

CA Business Service Insight

Installation Guide

8.2.5



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 © 2013 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
Package Contents	9
Chapter 2: Prerequisites	11
Backup	11
Hardware Prerequisites	12
Server Software Prerequisites	13
Database Server Prerequisites	14
Application Server Prerequisites	16
Web Server Prerequisites	19
Client Software Prerequisites	23
Ports and Protocols	25
Chapter 3: Performing a Typical Installation	27
Before You Begin	28
Manually Create a New Database	29
Installation and Regional Settings	30
Installing on Multiple Servers	31
LISTENER.ORA File	32
TSNAMES.ORA File	32
Installation Dialog	32
Typical Installation Windows	33
Server Installation - Typical	34
Number of Servers (Topology)	35
Install the CA Business Service Insight Servers	37
Client Installation - Typical	41
Components	41
Install the CA Business Service Insight Client	42
Post Installation Tasks	43
Chapter 4: How to Upgrade CA Business Service Insight	49
Verify the Prerequisites	51
Back Up Files and Folders	51
Prepare for the Upgrade	52
Verify the Presence of the Website	52

Upgrade CA Business Service Insight.....	53
Upgrade Dialogs	54
Complete the Upgrade	56
Update the Proxy String	57
Update the API	58

Chapter 5: Perform a Custom Installation **59**

Custom Installation Dialog Boxes	60
--	----

Chapter 6: High Availability **63**

Overview	63
Database Server	64
Application Server	64
Web Server	65
Installation from Scratch	65
Prerequisites	66
Application Server Installation	66
Web Server Installation	66
Adapter Server Installation	67
Configuration	67
Upgrade from Previous Versions.....	71
Application Server Upgrade	72
Upgrade the Web Servers	72
Adapter Servers Upgrade	73
Configure the Servers.....	73
Additional Information	78
Configurable Parameters For High Availability	78
Known Issues.....	79

Chapter 7: Silent Installation **81**

Server Silent Installation	81
Record the Server Answer File	82
Change the Company Name	84
Change the Directory	84
Change Features	85
Change a User Name and Password	85
Change Database Parameters	86
Change the Reboot Options	87
Run the Server Installation in Silent Mode	87
Post Installation Activities	87

Application Server Silent Installation (Upgrade)	89
Record the Server Answer File	89
Run Migration	90
Change the Server Name	91
Change the Schema User Name	91
Change the Schema Password	91
Change the System Password	91
Change the User Name	92
Change the Password	92
Client Silent Installation	92
Recording the Client Answer File	93
Change the Destination Path	94
Run the Client Installation in Silent Mode	94

Chapter 8: Installing CA Business Service Insight Database on Linux Servers **95**

Linux Installation	95
Download Media to DB Server	95
Setup	96
Install Sub-script fix	96
Installation	99

Chapter 9: Required Post Installation Activity **101**

1-Tier Installations.....	101
Multi-Tier Installations	102
Server contains both App and Web Components.....	102
APP and WEB Components are Separate and Installed on Different Servers	103
3-Tier Installations: Advanced Settings	103
MSMQ Configuration	104
ACE2 Configuration	105
Dashboard: Addresses	106
Dashboard: Current Status.....	106
Registry Keys	107
Select Language.....	107

Appendix A: Install the MS Word Add-on	109
Appendix B: The CA Technologies Naming Conventions Policy for Database Objects	111

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:

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

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. Verify that all the prerequisites are met before you install CA Business Service Insight.

This section contains the following topics:

[Backup](#) (see page 11)

[Hardware Prerequisites](#) (see page 12)

[Server Software Prerequisites](#) (see page 13)

[Client Software Prerequisites](#) (see page 23)

[Ports and Protocols](#) (see page 25)

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.

Follow these steps:

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.

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.

Server Software Prerequisites

The following sections list the software prerequisites for the database, application, and web servers. Specific Windows roles are required for the application servers and web server. Verify that all servers meet all prerequisites.

Database Server Prerequisites

Important! CA Business Service Insight does not support consolidated databases. Using a consolidated database causes future upgrades and some functions to fail.

The following table lists the required database, version, character set, and server prerequisites.

RDBMS Vendor/ Database	Database Version/ Edition	Database Software Version	Platform	Character Set
Oracle	Oracle 10 Standard, Enterprise	10.2.0.5	Oracle certified operating system	AL32UTF8 WE8MSWIN1252
	Oracle 11 Standard, Enterprise	11.1.0.7	Oracle certified operating system	AL32UTF8 WE8MSWIN1252
	Oracle 11 Standard, Enterprise	11.2.0.3	Oracle certified operating system	AL32UTF8 WE8MSWIN1252

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

Important! In one-tier installations, the Oracle Server must be 32-bit. Do not use a 64-bit version of the Oracle database.

- Before you install CA Business Service Insight, ensure that the Oracle server, the 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.

- For new databases, you can select AL32UTF8 or WE8MSWIN1252.

Note: The AL32UTF8 character set enables you to store non-western European characters but requires more space.

- For Oracle version 11, verify that the `_optimizer_group_by_placement` parameter is FALSE.

Note: Execute the following commands with SYS user privileges.

- To retrieve the current value, run the following query:

```
SELECT a.kspinm Param , c.kspstvl InstanceVal
FROM x$kspai a , x$kspsv c
WHERE a.kspinm = '_optimizer_group_by_placement'
AND a.indx = c.indx
```

- To set the parameter to false, run the following command:

```
alter system set "_optimizer_group_by_placement" = FALSE
```

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

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

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

Installation on a RAC Database

CA Business Service Insight is compatible with RAC, but the RAC is not created as part of the installation. To use RAC, select one of the following options:

- Install the product using our InstallDB scripts. Reconfigure the instance to support RAC and add another instance to create the RAC database.
- Create your own RAC. Run our scripts without creating an instance. Our scripts perform only CA Business Service Insight related actions.

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

Application Server Prerequisites

The application server must meet the following prerequisites before you install CA Business Service Insight 8.2.5.

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	Bitness	OS Language Pack
Microsoft	Windows 2003 Standard or Enterprise edition	SP2	32-bit	According to the requested regional setting
	Windows 2008 Standard or Enterprise edition	SP2	32-bit or 64-bit	According to the requested regional setting
	Windows 2008 R2 Enterprise edition	SP1	64-bit	According to the requested regional setting

Important! For Windows 2008 systems, see the [required Windows roles and features](#) (see page 18) for the application server for more information.

- 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 or 4.0 must be installed. 4.0 is required for Microsoft Word booklet plug-ins.
- ASP.NET 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.
- Before you install CA Business Service Insight, refer to Installation and Regional Settings.
- Before you install CA Business Service Insight, install and configure Microsoft Message Queuing (MSMQ).
- Application Server Memory must be at least 2-GB RAM.

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.

Note: RawDataTools requires Microsoft Visual C + + 2010 Runtime Libraries (x86). Download this component from Microsoft.

For Multitier Installations

- If the application and web server are different machines, or if there are multiple application servers, each server must exist in the same Windows domain.
- Install MSMQ in Active Directory Integration mode, also known as domain mode.
- Time-synchronize the application and web servers.

Oracle Configuration

For One-Tier Installations:

- The Oracle server must be 32-bit. Do not use a 64-bit version of the Oracle database.
- Before you install CA Business Service Insight, install and configure the Oracle server and the database connection configuration components, such as, TNSnames.ora, listener.ora. 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 and Listener.ora must be present on the database server.
 - On Windows 32-bit systems, the TNS_ADMIN key must be present in the registry path HKLM\SOFTWARE\. On Windows 64-bit systems, the path is HKLM\SOFTWARE\Wow6432Node\.

For Environments with a Dedicated Database Server

- Before you install CA Business Service Insight, install the Oracle Client and Oracle OLEDB driver.
- The Oracle client must be 32-bit. Do not use the 64-bit version.

- Configure the Oracle client and the database connection configuration components, and establish a connection to the database using OLEDB.
 - TNSnames.ora must be present on all servers, and the BSI database TNSname must be defined there.
 - Listener.ora must be present on the database server.
 - On Windows 32-bit systems, the TNS_ADMIN key must be present in the registry path HKLM\SOFTWARE\. On Windows 64-bit systems, the path is HKLM\SOFTWARE\Wow6432Node\.
- Oracle OLEDB Provider must be installed on the application server, and the version must be the same or a later version of the Oracle database software.
 - 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.
- CA Business Service Insight supports the following client:

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

Required Windows Roles and Features

The Application Server Windows role is required on the application server.

The following Windows features are required on the Application Server role for the application server:

- Application Server Foundation (only on Windows 2008 SP2)
- .NET Framework 3.5.1 (only on Windows 2008 R2)
- Windows Process Activation Service Support
 - Message Queuing Activation
 - HTTP Activation

- Distributed Transactions
 - WS-Atomic Transactions

Important! If you do not select the "Web Server (IIS) Support" feature, a warning screen appears during the installation. Ignore the warning, and continue the installation.

Note: For multitier installations, if the application and web servers are separate, or if there are multiple application servers, the MSMQ feature must be installed on the primary application server. Additionally, all the subcomponents under MSMQ must be installed. This installs MSMQ in AD or domain mode. This process may require domain rights.

Web Server Prerequisites

The web server must meet the following prerequisites before you install CA Business Service Insight 8.3.

Important! In one-tier installations, the Oracle Server must be 32-bit. Do not use a 64-bit version of the Oracle database.

Operating System

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

OS Platform	OS Version	Patch Level	Bitness	Web Server	OS Language Pack	Additional Settings
Microsoft	Windows 2003 Standard or Enterprise edition	SP2	32-bit	IIS 6.0	According to the requested regional setting	IIS (web server)
	Windows 2008 Standard or Enterprise edition	SP2	32-bit or 64-bit	IIS 7.0	According to the requested regional setting	IIS (web server); IIS 6 compatible mode
	Windows 2008 Server R2 Enterprise edition	SP2	64-bit	IIS 7.0	According to the requested regional setting	IIS (web server); IIS 6 compatible mode

Important! For Windows 2008 systems, see the [required Windows roles and features](#) (see page 22) for the web server for more information.

- In Microsoft Windows 2008 Server R2, the Active Server Pages extension must be set to Allow on the web server.
- This product is IP Version 6.0 tolerant.
- Microsoft .NET Framework 3.5 SP1 or 4.0 must be installed. 4.0 is required for Microsoft Word booklet plug-ins.
- ASP .Net 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.
- Before you install CA Business Service Insight, refer to the section Installation and Regional Settings.
- Before you install CA Business Service Insight, install and configure Microsoft Message Queuing (MSMQ). If the setup is a multi-tier environment,

Note: MSMQ uses the following ports:

- TCP: 1801
- RPC: 135, 2101/2112, 2103/2114, 2105/2116
- UDP: 3527, 1801
- JDK is installed automatically as part of the current release.
- JBoss 7 is installed automatically as part of the current release, which includes:
 - JBoss Messaging 1.4.5
 - JBoss Remoting 2.2.3 SP1

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.

For Multitier Installations

- If the application and web server are different machines, or if there are multiple application servers, each server must exist in the same Windows domain.
- Install MSMQ in Active Directory Integration mode, also known as domain mode.
- Time-synchronize the application and web servers.

Oracle Configuration

For One-Tier Installations:

- The Oracle server must be 32-bit. Do not use a 64-bit version of the Oracle database.
- Before you install CA Business Service Insight, install and configure the Oracle server and the database connection configuration components, such as, TNSnames.ora, listener.ora. 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 and Listener.ora must be present on the database server.
 - On Windows 32-bit systems, the TNS_ADMIN key must be present in the registry path HKLM\SOFTWARE\. On Windows 64-bit systems, the path is HKLM\SOFTWARE\Wow6432Node\.

For Environments with a Dedicated Database Server

- Before you install CA Business Service Insight, install the Oracle Client and Oracle OLEDB driver.
- The Oracle client must be 32-bit. Do not use the 64-bit version.
- Configure the Oracle client and the database connection configuration components, and establish a connection to the database using OLEDB.
 - TNSnames.ora must be present on all servers, and the BSI database TNSname must be defined there.
 - Listener.ora must be present on the database server.
 - On Windows 32-bit systems, the TNS_ADMIN key must be present in the registry path HKLM\SOFTWARE\. On Windows 64-bit systems, the path is HKLM\SOFTWARE\Wow6432Node\.
- Oracle OLEDB Provider must be installed on the application server, and the version must be the same or a later version of the Oracle database software.
 - 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.

- CA Business Service Insight supports the following client:

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

Required Windows Roles and Features

The following Windows roles are required on the web server:

- Application Server
- Web Server (IIS)

The following Windows features are required on the Application Server role for the web server:

- Web Server (IIS) Support
- COM+ Network Access
- Windows Process Activation Service Support
 - Message Queuing Activation
 - HTTP Activation
- Distributed Transactions
 - WS-Atomic Transactions

Note: For multi-tiered installations, if the application and web servers are separate, or if there are multiple application servers, the MSMQ feature must be installed on the web server. Additionally, all the subcomponents under MSMQ must be installed. This installs MSMQ in AD or domain mode. This may require domain rights.

The following Windows features are required on the Web Server (IIS) role for the web server:

- All services for "Common HTTP Features" group
- All services for "Application Development" group
- Health and Diagnostics
 - HTTP Logging
 - Logging Tools
 - Request Monitor
 - Tracing

- Security
 - Digest Authentication
 - Client Certificate Mapping Authentication
 - IIS Client Certificate Mapping Authentication
 - URL Authorization
 - Request Filtering
 - IP and Domain Restrictions
- All services in the Performance group
- All services in the Management Tools group

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.

Note: .NET 4.0 is required for Microsoft Word booklet plug-ins.

For more information about Silverlight and its installation, see the Microsoft website.

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)

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.

Chapter 3: Performing a Typical Installation

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 28)

[Manually Create a New Database](#) (see page 29)

[Installation and Regional Settings](#) (see page 30)

[Installing on Multiple Servers](#) (see page 31)

[Installation Dialog](#) (see page 32)

[Server Installation - Typical](#) (see page 34)

[Client Installation - Typical](#) (see page 41)

[Post Installation Tasks](#) (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.

Important! If the database is not installed on a Windows system, create the database manually.

- For multitier systems, perform the installation according to the installation sequence. For more information, see [Number of Servers \(Topology\)](#) (see page 35).
- If you are not planning on using the CA default configuration, print the [The CA Technologies Naming Conventions Policy for Database Objects](#) (see page 111). 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, Custom Installation, [High Availability](#) (see page 63), [Silent Installation](#) (see page 81)).
- 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.

Manually Create a New Database

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 and Regional Settings

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

Follow these steps:

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 Multiple Servers

Follow these steps:

1. Go to the web server; set the Distributed Transaction Coordinator service to Start.
2. Set the World Wide Web Publishing service to Start.
3. Install and configure the Oracle client and the database connection configuration components correctly to establish a connection to the database through OLEDB.
 - a. Install and configure TNSnames.ora on all servers
 - b. Install and configure Listener.ora 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).

DB Server

Follow these steps:

1. Verify 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. Open a command-prompt window and run the following command:
`lsnrctl status`
 - A list of services summary is displayed.
3. If a message does not appear, run the following command:
`lsnrctl start`

The message appears informing you that 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.

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))
    )
  )
```

TSNAMES.ORA File

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

Installation Dialog

This section describes the Typical and Custom Installation dialogs 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
youOpens	DB File Location	Location of DB file ‡	Network Password
When Installing:	DB server name	Name of DB server ‡	window opens at various times while using the Select User window.
DataBase	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		
Database Application Website	TNS Name ‡		
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	We recommend changing the user name and password to a domain account.

Name	Parameters	Possible Values	Remarks
Select User Opens When Installing: Application Website	Object types Location	Within the logon information screen after selecting the Select User button.	The user must be a member of the Administrator Local Group.
New User Information Opens When Installing: Application Website	Domain or server Group User Name Password Confirm Password		This dialog enables you to create a new CA Business Service Insight user name. Note: This dialog is accessed only from the Logon dialog.
Log Server Configuration Opens When Installing: Website	Log server Network Address Log server Network Port	Default is localhost which is valid for single tier and any tier including the Web server. Default is 4040	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.
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 8.2.5 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)
 - 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_8.2.5.exe on this server.
Two servers	Distributed on two servers: <ul style="list-style-type: none"> ■ First server: Database component ■ Second server: Application and web components 	Installation from scratch: <ul style="list-style-type: none"> ■ Create database on the database server. ■ Install application and web servers.
Three servers	Distributed on three servers: <ul style="list-style-type: none"> ■ First server: Database component ■ Second server: Application component ■ Third server: Web component 	Installation from scratch: <ul style="list-style-type: none"> ■ 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: <ul style="list-style-type: none">■ First server: Database component■ Second server: Application component■ Third server: web component■ Four or more servers: Additional application components	Installation from scratch: <ul style="list-style-type: none">■ Create database on database server.■ Install application servers.■ Install web server.■ Install additional application components.

Install the CA Business Service Insight Servers

This section describes the steps you follow to complete a new installation of the CA Business Service Insight servers.

- 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.

Follow these steps:

1. From the server directory, double-click `Cloud_Insight_Server_8.2.5.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.
5. Click Next.
The End User License Agreement window opens.
6. Accept the license agreement, then 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 example: 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.
 - 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 or browse to the location 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. 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 a previous installation, select the checkbox and click Next.
- b. To proceed without cleanup, check Next.

JBoss is installed and the Current Settings are displayed when complete.

- c. Review the settings and click Next.

The Setup Status window opens and the installation begins.

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

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

16. Click Finish to restart the computer at the prompt.

The system restarts.

Note: If you select Custom, the Destination Folder window opens. Proceed with the Custom Installation procedure 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.

Important! Do not start the adapter listener on the adapter server. 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 81).

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

Component Name	Third Party Application	Used In these features
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_8.2.5.exe.
3. Follow the on-screen steps.

Post Installation Tasks

To ensure that CA Business Service Insight functions correctly, perform these Tasks

Important! After installing CA Business Service Insight, log in as `sadmin/sadmin` user before logging in as any other user.

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: 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.			
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

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
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
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

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
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
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

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
ScriptHost	Hosts engine tasks	Yes	Yes	Yes
<i>/ Application Server</i>				
Oblisync on JBoss Application Server (Content Transfer)	Enables the Content Transfer feature to run.	No	Yes	No
<i>/ Web Server</i>				
ACE on JBoss Application Server	The JEE Application Server; it runs the ACE2 Manager.	No	Yes	Yes
<i>/ Application Server</i>				
Tomcat 6 <i>/ Application Server & / Web Server</i>	This service is the Apache Tomcat 6.0.32 Server (http://tomcat.apache.org).	Yes	Yes	No

Service Name / Server	Service Description	Service Catalog Modeling	Service Level Calculations	Enterprise Impact Analysis
Tasks Host / Application Server	Does asynchronous, system maintenance operations including: <ul style="list-style-type: none">■ 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.
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".
```

3. (Optional) If you have a 3-Tier installation, change the machine settings on the web server.
 - a. Open the Web Server Setting Administration.
 - b. Select Site Settings, Advanced, Queues.
 - c. Set the Current Status MSMQ Machine, the Default MSMQ machine, and the Dashboard MSMQ Machine as the application server IP or address.

Chapter 4: How to Upgrade CA Business Service Insight

As a system administrator, it is important to regularly update CA Business Service Insight. Upgrading ensures that you can take advantage of all new features and bug fixes.

The upgrade file recognizes which server is running the program and it updates the necessary files. First, upgrade the application server that contains the Alerts service. The migration script automatically runs on the application server that includes the Alerts service.

To upgrade to a multiserver environment, perform the upgrade process on the application server first. Then, perform the upgrade on the web server. The upgrade on the application server automatically performs the database migration.

Use this scenario to guide you through the process:

How to Upgrade CA Business Service Insight



System Administrator



1. [Verify the Prerequisites](#) (see page 51).
2. [Back Up Files and Folders](#) (see page 51).
3. [Prepare for the Upgrade](#) (see page 52).
4. [Verify the Presence of the Website](#) (see page 52).
5. [Upgrade CA Business Service Insight](#) (see page 53).
6. [Complete the Upgrade](#) (see page 56).
7. (Optional) [Update the Proxy String](#) (see page 57).
8. (Optional) [Update the API](#) (see page 58).

Verify the Prerequisites

To ensure that you can complete the upgrade, verify the following prerequisites:

- CA Business Service Insight version 7.0 SP1 or later is installed.
- You have SYSDBA access rights.
- At least 15 percent of each table space in the database is unallocated.
Note: If autoextend is on, the datafile maxsize is at least 15 percent more than the current size of the datafile.
- The unallocated space on each physical device that contains database tablespaces is at least 15 percent of the total size of all tablespaces on the device.
- The Oracle OLEDB Provider is installed on the application server and web servers.

Back Up Files and Folders

To ensure that you do not lose any information during an upgrade, back up the following files and folders.

Note: To perform a rollback, uninstall all versions, install the previous version, and import the backup data.

Follow these steps:

1. Perform a database dump.
2. Back up all customized files. The following files are customizable:
 - 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 logos, such as dash or report export)
3. (Optional) Back up the Language package.

Prepare for the Upgrade

To ensure a successful upgrade, perform the following tasks before you begin the upgrade.

Follow these steps:

1. If you use a regional language setting that is not English, change it to English (USA).
Note: The use of a different language setting for the upgrade may cause errors.
2. Stop all Oblicore services.
3. In IIS Manager, stop the web server.
Important! Do not stop the WWW service or the IIS Admin service.
4. Start the Distributed Transaction Coordinator service.
Important! The Distributed Transaction Coordinator service is required for upgrading only.
5. Run oblicore_privs.sql. The script is on the Installation CD in the SetupDB\Migration folder.
6. Ensure that the job_queue_processes parameter is set to 2 in the Init.ora file.

Verify the Presence of the Website

To ensure that the website functions, verify the presence of the website on the server. Choose the option that applies to your server topology.

Follow these steps:

The server is designated solely as an application server:

1. Open the application server registry to the entry:
HKEY_LOCAL_MACHINE\SOFTWARE\Oblicore\Install Data.
2. Delete the WWWRootFolderLocation string value if it exists.

The server is not designated solely as an application server:

1. Open the web or web services server registry to the entry:
HKEY_LOCAL_MACHINE\SOFTWARE\Oblicore\Install Data.
2. Verify that the WWWRootFolderLocation string value exists.
3. Verify that the data for this string value contains the folder path for the web folder.

Note: On 64-bit systems, the entry is:

HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432node\Oblicore\Install Data.

Upgrade CA Business Service Insight

To take advantage of new features and functions in CA Business Service Insight, upgrade to the most current version.

Follow these steps:

1. Double-click Cloud_Insight_Server_8.2.5.exe in the server folder, and click Next.
2. Select the installation language, and click OK.
3. Click Install.
4. Click Next in the Installation wizard.
5. Accept the license agreement, and click Next.
6. Select the location of the Third-Party CD, and click Next.
7. (Optional) Select clean up, and click Next when the installer prompts you to clean up previous JBoss components.

Note: This prompt appears only if a previous version of JBoss is installed.

The upgrade dialog opens and displays the upgrade dialogs.

8. Type the value for each parameter in each dialog that opens, and click Next.

Note: See [Upgrade Dialogs](#) (see page 54) for more information.

9. Verify that the settings are correct, and click Next.

The installation begins.

If you selected Run Migration Script, follow the instructions.

10. Click Finish to confirm the upgrade.

The system restarts.

Upgrade Dialogs

The Install wizard includes dialogs that CA Business Service Insight uses to update information. Only dialogs that are related to the features you select open.

The following table lists the upgrade dialogs and related parameters and values:

Important! Do not use double-byte characters for entries marked with a double dagger (‡).

Note: Oracle does not support the use of certain characters in its naming conventions. Refer to the Oracle literature for their specific requirements (for example ASCII) and limitations (such as special characters and double-byte characters).

Dialog Name	Parameters	Values	Notes
Database Creation	Run Migration Script	Selected or deselected.	Automatically selected on the application server that includes the CA Business Service Insight Alerts service.
	Oblicore Database instance TNS name	Type the TNS name as it appears in the TNSNAMES.ORA file. ‡	CA Business Service Insight Database Instance TNS Name.
	Schema user name	Type the name of the schema user for the upgrade.	
	Schema password	Type the password of the schema user for the upgrade.	Default: Oblicore
	System password	Type the system user password.	
Login Information	User Name	Name of user. ‡	Default: The user account that you used for installation. Note: We recommend that you change the user and password to a dedicated domain account.
	Password	User password. ‡	
	New User Information button	See New User Information row.	

Dialog Name	Parameters	Values	Notes
New User Information	Domain or server	Name of the 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 related parameters.

Important! Do not assign any double-byte character to any of the entries in the following configuration table.

Note: The values for parameters marked with * must begin with a single quote and end with a backslash and a single quote, for example, 'C:\Temp\.'

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		
	OBLICORE_USER		

Config File	Parameters	Default Values	Remarks
	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.

Complete the Upgrade

To complete the upgrade, perform the following tasks.

Important! Log in as `sadmin` after upgrading CA Business Service Insight. The default password is `sadmin`.

Follow these steps:

1. Restart all servers.
2. In IIS Manager, start the web server.
3. (Optional) 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');
```

4. (Optional) Lock the oblidbadmin account in the database. Run the following command while connected to the database:

```
alter user oblidbadmin account lock;
```
 5. (Optional) Change the oblidbadmin password. Run the following command while connected to the database:

```
alter user oblidbadmin identified by '<new_password>;'
```
 6. Verify that the hours offset matches the time zone that you select.
 7. Verify that the dates for daylight savings match your location.
- You now have the most recent version of CA Business Service Insight.

Update the Proxy String

A reverse proxy forwards support requests to the website. The requests place the prefix string into the value of the ProxyPrefix and 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. To use a reverse proxy, update the proxy string.

Follow these steps:

1. 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.

2. 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), 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 file with the following key name: "X-Forwarded-CA-Oblicore-Proxy".

Update the API

To use the API code from versions previous to 8.1, update the API interface.

Note: For detailed information, see API Backwards Compatibility in the CA Business Service Insight SDK Guide

Follow these steps:

1. Use the WSDL from 8.2.5 to create the proxy classes for the Contract Service, Portfolio Service, and Repository Service. Use the WSDL from the last installation for versions previous to 8.0.
2. Recompile your API code.

Note: If there are compilation errors, locate the code that requires manual changes. Update the code according to the changes made to the new API (field order, type). Recompile your API code after these changes.

Chapter 5: Perform a Custom Installation

To install CA Business Service Insight on more than three servers or if CA support recommends this option, perform a custom installation.

Follow these steps:

1. Click Browse to select/a destination folder and click Next.
Note: 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 60) 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.

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	<ul style="list-style-type: none"> ■ Oracle Version ■ DB File Location ■ DB server name ■ Character Set ■ Synonym 	<ul style="list-style-type: none"> ■ Default: server default ■ Location of DB file ‡ ■ Name of DB server ‡ ■ UTF8 or MSWIN ■ Public or Private 	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.
Database Connection	<ul style="list-style-type: none"> Oracle Version CA Business Service Insight Database Instance TNS Name ‡ 	10 or 11	Default: server default Type TNS name as it appears in TNSNAMES.ORA file.

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 6: 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 8.2.5 on high availability environments.

This section contains the following topics:

[Overview](#) (see page 63)

[Installation from Scratch](#) (see page 65)

[Upgrade from Previous Versions](#) (see page 71)

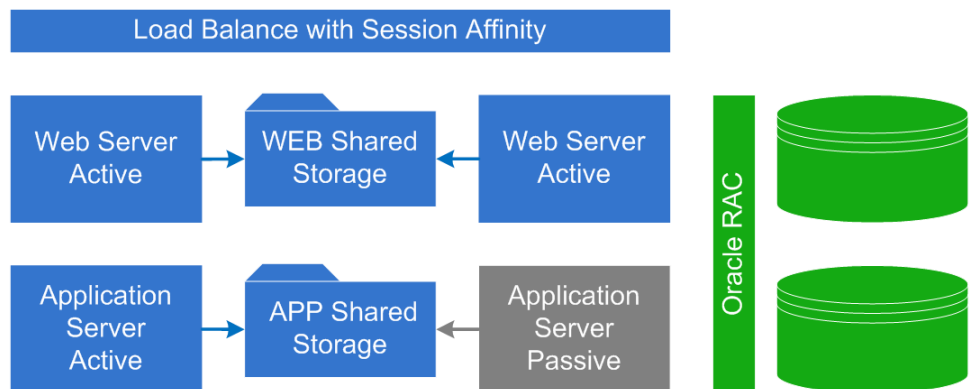
[Additional Information](#) (see page 78)

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.



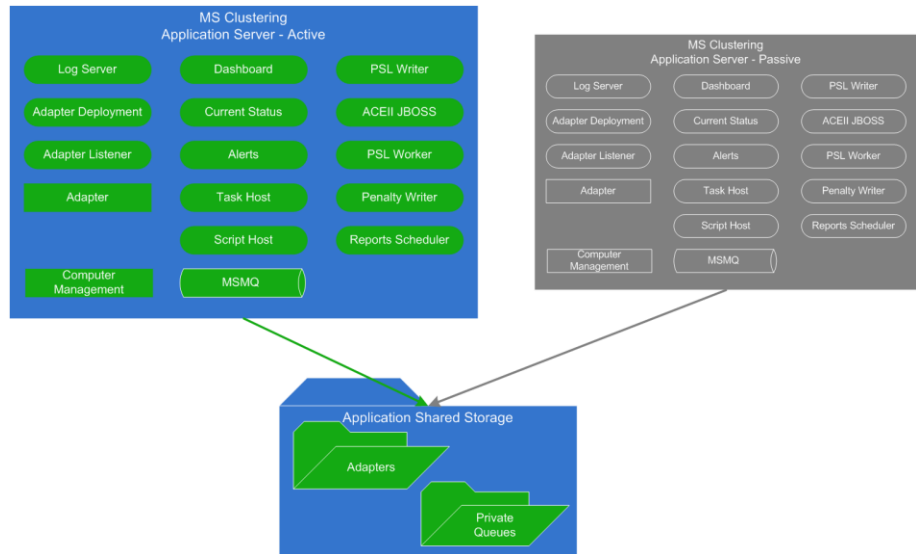
Both web and application servers require a High Availability shared file system for sharing files between the nodes. This system is supplied by the customer over any storage operating environment that complies with High Availability requirements.

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.

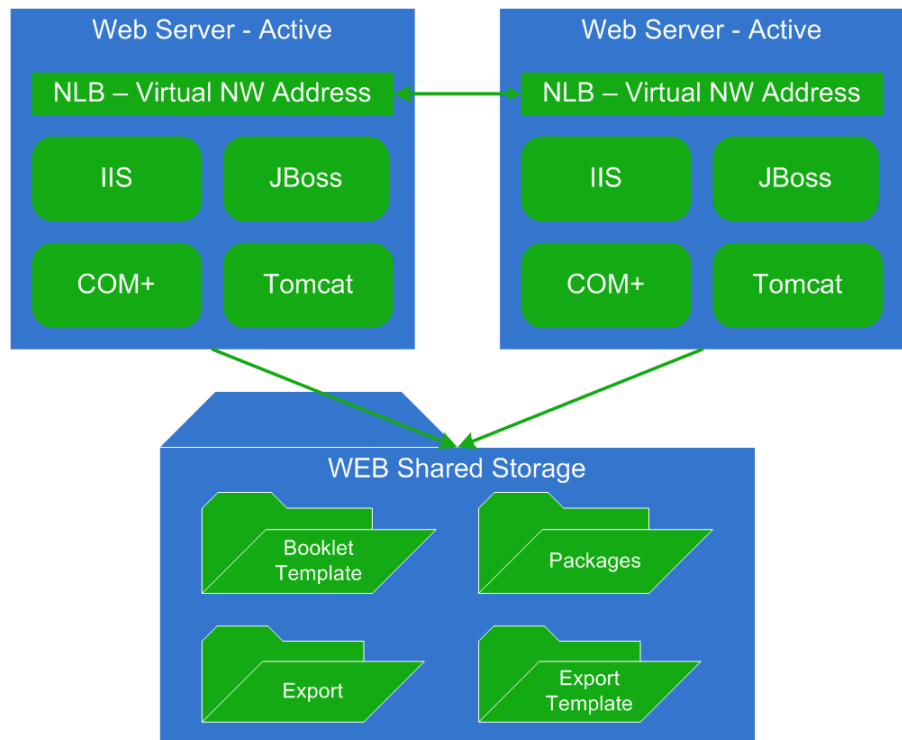
The shared data in the application server consists of the Adapter configuration, state files, and the MSMQ data files.

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.)
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\(W.S.10\).aspx](http://technet.microsoft.com/en-us/library/cc754833(W.S.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](#).)
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](#)).
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 66)).
2. Connect to the first web node machine.
3. Run the CA Business Service Insight installation. (See [Upgrading from Previous Versions](#)).
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).

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 7: 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:

[Server Silent Installation](#) (see page 81)

[Application Server Silent Installation \(Upgrade\)](#) (see page 89)

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

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_8.2.5.exe /r
```

Note: (Optional step) To not use the default name and location of the answer file, run the command `Cloud_Insight_Server_8.2.5.exe /r /f1"<location and name of answer file>.iss"`

For example: `Cloud_Insight_Server_8.2.5.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 85)).

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_8.2.5.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_8.2.5.exe /r /f1"<location and name of answer file>.iss".
```

For example:

```
Cloud_Insight_Server_8.2.5.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

To modify the database parameters for the databases that the silent installation creates, manually change the parameters in the answer file.

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. Specify the following parameters:

- Specify the database instance name in the <DB service name> field.
- Specify the database file location in the <Drive and folder> field.

Note: Change the parameter <Drive and folder> at the SelectDir section and at the database file location.

Important! The path to the Database Folder Location can contain ASCII characters only.

- Specify the Oracle database version.
- Specify the character set. The default is UTF8. You can change it to WE8MSWIN1252.
- Specify the database synonym type. The default type 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_8.2.5.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_8.2.5.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_8.2.5.exe /r /f1"<location and name of answer file>.iss"`

For example:

```
Cloud_Insight_Server_8.2.5.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.

```
CloudInsight8.2.5_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 `CloudInsight8.2.5_Client.exe /r /f1"<location and name of answer file>.iss"` command.

For example,

```
CloudInsight8.2.5_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_8.2.5/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 8: 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 95)

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

Follow these steps:

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 is 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 UNIX.

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/makedir.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
```

Appendix A

This section documents the manual fix for Linux / Unix environments.

1. Open `alter_system_large.sql` and run each line manually in `sqlplus`, as `sysdba` (with an updated version of this script, it can be run normally; the following code constitutes the workaround).

```
oracle@iscladoral:u03/oblicore/CA0blicoreGuarantee/Setup/InstallDB/Build_DB>
more alter_system_large.sql
connect sys/&l as sysdba
```

```
set echo on
```

```
alter system set "_adjust_literal_replacement"=true scope=spfile;
alter system set sga_target=629145600 scope=spfile;
alter system set pga_aggregate_target=209715200 scope=spfile;
```

```
shutdown immediate;
startup;
```

```
exit;
```

```
oracle@iscladoral:/u03/oblicore/CA0blicoreGuarantee/Setup/InstallDB/Build_DB>
```

```
oracle@iscladoral:u03/oradata/oblicore/oblicoredb/database/dbf> sqlplus
sys/sys@oblicore as sysdba
```

```
SQL*Plus: Release 10.2.0.4.0 - Production on Tue Mar 29 09:02:56 2011
Copyright (c) 1982, 2007, Oracle All Rights Reserved.
```

```
Connected to:
```

```
Oracle Database 10g Enterprise Edition Release 10.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
```

```
SQL> set echo on
```

```
SQL> alter system set "_adjust_literal_repalcement"=true scope=spfile;
```

```
System altered.
```

```
SQL> alter system set sga_target=629145600 scope=spfile;
```

```
System altered.
```

```
SQL> alter system set pga_aggregate_target=209715200 scope=spfile;
```

```
System altered.
```

```
SQL> shutdown immediate;
```

```
SQL> startup
```

```
ORACLE instance started.
```

```
Total System Global Area 629145600 bytes
```

```
Fixed Size 2086000 bytes
```

```
Variable Size          16777510 bytes
Database Buffers      452984831 bytes
Redo Buffers          6299648 bytes
Database mounted.
Database opened.
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 8.2.5 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.

```
CHARACTER_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

Chapter 9: Required Post Installation Activity

Carry out the steps in this section immediately after installation of CA Business Service Insight 8.2.5 on Windows Server 2008 R2.

Do these tasks once. Do not do these tasks when installing CA Business Service Insight on other servers.

This section contains the following topics:

[1-Tier Installations](#) (see page 101)

[Multi-Tier Installations](#) (see page 102)

[3-Tier Installations: Advanced Settings](#) (see page 103)

[Select Language](#) (see page 107)

1-Tier Installations

1. Install CA Business Service Insight 8.2.5 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 Windows 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
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 8.2.5 according to the instructions in the Installation Guide, and select Copy Database Files.
2. Ignore the DocumentLoader error.
3. When prompted to restart after the installation, open a Windows 32-bit command prompt as follows:
 - a. Click Start, Run.
 - b. Enter the following command into the Run window:

```
C:\Windows\SysWOW64\cmd.exe
```

The command prompt opens.
4. Enter the following command:

```
cd %OG_HOME%\bin  
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 8.2.5 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
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 8.2.5 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
4. Restart the server.

3-Tier Installations: Advanced Settings

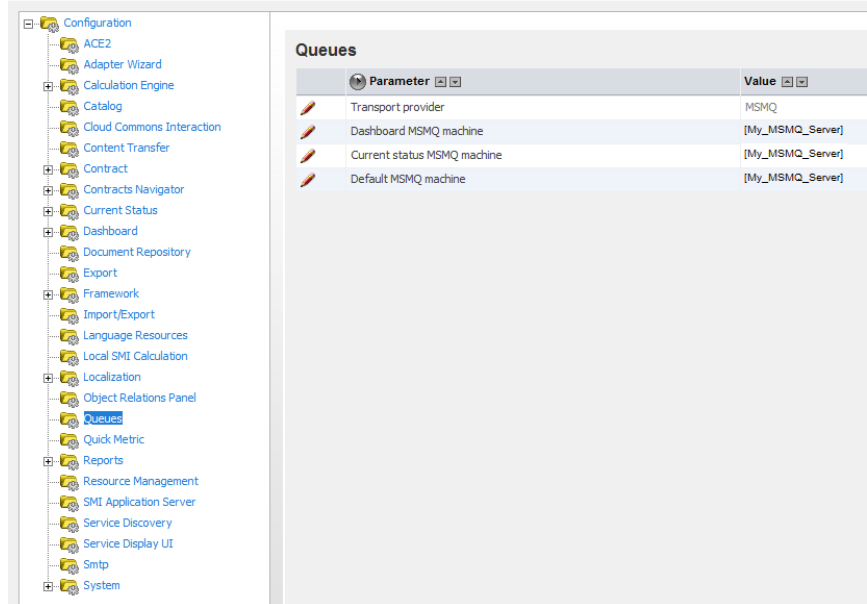
During installation on 3-tier environments some Advanced Settings are not automatically updated. Update the following items manually.

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 displays the 'Advanced Settings' window. On the left is a tree view of configuration categories, with 'Queues' selected. On the right, the 'Queues' configuration table is shown, listing parameters and their values.

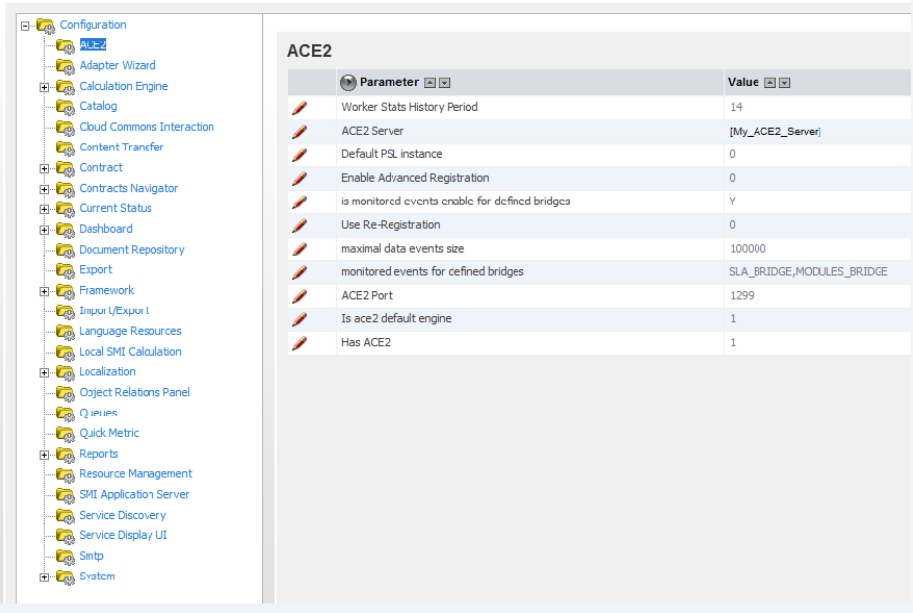
Parameter	Value
Transport provider	MSMQ
Dashboard MSMQ machine	[My_MSMQ_Server]
Current status MSMQ machine	[My_MSMQ_Server]
Default MSMQ machine	[My_MSMQ_Server]

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



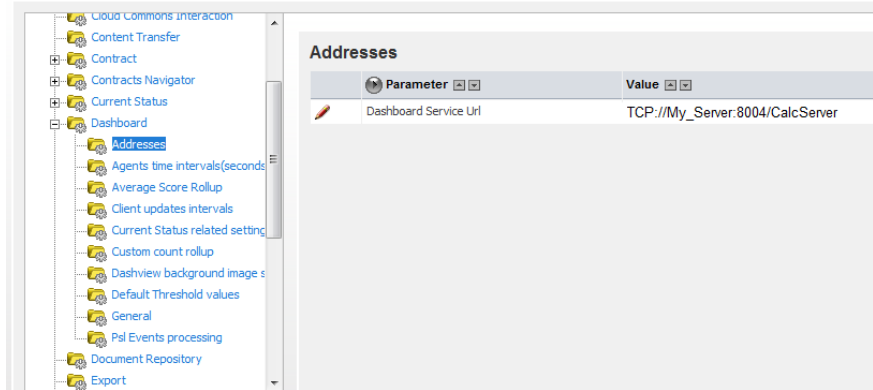
Parameter	Value
Worker Stats History Period	14
ACE2 Server	[My_ACE2_Server]
Default PSL Instance	0
Enable Advanced Registration	0
is monitored events enabled for defined bridges	Y
Use Re-Registration	0
maximal data events size	100000
monitored events for defined bridges	SLA_BRIDGE,MODULES_BRIDGE
ACE2 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

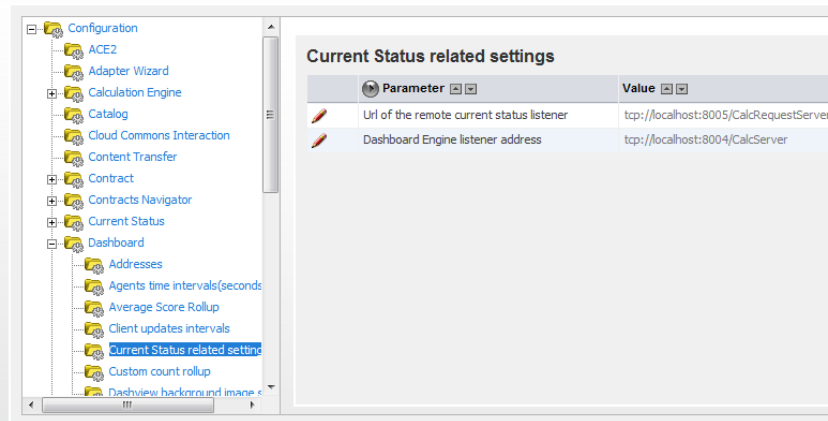


Dashboard: Current Status

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: Install the MS Word Add-on

To use the features of the CA BSI tab in MS Word, install the MS Word add-on.

Notes: The installation wizard requires .NET 4.

Follow these steps:

1. Double click CA BSI Booklet Addon.exe in the CA Business Service Insight installation folder.
2. Follow the instructions to complete the installation.
3. Open Word.

The CA BSI tab appears on the ribbon.

Appendix B: 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.