selected). Click Finish. The system restarts.

This section contains the following topics:

[Custom Installation Dialog Boxes](#) (see page 69)

Custom Installation Dialog Boxes

The following table lists the custom installation dialog boxes and related information (parameters, values) that can open during installation.

Enter the values for each parameter in each dialog box that displays and click Next.

Note: Only dialog boxes related to the features you select will open. Dialog boxes will not open if the associated features have not been selected. For example, if you have not selected the Database feature, the Database Creation dialog will not open.

Note: Do not use double-byte any characters for any entry marked with a double dagger (‡).

Note: Oracle does not support the use of certain characters in its naming conventions. Refer to Oracle's literature for their specific requirements (e.g. ASCII) and limitations (special characters, double-byte characters, etc.).

Note: The Organization name cannot contain any double-byte characters.

Window Name	Parameters	Values	Remarks
Database Creation	■ Oracle Version	■ Default: server default	You may receive the standard Microsoft Enter Network Password window at various times while using the Select User window. This window may appear if you are not currently logged-in to the Domain. If necessary, enter a valid domain user and password to access the domain.
	■ DB File Location	■ Location of DB file ‡	
	■ DB server name	■ Name of DB server ‡	
	■ Character Set	■ UTF8 or MSWIN	
	■ Synonym	■ Public or Private	
Database Connection	Oracle Version	10 or 11	Default: server default
	CA Business		Type TNS name as it appears in
	Service Insight		TNSNAMES.ORA file.
	Database Instance TNS Name ‡		

Window Name	Parameters	Values	Remarks
Logon Information	User Name	Name of user	Default: User of account that ran installation. We recommend changing user and password to a dedicated domain account.
	Password	User password	
	New User Information button	See New User Information row	
Log Server Configuration	Log Server Network Address	Address where Log server is installed.	If the log server is not on the local host, change the address to the correct server. Note: The address must be the address of the log server installation.
	Log Server Network Port	Port used by Log server.	Default: 4040
New User Information	Domain or server	Name of local server	
	Group	Administrators	
	User Name	Name of user	
	Password	User password	Conforms to company policy.
	Confirm Password	Confirm password	
Services Startup Type	Automatic		All services are configured to start automatically when system starts up.

Window Name	Parameters	Values	Remarks
	Manual		Default: All services are configured to start manually when system starts up. Note: Log server service is always set to Automatic.
Log Server Configuration	Log Server Network Address	Address where Log server is installed.	If the log server is not on the local host, change the address to the correct server. Note: The address must be the address of the log server installation.
	Log Server Network Port	Port used by Log server.	Default: 4040
Website Configuration	WWWRootfolder	Location of WWWRoot folder #	Default: Current folder where website is installed.
	SessionDataFolder	Location of SessionDatafolder #	Default: Installation directory.
	SessionTimeout	Time it takes for session to timeout.	Default: 300

Chapter 7: High Availability

This section provides an overview of high availability and describes how to:

- Install CA Business Service Insight from scratch on high availability environments.
- Upgrade to CA Business Service Insight 8.2 on high availability environments.

This section contains the following topics:

[Overview](#) (see page 73)

[Installation from Scratch](#) (see page 75)

[Upgrade from Previous Versions](#) (see page 81)

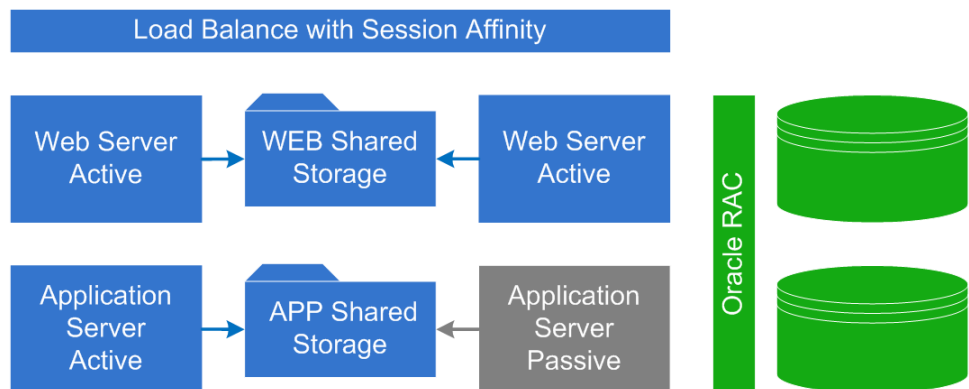
[Additional Information](#) (see page 88)

Overview

Installing CA Business Service Insight in a high availability environment is based on Windows Cluster Technology and Windows Network Load Balance (NLB) Technology. The Installation includes the Application, Web, and Adapter components.

The various servers of the application present the following solution:

- The database server is supplied by the customer and is usually an Oracle RAC deployment.
- The application server is deployed as Active/Passive.
- The web server is deployed as Active/Active using load balancing with web session affinity.



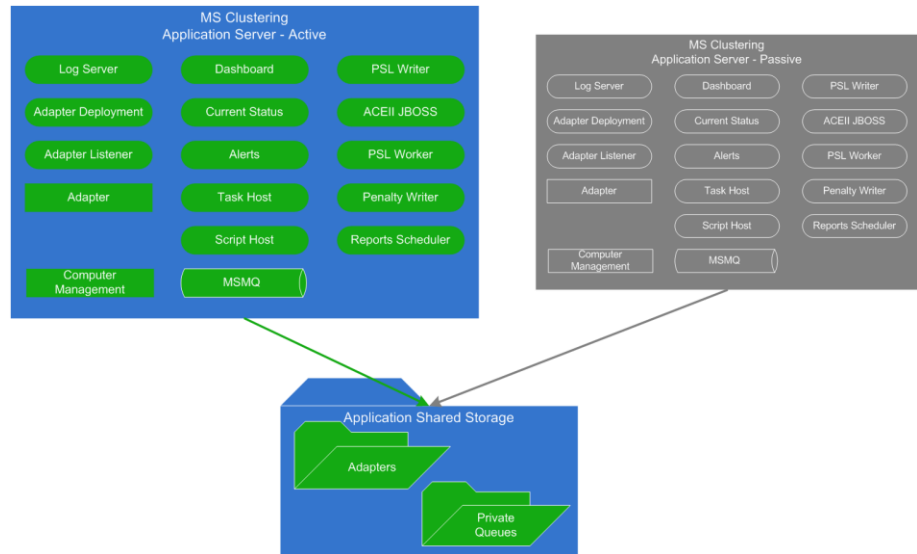
Both web and application servers require a High Availability shared file system for sharing files between the nodes. This system is supplied by the customer over any storage operating environment that complies with High Availability requirements.

Database Server

Only Oracle databases are supported. For high availability, deploy Oracle RAC.

Application Server

The application server is deployed in an active/passive mode. This means that the services running on the application server are only run on one of the servers at any given time.



The underlying High Availability infrastructure is configured to perform failover of the services from the active server to the passive server.

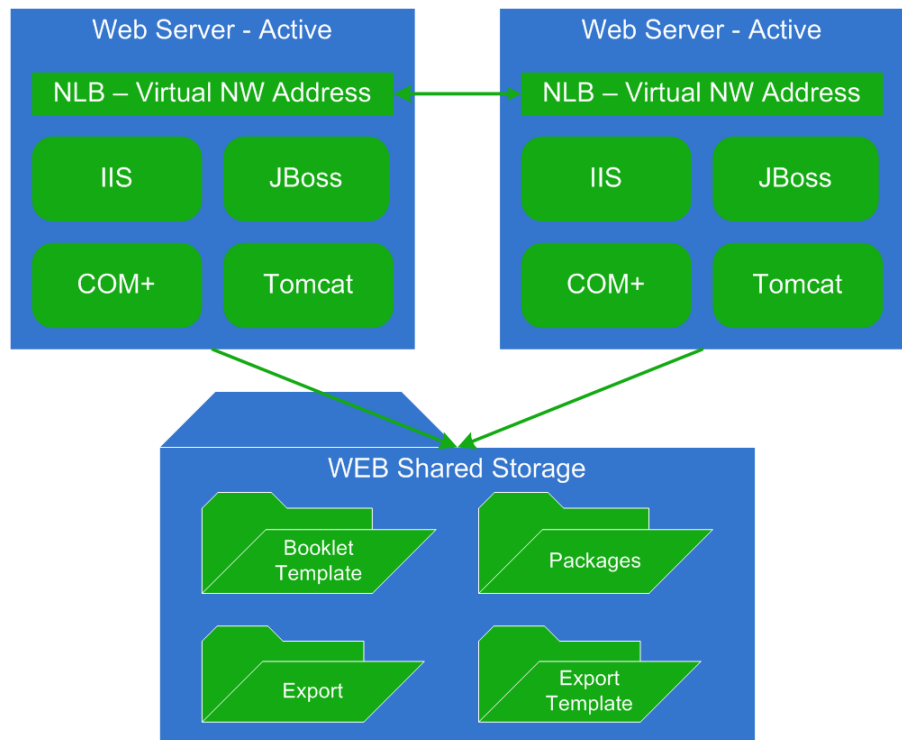
The shared data in the application server consists of the Adapter configuration, state files, and the MSMQ data files.

Web Server

The web server is deployed as Active/Active. This means that all web servers are active simultaneously and serve clients as needed.

Because the web server stores data in the IIS session, the NW load balancing must use affinity when assigning a web server to the client. Most load balancers support this functionality.

The SMI GUI components running under Tomcat use some of the states used by the legacy Oblicore Web Server.



Installation from Scratch

This section describes how to install CA Business Service Insight from scratch on high availability environments on a Windows 2008 operating environment.

Prerequisites

This section lists the prerequisites for installing CA Business Service Insight from scratch on high availability environments.

1. Verify that all prerequisites for all servers are in place. For more information, see Typical Prerequisites.
2. Create a new Oracle database. For more information, see [Create a New Database Manually](#) (see page 29).
3. Prepare four static IP addresses with assigned DNS names.

Application Server Installation

This section describes how to install the Application servers.

Follow these steps:

1. Connect to the first CA Business Service Insight Application cluster node machine.
2. Run the CA Business Service Insight installation. (See Perform a Typical Installation.)
3. Restart the first Application cluster node machine.
4. Repeat steps 1-3 on each Application cluster node machine.

Web Server Installation

This section describes how to install the web servers.

Follow these steps:

1. Connect to the first Web cluster node machine.
2. Run the CA Business Service Insight installation. (See Perform a Typical Installation.)
3. Restart the first Web cluster node machine.
4. Repeat steps 1-3 on each Web node machine.

Adapter Server Installation

This section describes how to install the CA Business Service Insight Adapter servers.

Follow these steps:

1. Connect to the first Adapter cluster node machine.
2. Run the CA Business Service Insight installation. (See [Perform a Custom Installation](#) (see page 67).)
3. Restart the first Adapter cluster node machine.
4. Repeat steps 1-3 on each Adapter cluster node machine.

Configuration

After you perform the installation from scratch, run the following activities on the Application, Web, and Adapter Servers.

Note: Verify that you have four IP addresses available for the configuration (as stated in the prerequisites).

Configuration: Application Server

This section describes the configuration activities for the CA Business Service Insight Application server.

Follow these steps:

1. Open the Failover Cluster Management program.
2. Click Service and Applications in the console tree.
3. Click More Actions, Create Empty Service or Application.
4. Create the following Groups:
 - CA Business Service Insight, Services
 - CA Business Service Insight, Current Status
 - CA Business Service Insight, ACE1 Writer
 - CA Business Service Insight, ACE2 Worker
5. Click on the CA Business Service Insight Services Group.
6. Go to Add a resource, Generic Service and add the following resources from the drop-down list. Select the resource, click next and finish.
 - Oblicore - Tomcat 6
 - Oblicore - ACE2 on JBoss Application Server
 - Oblicore - Adapter Listener
 - Oblicore - Alerts
 - Oblicore - Dashboard Engine
 - Oblicore - Log Server
 - Oblicore - PenaltyWriter
 - Oblicore - ScriptHost
 - Oblicore - Tasks Host
 - Oblicore - Reports Scheduler
7. Click on the CA Business Service Insight Services Group.
8. Go to Add a resource, Client Access Point, Enter Network Name and IP address. This takes a few moments. Do not exit until the configuration has finished.
9. Click Next, Next, Finish.
10. Perform these steps on each of the resources in the list.
 - a. Double-click the resource.
 - b. Go to the Dependencies tab.
 - c. Select access point network name and Click OK.

- Oblicore - Tomcat 6
 - Oblicore - ACE2 on JBoss Application Server
 - Oblicore - Adapter Listener
 - Oblicore - Dashboard Engine
11. Add Oblicore - Current_Status_Engine resource to CA Business Service Insight-Current Status Group.
 12. Add an Oblicore - PSLWriter resource to CA Business Service Insight - ACE1 Writer Group.
 13. Create a resource and add it to CA Business Service Insight ACE1 Writer Group for each additional PSIWriter service.
 14. Add the Oblicore - PslWorker1 resource to CA Business Service Insight - ACE2 Worker Group.
 15. Add the Message Queuing service as follows:
 - a. Open the Failover Cluster Management program.
 - b. Go to the console tree; click Service and Applications.
 - c. Click Configure a Service or Application. You receive the High Availability Wizard.
 - d. Select Message Queuing, then click Next.
The Client Access Point page opens.
 - e. Enter a value for Name, enter an available IP address under Address, then click Next.
The Select Storage page opens.
 - f. Click a disk resource, then click Next.
The Confirmation page opens.
 - g. Click Next.
The Summary page opens.
 - h. Click Finish.
 - i. Open the Server Manager. Go to Features, Messages, Private Queues. On each Application node machine, delete any queues if they are found in the Private Queues storage folder.
 - j. Open the Failover Cluster Management program. Right-click the Message Queuing service, Message Queuing, Private Queues. On each Application node machine, delete any queues if they are found in the Private Queues storage folder.
 - k. Right-click on the Message Queuing service, Manage MSMQ, Message Queuing, Private Queues. Click on Private queues and create the following:
 - OG Alerts

- OG Adapter Listener
- OG Dashboard
- OG Current Status

- I. Update the queues access network name in the database to the MSMQ clustered network address. This process can be done from the CA Business Service Insight UI by going to Administration, Site Settings, Advanced, Queues.

The Queues window opens.

The following parameters are listed: Current status MSMQ machine, Dashboard MSMQ machine, Default MSMQ machine. Update the values as necessary.

16. Bring all resources online.

Configuration: Web Server

The following configuration activities must be performed on the web server to load important templates and predefined content onto the Web server for use.

Note: To create Network Load Balancing, follow the instructions in the Microsoft TechNet guide: [http://technet.microsoft.com/en-us/library/cc754833\(W5.10\).aspx](http://technet.microsoft.com/en-us/library/cc754833(W5.10).aspx).

Follow these steps:

1. Select Program Files, Oblicore.
2. Copy the Booklet Templates, Export Templates and Packages folders to the Web shared folder.
3. Update from the GUI. Click on the menu, Administration, Site Settings, Advanced/Reports/Booklet Path.

Configuration: Adapter Servers

The following configuration activities must be performed on the CA Business Service Insight Adapter Servers.

Follow these steps:

1. Connect to the first CA Business Service Insight Adapter cluster node machine.
2. Open the Failover Cluster Management program.
3. In the console tree, click Service and Applications.
4. Click More Actions, Create Empty Service or Application.
5. Click on Oblicore - Adapter Deployment.
6. More Actions, Add a resource, Generic Service, add Oblicore – AdapterDeployment resource.
7. Go to \Program Files\Oblicore\Adapters and copy the SqlAdapter.exe and TextFileAdapter.exe files to the Adapters folder on Disk S (the clustered shared folder).
8. Open the Registry Editor and go to HKEY_LOCAL_MACHINE, SOFTWARE, Oblicore, Adapters. Verify that the AdaptersDir string has the value S:\Adapters. If not, change it to this value.
9. Repeat step 8 on each Adapter cluster node machine.
10. Right-mouse click on the resource and select "Bring this resource online".

Upgrade from Previous Versions

This section describes how to upgrade to CA Business Service Insight on high availability environments on a Windows 2008 operating environment.

The process is performed in the following sequence: Application, Web, and then Adapter servers.

Notes:

- For proper fail over of the application server, verify that enough processes and sessions are defined in the database server. We recommend doubling the processes and sessions in relation to a non-High availability environment.
- As stated, the upgrading process is performed in a sequence. Therefore, do not perform this process in parallel, but rather upgrade on one machine at a time.

Application Server Upgrade

This section explains how to upgrade the application servers.

Follow these steps:

1. Perform all prerequisite steps as described in the CA Business Service Insight Installation Guide document. (See [Upgrading from Previous Versions](#) (see page 57).)
2. Connect to the first Application cluster node machine.
3. Open the Cluster Administrator program.
4. In Action, select Open connection to cluster.
5. In Cluster or Server name, select the Application cluster name and Click OK.
6. Verify that the first Application cluster node is the owner of all Oblicore services, on Cluster Group and on Shared Folders.
7. On each CA Business Service Insight service clustered group, right-click and select Take Offline.
8. Right-click on Shared Folders and select Take Offline.
9. Verify that the Cluster Group is Online and the first Application cluster node is the owner.
10. Run the CA Business Service Insight installation. (See [Upgrading from Previous Versions](#) (see page 57)).
11. Restart the first Application cluster node machine.
12. Repeat the above steps on each Application cluster node machine and verify that it is the owner.

Upgrade the Web Servers

This section explains how to upgrade the web servers.

Follow these steps:

1. Perform all prerequisite steps. (See HA [Prerequisites](#) (see page 76)).
2. Connect to the first web node machine.
3. Run the CA Business Service Insight installation. (See [Upgrading from Previous Versions](#) (see page 57)).
4. Restart the first web node machine.
5. Repeat steps 1-4 on each web node machine.

Adapter Servers Upgrade

This section explains how to upgrade the CA Business Service Insight adapter servers.

Follow these steps:

1. Connect to the first CA Business Service Insight Adapter cluster node machine.
2. Open the Cluster Administrator program.
3. Select Open Connection to Cluster, in Action.
4. Select the Adapter cluster name and click OK, in Cluster or Server Name.
5. Verify that the first Adapter cluster node is the owner of all Oblicore services, on Cluster Group and on Shared Folders.
6. Verify that Cluster Group and Shared Folders are online.
7. Take all adapter services offline.
8. Run the CA Business Service Insight installation. (See [Upgrade to CA Business Service Insight](#) (see page 57)).

Note: If a message stating that the Distributed Transaction Coordinator service is not started appears, click Ignore.

9. Restart the first Adapter cluster node machine.
10. Repeat steps 2 -8 on each Adapter cluster node machine. Verify that the current Adapter cluster node is the owner.

Configure the Servers

Perform the following activities on the application, the web, and on the adapter servers after the upgrade.

Configure Application Server

The following configuration activities must be performed on the application server, sequentially, in the order listed here. Do not skip any of the steps.

This configures MSMQ queues.

Follow these steps:

1. On each CA Business Service Insight Application node machine, delete any queues if they are found in the Private Queues storage folder.
2. Configure MSMQ to work in a cluster as follows. (For more information, see the Microsoft website.)
3. Verify that the MSTDC resource is clustered.
4. Create and configure an MSMQ resource and group (virtual server) by opening the Cluster Administrator program.
5. In Action, select Open connection to cluster.
6. In Cluster or server name, select the Application cluster name.
7. In the console tree, click Cluster Group.

This section adds MSMQ resources.

Follow these steps:

1. Go to File, New, Resource.
2. In the New Resource Wizard, in Name, type Clustered MSMQ.
3. In the Resource type list box, select Message Queuing and click Next.
4. On the Possible Owners page, click Next.
5. On the Dependencies page, under Available resources, select the resource whose type is Network Name and click Add.
6. Select Disk S (the resource of type Physical Disk) and click Add.
7. Click Finish.

This section adds general resources.

Follow these steps:

1. Bring the Clustered MSMQ resource online.
2. In the console tree, click Cluster Group.
3. Go to File, New, Resource.

The New Resource Wizard opens.

4. Type Clustered Computer Management, in Name.
The Resource type list box opens.
5. Select Generic Application and click Next.
The Possible Owners opens.
6. Click Next.
7. The Dependencies page opens.
8. Go to Available resources; select the resource whose type is Network Name and click Add.
9. Select the Clustered MSMQ resource and click Add.
10. Click Next.
11. Type: mmc compmgmt.msc, in Command Line.
12. Type: %windir%\system32, in Current Directory.
13. Select the Use Network Name for the computer name, and the Allow Application to Interact with Desktop check boxes.
14. Click Next, and then click Finish.
15. Bring the Clustered Computer Management resource online.
A Computer Management console is displayed.

You must be logged on to the Console Session (Session 0) to view Computer Management. The MMCV.exe can also be used to manage the MSMQ queues in a Clustered environment. For more information, see the Microsoft website.

This section configures private queues.

Follow these steps:

Note: This process is only applicable if you are upgrading from 6.1 SR3 or 6.3 SR4.

1. From the Computer Management console that was opened, go to Services and Applications, Message Queuing, Private Queues and create the following four private queues.
 - OG Alerts
 - OG Adapter Listener
 - OG Dashboard
 - OG Current Status
2. Update the queues address in the database to the MSMQ clustered network address. Perform the upgrade from the CA Business Service Insight UI by going to Administration, Preferences, Advanced, Queues. The Queues window opens.

3. Open the Cluster Administrator program.
4. In Action, select Open connection to cluster.
5. In Cluster or Server name, select the Application cluster name.
6. In the console tree, click on Group.
7. Go to File, New, Group
8. Create the following Groups:
 - CA Business Service Insight - Services
 - CA Business Service Insight - Current Status
 - CA Business Service Insight - ACE1 Writer
 - CA Business Service Insight - ACE2 Worker
 - Cluster Group
9. Click on CA Business Service Insight services group.

This section adds required internal functionality resources to CA Business Service Insight.

Follow these steps.

Note: Most of the resources are present, but they have the old group names. Revise your group so that they have same names as the installation from scratch names.

1. Go to File, New, Resource. Add the following resources:
 - Oblicore - Tomcat 6
 - Oblicore - ACE2 on JBoss Application Server
 - Oblicore - Adapter Listener
 - Oblicore - Alerts
 - Oblicore - Dashboard
 - Oblicore - Log Server
 - CA Business Service Insight -Services FQDN
 - Oblicore - PenaltyWriter
 - Oblicore - ScriptHost
 - Oblicore - Tasks Host
 - CA Business Service Insight - Services Public Cluster IP
 - Oblicore - ReportsScheduler
2. Add Oblicore - Current_Status_Engine resource to CA Business Service Insight-Current Status Group.

3. Add Oblicore - PSLWriter resource to the CA Business Service Insight-ACE1 Writer Group.
4. Add Oblicore - Current_Status_Engine resource to CA Business Service Insight-ACE2 Worker.
5. Add Oblicore - PslWorker1 resource to CA Business Service Insight - ACE2 Worker Group.
6. Bring all resources online.

Web Server Configuration

The following configuration activities must be performed on the Web Server.

Note: To create Network Load Balancing, follow the instructions in the Microsoft TechNet guide: [http://technet.microsoft.com/en-us/library/cc754833\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc754833(WS.10).aspx).

Follow these steps:

1. Go to Program Files, Oblicore.
2. Copy the Booklet Templates, Export Templates and Packages folders to the Web shared folder.
3. Update from the GUI. Click on the menu, Administration, Site Settings, Advanced/Reports/Booklet Path.

Configure Adapter Servers

The following configuration activities must be performed on CA Business Service Insight Adapter servers to enable them to synchronize with CA Business Service Insight's other features.

Follow these steps:

1. Connect to the first CA Business Service Insight Adapter cluster node machine.
2. Open the Cluster Administrator program.
3. Change the Oblicore - AdapterDeployment service name in the Parameters tab to AdapterDeployment.
4. Go to \Program Files\Oblicore\Adapters and copy the SqlAdapter.exe and TextFileAdapter.exe files to the Adapters folder on Disk S (the clustered shared folder).
5. Open the Registry Editor and go to HKEY_LOCAL_MACHINE, SOFTWARE, Oblicore, Adapters. Verify that the AdaptersDir string has the value S:\Adapters. If not, change it to this value.
6. Bring all adapter services online.

Additional Information

This section includes additional information to supplement the installation process. This includes:

- A table describing configurable parameters for High Availability.
- Known issues.

Configurable Parameters For High Availability

The following table is a list of configurable parameters for High Availability. Access the parameters from Administration, Site Settings, Advanced, Configuration, then select the entity. The parameters are for both from scratch installations and upgrades.

Entity	Value
SMI Application Server	Tomcat shared network IP Address in application server
Administration	Tomcat shared network IP Address in application server
ACE2	Shared address of application server
Adapter Wizard	Shared address of application server
Queues (Current status MSMQ machine, Dashboard MSMQ machine, Default MSMQ machine)	Shared address of application server
Reports	Location of shared storage folder/Booklet Path
System	WEB NLB address

Known Issues

There is a known issue where High Availability does not support the Content Transfer feature (Content Transfer, Import, Export, Packages).

To resolve: Follow the below steps to work with a specific web server directly. If this web server fails, change the configuration to work with another server.

1. Configure a specific server by selecting one of the web servers designated for Content Transfer use. Verify that it is accessible directly, not only through the Load Balancer.
2. Turn on the Oblicore – Oblisync service on the JBoss Application Server and set it to automatic, on the selected web server.
3. Point the web browser to the JBoss Service on the selected web server.
4. Click on Administration, Site Settings, Advanced, Configuration, Content Transfer from the CA Business Service Insight UI.
5. Change the Content Transfer Server parameter value to point to the server selected in step 1. Use this format:
http://ServerName:8180/ObliSyncApi/services/ObliSync.wsdl.
6. Configure the following parameters in the database: t_system_configurations.

Entity	Value
configuration_directory	<Installation Directory>Packages\Configuration\
input_directory	<Installation Directory>Packages\
log_directory	<Installation Directory>Packages\Log\
output_directory	<Installation Directory>Packages\
temp_directory	<Installation Directory>Packages\Temp\

Note: If you already have exported packages, move the packages from the server that failed to another server.

Chapter 8: Silent Installation

This section provides instructions for server and client silent installations.

Silent Installations do not display messages or windows when in progress. Instead, Silent Installation reads the input from the answer file without user input.

Each Server Answer File can be used to install a specific CA Business Service Insight server (for example, a Web Server) containing the set of features detailed within the .iss answer file. For example, My_Web_Server_File.iss. No features other than those that are recorded in the Answer File can be installed or changed using that specific file.

An .iss answer file can be used an unlimited number of times to install the specific server with the specific features detailed within the file. Create a separate .iss file to install different features or a different type of CA Business Service Insight server using an Answer File.

Note: The CA Business Service Insight installation folder contains examples of .iss files. These files are only examples. CA Technologies does not recommend editing or using these files for actual silent installations.

Note: Silent installation is only supported for typical installations.

This section contains the following topics:

[Installation and Regional Settings](#) (see page 92)

[Server Silent Installation](#) (see page 92)

[Application Server Silent Installation \(Upgrade\)](#) (see page 100)

[Client Silent Installation](#) (see page 103)

Installation and Regional Settings

In some cases, regional language settings other than English sometimes change certain installation commands and disrupts the installation.

When your regional language setting is not English you must temporarily change your regional settings to English (USA) and adhere to the following installation sequence.

1. Before installing CA Business Service Insight, change your regional settings to English (USA).
2. Install according to the procedures described in this Guide.
3. Reboot.
4. Revert to your local regional settings.
5. Reboot.
6. Use CA Business Service Insight

Server Silent Installation

The server silent installation receives input from the InstallShield Silent answer file (.iss file). The InstallShield's Silent Installation reads the input from the answer file and runs the installation without user input. The internal format of the .iss files is similar to those of .ini files, but has an .iss extension.

This section explains the server silent installation for from-scratch installations.

Note: Silent installation is only supported for typical installations.

Record the Server Answer File

This section explains how to record a server answer file. The server answer file contains all answers to selections made during a recorded installation. A silent installation uses the recorded answers as input instead of interactive user input to dialog boxes during the normal installation process.

Important: Before you begin to record the Server Answer File, verify that the MSTDC service is started on each server that you use to record the Service Answer file.

- If the MSTDC service is not started, you must start it manually.

Important: Before you *run* a server installation in Silent Mode, verify that the MSTDC service is started on the server on which you are installing CA Business Service Insight.

- If the MSTDC service is not started on the server on which you are installing CA Business Service Insight (the server that uses the Server Answer file), you must start the service manually before you start the installation procedure.

Example: Record the Server Answer File

Enter this command from the command line to record your answers to all Installation dialog boxes. InstallShield records all your setup choices in the file Setup.iss and places it by default into the Windows folder.

```
Cloud_Insight_Server_8.2.exe /r
```

Note: (Optional step) To not use the default name and location of the answer file, run the command `Cloud_Insight_Server_8.2.exe /r /f1"<location and name of answer file>.iss"`

For example: `Cloud_Insight_Server_8.2.exe /r /f1"c:\Silent\my_server_answer_file.iss"`.

Note: Record a separate server answer file to change server features (see [Change Features](#) (see page 96)).

Server Answer File Example

The following shows the contents of an example answer file. Additional sample answer files are located in the Server/Silent sample files folder.

```
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-DlgOrder]
Dlg0={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdWelcome-0
Dlg0={6F05CFDE-F12C-4928-B49D-4432BC307C16}-CheckWindowsService-0
Count=13
Dlg1={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLicense2-0
Dlg2={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdOrganizationDlg-0
Dlg3={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SetupType2-0
Dlg4={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdAskDestPath-0
Dlg5={6F05CFDE-F12C-4928-B49D-4432BC307C16}-TypicalFeatureInstallDlg-0
Dlg6={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLogonUserInformation-0
Dlg7={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SelectDir-0
Dlg8={6F05CFDE-F12C-4928-B49D-4432BC307C16}-RunDBInstallDlg-0
Dlg9={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdStartCopy-0
Dlg10={6F05CFDE-F12C-4928-B49D-4432BC307C16}-MessageBox-0
Dlg11={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdFinishReboot-0
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-CheckWindowsService-0]
CHECK_SERVICE_IGNORE=1
CHECK_SERVICE_RETRY=0
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdWelcome-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLicense2-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdOrganizationDlg-0]
ORGANIZATIONNAME=CA
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SetupType2-0]
Result=304
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdAskDestPath-0]
szDir=C:\Program Files (x86)\CA\Cloud Insight\
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-TypicalFeatureInstallDlg-0]
DBFEATURE=1
APPFEATURE=1
WEBFEATURE=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLogonUserInformation-0]
USERNAME=ISTA0BCMI13\Administrator
PASSWORD=my_password
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SelectDir-0]
Result=1
szDir=C:\ins
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-RunDBInstallDlg-0]
SERVER_NAME=ins
DB_FILE_LOCATION=C:\ins
ORACLE_VERSION=11
DB_CHARSET=UTF8
DB_SYNONYM=Public
```

```
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdStartCopy-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-MessageBox-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdFinishReboot-0]
Result=6
BootOption=3
```

Change the Company Name

This section explains how to enter or to change the company name, manually. The company name is used during logon.

Follow these steps:

1. Go to the following section of the answer file.
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdOrganizationDlg-0]
ORGANIZATIONNAME=<Your organization name>
2. Change the parameter <Your organization name> to your company name.

Change the Directory

This section explains how to change the installation directory to any desired directory, manually.

Follow these steps:

1. Go to the following section of the answer file.
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdAskDestPath-0]
szDir=<Drive and folder>
2. Change the parameter <Drive and folder> to the desired drive and folder.

Change Features

This section explains how to change current CA Business Service Insight Features on your existing installation by creating and using a Change Features Answer File.

Example: Record the Change Features File

Enter this command from the command line to record your Change Features answers.

```
Cloud_Insight_Server_8.2.exe /r
```

InstallShield records all your setup choices into the Setup.iss file and places it by default into the Windows folder.

Note: If you do not want to use the default name and location for the answer file, run the command

```
Cloud_Insight_Server_8.2.exe /r /f1"<location and name of answer file>.iss".
```

For example:

```
Cloud_Insight_Server_8.2.exe /r f1"c:\Silent\change_features_server.iss"
```

Note: Record a separate server answer file to change features of a specific installation.

Note: An Answer File is specific to a specific installation and can install or remove only the specific set of features contained within the file.

Change a User Name and Password

This section explains how to change a user name and password, manually.

Follow these steps:

1. Go to the following section of the answer file.
[{6F05CFDE-F12C-4928-B49D-4432BC307C16-SdLogonUserInfo-0}
 USERNAME=<Server name>\<User name>
 PASSWORD=<Password>
2. Change the parameter <Server name>\<User name> to the desired user name.
Note: In case you are using a domain account, specify the domain name in the USERNAME parameter.
3. Change the parameter <Password> to the desired password.

Change Database Parameters

This section explains how to change the database parameters, manually.

Follow these steps:

1. Go to the following section of the answer file. You only receive the SelectDir line if you selected the Browse button during the original installation.
[{6F05CFDE-F12C-4928-B49D-4432BC307C16-SdAskDestPath-0}
szDir=<Drive and folder>
Note: If you chose Browse during the recording, update the szDir value to be the same as the DB_File_Location value.
SERVER_NAME=<DB service name>
DB_FILE_LOCATION=<Drive and folder>
ORACLE_VERSION=<10 or 11>
DB_CHARSET=<UTF8 or WE8MSWIN1252>
DB_SYNONYM=<Public or Private>
[{6F05CFDE-F12C-4928-B49D-4432BC307C16-SdStartCopy-0}
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16-MessageBox-0}
Result=1
2. Change the parameter <DB service name> to the desired database service name.
3. Change the parameter <Drive and folder> to the desired Database File location.
Note: Change the parameter <Drive and folder> at the SelectDir section and at the database file location.
Note: The path to the Database Folder Location can contain ASCII characters only. No other characters are permitted. Only ASCII characters are allowed.
4. You can change the Oracle Version to either 10 or 11.
5. The default database size is predetermined.
6. The default charset is UTF8. You can change it to WE8MSWIN1252.
7. The default database synonym is public. You can change it to private.

Change the Reboot Options

This section explains how to change the reboot options, manually.

Follow these steps:

1. Go to the following section of the answer file.
[{6F05CFDE-F12C-4928-B49D-4432BC307C16-SdFinishReboot-0}
Result=6
BootOption=3
2. The default bootoption is 3, which forces a reboot automatically after installation finishes. If you want to reboot manually, change the parameter value to 0.

Run the Server Installation in Silent Mode

This section explains how to run the server installation in Silent Mode. Silent mode does not require user input.

Important: Before you run a server installation in Silent Mode, verify that the MSTDC service is started on the server on which you are installing CA Business Service Insight.

- If the MSTDC service is not started on the server on which you are installing CA Business Service Insight (the server that uses the Server Answer file):
 - Start the service manually before you start the installation procedure.

Follow these steps to run the server Installation in Silent Mode:

1. From the command line, run the command:
Cloud_Insight_Server_8.2.exe /s /f1"%windir%\setup.iss.
Note: The /f1 switch defines the location of the answer file. A log file, setup.log, is generated and contains the setup information, including the status of the setup.
2. If the setup was not successful, refer to Log File Return Values. Correct the Setup.iss file according to the table and then repeat step 1.

Note: Do not use run a server installation in Silent Mode at the same time as you are running any other program of any kind.

Post Installation Activities

After the installation finishes, you can verify the ResultCode value in the [ResponseResult] section of Setup.log to verify the success or failure of the silent setup. InstallShield writes an appropriate return value after the ResultCode keyname.

The following sections explain how to read and interpret the log.

Setup Log File

The Setup.log file consists of the ResponseResult file. This file contains the result code indicating the success or failure of the silent setup. An integer value is assigned to the ResultCode keyname in the [ResponseResult] section. The Setup.log file for a successful silent setup of InstallShield is as follows.

```
[ResponseResult]  
ResultCode=0
```

Log File Return Values

InstallShield places one of the following return values after the ResultCode keyname:

Integer Value	ResultCode Keyname
0	Success.
-1	General error.
-2	Invalid mode.
-3	Required data not found in the Setup.iss file.
-4	Not enough memory available.
-5	File does not exist.
-6	Cannot write to the response file.
-7	Unable to write to the log file.
-8	Invalid path to the InstallShield Silent response file.
-9	Not a valid list type (string or number).
-10	Data type is invalid.
-11	Unknown error during setup.
-12	Dialog boxes are out of order.
-51	Cannot create the specified folder.
-52	Cannot access the specified file or folder.
-53	Invalid option selected.

Application Server Silent Installation (Upgrade)

The server silent installation receives input from the InstallShield Silent answer file (.iss file). InstallShield Silent Installation reads the input from the answer file and runs the installation without user input. The format of response files is similar to an .ini file, but has an .iss extension.

This section explains the server silent installation for Application and Web server upgrades.

Note: Silent Installation is only supported for typical installations.

Record the Server Answer File

This section explains how to record a server answer file. The server answer file contains all answers to selections made during a recorded installation. A silent installation uses the recorded answers as input instead of interactive user input to dialog boxes during the normal installation process.

Example: Record the Server Answer File

From the command line, run the command

```
Cloud_Insight_Server_8.2.exe /r
```

InstallShield records all your setup choices in Setup.iss and places it by default into the Windows folder.

Note: If you do not want to use the default name and location of the answer file, run the command `Cloud_Insight_Server_8.2.exe /r /f1"<location and name of answer file>.iss"`

For example:

```
Cloud_Insight_Server_8.2.exe /r /f1"c:\Silent\server.iss"
```

Server Answer File Example

The following is an example of an answer file. Additional sample answer files are located in the Server/Silent sample files folder.

```
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-DlgOrder]
Dlg0={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdWelcome-0
Count=6
Dlg1={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLicense2-0
Dlg2={6F05CFDE-F12C-4928-B49D-4432BC307C16}-RunMigrationScriptDlg-0
Dlg3={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLogonUserInformation-0
Dlg4={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdStartCopy-0
Dlg5={6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdFinishReboot-0
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdWelcome-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLicense2-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-RunMigrationScriptDlg-0]
RUN_MIGRATION=<0 or 1>
SERVER_NAME=<DB service name>
SCHEMA_USER_NAME=<DB user name>
SCHEMA_PASSWORD=<DB user password>
SYS_PASSWORD=<DB SYS user password>
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLogonUserInformation-0]
USERNAME=<Server name>\<User name>
PASSWORD=<Password>
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdStartCopy-0]
Result=1
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdFinishReboot-0]
Result=6
BootOption=3
```

Run Migration

This section explains how to migrate (update) the database from the server answer file silent upgrade. The database must be upgraded in order for it to be compatible with the current CA Business Service Insight version.

Follow these steps:

1. Go to the following section of the answer file.

```
[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-RunMigrationScriptDlg-0]
RUN_MIGRATION = <0 or 1>
```
2. Change the value of the run_migration parameter to 0 to not migrate the database. Change it to 1 in order to migrate the database.

Change the Server Name

This section explains how to change the server name, manually.

Follow these steps:

1. Go to the following section of the answer file.
`SERVER_NAME=<DB service name>`
2. Change the value <DB service name> to your server name.

Change the Schema User Name

This section explains how to change the schema user name, manually.

Follow these steps:

1. Go to the following section of the answer file.
`SCHEMA_USER_NAME=<DB user name>`
2. Change the value <DB user name> to the desired schema user name.

Change the Schema Password

This section explains how to change the schema password, manually.

Follow these steps:

1. Go to the following section of the answer file.
`SCHEMA_PASSWORD=<DB user password>`
2. Change the value <DB user password> to the desired schema password.

Change the System Password

This section explains how to change the system password, manually.

Follow these steps:

1. Go to the following section of the answer file.
`[SYS_PASSWORD=<DB SYS user password>`
2. Change the parameter <DB SYS user password> to the desired system password.

Change the User Name

This section explains how to change the user name, manually.

Follow these steps:

1. Go to the following section of the answer file.
`[{6F05CFDE-F12C-4928-B49D-4432BC307C16}-SdLogonUserInformation-0]`
`USERNAME=<Server name>\<User name>`
2. Change the parameter <Server name>\<User name> to the desired user name.

Change the Password

This section explains how to change the password, manually.

Follow these steps:

1. Go to the following section of the answer file.
`[PASSWORD=<Password>`
2. Change the parameter <Password> to the password.

Client Silent Installation

The Client silent installation receives input from the InstallShield Silent answer file (.iss file) and runs the installation without user input. The format of the answer file is similar to an .ini file, but has an .iss extension.

Recording the Client Answer File

This section explains how to record the client answer file. The answer file contains all answers to selections made during a recorded installation. A silent installation uses the recorded answers as input instead of interactive user input to dialog boxes during the normal installation process.

Example: Record the Client Answer File

Enter this command from the command line to record your answers to the client Installation dialog boxes. InstallShield records all your setup choices in the file Setup.iss and places it by default into the Windows folder.

```
CloudInsight8.2_Client.exe /r
```

InstallShield records all your setup choices in Setup.iss and places the file it by default into the Windows folder.

Note: If you do not want to use the default name and location of the answer file, run the command `CloudInsight8.2_Client.exe /r /f1"<location and name of answer file>.iss"` command.

For example,

```
CloudInsight8.2_Client.exe/r /f1"c:\Silent\client.iss"
```

Client Answer File Example

The following is an example of a client answer file. Additional sample answer files are located in the Server/Silent sample files folder.

```
[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-DlgOrder]
Dlg0={8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdWelcome-0
Dlg1={8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdLicense2-0
Dlg2={8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdAskDestPath-0
Dlg3={8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdFinish-0
Count=4
[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdWelcome-0]
Result=1
[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdLicense2-0]
Result=1
[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdAskDestPath-0]
szDir=C:\Program Files\CA\Cloud Insight\Client\
Result=1
[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdFinish-0]
Result=1
bOpt1=0
bOpt2=0
```

Change the Destination Path

This section explains how to change the Client destination path to any desired directory, manually.

Follow these steps:

1. Open the answer file and go to the following section.
[[{8052F2E0-6031-4985-A87A-E10E388AF1AF}-SdAskDestPath-0]
szDir=C:\Program Files\CA\Cloud Insight\Client\
Result=1
2. Change the path C:\Program Files\CA\Cloud Insight\Client to the desired path.

Run the Client Installation in Silent Mode

This section explains how to run the client installation in Silent Mode. Silent mode does not require user input.

Follow these steps:

1. Open a command line and run this command
Cloud_Insight_Server_8.2/s /f1"%windir%setup.iss command.
Note: The /f1 switch defines the location of the answer file. A log file named setup.log, is generated and contains the setup information, including the success or failure of the setup.
2. Run the command again if the setup is not successful.

Chapter 9: Required Post Installation Activity

Carry out the steps in this section immediately after installation of CA Business Service Insight 8.2 on Windows Server 2008 R2.

This needs to be done only one time and does not need to be done when installing CA Business Service Insight on other servers.

This section contains the following topics:

[1-Tier Installations](#) (see page 107)

[Multi-Tier Installations](#) (see page 108)

[3-Tier Installations: Advanced Settings](#) (see page 110)

[Select Language](#) (see page 113)

1-Tier Installations

1. Install CA Business Service Insight 8.2 according to the instructions in the Installation Guide.
2. Ignore the DocumentLoader error that can be received towards the end of the installation.
3. When prompted to restart after the BSI installation, open a Window 32-bit command prompt as follows:
 - a. Click Start, Run.
The Run window opens.
 - b. Enter the following command into the Run window:
C:\Windows\SysWOW64\cmd.exe
The command prompt opens.
4. In the command prompt, type:

```
cd %OG_HOME%\bin
C:\Windows\Microsoft.NET\Framework\v2.0.50727\regasm.exe /codebase
"%OG_HOME%\bin\BSI_NetUtils.dll"
StringsLoader.exe -a [Path to language strings xml files]
(For example: C:\Inetpub\wwwroot\0blicore\App_Data\Resources)
cd %OG_HOME%\Setup\Migration\
DocumentLoader.exe
```
5. Restart the server.

Multi-Tier Installations

Follow the post-installation steps described here when your installation is multi-tier.

Server contains both App and Web Components

When the server contains both App and Web Components:

1. Install CA Business Service Insight 8.2 according to the instructions in the Installation Guide. (make sure that the option “Copy Database Files” is checked)
2. Ignore the DocumentLoader error that may be received towards the end of the installation.
3. When prompted to restart after the BSI installation, open a Window 32-bit command prompt as follows:
 - a. Click Start, Run.
The Run window opens.
 - b. Enter the following command into the Run window:
`C:\Windows\SysWOW64\cmd.exe`
The command prompt opens.
4. In the command prompt, type:
`cd %OG_HOME%\bin`
`ren NetUtils.dll BSI_NetUtils.dll`
`C:\Windows\Microsoft.NET\Framework\v2.0.50727\regasm.exe /codebase`
`"%OG_HOME%\bin\BSI_NetUtils.dll"`
`StringsLoader.exe -a [Path to language strings xml files]`
(For example: `C:\Inetpub\wwwroot\Oblicore\App_Data\Resources`)
`cd %OG_HOME%\Setup\Migration\`
`DocumentLoader.exe`
5. Restart the server.

APP and WEB Components are Separate and Installed on Different Servers

On the Web Server

1. Install CA Business Service Insight 8.2 according to the instructions in the Installation Guide. Make sure to check the option "Copy Database Files".
2. At the prompt instructing you to restart after the BSI installation, open a Window 32-bit command prompt as follows:
 - a. Click Start, Run.
The Run window opens.
 - b. Enter the following command into the Run window:
`C:\Windows\SysWOW64\cmd.exe`
3. In the command prompt, type:
`cd %OG_HOME%\bin`
`C:\Windows\Microsoft.NET\Framework\v2.0.50727\regasm.exe /codebase "%OG_HOME%\bin\BSI_NetUtils.dll"`
`StringsLoader.exe -a [Path to language strings xml files]`
(For example: `C:\Inetpub\wwwroot\0blicore\App_Data\Resources`)
`cd %OG_HOME%\Setup\Migration\`
`DocumentLoader.exe`
4. Restart the server.

On the APP Server

1. Install CA Business Service Insight 8.2 according to the instructions in the Installation Guide.
2. When prompted to restart after the BSI installation, open a Window 32-bit command prompt as follows:
 - a. Click Start, Run.
The Run window opens.
 - b. Enter the following command into the Run window:
`C:\Windows\SysWOW64\cmd.exe`
3. In the command prompt, type:
`cd %OG_HOME%\bin`
`C:\Windows\Microsoft.NET\Framework\v2.0.50727\regasm.exe /codebase "%OG_HOME%\bin\BSI_NetUtils.dll"`
4. Restart the server.

3-Tier Installations: Advanced Settings

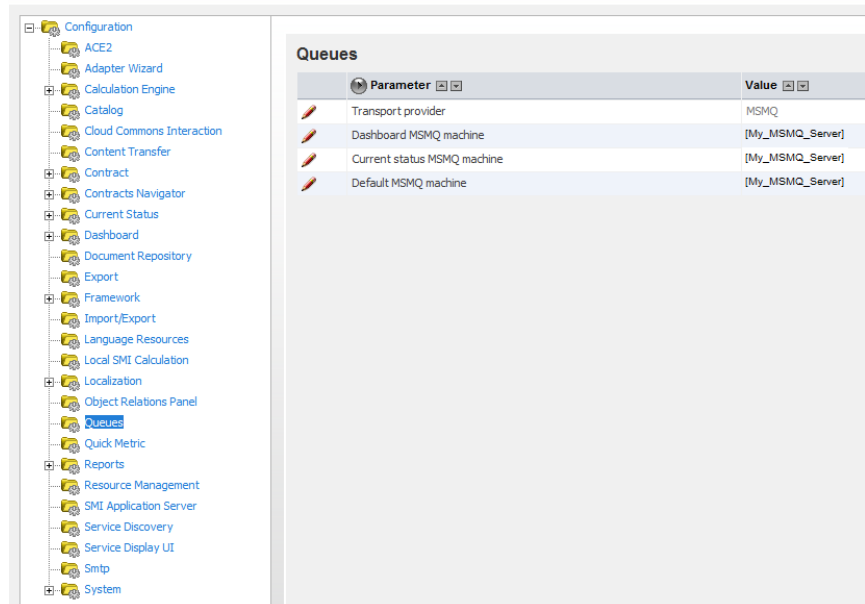
During installation on 3-tier environments some Advanced Settings are not automatically updated. Update the following items manually.

MSMQ Configuration

On three tier environments the MSMQ configuration server locations are not automatically updated with the Application Server Name.

1. Update the Queues settings manually via Administration, Advanced Settings, Queues as shown in the figure below.

Advanced Settings



The screenshot shows the 'Advanced Settings' window. On the left is a tree view of configuration categories. The 'Queues' category is selected and highlighted in blue. On the right, the 'Queues' configuration panel is displayed, showing a table with parameters and their values.

Parameter	Value
Transport provider	MSMQ
Dashboard MSMQ machine	[My_MSMQ_Server]
Current status MSMQ machine	[My_MSMQ_Server]
Default MSMQ machine	[My_MSMQ_Server]

ACE2 Configuration

On three tier environments the ACE2 server locations are not automatically updated with the Application Server Name.

1. Update the ACE2 settings manually via Administration, Advanced Settings, ACE2 as shown in the figure below.

Advanced Settings

Configuration

ACE2

Adapter Wizard

Calculation Engine

Catalog

Cloud Commons Interaction

Content Transfer

Contract

Contracts Navigator

Current Status

Dashboard

Document Repository

Export

Framework

Input/Export

Language Resources

Local SMI Calculation

Localization

Object Relations Panel

Queue

Quick Metric

Reports

Resource Management

SMI Application Server

Service Discovery

Service Display UI

Setup

System

ACE2

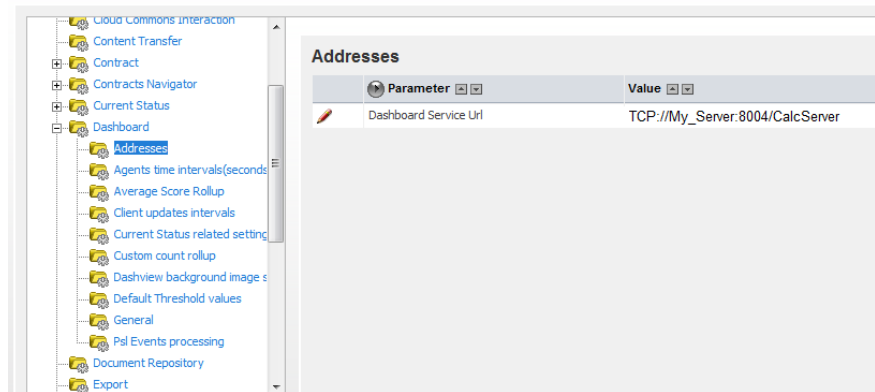
Parameter	Value
Worker Stats History Period	14
ACE2 Server	[My_ACE2_Server]
Default PSL Instance	0
Enable Advanced Registration	0
is monitored events enable for defined bridges	Y
Use Re-Registration	0
maximal data events size	100000
monitored events for defined bridges	SLA_BRIDGE,MODULES_BRIDGE
ACE2 Port	1299
Is ace2 default engine	1
Has ACE2	1

Dashboard: Addresses

On three tier environments, Dashboard Addresses settings are not automatically updated.

1. Update the Dashboard, Addresses settings manually via Administration, Advanced Settings, Dashboard, Addresses as shown in the figure below.

Advanced Settings

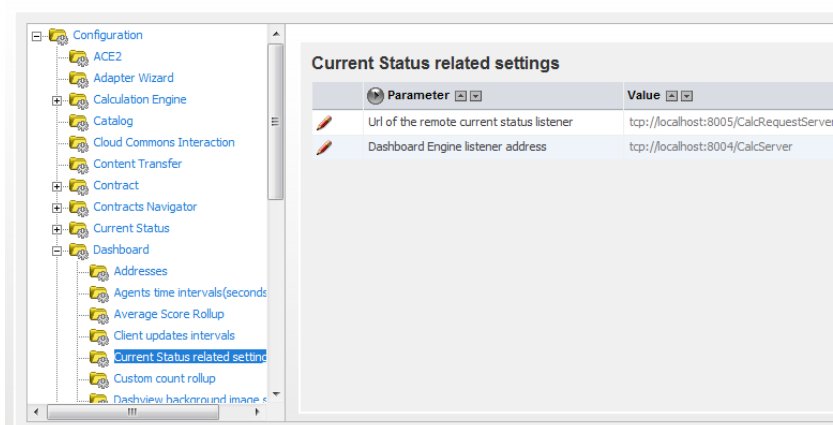


Dashboard: Current Status

On three tier environments Dashboard, Current Status settings are not automatically updated.

1. Update the Dashboard, Current Status settings manually via Administration, Advanced Settings, Dashboard, Current Status related settings as shown in the figure below.

Advanced Settings



Registry Keys

A problem exists when scheduling booklets using the Docx template on 3-tier systems. A workaround for this problem by modification of the registry settings is described here.

Apply this workaround to the CA Business Service Insight App Server.

1. Add the following registry key:
[
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Oblicore\Install Data\
]
"WWWRootFolderLocation" = "C:\Program Files (x86)\CA\Cloud Insight"
Note: Type = String Value
Note: Must correspond to the "Cloud Insight" folder location
2. On the Application Server, create the folder C:\Program Files (x86)\CA\Cloud Insight\ App_Data\Schemas
3. On the Web server, copy the folder C:\inetpub\wwwroot\Oblicore\App_Data\Schemas\Contract to the folder created in the previous step.

Select Language

1. To select the language of the CA Business Service Insight interface, move the mouse cursor to the Username (Organization) menu item (left of the "logout" menu item).
The Settings menu item displays.
2. Click Settings.
The User Preferences dialog displays.
3. Select the interface language from the Preferred Language option.
4. Click Save.

A message appears and CA Business Service Insight now displays the selected interface language. This continues to be the default language until you change it.

Appendix A: MS Word Add-in

If the CA BSI tab does not appear on your local copy of Word 2010, you must install the MS Word Add-in in order to use its features.

This section contains the following topics:

[Installing the MS Word Add-in](#) (see page 115)

Installing the MS Word Add-in

Follow these instructions to MS Word Add-on.

1. From the CA Business Service Insight installation folder, double click on the CA BSI Booklet Addon.exe file.

The installation wizard opens.

2. Follow the on-screen instructions.
3. Open Word.

The new CA BSI tab appears on the ribbon.

Notes:

1. The installation wizard stops if you do not have .NET 4 installed on the client machine. Install NET 4 and then double click on the executable file again to restart the wizard.
2. You can also find the installation link on the CA Business Service Insight web UI.
 - a. Reports, on the Booklet Properties page
 - b. Document Repository, on the Document Details page
 - c. Contract Attachments, on the Attachment Details page

Appendix B: Important Information for Windows 2008 Server R2

This document contains important information regarding this release and contains the following topics:

- Prerequisites

This section contains the following topics:

[Installation and Regional Settings](#) (see page 117)

[Prerequisites](#) (see page 117)

Installation and Regional Settings

In some cases, regional language settings other than English sometimes change certain installation commands and disrupts the installation.

When your regional language setting is not English you must temporarily change your regional settings to English (USA) and adhere to the following installation sequence.

1. Before installing CA Business Service Insight, change your regional settings to English (USA).
2. Install according to the procedures described in this Guide.
3. Reboot.
4. Revert to your local regional settings.
5. Reboot.
6. Use CA Business Service Insight

Prerequisites

This section lists the prerequisites that must be in place before beginning installation of CA Business Service Insight 8.2 on Windows 2008 Server R2.

Install and Configure Internet Information Services (IIS)

Install Internet Information Services (IIS) version 7.5 on the Web Server before installing CA Business Service Insight 8.1.1 Use all IIS Configuration prerequisites (refer to the IIS website).

IIS Configuration

Install the following role services for Web Server IIS Role Services.

- Common HTTP Features
 - Application Development
 - ASP
 - ASP.NET
 - COM+
 - Default Document
 - Directory Browsing
 - HTTP Errors
 - ISAPI Extensions
 - ISAPI Filters
 - .NET Extensibility
 - Static Content
- Health and Diagnostics
 - Request Filtering
 - Management Tools
 - IIS Management Console
 - IIS 6 Management Compatibility
 - IIS 6 Metabase Compatibility
 - IIS 6 WMI Compatibility
 - IIS 6 Scripting Tools
 - IIS 6 Compatibility Management Console

Appendix C: Installing CA Business Service Insight Database on Linux Servers

This section describes installation of a CA Business Service Insight database on Linux servers.

This section contains the following topics:

[Linux Installation](#) (see page 119)

Linux Installation

This section describes how to install a CA Business Service Insight database on a Linux system.

Note: Before you install the database on Linux, connect to oracle user in the O/S level (do not run main.sh from user root).

Download Media to DB Server

Download Media to DB Server

1. Download the media from the CA Support website (support.ca.com).
2. Unzip the media.
3. Burn the file to CD or open it as a cd so that the integrity of the text files in not corrupted.
 - a. Alternatively, copy the ISO to the Linux server and use the command `mount -o loop` to ensure integrity, or:
 - b. Transfer the folder `Server\program files\CA\Cloud Insight\Setup\InstallDB` from the main installation CD using a proper ftp or SCP tool to copy from Windows to Linux.
4. Use binary ftp to transfer the media to the Linux DB server.

Note: If you cannot use binary ftp for the transfer, convert the files to Linux/UNIX.

TNSNames Setup

1. Update the file `tnsnames.ora` with an entry for the database and sid being used (oblicore).

Setup

File conversion [Optional]

If files were not transferred in binary version, convert the required files to Unix.

```
cd /u03/oblicore/CA_Oblicore_Guarantee

dos2unix Setup/Installdb/Main.sh
dos2unix Setup/Installdb/start_parameters.ini
dos2unix Setup/Installdb/Build_Schema/schema_build.sh
dos2unix Setup/Installdb/Build_DB/mkdir.sh
dos2unix Setup/Installdb/Build_DB/CreateInstance.sh
dos2unix Setup/Installdb/Build_DB/PostCreateInstance.sh
dos2unix Setup/Installdb/Build_TBS_Users/tbs_users_build.sh
```

File permission update

Set execute permission on .sh files.

```
find . -name "*.sh" | xargs -n1 chmod u+x
```

Install Sub-script fix

Install Sub-script fix

```
cd /u03/oblicore/CA_Oblicore_Guarantee/Setup/Installdb/Build_DB
```

1. Open the PostCreateInstance.sh file.
2. Replace these lines in the PostCreateInstance.sh file:
If [\$ORACLE_VERSION = 9]
then SQL_FILE=alter_system_large_9.sql
else SQL_FILE=alter_system_large_10_11.sql

with the following lines:

```
If [ $ORACLE_VERSION = "9" ]  
then SQL_FILE=alter_system_large.sql  
else SQL_FILE=alter_system_large.sql
```

Installation

Installation

1. Log in and become oracle.

Note: Specific steps depend upon your Linux/Unix installation "flavor".

2. Enter the following command:

```
cd /u03/oblicore/CA_Oblicore_Guarantee/Setup/Installdb
```

- a. Edit the start_parameters.ini file (see below for Client dev actual).

```
[DataBaseDetails]
```

```
OBLICORE_ROOT=/u03/oradata
```

```
ORACLE_HOME=/u01/app/oracle/product/11.1.0/db_1
```

```
SYS_PASS=sys
```

```
OBLICORE_USER=oblicore
```

```
OBLICORE_PASS=oblicore
```

```
DB_CHARSET=utf8
```

```
DB_SYNONYM=public
```

Note: CERT ORACLE_HOME=c:\oracle\product\11.1.0\db_1

3. Run the command:

```
/u03/oblicore/CA_Oblicore_Guarantee/Setup/Installdb/Main.sh
```

Answer the resulting prompt:

Please select the character set to be used in your database:

```
1. UTF8      (AL21UTF8)
```

```
2. PUBLIC   (WE8MSWIN1252)
```

For more information about selecting the character set, please see the Installation Document, Oblicore Server Installation/Installing OG 8.2 From Scratch/Typical Installation.

Please make your selection [1/2]

4. Select: 1. UTF8

Answer the resulting prompt:

Please select type of synonyms to be used in your database:

```
1.PUBLIC
```

```
2.PRIVATE
```

For more information about selecting private or public synonyms, please see the Installation Document, Installing OG 7.0 From Scratch/Typical Installation.

5. Select:1 PUBLIC

The following parameters display.

```
CHARATER_SET
```

```
OBLICORE_ROOT
```

```
ORACLE_HOME
```

```
ORACLE_VERSION
```

```
DB_NAME
```

```
DB_SIZE
```

```
SYS_PASS
```

```
OBLICORE_USER
```

```
OBLICORE_PASS  
SYNONYMS_TYPE
```

6. Review the chosen parameters and click Y if they are correct.
7. The system creates the database.

A success message displays upon completion:

The installation process ended successfully

Additional Client Installation

1. Test logging in to the new DB as sys.
2. Link the sp file to the \$ORACLE_HOME/dbs dir
3. Link from /u03/oradata/oblicore/oblicoredb/admin/spfile/spfileoblicore.ora
cd \$ORACLE_HOME/dbs
ln -s /u03/oradata/oblicore/oblicoredb/admin/spfile/spfileoblicore.ora
./spfileoblicore.ora
restart database.
export ORACLE_SID=oblicore
sqlplus sys/sys as sysdba
startup

Restart Database

1. export ORACLE_SID=oblicore
2. sqlplus sys/sys as sysdba
3. startup

Appendix D: Ports and Protocols

CA Business Service Insight is a multi-tiered application capable of being deployed on any number of servers. The number can range from one (standalone deployment) to many (3-tier, or higher for high availability deployments or for multiple application server instances).

Communications between processes are not always significant in a single server deployment however, once the number of servers increases it becomes more important to understand communications between processes to ensure that they are able to occur and to ensure stable application performance.

Most deployments in corporate environments use the standard 3 tier model, which often encounters firewalls between physical servers for various reasons. This section outlines communications CA Business Service Insight uses. The section details the various communications protocols and ports to enable straightforward configuration of firewalls.

This section contains the following topics:

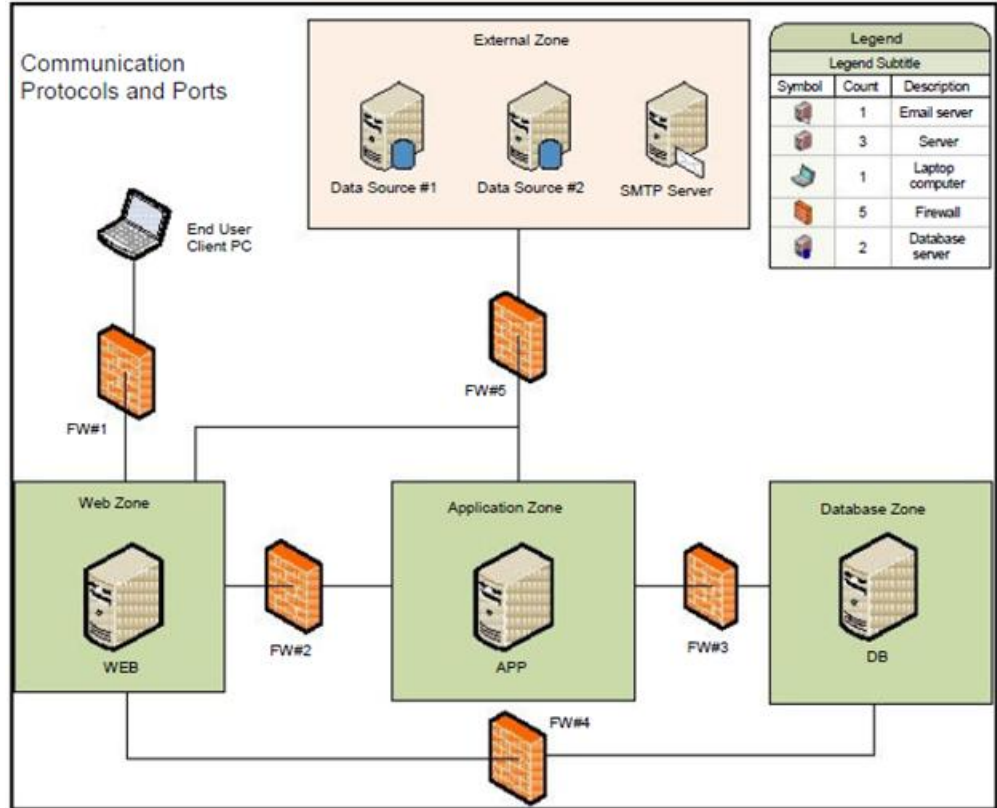
[Architecture](#) (see page 124)

[Communications Details](#) (see page 126)

[Additional Communications \(Optional\)](#) (see page 129)

Architecture

The diagram shows a typical deployment scenario, in which a firewall (FW) separates each logical application layers. Each logical layer is in its own zone, similar to configuration in a corporate environment.



The following table details the processes involved in communications from each zone.

Zone	Process Component	Explanation
Web	IIS Web Server	Serving web content to the client browsers, and retrieving data from Database.
	COM+ Components	Performing actions on DB & retrieving data and sending SMTP messages.
	API	Handles incoming web services requests.
	Authentication Service (SSO/LDAP)	Handles external authentication request.
Application	Adapters Listener Service	Handle incoming Adapter connections from Adapter instances.

	Adapter Deployment Service	Deploys and controls the locally deployed “managed” adapters.
	Log Server	Logs all incoming messages from CA Business Service Insight COM+ components and Application Services (TaskHost, Alerts and others).
	Dashboard Service	Updates the status and results of the Dashboard components.
	ACE Engine (PSL)	Calculates all service level results and provides information for other dependent application services (Dashboard, Alerts and others).
	ACE2 Engine	Calculates all service level results and provides information for other dependent application services (Dashboard, Alerts and others).
	Report Scheduler Service Alerts Service (SMTP)	Sends SMTP messages from the Application server.
	Adapter Instances	Connect to the data sources and handle the collection of raw data using the Adapter Listener Service (when deployed locally on the Application server).
Database	Oracle Database	Stores and manages all application data.
	Database Listener	Handles incoming connections to the database.
External	Adapter Instances	Connect to the data sources and handle the collection of raw data using the Adapter Listener Service (when deployed remotely).
	Adapter Deployment service	Deploys and controls the remotely deployed “managed” adapters. Deploy the service on the same machine as each remotely deployed adapter.

Communications Details

This section provides details on all of the communications that occur between the application components.

Process (Source)	FW #	Destination	Protocol	Default Ports	Direction	Change able
Web Zone Originating						
IIS Web Server	2	Log server (App Server)	TCP	4040	Out	Y
IIS Web Server	2	Adapter Deployment Service (Application Server)	TCP	1008	Both	Y
IIS Web Server	2	Dashboard Service (Application Server)	.Net Remoting	8004	Both	Y
IIS Web Server	5	Authentication WebService (External)	SOAP/ HTTP	4515	Both	Y
	5	SMTP Server (External)	SMTP	25	Out	N
COM+ Components	4	Database Server	TCP (SQL *Net)	1521	Both	Y

Process (Source)	FW #	Destination	Protocol	Default Ports	Direction	Change able
SMI						
Oblisync				See note.		
MSMQ Components	2	MSMQ Server	TCP	1801	Both	N
			RPC	135, 2010*, 2103*, 2105*	Both	N
			UDP	3527, 1801	Both	N
Application Zone Originating						
Report Scheduler & Alerts Services	5	SMTP Server (External)	SMTPR	25	Out	N
All Guarantee Services (Alert, Dashboard)	3	Database Server	TCP (SQL *Net)	1521	Both	Y
Adapters (locally hosted)	5	External Data Sources	TCP / File		Both	Y
Adapters (remotely hosted)	5	External Data Sources	TCP		Both	Y
Adapter Listener	5	Remote Adapter Instance	TCP		Both	Y
JBOSS components for ACE2 \ Oblisync	3	Database Server	TCP (SQL *Net)	1521 (see Note).	Both	Y
MSMQ components	2	MSMQ Server	TCP	1801	Both	N

Process (Source)	FW #	Destination	Protocol	Default Ports	Direction	Change able
			RPC	135, 2101*, 2103*, 2105*	Both	* You can increment port numbers by 11 when the RPC port is the initial choice when Message Queuing initializes. A connecting QM queries port 135 to discover the 2xxx ports.
			UDP	3527, 1801	Both	N
Client PC (External)	1	IIS (Web Server)	HTTP (or HTTPs)	80 (443)	Both	Y
Adapter Instance (remotely hosted)	5	Adapter Listener (Application Server)	TCP	User Defined **	Both	Y
External Calling Application / Server	5	API Service (Web Server)	SOAP / HTTP	80	Both	Y

Note: ** Adapters must connect to external applications as per the requirements of that data source (SQL or file based access).

Note: ++ Adapters communicate according to ports defined within CA Business Service Insight (Adapter Wizard auto assigns ports starting at 6201 upwards by default). In addition, the initial communication can be configured to start from either the Adapter Instance or the Adapter Listener (Adapter->Listener, or Listener->Adapter). The initial configuration is important for Firewall configurations when using the "Port Triggering" feature.

ACE2 & Oblisync

For ACE2 & Oblisync (both run on JBoss) the following ports are also required:

ACE2 processes	Port	Oblisync processes	Port
messaging	5645	http	8180
messaging-throughput:	5655	messaging	5545
remoting	4657	messaging-throughput:	5555
		remoting	4547
Optional (for using the JBoss Web Console)		Optional (for using the JBoss Web Console)	
Management native	10199	Management native	10099
management-http	10190	management-http	10090
management-https	9643	management-https	9543
http	8280	https	8543
https	8643		

Additional Communications (Optional)

These Ports and communications are commonly used to access CA Business Service Insight servers. The ports provide easy access for development and support, and also the transfer of source data files.

Process (Source)	FW #	Destination	Protocol	Default Ports	Direction	Changeable
External Zone Originating						
Client PC (External) Remote Desktop	1	Web Server & Application Server	RDP	3389	Both	Y
Client PC (External) - File System / Sharing ++	1	Web Server & Application Server	NetBios / Samba over IP	137, 138, 139, 445	Both	Y
Client PC (External) FTP / SFTP **	1	Web Server & Application Server	FTP / SFTP	21/22	Both	Y

Note: ** FTP and SFTP require the installation of separate application software for FTP and is not part of the product. SFTP commonly runs over SSH on port 22.

Note: ++ These ports enable file system access to the machines and must only be exposed to trusted areas, as they open potential security holes.

Appendix E: Temporary-Uninstall

Uninstall functionality is not currently supported.

Appendix F: The CA Technologies Naming Conventions Policy for Database Objects

The following table provides a checklist which specifies the CA Technologies naming convention policy. If your database naming convention is different from the CA Technologies policy, then fill in the appropriate row with the different naming convention. Consult the CA Support department before running the installation.

CA Naming Convention	Customer Naming Convention
Tablespace	
TBS_ACE_DATA_TAB_01	
TBS_ACE_INDEX_TAB_01	
TBS_CSL_DATA_TAB_01	
TBS_CSL_INDEX_TAB_01	
TBS_DASH_DATA_01	
TBS_DASH_INDEX_01	
TBS_LOB_DATA_01	
TBS_OBL_DATA_01	
TBS_OBL_INDEX_01	
TBS_PSL_DATA_TAB_01	
TBS_PSL_INDEX_TAB_01	
TBS_OBLIDBADMIN_01	
TBS_SLA_DATA_01	
TBS_SLA_DATA_02	
TBS_SLA_INDEX_01	
TBS_SLA_INDEX_02	
TBS_SMI_DATA_TAB_01	
TBS_SMI_INDEX_TAB_01	
TBS_SMIANA_DATA_TAB_01	
TBS_SMIANA_INDEX_TAB_01	
CA TECHNOLOGIES USERS	
OBLCORE	

CA Naming Convention	Customer Naming Convention
Tablespace	
OBLIDBADMIN	
OBLIDBADMIN PRIVILEGES	
CONNECT TO OBLIDBADMIN	
UNLIMITED TABLESPACE TO OBLIDBADMIN	
EXECUTE ON DBMS_LOCK TO OBLIDBADMIN	
SELECT ANY DICTIONARY TO OBLIDBADMIN	
CREATE PUBLIC SYNONYM TO OBLIDBADMIN	
DROP PUBLIC SYNONYM TO OBLIDBADMIN	
CREATE ANY SYNONYM TO OBLIDBADMIN	
DROP ANY SYNONYM TO OBLIDBADMIN	
CREATE TABLE TO OBLIDBADMIN	
CREATE VIEW TO OBLIDBADMIN	
CREATE SEQUENCE TO OBLIDBADMIN	
ROLE_USR_REG_PRIVS TO OBLIDBADMIN WITH ADMIN OPTION	
ALTER DATABASE TO OBLIDBADMIN	
ALTER SESSION TO OBLIDBADMIN	
EXECUTE ANY PROCEDURE TO OBLIDBADMIN	
SELECT ANY TABLE TO OBLIDBADMIN	
GRANT ANY OBJECT PRIVILEGE TO OBLIDBADMIN	
GRANT ANY PRIVILEGE TO OBLIDBADMIN	
CREATE TABLESPACE TO OBLIDBADMIN	
ALTER TABLESPACE TO OBLIDBADMIN	
DROP TABLESPACE TO OBLIDBADMIN	
CREATE USER TO OBLIDBADMIN	
ALTER USER TO OBLIDBADMIN	
DROP USER TO OBLIDBADMIN	

CA Naming Convention	Customer Naming Convention
Tablespace	
CREATE ROLE TO OBLIDBADMIN	
ALTER ANY ROLE TO OBLIDBADMIN	
DROP ANY ROLE TO OBLIDBADMIN	
CREATE ANY TABLE TO OBLIDBADMIN	
ALTER ANY TABLE TO OBLIDBADMIN	
DROP ANY TABLE TO OBLIDBADMIN	
CREATE ANY INDEX TO OBLIDBADMIN	
ALTER ANY INDEX TO OBLIDBADMIN	
DROP ANY INDEX TO OBLIDBADMIN	
CREATE ANY PROCEDURE TO OBLIDBADMIN	
ALTER ANY PROCEDURE TO OBLIDBADMIN	
DROP ANY PROCEDURE TO OBLIDBADMIN	
CREATE ANY SEQUENCE TO OBLIDBADMIN	
ALTER ANY SEQUENCE TO OBLIDBADMIN	
DROP ANY SEQUENCE TO OBLIDBADMIN	
CREATE ANY TRIGGER TO OBLIDBADMIN	
ALTER ANY TRIGGER TO OBLIDBADMIN	
DROP ANY TRIGGER TO OBLIDBADMIN	
CREATE ANY TYPE TO OBLIDBADMIN	
DROP ANY TYPE TO OBLIDBADMIN	
CREATE ANY VIEW TO OBLIDBADMIN	
DROP ANY VIEW TO OBLIDBADMIN	
USRACE	
USRCSL	
USRDASH	
USREDR	
USRMTN	
USRPSL	
USRRPT	

CA Naming Convention	Customer Naming Convention
Tablespace	
USRSLA	
OBLICORE PRIVILEGES	
CONNECT TO OBLICORE	
UNLIMITED TABLESPACE TO OBLICORE	
EXECUTE ON DBMS_LOCK TO OBLICORE	
SELECT ANY DICTIONARY TO OBLICORE	
CREATE PUBLIC SYNONYM TO OBLICORE	
DROP PUBLIC SYNONYM TO OBLICORE	
CREATE ANY SYNONYM TO OBLICORE	
DROP ANY SYNONYM TO OBLICORE	
CREATE TABLE TO OBLICORE	
CREATE VIEW TO OBLICORE	
CREATE SEQUENCE TO OBLICORE	
CREATE SESSION TO USRCSL	
ROLE_USR_REG_PRIVS TO USRCSL	
CREATE SESSION TO USRDASH	
ROLE_USR_REG_PRIVS TO USRDASH	
CREATE SESSION TO USREDR	
ROLE_USR_REG_PRIVS TO USREDR	
CREATE SESSION TO USRMTN	
ROLE_USR_REG_PRIVS TO USRMTN	
CREATE SESSION TO USRPSL	
ROLE_USR_REG_PRIVS TO USRPSL	
CREATE SESSION TO USRRPT	
ROLE_USR_REG_PRIVS TO USRRPT	
CREATE SESSION TO USRSLA	
ROLE_USR_REG_PRIVS TO USRSLA	
OBLICORE ROLE	
ROLE_USR_REG_PRIVS	

CA Naming Convention	Customer Naming Convention
Tablespace	
PART_MNG_PKG	For raw data partitioning. If this system does not use this feature, then it does not have to run.
DB_MNG_FORECAST_PKG -	Forecast calculations. If this system does not use this feature, then it does not have to run. This feature was developed for using partitioning on T_PSL (which was never activated), so currently it is not in use.
DB_MTN_PKG.LOG_PURGE -	Responsible for cleaning t_log table
DB_MTN_PKG.COLLECT_STATS -	Database statistics collection
PRC_T_INTER_REGISTRATIONS_FLAT -	Builds a table with all (direct and indirect) connections between metrics by the use of event reusability. Serves the raw data reports where there is a use of event reusability.

Index

1

1-Tier Installations • 107

3

3rdPartyCD • 26

3-Tier Installations

 Advanced Settings • 110

6

64-bit Server Limitation • 35

A

ACE2 & Oblisync • 129

ACE2 Configuration • 111

Adapter Server Installation • 77

Adapter Servers Upgrade • 83

Additional Application Server Installations • 39

Additional Client Installation • 122

Additional Communications (Optional) • 129

Additional Information • 88

Additional Information for Windows 2008 Server R2
 • 18

APP and WEB Components are Separate and
 Installed on Different Servers • 109

Application Server • 74

Application Server Installation • 76

Application Server Prerequisites • 14

Application Server Silent Installation (Upgrade) • 100

Application Server Upgrade • 82

Architecture • 124

B

Backup • 11

Before You Begin • 25, 52

C

Change a User Name and Password • 96

Change Database Parameters • 97

Change Features • 96

Change the Company Name • 95

Change the Destination Path • 105

Change the Directory • 95

Change the Password • 103

Change the Reboot Options • 98

Change the Schema Password • 102

Change the Schema User Name • 102

Change the Server Name • 102

Change the System Password • 102

Change the User Name • 103

Client Answer File Example • 104

Client Installation - Typical • 41

Client Silent Installation • 103

Client Software Prerequisites • 21

Communications Details • 126

Components • 41

Configurable Parameters For High Availability • 88

Configuration • 77

 Adapter Servers • 81

 Application Server • 78

 Web Server • 80

Configure Adapter Servers • 87

Configure Application Server • 84

Configure the Servers • 83

Contact CA Technologies • 3

Create a New Database Manually • 29

Custom Installation • 67

Custom Installation Dialog Boxes • 69

D

Dashboard

 Addresses • 112

 Current Status • 112

Database Job Reorganization • 55

Database Server • 74

Database Server Prerequisites • 11

Divide Services • 40

Download Media to DB Server • 119

H

Hardware Prerequisites • 20

High Availability • 73

I

Important Information for Windows 2008 Server R2
 • 117

Install and Configure Internet Information Services
 (IIS) • 118

- Install CA Business Service Insight Servers • 37
- Install Sub-script fix • 120
- Install the CA Business Service Insight Client • 42
- Installation • 121
- Installation and Regional Settings • 26, 56, 92, 117
- Installation Dialog Boxes • 30
- Installation from Scratch • 75
- Installing CA Business Service Insight Database on Linux Servers • 119
- Installing on more than one server • 27
- Installing the MS Word Add-in • 115
- Introduction • 9

K

- Known Issues • 89

L

- Linux Installation • 119
- LISTENER.ORA File • 28
- Log File Return Values • 99

M

- MS Word Add-in • 115
- MSMQ Configuration • 110
- Multi-Tier Installations • 108

N

- Number of Servers (Topology) • 33

O

- Operating System • 17
- Overview • 73

P

- Package Contents • 9
- Place Adapters on Different Servers • 41
- Ports and Protocols • 123
- Post Installation Activities • 98
- Post Installation Activities (from-Scratch) • 43
- Post-Installation Activities (from Upgrade) • 62
- Prerequisites • 11, 76, 117

R

- Record the Server Answer File • 93, 100
- Recording the Client Answer File • 104
- Registry Keys • 113
- Required Post Installation Activity • 107

- Restart Database • 122
- Run Migration • 101
- Run the Client Installation in Silent Mode • 105
- Run the Server Installation in Silent Mode • 98

S

- Select Language • 49, 113
- Server Answer File Example • 94, 101
- Server contains both App and Web Components • 108
- Server Installation - Typical • 32
- Server Silent Installation • 92
- Server Software Prerequisites • 11
- Setup • 120
- Setup Log File • 99
- Silent Installation • 91
- SMILoader • 49
- Stop Services • 26, 56

T

- Target Audience • 9
- Temporary-Uninstall • 131
- The CA Technologies Naming Conventions Policy for Database Objects • 133
- Time Zone Tool • 61
- TNSNames Setup • 119
- TSNAMES.ORA File • 28
- Typical Installation From Scratch • 25
- Typical Installation Windows • 31

U

- Update Password Utility • 64
- Upgrade Dialog Boxes and Configurations • 59
- Upgrade from Previous Versions • 51, 81
- Upgrade Log Files • 64
- Upgrade the Web Servers • 82
- Upgrade to CA Business Service Insight • 57

W

- Web Server • 75
- Web Server Configuration • 87
- Web Server Installation • 76
- Web Server Prerequisites • 16