

# BUSINESS REPORTER

RELEASE 7.1.3

INSTALLATION GUIDE



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## **Business Reporter Installation Guide**

Release 7.1.3

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# GETTING STARTED

MiVoice Business Reporter provides data collection, analysis and storage, security, forecasting, real-time monitoring, reporting, and wall sign programming for use in managing your business.

Leveraging Microsoft .NET® technologies, Business Reporter passes information from a client through the Internet/intranet, to a Windows® server through a Microsoft® SQL Server database, and back again.

Microsoft products support Business Reporter in several ways. Business Reporter uses Microsoft Internet Information Server (IIS) to provide data to clients over the Internet. IIS is a Web-based server that allows contact center information to be displayed in a Web browser. Using IIS, you can check the status of company operations and program your contact center from anywhere, at any time. Business Reporter uses a Windows server operating and security system for the computer running as the Enterprise Server, and SQL Express or SQL Server as the database engine.

Microsoft Excel is required to view Business Reporter reports and use report distribution printing. The Enterprise Server does not require Excel, but it may be installed on the Enterprise Server if it will be used to view reports or automatically distribute reports for printing. After you have installed Business Reporter, run Excel to confirm it is properly licensed and installed. For detailed information on installing Excel, refer to Excel installation documentation.

### NOTE:

- Microsoft Excel Viewer can be used as an alternative to Microsoft Excel to view reports, but cannot be used to automatically distribute reports for printing.
- On client computers, as a minimum, Microsoft Excel Viewer must be installed to view reports.

Business Reporter is designed for the following telephone systems

- **3300 IP Communications Platform (ICP)**  
The 3300 ICP ACD system streams SMDR and ACD real-time data over TCP/IP. See "Migrating a local SQL Server to remote" on page 107.

To report an issue with this document, please email [micctechpubs@mitel.com](mailto:micctechpubs@mitel.com).

## CONTACT CENTER MANAGEMENT INTEGRATION

Mitel Contact Center Solutions can be integrated with Business Reporter. It gives a contact center the ability to perform call costing on its telephone systems at a single site, or a multi-site operation. As web based applications, Business Reporter and Contact Center Management can report on an entire organization. Agents, supervisors, and managers use a unified Contact Center Management website.

## BUSINESS REPORTER SMDR DATA COLLECTION

**CAUTION:** When you program a Mitel telephone system for Business Reporter SMDR data collection, on the SMDR Options Assignment Form, you must choose between SMDR Real-time Reporting or SMDR File Transfer for OPS Manager. Do not enable both. If both are enabled, then the SMDR records will be duplicated and be reported on twice. For more information, see "Migrating a local SQL Server to remote" on page 107.

The Enterprise Server can collect data



- **Directly from the telephone systems in real time**

SMDR data streams from the telephone systems to the Enterprise Server in real time.

- **Via OPS Manager**

The Enterprise Server downloads SMDR data over FTP from OPS Manager. The download occurs during the summarize function (usually performed during the nightly maintenance routine).

**CAUTION:** Do not install OPS Manager on the Business Reporter Enterprise Server. Mitel does not support the co-location of OPS Manager on a server with other software. The co-location of OPS Manager and the Business Reporter software might result in your data collection service ceasing to function due to TCP port conflicts.

## HARDWARE AND SOFTWARE REQUIREMENTS

In accordance with best practices for business, it is recommended you install the appropriate antivirus software with the latest virus definitions and data backup software on the Enterprise Server. Ensure antivirus software is disabled before you install Business Reporter.

Refer to the *Mitel Contact Center Solutions and Business Reporter System Engineering Guide* for the following requirements and other considerations for your solution:

- Server hardware and software requirements
- Client computer hardware and software requirements
- SQL Server requirements

# INSTALLATION OVERVIEW

The Business Reporter download folder and installation wizard have been updated to enhance the end user customer experience, improve download speeds, and provide more consistent downloads for overseas customers.

You download Business Reporter software from <http://www.mitel.com>. From the Mitel website, you must login to Mitel OnLine using your user ID and password. Once you are logged in, you can download Business Reporter from the Support=>Software Downloads page.

When you install Contact Center Management the following applications are activated if you are licensed for them:

- Contact Center Management
- Contact Center Client
- Interactive Contact Center
- Interactive Visual Queue
- Contact Center PhoneSet Manager
- Contact Center Softphone
- Multimedia Contact Center
- Contact Center Screen Pop
- Flexible Reporting
- IVR Routing
- Salesforce.com Connector
- Workforce Scheduling
- Employee Portal
- Schedule Adherence
- Traffic Analysis
- Ignite
- Enterprise Node
- Mitel Border Gateway Connector
- CTI Developer Toolkit

For a condensed version of the installation and upgrade process, see "Installation and upgrade checklists" on page 98. Appendix A is intended for dealers and installers who are familiar with Business Reporter and are looking for a quick reference checklist prior to installing or upgrading the software.

## BUSINESS REPORTER INSTALLATION WIZARD

The installation wizard guides you through the Business Reporter installation of the

- **Enterprise Server**

The Enterprise Server installation includes

- prairieFyre .Net Enterprise Server
- prairieFyre Auditor Server
- prairieFyre CCS Server
- prairieFyre Collector Service (v5)
- prairieFyre Config Service
- prairieFyre Data Processor Service
- prairieFyre Data Synchronization Service
- prairieFyre IVR Music Service
- prairieFyre Maintenance Alarm Dispatcher
- prairieFyre MassTransit Runtime Services
- prairieFyre MiTAI Proxy Server
- prairieFyre Reporting Service
- prairieFyre Routing Inbound Service
- prairieFyre Routing Media Service
- prairieFyre Routing Outbound Service
- prairieFyre Routing UPiQ service
- prairieFyre Server Monitoring Agent
- prairieFyre SQL Writer (v5)
- prairieFyre Storage Service
- prairieFyre Wallboarder
- prairieFyre Workforce Management Service
- Contact Center Management website
- YourSite Explorer
- English help files and user documentation
- Contact Center Client
- Salesforce.com Connector (if you are licensed for Salesforce.com Client)

- **Remote Server**

The Remote Server installation includes

- Collector Service
- Remote Routing Services, for IVR Routing
- Updater Service
- Contact Center Client
- Contact Center Management

- Flexible Reporting
- Workforce Scheduling
- YourSite Explorer
- **Client Component Pack**  
The Client Component Pack installation includes
  - Salesforce.com Connector (if you are licensed for Salesforce.com Client)
  - Contact Center Client
  - Flexible Reporting
  - Contact Center Softphone
  - Mitel Border Gateway Connector
  - YourSite Explorer
  - Updater Service
  - MiAudio Emulation Server

From the installation wizard you can access the

- Hardware and software requirements
- Detailed Release Notes
- Installation files
- Support directory
- English user and installation guides
- Mitel website at [www.mitel.com](http://www.mitel.com) (if you have access to the Internet)
- License agreement

## IF YOU NEED HELP

If you have questions concerning the Business Reporter setup, configuration, or customization, refer to the online Help or the *MiVoice Business Reporter User Guide*.

If you require technical support, call

- Mitel at 1-800-722-1301, Monday to Friday, from 8:30 A.M. to 6:00 P.M. Eastern Time, or email us at [miccsupport@mitel.com](mailto:miccsupport@mitel.com) (North American customers) or contact your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

For proposals, pricing, competitive information, on-site setup, or training, call our sales support group at 1-800-722-1301, or email them at [miccsales@mitel.com](mailto:miccsales@mitel.com).

### *Locating the latest version of the engineering guide*

Before you start an installation, we recommend that you review the *Contact Center Solutions and Business Reporter System Engineering Guide*

To locate the *Contact Center Solutions and Business Reporter System Engineering Guide* on the Mitel website

- Start Internet Explorer and type <http://edocs.mitel.com>

### *Locating the latest version of the installation guide*

Before you start the installation, we recommend that you review the *MiVoice Business Reporter Installation Guide*.

To locate the *Business Reporter Installation Guide*

- Start Internet Explorer and type: <http://edocs.mitel.com>

### *Locating the latest version of the user guide*

Before you start the installation, we recommend you review the *Business Reporter User Guide*

To locate the *Business Reporter User Guide*

- Start Internet Explorer and type <http://edocs.mitel.com>

# ENTERPRISE SERVER INSTALLATION

The Enterprise Server installation includes

- prairieFyre .Net Enterprise Server
- prairieFyre Auditor Server
- prairieFyre CCS Server
- prairieFyre Collector Service (v5)
- prairieFyre Config Service
- prairieFyre Data Processor Service
- prairieFyre Data Synchronization Service
- prairieFyre IVR Music Service
- prairieFyre Maintenance Alarm Dispatcher
- prairieFyre MassTransit Runtime Services
- prairieFyre MiTAI Proxy Server
- prairieFyre Reporting Service
- prairieFyre Routing Inbound Service
- prairieFyre Routing Media Service
- prairieFyre Routing Outbound Service
- prairieFyre Routing UPIQ service
- prairieFyre Server Monitoring Agent
- prairieFyre SQL Writer (v5)
- prairieFyre Storage Service
- prairieFyre Wallboarder
- prairieFyre Workforce Management Service
- YourSite Explorer
- Help files and user documentation
- Contact Center Client (Management Console)
- Subscriber Services software (if you are licensed)
- Ignite (if you are licensed for Multimedia Contact Center)

## BEFORE RUNNING THE SERVER INSTALLATION

**NOTE:**

- Verify hardware and software requirements for installing Business Reporter on the Enterprise Server, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*
- The Business Reporter installer requires User Account Control and Data Execution Prevention to be disabled during installation. It is recommended that if your Group Policy requires User Account Control and Data Execution Prevention to be on, that you manually turn them off before installation. See "Disabling User Account Control" on page 12 and "Disabling Data Execution Prevention" on page 13.
- Close all remote instances of YourSite Explorer before upgrading the Enterprise Server, to ensure Remote Servers are updated successfully.
- If you install our software on the Enterprise Server on a drive other than the C drive, you must ensure you have sufficient space on the C drive because the MSI (Microsoft Installer) decompresses files on the Windows Volume before installing the software to the final location.
- We recommend you install Business Reporter software on a server that is connected to the Internet.
- Install the appropriate antivirus software with the latest virus definitions and data backup software on the Enterprise Server. Ensure antivirus software is disabled before installing Business Reporter.
- Do not install OPS Manager on the Business Reporter Enterprise Server. Mitel does not support the co-location of OPS Manager on a server with other software. The co-location of OPS Manager and the Business Reporter software might result in your data collection service ceasing to function due to TCP port conflicts.
- Business Reporter software is packaged inside a self-extracting executable file. When the file is extracted, it will save to a default location. It is highly recommended that you do not change the default extraction location.
- You must ensure the YourSite database is aligned with the programming of your telephone system assignment forms. This ensures Business Reporter can receive telephone system data records and generate reports. You can easily synchronize the telephone system with the YourSite database using Synchronization.

- During the installation you will be required to log on to the Enterprise Server using an administrative account. The following recommendations for creating an administrative account may require you to contact your IT administrator before you begin the installation, especially in cases where the Enterprise Server will be joined to a domain. If applicable, add the Enterprise Server to the domain before beginning the installation. Create either a local or regular domain user account on the same domain as the Enterprise Server. We recommend using a domain account, which must have local administrator privileges on the server, and we suggest calling this administrative account CCMSETUP. During installation, the Reporting Service will be set to run under this account. All other services run under LOCAL SYSTEM. The account should be configured with a password that never expires and, if you will use email distribution, should be email-enabled. Contact your IT administrator for SMTP server information and the CCMSETUP email address. If the password is changed, you may be required to reconfigure the Enterprise Server.

**NOTE:** Systems using Windows Authentication for their SQL databases may, depending on the security of their SQL databases, need to run all services under the administrative account they specified during installation.

- If you want your employees to use Windows Authentication to sign into Business Reporter applications, you must ensure you have Active Directory groups and users configured prior to the upgrade installation. During the installation, you will be asked to choose from Windows Authentication or Business Reporter Authentication sign in options. Ensure the employee names as listed in the YourSite database are identical to the employee names as listed in Active Directory before committing to the Windows Authentication model. Otherwise, after installing, you will have duplicate or multiple identities for employees that were named in more than one way. For example, if you name an employee Thomas Lewis in the YourSite database and Tom Lewis in Active Directory, after installing you will have two employee identities for this employee.
- If you are installing Business Reporter on a supported non-English language operating system, you must uninstall the following .NET components:
  - Language Pack for Microsoft .NET Framework 4 Client Profile
  - Language Pack for Microsoft .NET Framework 4 ExtendedFailure to uninstall these components before installing Business Reporter may impact IVR Routing and Multimedia Contact Center workflow and subroutine functionality.

Before you install Business Reporter on the server, you must

- **Program the telephone systems.**  
For Mitel telephone system programming, see "Migrating a local SQL Server to remote" on page 107.
- **Install the required server components.**  
See "Installing Enterprise Server components " on page 10.
- **Verify that client computers can communicate with the Enterprise Server**  
See "Verifying client computer communication with the Enterprise Server" on page 16.



## PROGRAMMING TELEPHONE SYSTEMS

### NOTE:

- The SX-200, Axxess, and 5000 media servers are not supported with Version 7.1, except as historical media servers. When upgrading to Version 7.1, SX-200 media servers, along with their associated extensions, agents, agent groups, queues, trunks, and trunk groups, are set to historical. Axxess and 5000 media servers must be marked as historical before upgrading to Version 7.1 to retain historical data.
- Refer to the Golden Rules when configuring your telephone system. See the relevant KB article at <http://micc.mitel.com/kb/>.

You must program telephone system assignment forms on the following telephone systems in order to receive telephone system data records and generate reports in Business Reporter:

- **3300 ICP**  
See "Programming assignment forms" on page 108.

## INSTALLING ENTERPRISE SERVER COMPONENTS

The Enterprise Server has a number of components that must be installed before Contact Center Management/Business Reporter can be installed

**NOTE:** Prior to Version 7.0, users had to manually enable IIS and MSMQ before the installation. In Version 7.0 and greater, the installer automatically enables IIS and MSMQ on the Enterprise Server.

Before you install the server software you *must*

1. Verify the hard drive is formatted and ensure partitioning leaves sufficient space for required applications.
2. Verify the Windows operating system is installed.  
When installing Windows Server, ensure the name you assign to the computer does not exceed the 15 character NetBIOS limitation.  
When you install Business Reporter software on your Windows server, it becomes the Enterprise Server.
3. Install a network card and verify it works.
4. Install TCP/IP networking and verify it is enabled.  
We recommend you use a static IP address.
5. Install a video driver with 65,000 colors and verify it works.

**6. Install Microsoft Excel (Optional).**

Microsoft Excel 2007 or greater is required to both view Business Reporter reports and automatically distribute reports for printing. If you intend to use the Enterprise Server as both a server and a client, you require Excel 2007 (with the latest service packs) or greater on the server. Optionally, Microsoft Excel Viewer may be installed as an alternative to Microsoft Excel to view reports, but it cannot be used to automatically distribute reports for printing.

**NOTE:**

- Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in Contact Center Management. If you use Excel 2010 on the server to view reports, configure the following in Excel:
  - Ensure the following Protected View options are not enabled:
    - Enable Protected View for files originating from the Internet
    - Enable Protected View for files located in potentially unsafe locations
    - Enable Protected View for Outlook attachments
    - Enable Data Execution Prevention mode
  - Ensure that the following Trusted Location option is selected:
    - Allow Trusted Locations on my network (not recommended)
- 7. Run Windows Update and install the most recent service pack.**  
See "Running Windows update" on page 11.
- 8. Install .NET Framework 4.5.**  
See "Installing .NET Framework 4.5" on page 12.
- 9. Disable User Account Control**  
The Business Reporter installer requires User Account Control to be disabled during installation. It is recommended that if your Group Policy requires User Account Control to be on, that you manually turn them off before installation.  
See "Disabling User Account Control" on page 12.
- 10. Disabling Data Execution Prevention**  
The Business Reporter requires Data Execution Prevention to be disabled during installation. It is recommended that if your Group Policy has Data Execution Prevention enabled, you manually disable Data Execution Prevention before installation.  
See "Disabling Data Execution Prevention" on page 13.
- 11. Install SQL Server 2008, 2012, or 2014 Express Edition.**  
**NOTE:** If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.

### *Running Windows update*

**NOTE:** We recommend switching off automatic Microsoft updates and only manually applying updates with a rollback plan. Later versions of key components, for example, .NET Framework, should only be applied as specified for the version of Business Reporter you are running. See the *Contact Center Solutions and Business Reporter System Engineering Guide* for specifications.

To run Windows Update on Windows Server 2008 R2

1. Click **Start=>All Programs=>Windows Update**.
2. Click **Check for updates**.
3. Click **Install updates**.
4. When the installation is complete, click **Restart Now**.

To run Windows Update on Windows 8 and Windows 8.1

1. In Windows, navigate to the **Control Panel**.
2. Select **System and Security=>Windows Update**.
3. Click **Check for updates**.
4. Click the link for available updates.  
The Select updates to install window opens.
5. To install selected updates, click **Install**.
6. When the installation is complete, click **Restart now**.

To run Windows Update on Windows Server 2012 and 2012 R2

1. In Windows, navigate to the **Control Panel**.
2. Select **System and Security=>Windows Update**.
3. Click **Check for updates**.
4. Click the link for available updates.  
The Select updates to install window opens.
5. To install selected updates, click **Install**.
6. When the installation is complete, click **Restart now**.

## *Installing .NET Framework 4.5*

Windows 8 and Windows 8.1 and Windows Server 2012 include .NET Framework 4.5.

If you are connected to the Internet, the installer will install .NET Framework 4.5 on the Enterprise Server. If the Enterprise Server runs Windows 2008 R2 or Windows 7 and is not connected to the Internet, you must manually install .NET Framework 4.5. You can download .NET Framework 4.5 from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.

## *Disabling User Account Control*

To disable User Account Control in Windows Server 2008 R2

1. In Windows, navigate to the **Control Panel**.
2. Click **User Accounts**.
3. Click **Change User Account Control settings**  
The User Account Control Settings window opens.
4. Slide the slider bar down to **Never notify** and click **OK**.
5. Restart the computer.

To disable User Account Control in Windows 8

**CAUTION:** Disabling User Account Control in Windows 8 requires you to edit the Registry in Windows. If you are unfamiliar with using the Registry Editor, please consult your system administrator.

1. In Windows, navigate to the **Registry Editor**.
2. Set the value for **HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System=>EnableLUA** to **0**.
3. When prompted, restart the computer.

To disable User Account Control in Windows Server 2012

**CAUTION:** Disabling User Account Control in Windows Server 2012 requires you to edit the Registry in Windows. If you are unfamiliar with using the Registry Editor, please consult your system administrator.

1. In Windows, navigate to the **Registry Editor**.
2. Set the value for **HKLM\SOFTWARE\Microsoft\Windows\CurrentVersion\Policies\System=>EnableLUA** to **0**.
3. When prompted, restart the computer.

### *Disabling Data Execution Prevention*

To disable Data Execution Prevention on Windows Server 2008 R2

1. In Windows, open the **command prompt** window.
2. After the command prompt, type **bcdedit.exe /set {current} nx AlwaysOff** and click **Enter**. If Data Execution Prevention is successfully disabled, you will receive a The operation completed successfully message.
3. Restart the computer.

To disable Data Execution Prevention on Windows 8

1. In Windows, open the **command prompt** window.
2. After the command prompt, type **bcdedit.exe /set {current} nx AlwaysOff** and press **Enter**.
3. Restart the computer.

To disable Data Execution Prevention on Windows Server 2012

1. In Windows, open the **command prompt** window.
2. After the command prompt, type **bcdedit.exe /set {current} nx AlwaysOff** and press **Enter**.
3. Restart the computer.

## *Verifying the status of Data Execution Prevention*

To verify the status of Data Execution Prevention on Windows Server 2008

1. In Windows, open the **command prompt** window.
2. After the command prompt, type **wmic OS Get DataExecutionPrevention\_SupportPolicy** and press **Enter**.  
The command prompt will return a number that maps to the status of Data Execution Prevention, as defined by Table 1.

To verify the status of Data Execution Prevention on Windows 8

1. In Windows, open the **command prompt** window
2. After the command prompt, type **wmic OS Get DataExecutionPrevention\_SupportPolicy** and press **Enter**.  
The command prompt will return a number that maps to the status of Data Execution Prevention, as defined by Table 1.

To verify the status of Data Execution Prevention on Windows Server 2012

1. In Windows, open the command prompt window
2. After the command prompt, type **wmic OS Get DataExecutionPrevention\_SupportPolicy** and press **Enter**.  
The command prompt will return a number that maps to the status of Data Execution Prevention, as defined by Table 1.

**Table 1: Data Execution Prevention status**

0	AlwaysOff	DEP is disabled for all processes.
1	AlwaysOn	DEP is enabled for all processes.
2	OptIn	DEP is enabled only for Windows system components and services that have DEP applied.
3	OptOut	DEP is enabled for all processes. Administrators can manually create a list of specific applications that do not have DEP applied.

### *Installing SQL Server*

Before you install Business Reporter, you must install SQL Server 2008, 2008 R2, 2012, or 2014 Express Edition. If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.

#### **NOTE:**

- SQL Server 2008 Express Edition can store 4 GB of data per database. SQL Server 2008 R2 Express, SQL Server 2012 Express, and SQL Server 2014 Express can store up to 10 GB of data per database. You must run SQL Server 2008 R2 Express or Workgroup Edition or higher, SQL Server Express 2012 or higher, or SQL Server 2014 Express or higher if you need to store more than 4 GB of data per database. If your data requirements exceed these values, you must purchase a licensed copy of SQL Server. For data storage examples and SQL Server guidelines, see the *Contact Center Solutions and Business Reporter System Engineering Guide*.
- If you will use Business Reporter in conjunction with remote SQL Server, you must ensure that MSDTC is enabled on the SQL Server or YourSite Explorer will not function properly. For complete details, see <http://micc.mitel.com/kb/KnowledgebaseArticle50896.aspx>.

In order to properly create and configure databases, the administrative account being used to install Business Reporter must have the following security roles on the SQL server:

- dbcreator
- public
- sysadmin

If you have installed SQL Server 2012 or 2014, you must also verify that the NT AUTHORITY\SYSTEM server role also has these permission. For more information, see the following KB article: <http://micc.mitel.com/kb/KnowledgebaseArticle52210.aspx>.

**NOTE:** If you do not want the administrative account being used to install Business Reporter to be configured with those SQL permissions, there are two alternatives:

- Add the local system account as sysadmin and dbcreator.
- Set the following services, application pools, and local databases to run under the identity account:
  - Services:
    - prairieFyre Routing Media Service
    - prairieFyre MassTransit Runtime
  - Application Pool:
    - CCMWa
  - Local databases:
    - CCMRouting
    - CCMRuntimeServices
    - Ccmwa

You can download SQL Server Express Editions free from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>

**SQL Server 2008, SQL Server 2012, SQL Server 2014 best practices**

If you are installing SQL Server 2008, SQL Server 2012, or SQL Server 2014, ensure you follow the following best practices:

- When the SQL Server Installation Center Dialog opens, click **Installation** to begin installing SQL Server 2008, SQL Server 2012, or SQL Server 2014. If this is the first time you are installing SQL Server 2008, SQL Server 2012, or SQL Server 2014, click **New SQL Server stand-alone installation or add features to an existing installation**. If you are upgrading from SQL Server 2000 or 2005, click **Upgrade from SQL: Server 2000 or SQL Server 2005**.
- Once the installation wizard opens, on the **Feature Selection** window, ensure you click **Select All** to select all features.
- On the **Instance Configuration** window, ensure you give the SQL Server instance a unique name that is not already in use. If you use the **Default instance** name and receive an error saying the instance name is already in use, try renaming the SQL Server instance.
- On the **Server Configuration** window, ensure you provide a local server administrator account name in the **Account Name** fields and have the service **Startup Type** fields set to **Automatic**.
- On the **Database Engine Configuration** window, on the **Account Provisioning** tab, ensure you specify a local server administrator in the **Specify SQL Server administrators** pane. If the current user has local administrator privileges on the server, click **Add Current User**.

## VERIFYING CLIENT COMPUTER COMMUNICATION WITH THE ENTERPRISE SERVER

As a best practice, we recommend you verify that your client computers can communicate with the Enterprise Server. Ideally all three methods should be used to verify that the network is configured correctly, however, if you do not have a qualified DNS name, skip that step. When configuring the Enterprise Server, we recommend you verify access with the

- IP address: for example, 10.1.1.4
- Computer name: for example, MITELCCM
- DNS name: for example, widgets.com

To verify client computer communication with the Enterprise Server

1. On a client computer, open the command prompt window.
2. Type **ping <IP address>** and click **Enter**.  
If you get a reply from the IP address, the client computer can communicate with the Enterprise Server.
3. Type **ping <Computer name>** and click **Enter**.  
If you get a reply from the computer name, the client computer can communicate with the Enterprise Server.
4. Type **ping <DNS name>** and click **Enter**.  
If you get a reply from the DNS name, the client computer can communicate with the Enterprise Server.

# UPGRADING TO BUSINESS REPORTER VERSION 7.1

The upgrade procedures for Business Reporter Versions 5.8.0.9 and 6.0.x are described below. We do not support upgrading from Version 4.x to Version 7.1.

When upgrading to Version 7.1, you may choose to stage your deployment and provision a second Enterprise Server with Business Reporter Version 7.1, move clients over in stages, and retain a server that is running the previous release until you are confident that Version 7.1 is providing the stability you require. Ensure client software has been updated to the appropriate version. We do not support an older version of a client connecting to a newer release on a server. Certain reports and real-time data may not line up in a co-existence scenario.

If your existing deployment includes Multimedia Contact Center, consult the *Mitel Multimedia Contact Center Installation and Deployment Guide* for additional considerations for upgrades.

Before upgrading, read the following notes as well as reviewing the notes under "Before running the server installation" on page 8.

**CAUTION:** Deleting the hidden .msi install files will result in the failure of upgrades to later versions of Business Reporter.

### NOTE:

- Business Reporter Version 7.1 requires .NET Framework 3.5 SP1 and .NET Framework 4.5. These will be downloaded and installed on the Enterprise Server during the upgrade if connected to the Internet. Otherwise, they must be installed manually. .NET Framework 4.5 must be manually installed on all client computers and all remote servers before upgrading.
- The Microsoft Report Viewer 2010 Redistributable Package must be installed on all clients before upgrading to Version 7.1. It can be downloaded from <http://www.microsoft.com/en-us/download/details.aspx?id=6442>.
- If you have Remote Servers in your enterprise, they will be prompted with an update by the prairieFyre Updater Service following the upgrade of the Enterprise Server.
- If you were using telephone system simulation in the previous version of Business Reporter, contact Mitel at [miccsupport@mitel.com](mailto:miccsupport@mitel.com) for assistance in reinstalling simulation mode files.
- If you use Salesforce.com Connector, when you upgrade to Business Reporter Version 7.1, ensure Salesforce Call Center is at Version 4.0. For more information, see "Upgrading to Salesforce.com Connector Version 4.0" on page 81.
- If you are installing Business Reporter on a supported non-English language operating system, you must uninstall the following .NET components:
  - Language Pack for Microsoft .NET Framework 4 Client Profile
  - Language Pack for Microsoft .NET Framework 4 ExtendedFailure to uninstall these components before installing Business Reporter may impact IVR Routing and Multimedia Contact Center workflow and subroutine functionality.
- If you configured chat request forms in Version 7.0, your customizations will not be retained after upgrading to Version 7.1. For information on customizing the chat request forms, see the *Multimedia Contact Center Installation and Deployment Guide*.



To upgrade to Version 7.1

1. Verify hardware and software requirements  
See "Verifying hardware and software requirements" on page 18.
2. Back up the YourSite database and phone data  
See "Backing up the YourSite database and phone data" on page 18.
3. Turn off automatic updates to client computers and remote servers  
See "Turning off automatic updates to client computers and remote servers" on page 19.
4. Retain configuration and registry settings  
See "Retaining configuration and registry settings when upgrading to Version 7.1" on page 20.
5. Upgrade Business Reporter  
See "Upgrading Business Reporter Version 6.0.x to Version 7.1" on page 23.  
See "Upgrading Business Reporter Version 5.8.0.9 to Version 7.1" on page 25.
6. Restore telephone system and configuration data  
This step is only required if you are performing a side by side migration.  
See "Restoring telephone system and configuration data" on page 25.
7. Turn on automatic updates to client computers and remote servers  
See "Turning on automatic updates to client computers and remote servers" on page 26.

## VERIFYING HARDWARE AND SOFTWARE REQUIREMENTS

Before you start an upgrade, we recommend you review the *Contact Center Solutions and Business Reporter System Engineering Guide*

To locate the *Contact Center Solutions and Business Reporter System Engineering Guide*

- Start Internet Explorer and type <http://edocs.mitel.com>

## BACKING UP THE YOURSITE DATABASE AND PHONE DATA

Backing up Enterprise Server configuration and telephone system data offers protection in case there are unexpected issues while upgrading from one version of Business Reporter to the next. The Enterprise Server configuration backup includes configuration items such as employees, agents, agent groups, queues, and security roles. This backup can be used to restore the configuration on the same Business Reporter version or on an upgraded version.

### NOTE:

- You must be licensed as a System Administrator to back up telephone system and configuration data.
- As a security measure, if backed up data is restored on an Enterprise Server with a different IP address than the Enterprise Server it was backed up on, all mail server incoming and outgoing usernames and passwords will be blank in YourSite Explorer. Ensure that any relevant mail server information is recorded for manual re-entry in YourSite Explorer.

To back up the YourSite database (when upgrading from Business Reporter Version 6.0.x to Version 7.1)

1. Start Contact Center Client.
2. Click **Tools=>Management**.
3. Click **Configuration**.

4. Click **Back up/Restore configuration data**.
5. Select **Back up** and click **Next**.
6. Click **Save** and select a location to save the file.  
**NOTE:** A .zip file is created. Inside the .zip file is an XML file that contains the entire configuration.
7. Click **Finish**.

To back up the YourSite database (when upgrading from Business Reporter Version 5.8.0.9 to Version 7.1)

1. Start Contact Center Client.
2. Click **View=>Administration**.
3. Click **Management**.
4. Click **Configuration**.
5. Click **Back up/Restore configuration data**.
6. Select **Back up** and click **Next**.
7. Click **Save** and select a location to save the file.  
**NOTE:** A .zip file is created. Inside the .zip file is an XML file that contains the entire configuration.

To back up raw telephone system data files

**NOTE:** Any file or folder created by an MSI (Microsoft Installer), such as DataDirectory, must remain unchanged. Do not attempt to change the name or delete the file or folder. If you do so, the file or folder will be recreated.

1. On the Enterprise Server, right-click **Start=>Explore**.
2. Copy the <drive>:\program files (x86)\prairiefire software inc\CCM\DataDirectory folder to the desktop, a network share, or, optionally, store it on a CD.

## TURNING OFF AUTOMATIC UPDATES TO CLIENT COMPUTERS AND REMOTE SERVERS

By default, remote servers and client computers are configured to automatically apply upgrades from the Enterprise Server. This can be turned off to allow for the upgrade to be completed and verified as successful first before the new version is taken and applied by client computers and remote servers. It is recommended that when upgrading between versions of the software that you turn off the automatic update.

To turn off automatic update

1. Open **YourSite Explorer**.
2. Click **Enterprise**.
3. In the **Enterprise** tab, clear **Auto update client applications**.
4. Click **Save**.

## RETAINING CONFIGURATION AND REGISTRY SETTINGS WHEN UPGRADING TO VERSION 7.1

Business Reporter may have additional setting configurations to registry and configuration files that can be overwritten or lost during an upgrade or migration. The ConfigHarvest tool enables the retention of these additional settings made on Version 6.0.x Enterprise Servers, remote servers, and client computers when upgrading to Version 7.1.

You can use this tool to retain your settings whether you upgrade directly on an existing server or side by side using a new server. How you use ConfigHarvest depends on your upgrade method:

- **Side by side migration:** When performing a side by side migration, this tool is run on the Version 6.0.x Enterprise Server to produce an import.xml file that is then run on the Version 7.1 Enterprise Server to import that data into the database.
- **Direct Upgrade:** ConfigHarvest is not supported for direct upgrades between 6.0.x and 7.1.

### *Retaining configuration and registry settings for remote servers and client computers*

After upgrading to Version 7.1, remote server and client application configuration settings will be retained only if the changes were made on the Enterprise Server and then propagated, via the Updater Service, to every client computer and remote server. Custom settings that are made on client computers or remote servers only will not be retained.

### *Running the ConfigHarvest tool*

You must run the ConfigHarvest tool on the pre-7.1 Enterprise Server prior to upgrading to import the configuration and registry settings that will be compared to the new Version 7.1 settings and re-applied to ensure all previously modified settings are retained. The process for running ConfigHarvest and upgrading differs depending on whether you are performing a side by side migration (recommended) or a direct upgrade.

The ConfigHarvest tool has three different modes, each performing a different task:

- **Mode 1:** Takes a snapshot of the current configuration and registry settings on the Enterprise Server. This mode is used in a side-by-side migration scenario on the new Version 7.1 server to establish a baseline of default Version 7.1 settings to which the pre-7.1.x settings will be compared. The output when using this mode is an XML file, baseline.xml, containing all current settings.
  - A sample baseline file is included in the Samples subfolder. You can use this baseline file when performing a direct upgrade or, if doing a side by side migration upgrade, you can create your own baseline file by running the tool in Mode 1 on the Version 7.1 Enterprise Server.
- **Mode 2:** Takes a snapshot of the current configuration and registry settings on the Enterprise Server and also enables a comparison between the baseline (7.1 default) settings and the current (pre-7.1 upgrade) settings. This mode is typically run on the old server before upgrading to Version 7.1. Mode 2 requires the following files:
  - **mapping.xml**—The mapping file helps interpret the differences found between the settings and determines whether these differences should be ignored.
  - **baseline.xml**—This file contains the baseline of default Version 7.1 settings to which the pre-7.1.x settings will be compared.

When run with Mode 2, ConfigHarvest produces one file:

- **Import.xml**—This file contains the differences between the pre-7.1 settings and the baseline 7.1 settings using the mapping from the mapping file.
- **Mode 3:** Places the contents of the 'Import' file into the ApplicationConfigurationSettings database table and is typically run on the new Version 7.1 server to import settings from the old server. Mode 3 requires the following file:
  - **Import.xml**—This file contains the specific customized configuration and registry settings.

### *Side by side migration upgrade scenario*

In the side by side migration upgrade, you copy the ConfigHarvest tool from the Version 7.1 Enterprise Server to the Version 6.0.x Enterprise Server, run the ConfigHarvest tool, copy the generated import.xml file and copy it to the Version 7.1 Enterprise Server, and then run ConfigHarvest on the Version 7.1 Enterprise Server.

To preserve configuration and registry file settings in a side by side migration upgrade scenario

1. Install Version 7.1 on the new server.
2. Launch the command prompt as an administrator.
3. Enter **cd <installation drive>:\Program Files (x86)\prairieFyre Software Inc\CCM\Support\ConfigHarvester** and press **Enter**.
4. Type **ConfigHarvest.exe** and press **Enter**.
5. Enter **/mode=1 /baseline="<file path>"**, where <file path> is the location where the baseline.xml file will be saved.
6. Copy ConfigHarvest.exe, baseline.xml, and mapping.xml to the Version 6.0.x Enterprise Server.
7. On the Version 6.0.x Enterprise Server, launch the command prompt as an administrator.
8. Enter **cd <file path of the containing folder of ConfigHarvest.exe>\ConfigHarvester** and press **Enter**.
9. Type **ConfigHarvest.exe** and press **Enter**.
10. Enter **/mode=2 /baseline="<file path>" /mapping="<file path>" /import="<file path>" /grid=1**.  
The grid will open containing a list of file setting differences.
11. Review the file settings in the grid and delete any that are not necessary.  
**CAUTION:** Choose the settings to import carefully. Importing incorrect settings may impact the performance of your Version 7.1 Enterprise Server.
12. Click the save icon to save and close the import file.
13. Copy the generated import.xml file to the new Version 7.1 server.
14. On the Version 7.1 Enterprise Server, launch the command prompt as an administrator.
15. Enter **cd <installation drive>:\Program Files (x86)\prairieFyre Software Inc\CCM\Support\ConfigHarvester** and press **Enter**.
16. Type **ConfigHarvest.exe** and press **Enter**.
17. Enter **/mode=3. /import="<file path>" /grid=1**, where <file path> is the location where the baseline.xml file will be saved.

18. Review the configuration and registry settings in the grid and delete any that are not necessary.

**CAUTION:** Choose the settings to import carefully. Importing incorrect settings may impact the performance of your Version 7.1 Enterprise Server.

19. Click the **Save** icon to import the settings.  
The settings write to the database and registry. This may take a few minutes.

### *Direct upgrade scenario*

ConfigHarvest is not supported in a direct upgrade scenario for Version 7.1.

### *ConfigHarvest tool command line arguments and options*

#### **NOTE:**

- If you open a DOS command line, you must change the current directory to point to the location of the ConfigHarvest.exe file if you want to use relative file names.
- All file paths can be absolute or relative. If the file is in the same folder as ConfigHarvest.exe, you can enter only the file name. File paths must be enclosed between double quotes if they contain spaces.

In Modes 2 and 3, there is an optional grid that can be used to manually discard additional differences, other than the ones detected using the mapping file, creating a subset of settings to be written to the import.xml file (Mode 2) or the database (Mode 3).

#### **Options:**

/help (or /h or /?)

To display a helper message

/mode (or /m)

=1 for retrieving baseline data

=2 for creating Diff and Import data

=3 for Database/Registry update

This option is mandatory when no help is required

/baseline (or /b)

=path of the XML file providing the baseline configuration (target release)

This option is mandatory in Mode 1 and Mode 2 (in Mode 2, the file must exist)

- In Mode 1, use this to specify where baseline.xml will be generated
- In Mode 2, use this to specify the path to the baseline.xml file to use to create an import file

/mapping (or /ma)

=path of the XML file providing the mapping between old and new settings

This file also provides information about old settings that are safe to ignore

This option is mandatory in Mode 2 and is used to specify the path to the mapping.xml file

/diff (or /d)

=path of the XML file providing the list of raw differences between baseline settings and local settings (mapping file not processed)

This option is mandatory in Mode 2 and is used to specify where the diff.xml file will be generated

/import (or /i)

=path of the XML file providing the list of settings ready to be imported in the database/registry

This option is mandatory in Mode 2 and Mode 3 (in Mode 3, the file must exist).

- In Mode 2, use this to specify where the import.xml will be generated
- In Mode 3, use this to specify the path to the import.xml file

/grid (or /g)

=1 to enable the display of a grid to select items that should be imported

=0 to disable the display of the grid

This option is available in Mode 2 and Mode 3. The default is 0.

## UPGRADING BUSINESS REPORTER VERSION 6.0.X TO VERSION 7.1

When you upgrade from Business Reporter Version 6.0.x to Version 7.1, you run the Wizard to upgrade the Enterprise Server. Client computers and Remote Servers automatically update through the prairieFyre Updater Service when the Enterprise Server is upgraded.

The following version can be upgraded to Version 7.1:

- Version 6.0.3.0

If you do not have one of the supported versions, you must install a supported version before upgrading to Version 7.1.

### NOTE:

- .NET Framework 4.5 must be installed manually on all client computer and Remote Servers prior to upgrading.
- Microsoft Report Viewer 2010 Redistributable Package must be installed manually on all clients before upgrading to Version 7.1.
- If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.

To upgrade Business Reporter Version 6.0.x to Version 7.1

1. Verify hardware and software requirements in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
2. Back up the YourSite database and raw telephone system data files.  
See "Backing up the YourSite database and phone data" on page 18.

3. If not already installed or enabled, .NET Framework 4.5 will automatically be installed or enabled on the Enterprise Server if you are connected to the internet. Otherwise, it must be manually installed. .NET Framework 4.5 must be manually installed on all client computers and Remote Servers.

You can download .NET Framework 4.5 from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.

4. Install Microsoft Report Viewer 2010 Redistributable Package on all clients before upgrading to Version 7.1. It can be downloaded from <http://www.microsoft.com/en-us/download/details.aspx?id=6442>.
5. If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.
6. Ensure all Windows programs and Mitel applications are closed.
7. Run the Business Reporter installation on the Enterprise Server.  
See "Installing Business Reporter Version 7.1" on page 27.

When installing Business Reporter on the Enterprise Server, you log on to the Enterprise Server with a Windows administrator account. Ensure this account has full administrative privileges.

After you install Business Reporter on the Enterprise Server, the prairieFyre Updater Service updates all applications and services for client computers and Remote Servers. This process can take up to an hour, depending on how many clients are being upgraded.

8. After all pre-requisites are installed, click **Update**.
9. When the Configuration Wizard opens, follow the steps to configure your system.  
**NOTE:** When upgrading to Version 7.1, re-enter your SMTP Server settings if they do not display in the SMTP mail server window during the installation.
10. Navigate to the Download Center and install the latest fix pack.
11. If you use Contact Center PhoneSet Manager or Contact Center Softphone, you must install Visual C++ Redist 2010 RTM on client machines and Remote Servers.  
You can either download this application from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>, or access it from the installation package under: src\vc\_redist\_x86 2010 SP1\vc\_redist\_x86.exe.
12. If you were using telephone system simulation in the previous version of Business Reporter, contact Mitel at [miccsupport@mitel.com](mailto:miccsupport@mitel.com) for assistance in reinstalling simulation mode files.
13. Perform full synchronization.
14. Run Summarize by clicking **Management=>Maintenance=>Summarize data** in Contact Center Client and following the steps in the Summarize Data Wizard.  
If you do not run Summarize, historical reports will display blank columns instead of displaying the proper location information and you will not be able to report on Account Code data collected prior to upgrading.

# UPGRADING BUSINESS REPORTER VERSION 5.8.0.9 TO VERSION 7.1

As Business Reporter Version 5.8.0.9 only supports 32-bit servers and Version 7.1 only supports 64-bit servers, a direct upgrade between versions is not supported. Version 5.8.0.9 backup files can be restored on a new installation of Version 7.1. For information on the hardware and software requirements of Version 7.1, consult the *Contact Center Solutions and Business Reporter System Engineering Guide*.

To upgrade from Version 5.8.0.9 to Version 7.1

1. Create a backup of your YourSite database and copy your raw telephone system data files. See "Backing up the YourSite database and phone data" on page 18.
2. Install Version 7.1 on a 64-bit server. See "Installing Business Reporter Version 7.1" on page 27.
3. Restore the backup of your YourSite database in your Version 7.1 installation and copy the telephone system data files to <drive>:\program files (x86)\prairiefyre software inc\CCM\DataDirectory, See "Restoring telephone system and configuration data" on page 25.

## RESTORING TELEPHONE SYSTEM AND CONFIGURATION DATA

After installing Version 7.1 on the designated Enterprise Server, add the data from your old server by restoring the previously backed-up data from the old server to the new server.

### NOTE:

- Remote restores are not supported.
- As a security measure, if backed up data is restored on an Enterprise Server with a different IP address than the Enterprise Server it was backed up on, all mail server incoming and outgoing usernames and passwords will be blank in YourSite Explorer. Administrators must manually re-enter mail server incoming and outgoing usernames and passwords.

To restore telephone system and configuration data

1. In **Contact Center Client**, click **Tools=>Management**.
2. In **Management Console**, click **Configuration=> Back up/Restore configuration data**.
3. Select **Restore**.
4. To restore a file from the server backup directory, select **from the server backup directory**, select a file, and click **Next**.
5. To restore a file saved to another location, select **from this file=>Browse**, open the backup file, and click **Next**.
6. When prompted to restart Contact Center Client, click **Yes**.
7. Optionally, you can synchronize the Enterprise Server's IP address and computer name after restoring data. Do so by selecting the appropriate check box and entering the Enterprise Server's IP address in the field provided.



After restoring a backup, check the IP addresses configured in the YourSite Explorer and the computer names associated to all media servers to ensure the local media servers are set to the local server name and remote collectors are also set correctly.

## TURNING ON AUTOMATIC UPDATES TO CLIENT COMPUTERS AND REMOTE SERVERS

After upgrading and verifying the success of the upgrade, ensure that you enable the automatic update option once more to ensure that client computers and remote servers are running the current version of the upgrade.

### NOTE:

- By default the Updater Service of client computers and remote servers checks the Enterprise Server every 10 minutes to see if any changes have been made to Enterprise Server software.
- The remote server and client computers will not update any applications that are currently in use. You must shut down all Contact Center Management/Business Reporter applications on client computers and remote servers in order for upgrades to occur.

To turn on automatic updates

1. Open **YourSite Explorer**.
2. Click **Enterprise**.
3. In the **Enterprise** tab, select **Auto update client applications**.
4. Click **Save**.

## INSTALLING BUSINESS REPORTER VERSION 7.1

### NOTE:

- We recommend you install Contact Center Solutions and Business Reporter software on a server that is connected to the Internet.
- You must close all of the Windows programs and ensure antivirus software is disabled before you install Business Reporter software.
- The setup installs Client Component Pack on the Enterprise Server and does not allow you to re-install it at a later time.
- During the installation, you now have the option of specifying whether your employees will use Windows Authentication or Business Reporter Authentication to sign in to Business Reporter applications. If you will use Windows Authentication, you must ensure you have Active Directory groups and users configured before proceeding with the installation. Ensure the employee names as listed in the YourSite database are identical to the employee names as listed in Active Directory before committing to the Windows Authentication model. Otherwise, after installing, you will have duplicate or multiple identities for employees that were named in more than one way. For example, if you name an employee Thomas Lewis in the YourSite database and Tom Lewis in Active Directory, after installing you will have two employee identities for this employee.
- If you are installing Business Reporter in a Federal Information Processing Standards (FIPS) environment, the Enterprise Server requires a configuration change be made to the Windows .NET Framework files on the Enterprise server following installation. For more information, refer to the following Knowledge Base Article:  
<http://micc.mitel.com/kb/KnowledgebaseArticle52179.aspx>

To install Business Reporter on the Enterprise Server

1. Log on to the Enterprise Server with a Windows administrator account.  
The account must have full administrative privileges.
2. Ensure all of the Windows programs are closed.
3. Using a web browser browse to **<http://www.mitel.com>**.
4. Click **Login**.
5. Click **Mitel Online**.
6. Type your Mitel Online **Username** and **Password** and click **Login**.
7. Under **Support** click **Software Downloads**.
8. To download
  - Business Reporter software, click **Call Accounting=>MiContact Center Software Download Release 7.1.3.0**.
  - software, click **=>**.The Knowledge Base article pertaining to Business Reporter opens.
9. Click the link of the version of 7.1.3.0 you want to download.  
The Disclaimer appears.

10. To download your software:
  - Click **[Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
  - Click **I Agree [Download using HTTP]** to download using your browser.

**NOTE:** If you click I Disagree, you are unable to download the software.
11. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
12. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.
13. If you save the file, browse to the downloaded installation file and run it.  
The Mitel Contact Center Solutions 7.1 self-extracting wizard opens.
14. If you run the file, the Mitel Contact Center Solutions 7.1 self-extracting wizard opens when the file finishes downloading.
15. Click **Browse** to select the location to which the install files will be extracted.  
We recommend you leave the default path to which you will extract the installation files.
16. Click **Install**.  
The Start window opens.
17. Click **Review hardware and software requirements**, to access the System Engineering Guide.
18. Click **Enterprise Server**.
19. Review the important pre-requisite changes and click **Next**.
20. If you are prompted to accept the .NET Framework 4.5 end user license agreement, click **Accept**.

**NOTE:** If you are installing .NET Framework 4.5, you will be prompted to reboot after it is installed. After the reboot, run the installation file again.
21. Click **Install**, **Accept**, and/or **Run** to install any of the following pre-requisites that are not currently installed on your system: Visual C++ Redist 2010 RTM, Visual C++ 2010 Runtime Libraries (x86), Microsoft Visual Studio 2010 Report Viewer, Microsoft SQL Server System CLR Types, Microsoft SQL Server 2008 Management Objects, Microsoft WSE 3.0 Runtime, MiXML Server Edition, Mitel Contact Center Solutions Server Monitoring Agent, and Microsoft Component Checker.
22. If prompted, click **Yes** to install the Mitel Networks Root CA certificate.  
The software components are installed.
23. If the Mitel System Checker reports any warnings or errors, address these and click **Recheck** to continue with the installation.  
The License Agreement window opens.
24. Select **I accept the terms in the license agreement**.
25. Click **Next**.  
The Destination Folder window opens.
26. Click **Next** to accept the default location of the Enterprise Server folder. Otherwise, click **Change...**, specify the location, and click **Next**.  
The Setup Type window opens.
27. Specify the type of setup and click **Next**.  
The Installing Mitel Business Reporter window opens.  
The Enterprise Server is installed.

The Contact Center Management Configuration Wizard opens.

28. If you do not have a license, on the Registration window, the wizard prompts you to select one of the following licensing options, then click **Next**.

**NOTE:** To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 72.1.218.40.

- If an active Internet connection is available and you can access the license server, you must register online. Select **I would like to register now**. The license key will be provided over the phone or by email by Mitel during the purchasing and registration process. After License key, paste the entire license key. You must submit your registration information to Mitel and implement your license files within thirty days to complete your software registration.
- If you do not have access to the Internet or if you cannot access our license server, select **I would like to register later**. Selecting this option will install a temporary demo license. Contact Mitel at 1-800-722-1301 or [miccsupport@mitel.com](mailto:miccsupport@mitel.com) to obtain your licensing key (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

29. Click **Next**.

The Enterprise Server Settings window opens.

30. On the Enterprise Server Settings window, the wizard prompts you to specify the following settings and click **Next**.

- After **IP address**, verify the IP address of the Enterprise Server. If it is not correct, type the correct IP address or DNS name.
- After **Language**, select the language in which you want Business Reporter applications to display.

**NOTE:** Business Reporter applications, such as YourSite Explorer and Contact Center Client, all leverage the language settings of the operating system in addition to the language preference set for Business Reporter. Ensure that the language selected matches the language settings of the operating system.

**CAUTION:** If you select SSL, ensure the IP address configured is the Fully Qualified Domain Name (FQDN) used when applying the SSL certificate.

- If you use Secure Socket Layer, select **SSL**.
- If you are an advanced user and you want to relocate the log, reporting, data, or backup files to another location, click **Show Advanced**. Click **Browse** across from the file you want to re-locate, and select the new location of the files.

The Service Credentials window opens.

31. Type the user name and password that will be used to control Business Reporter services.

32. Under **Authentication Type**, select the method of authentication that will be used to determine how users will log in to Business Reporter applications and click **Next**.

CCM Authentication is the traditional form of authentication where a system administrator must manually manage the login accounts of each individual user from YourSite Explorer. Windows Authentication leverages Windows Active Directory for user logins. You can synchronize with Active Directory post-installation using Active Directory Synchronization within YourSite Explorer.

The SQL Server window opens.

33. On the SQL Server window, the wizard prompts you to specify the following settings and click **Next**.

**NOTE:** If you are using a remote instance of SQL Server, ensure that you select the computer name of the remote SQL Server. If you will use Contact Center Management in conjunction with remote SQL Server, you must have SQL Management Studio Express for your version of SQL installed on the Enterprise Server in order for the two servers to communicate. You can download and install SQL Management Studio Express for your version of SQL from:

- SQL Server 2008  
<http://www.microsoft.com/en-ca/download/details.aspx?id=7593>
- SQL Server 2008 R2  
<http://www.microsoft.com/en-ca/download/details.aspx?id=30438>
- SQL Server 2012  
<http://www.microsoft.com/en-ca/download/details.aspx?id=29062>
- SQL Server 2014  
<http://www.microsoft.com/en-ca/download/details.aspx?id=42299>

If you are using a remote SQL Server, we recommend using SQL Server Authentication. If you are using SQL Server Authentication, ensure that you type the user name and password of an SQL Server account. For more information on using a remote SQL Server and SQL Server Authentication, see "Setting up Authentication for Remote SQL " on page 130.

- After **SQL Server name**, select the name of the SQL Server that will store the Business Reporter database and telephone system data.  
The Business Reporter installation requires Microsoft SQL Server 2008 Express or greater, but the Business Reporter database and telephone system data files will not automatically be stored there. The Wizard searches the networks for available SQL Server Instances. To ensure you select the correct instance on which to store the Business Reporter database and telephone system data, use the drop-down menu to browse to and select the server
- After **Authentication**, select the method with which SQL Server authenticates user credentials: Windows or SQL Server.

**NOTE:**

- If you are unsure of the type of authentication to use, contact your system administrator. For a table summarizing the advantages and disadvantages of the two types of authentication, see "Setting up Authentication for Remote SQL " on page 130.
- If you are using a remote SQL Server and Windows Authentication, you must configure all prairieFyre services and IIS to run under a valid Windows account after you complete the Contact Center Management Configuration Wizard. See "Setting up Authentication for Remote SQL " on page 130.
- If you selected SQL Server Authentication, type the user name and password for an SQL Server account.

**NOTE:** To create the Business Reporter database, you need *Create Database* SQL Server credentials.

- If you want to specify the location where the SQL database will be created, select **Specify the location where the SQL database will be created**. Otherwise, the SQL database will be located at C:\Program Files (x86)\prairieFyre Software Inc\CCM\Database.

The SMTP mail server window opens.

34. On the SMTP mail server window, the Wizard prompts you to specify the following settings and click **Next**.
  - If you want to provide SMTP mail server information now, select **Specify SMTP mail server settings now**.
    - After **Server**, type the name or the IP address of the mail server.
    - After **Port**, verify the port number. The default mail server port number is 25.  
**NOTE:** Google Apps for Business' port 465 is not supported.
    - If the SMTP mail server uses Secure Socket Layer, select the **Use SSL** check box.
    - After **From name**, type the name that will be used in emails from the Reporting Service.
    - After **From email address**, type the email address from which all Business Reporter reports will be mailed.
    - If the mail server requires authentication, select the **My SMTP mail server requires authentication** check box, and type the username, password, and domain.
    - After **Send server alarms to**, type the email address of the network administrator that will be notified of any enterprise alarms.
    - To test the email address, click the **Test email** button.
  - If you want to provide SMTP mail server information later, select **Specify SMTP mail server settings later**. You can edit the SMTP mail server settings at any time in YourSite Explorer (YourSite=>Mail servers).
35. After the Enterprise Server is configured, if there are any warnings, under **Message**, click **View Details** to learn how to address any issues.
36. Click **Next**.

The Finished the Enterprise Server Configuration Wizard window opens.

The InstallShield Wizard Completed window opens.
37. Click **Finish**.

The Configuration Wizard closes after it has configured the Enterprise Server. The configured Enterprise Server runs automatically.

YourSite Explorer starts.
38. Log into YourSite Explorer with the default administrator credentials:
  - Username: **\_admin**
  - Password: **\_password**
39. Read the information in the Getting Started window.

If you have installed Business Reporter, you can run the Contact Center Management Configuration Wizard at any time to reconfigure the Enterprise Server.

## RUNNING THE CONTACT CENTER MANAGEMENT CONFIGURATION WIZARD

The Contact Center Management Configuration Wizard is part of the Enterprise Server installation. After the Enterprise Server Installation Wizard installs the Enterprise Server software, the Contact Center Management Configuration Wizard starts automatically.

You can run the Contact Center Management Configuration Wizard at any time to reconfigure the Enterprise Server.

**CAUTION:** If the Contact Center Management Configuration Wizard has already been run successfully, re-running it will undo the Enterprise Server configuration settings you previously specified. You must complete the Configuration Wizard each time you run it or the Enterprise Server will not function properly.

To run the Contact Center Management Configuration Wizard

1. On the Enterprise Server, open the **Mitel** program folder and start the **Contact Center Management Configuration Wizard**.

2. Click **Next**.

If registration has not been completed, the Registration window opens.

3. On the Registration window, the Wizard prompts you to select one of the following licensing options and then click **Next**.

**NOTE:** To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 72.1.218.40.

- If an active Internet connection is available and you can access the license server, you must register online. Select **I would like to register now**. The license key will be provided over the phone or by email by Mitel during the purchasing and registration process. After License key, paste the entire license key. You must submit your registration information to Mitel and implement your license files within thirty days to complete your software registration.
- If you do not have access to the Internet or if you cannot access our license server, select **I would like to register later**. Selecting this option will install a temporary demo license.  
Contact Mitel at 1-800-722-1301 or [miccsupport@mitel.com](mailto:miccsupport@mitel.com) to obtain your licensing key (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

4. Click **Next**.

The Enterprise Server Settings window opens.

5. On the Enterprise Server Settings window, the Wizard prompts you to specify the following settings and click **Next**.
  - After **IP address**, verify the IP address of the Enterprise Server. If it is not correct, type the correct IP address or DNS name.
  - After **Language**, select the language in which you want Business Reporter applications to display.

**NOTE:** Business Reporter applications, such as YourSite Explorer and Contact Center Client, all leverage the language settings of the operating system in addition to the language preference set for Business Reporter. Ensure that the language selected matches the language settings of the operating system.

**CAUTION:** If you select SSL, ensure the IP address configured is the Fully Qualified Domain Name (FQDN) used when applying the SSL certificate.
  - If you use Secure Socket Layer, select **SSL**.
  - If you are an advanced user and you want to relocate the log, reporting, data, or backup files to another location, click **Show Advanced**. Click **Browse** across from the file you want to re-locate, and select the new location of the files.

The Service Credentials window opens.

6. Type the user name and password that will be used to control Business Reporter services.
7. Under **Authentication Type**, select the method of authentication that will be used to determine how users will log in to Business Reporter applications and click **Next**.

CCM Authentication is the traditional form of authentication where a system administrator must manually manage the login accounts of each individual user from YourSite Explorer. Windows Authentication leverages Windows Active Directory for user logins. You can synchronize with Active Directory post-installation using Active Directory Synchronization within YourSite Explorer.

The SQL Server window opens.



8. On the SQL Server window, the Wizard prompts you to specify the following settings and click **Next**.

**NOTE:** If you are using a remote instance of SQL Server, ensure that you select the computer name of the remote SQL Server. If you will use Contact Center Management in conjunction with remote SQL Server, you must have SQL Management Studio Express for your version of SQL installed on the Enterprise Server in order for the two servers to communicate. You can download and install SQL Management Studio Express for your version of SQL from:

- SQL Server 2008  
<http://www.microsoft.com/en-ca/download/details.aspx?id=7593>
- SQL Server 2008 R2  
<http://www.microsoft.com/en-ca/download/details.aspx?id=30438>
- SQL Server 2012  
<http://www.microsoft.com/en-ca/download/details.aspx?id=29062>
- SQL Server 2014  
<http://www.microsoft.com/en-ca/download/details.aspx?id=42299>

If you are using a remote SQL Server, we recommend using SQL Server Authentication. If you are using SQL Server Authentication, ensure that you type the user name and password of an SQL Server account. For more information on using a remote SQL Server and SQL Server Authentication, see "Setting up Authentication for Remote SQL " on page 130.

- After **SQL Server name**, select the name of the SQL Server that will store the Business Reporter database and telephone system data.  
The Business Reporter installation requires Microsoft SQL Server 2008 Express or greater, but the Business Reporter database and telephone system data files will not automatically be stored there. The Wizard searches the networks for available SQL Server Instances. To ensure you select the correct instance on which to store the Business Reporter database and telephone system data, use the drop-down menu to browse to and select the server.
- After **Authentication**, select the method with which SQL Server authenticates user credentials: Windows or SQL Server.

**NOTE:**

- If you are unsure of the type of authentication to use, contact your system administrator. For a table summarizing the advantages and disadvantages of the two types of authentication, see "Setting up Authentication for Remote SQL " on page 130.
- If you are using a remote SQL Server and Windows Authentication, you must configure all prairieFyre services and IIS to run under a valid Windows account after you complete the Contact Center Management Configuration Wizard. See "Setting up Authentication for Remote SQL " on page 130.
- If you selected SQL Server Authentication, type the user name and password for an SQL Server account.

**NOTE:** To create the Business Reporter database, you need *Create Database* SQL Server credentials.

- If you want to specify the location where the SQL database will be created, select **Specify the location where the SQL database will be created**. Otherwise, the SQL database will be located at C:\Program Files (x86)\prairieFyre Software Inc\CCM\Database.

The SMTP mail server window opens.

9. On the SMTP mail server window, the Wizard prompts you to specify the following settings and click **Next**.

**NOTE:** Reporting Service is a server-side service that replaces Report Distributor: you no longer install and configure Report Distributor on client computers. Reporting Service uses the SMTP mail server to email reports.

- If you want to provide SMTP mail server information now, select **Specify SMTP mail server settings now**.
    - After **Server**, type the name or the IP address of the mail server.
    - After **Port**, verify the port number. The default mail server port number is 25.
    - If the SMTP mail server uses Secure Socket Layer, select the **Use SSL** check box.
    - After **From name**, type the name that will be used in emails from the Reporting Service.
    - After **From email address**, type the email address from which all Business Reporter reports will be mailed.
    - If the mail server requires authentication, select the **My SMTP mail server requires authentication** check box, and type the username, password, and domain.
    - After **Send server alarms to**, type the email address of the network administrator that will be notified of any enterprise alarms.
    - To test the email address, click the **Test email** button.
  - If you want to provide SMTP mail server information later, select **Specify the SMTP mail server settings later**. You can edit the SMTP mail server settings at any time in YourSite Explorer (YourSite=>Mail servers).
10. After the Enterprise Server is configured, if there are any warnings, under **Message**, click **View Details** to learn how to address any issues.
  11. Click **Next**.
  12. Click **Finish**.

The Configuration Wizard closes after it has configured the Enterprise Server. The configured Enterprise Server runs automatically.

## UNBLOCKING PORTS AND APPLICATIONS

Once you have installed and configured Business Reporter, you can turn your firewall and antivirus software back on. Business Reporter automatically unblocks Windows Firewall ports, but other firewalls may require ports be unblocked manually. The following ports must be unblocked

- 80
- 5022
- 5024
- 5025
- 5026
- 5400
- 5050
- 5151

- 5555
- 5556
- 5558
- 8080
- 8090
- 7000
- 7001
- 7002
- 7003
- 18000

To ensure your Business Reporter applications run properly, you must also unblock:

- *<installation\_drive>:\Program Files (x86)\Mitel\MiXML Server Edition\Service\AppGw.exe*
- *<installation\_drive>:\Program Files (x86)\prairieFyre Software Inc\CCM\Services\MiAudioEmulationServer\prairieFyre.Services.MiAudioEmulationService.exe*

To ensure your Business Reporter applications are able to write files without error, you must configure your antivirus software to exclude the *<installation\_drive>:\Program Files (x86)\prairieFyre Software Inc\CCM* folder and the *<installation\_drive>:\ProgramData\Microsoft\Search* folder from being scanned.

## CHANGING THE DEFAULT ADMINISTRATOR PASSWORD

You can change the default password for the administrator account.

The default user name and password are

- Username: `_admin`
- Password: `_password`
- Security Role: Enterprise Administrator

For more information on security roles, see "Restricting access" on page 58.

To change the password

1. On the Enterprise Server, start Internet Explorer and type the URL **`http://[the Enterprise Server IP address]/CCMWeb/`**.
2. If prompted, log on to Business Reporter.
3. Click **My options=>My password**.
4. After **Old password**, type `_password`.
5. After **New password**, type the new password.
6. After **Confirm new password**, type the new password again.
7. Click **Save**.

## BUSINESS REPORTER PRODUCT REGISTRATION

When you install Business Reporter software you have the option of implementing a demo with temporary license files in order to activate the software. You must register the software with Mitel within seven days of installing a demo or you will no longer be able to log on to the system. After you register the software Mitel will send you permanent license files.

### REGISTERING BUSINESS REPORTER VERSION 7.1

There are three ways to submit your registration information to Mitel. Please note that Mitel processes registration information during regular business hours (Monday to Friday from 8:30 A.M. to 6:00 P.M. ET) only.

To register with Mitel

- Call Mitel at 1-800-722-1301 (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific). The turnaround is immediate. (Recommended)
- Visit Mitel OnLine, click Products=>Applications=>Mitel MiContact Center. Under Related Links, click MiContact Center Partner Portal. Then click Online Tools=>Software Registration, fill out the registration form, and click Submit.

After you register your company, Mitel emails permanent license files to you. You implement these license files on the Business Reporter Enterprise Server.

### REGISTERING VERSION 7.1 LICENSE FILES

To register the new license files

1. On the Enterprise Server, start Windows Explorer.
2. Save the new license files in the following directory: <drive>\Program Files (x86) \prairieFyre Software Inc\CCM\.
3. Click **Yes** to overwrite the existing files.

### ACTIVATING VERSION 7.1 LICENSE FILES

If an active Internet connection is available and you can access the license server, you must register online. If you do not have access to the Internet or if you cannot access our license server, you can register offline.

**NOTE:**

- There is no need to run Business Reporter Licensing if you already activated your license during the installation of Business Reporter.
- To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 72.1.218.40.

To activate the new license files online

1. In Windows, open the **Mitel** program folder and go to **Mitel Contact Center Management Licensing**.
2. Click **Register Online**.
3. Type your 26-digit site serial number and click **Register**.

To activate the new license files offline

1. In Windows, open the **Mitel** program folder and go to **Mitel Contact Center Management Licensing**.
2. Click **Register Offline**.
3. Select the directory where the license files will be saved and click **OK**.
4. After **Email the license package found**, click **here**.  
The window opens where you saved the license files.
5. Email the license files to Mitel to obtain a product key.
6. Once you receive an email from Mitel, type your 26-digit site serial number and specify the path to your CCMv5.dlsc license file in the required fields of the Offline Registration Wizard.
7. Click **Apply License**.  
A message displays notifying you your software has been licensed.

If you have any questions, please contact

- Mitel at 1-800-722-1301 between 8:30 A.M. to 6:00 P.M. ET, Monday to Friday or email [miccsupport@mitel.com](mailto:miccsupport@mitel.com) (North American customers)
- Your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

## VERIFYING THE INSTALLATION WAS SUCCESSFUL

**NOTE:** You must add at least one media server and configure the Enterprise Server to communicate with the telephone system before you can verify data collection in the Data links window. For more information on adding media servers, see the *Business Reporter User Guide*.

Complete the following steps in preparation for using Business Reporter.

1. Start YourSite Explorer.
2. Verify that your Enterprise Server IP address is correct.  
See "Verifying that your Enterprise Server IP address is correct" on page 39.
3. In YourSite Explorer, select a 3300 ICP media server and click the **Data link** button in the **Tool** tab of the ribbon. Verify that SMDR data is streaming.  
See "Verifying that SMDR data is streaming" on page 39.

**NOTE:**

- If you use OPS Manager, data is not received in real time, so the Data links window will consistently indicate that data is not being collected.

4. If you are upgrading, update your client computers.  
See "Client installation" on page 68.
5. If you are performing a new installation, set up your enterprise and set up your client computers.  
See "Client installation" on page 68.

## VERIFYING THAT YOUR ENTERPRISE SERVER IP ADDRESS IS CORRECT

Before you use Business Reporter, you must verify that your Enterprise Server IP address is correct in YourSite=>Enterprise. The Enterprise tab shows the company name, Enterprise Server IP address.

To change the Enterprise Server IP address

1. Click **YourSite=>Enterprise**.  
The Enterprise tab opens.
2. After **Name**, type the name of the enterprise.
3. After **IP address**, type the IP address of the site with the Business Reporter software.

## PERFORMING FULL SYNCHRONIZATION

Running full synchronization synchronizes the devices programmed on the telephone system and enables you to review all devices, and, optionally, exclude any devices, before committing changes to YourSite Explorer.

See "Performing Synchronization" on page 52.

### NOTE:

- As a best practice, we recommend all new installations run Full synchronization to ensure the telephone systems in your enterprise are synchronized with the YourSite database and that there are no critical telephone system programming errors.
- You must program your 3300 ICPs and perform synchronization before you can configure telephone system assignment form options in YourSite Explorer.

## VALIDATING THE GOLDEN RULES

Validate the Golden Rules for your telephone system by opening each media server in YourSite Explorer and reading any alerts that display. The alerts advise you if you have configured the telephone system incorrectly.

## VERIFYING THAT SMDR DATA IS STREAMING

**NOTE:** If you use OPS Manager, data is not received in real time, so the Data link window will consistently indicate that data is not being collected.

Ensure your telephone system is connected to the Enterprise Server as follows

- 3300 ICP = LAN connection (TCP/IP socket recommended)

The cable specifications are as follows

- From telephone system to Enterprise Server: GENERIC RS-232; 9M/9F SERIAL STRAIGHT THRU
- From dataset to Enterprise Server: GENERIC RS-232; 9F/25M SERIAL STRAIGHT THRU

### *Verifying media servers are receiving telephone system data*

The Data link window displays the following information

- **SMDR**  
SMDR displays SMDR records as they arrive from the telephone system.
- **Records today**  
Records today displays the total number of SMDR records received by Collector Service for the day that were valid SMDR records.
- **Last received**  
Last received displays the date and time Collector Service received the SMDR record last sent.
- **Clear records**  
The Clear records button clears the records displayed on the Data links window.
- **Reset SMDR link**  
The Reset SMDR link button resets the SMDR data link from the telephone system to Collector Service when the SMDR data stream shows no data is streaming. If you attempt to reset the link and data does not start streaming, check your cabling connections from the telephone system to the TCP/IP sockets.

To verify a media server is receiving telephone system data

1. In YourSite Explorer, select a 3300 ICP media server and in the ribbon, click **Tools**.
2. Click the **Data link** button to access the Data link window.

To reset the data links

- If no data is streaming in the SMDR pane, click the **Reset SMDR/ACD** link button.

## TROUBLESHOOTING DATA COLLECTION ISSUES

There are several possible reasons why data does not stream. The following solutions address the most common streaming problems.

### *SMDR data is not streaming*

SMDR data records are generated at the end of calls. If SMDR data is not flowing through the TCP/IP sockets, then the telephone system is not producing data records, your Class of Service and/or SMDR Options Assignment forms are not configured correctly, you are unable to connect, or no data is being sent from the TCP/IP sockets.

If SMDR data is not streaming

1. Wait 60 seconds.
2. If you have an Ethernet connection, verify it is up and running.
3. If SMDR data is still not flowing, on the Enterprise Server, verify the SMDR Options and Class of Service Options Assignment forms are configured correctly on the telephone system.  
See "Common 3300 ICP programming errors" on page 108 and "Programming reporting options for the 3300 ICP" on page 114.
4. If SMDR data is still not flowing, on the Enterprise Server, use a telnet client session to verify data is flowing through the TCP/IP sockets.
5. Restart Collector Service.
6. If SMDR data is still not flowing, call
  - Mitel at 1-800-722-1301 (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

### *Viewing the data collection TCP/IP ports*

You can use your preferred telnet client to verify if data is flowing from the TCP/IP sockets.

### *Starting Collector Service*

You may have to start Collector Service after you view the TCP/IP sockets with a telnet client.

To start Collector Service

1. On the Enterprise Server, in Windows, navigate to **Services**.
2. Right-click **prairieFyre Collector Service (v5)** and click **Stop**.
3. Right-click **prairieFyre Collector Service (v5)** and click **Start**.



## CONVERTING INTER-TEL DATA

The Inter-Tel database import tool enables customers with historical CSM data (collected using either a 5000 or 3300 media server) to convert their data when migrating to Contact Center Solutions Business, Workgroup, or Enterprise Edition. The import tool is designed to process data from either Access or DB2 databases. Telephone system information, such as agents and extensions will be imported and all historic records will be converted into ACD and SMDR files. A historical media server will be created, allowing you to retain data for reporting purposes.

Historical media servers enable

- Historical reporting for queues, agents, and extensions
- Forecasting
- ACD and SMDR Inspector functionality
- Auditor functionality

Inter-Tel summary-based options, such as service level and spectrum values, can be modified in YourSite Explorer. Summarize is performed on an on-demand basis from Management Console in Contact Center Client. Historical media servers have no real-time functionality. All devices associated with historical media servers are historical by default and cannot be edited or used to collect any new data.

### NOTE:

- If the CSM server that houses the DB2 database is offline or not accessible through the network, you must install and configure a DB2 Server on the host machine. After installing the DB2 Server, restore the DB2 databases onto this server. You will access the databases here using the import tool.
- For Access databases, the import tool requires the following files: System.mdw, config.mdb, and one or any combination of the following: Ha<MMYYYY>.mdb, Hc<MMYYYY>.mdb, Haday.mdb, Hcday.mdb, Hamonth.mdb, Hcmonth.mdb. For Version 4.11 or earlier, select cvgwcfg.mdb instead of config.mdb.
- You should run, save, and store a copy of your CSM reports before decommissioning your CSM server.
- Hunt groups and extensions in CSM convert into paths, agent groups, and agents when migrating to Contact Center Solutions.

To convert Inter-Tel data

1. Open the Inter-Tel Import Tool, which is found in the <InstallDir>CCM/Applications folder.
2. **Under Database Source**, select either **Microsoft Access** or **DB2**.
3. If DB2 is selected, in the **CSM Databases** text field, type the IP address of the machine where the DB2 database resides and the name of the DB2 database using the following format: <IP Address>\<Database Name>, and enter the login credentials of a DB2 Administrator on the host machine.
4. If Microsoft Access is selected, after **CSM Databases**, click **Browse** and browse to the location of the files to import/convert.

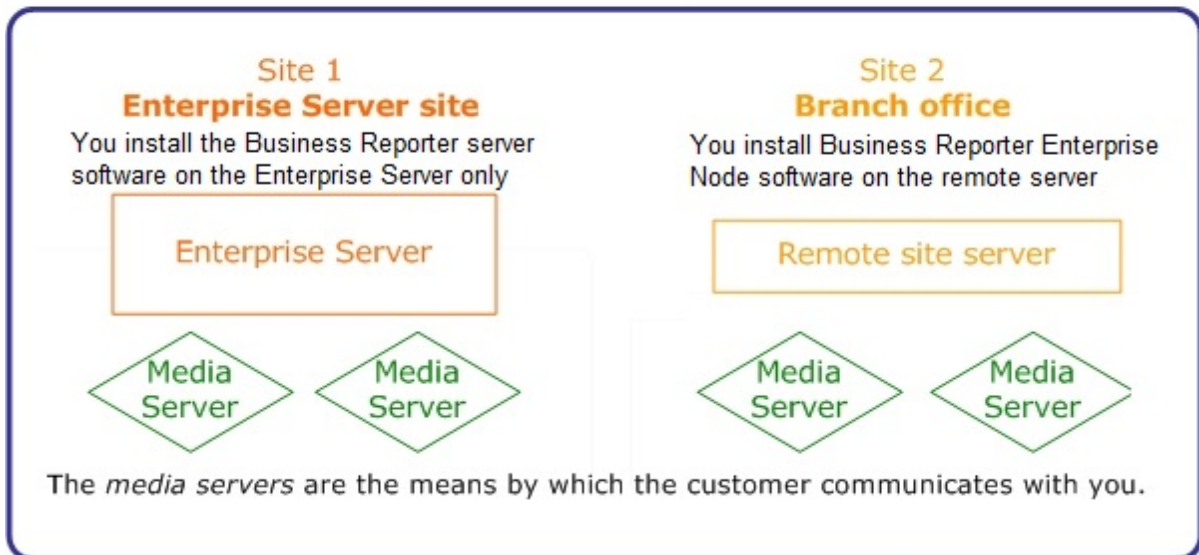
5. Click **OK**.
6. After **Start Date**, select the start date for the data you want to import.
7. After **End Date**, select the end date for the data you want to import.  
The Detected Inter-Tel Version will update based on the version you are running.
8. If you want to retain historic Inter-Tel data for reporting purposes, ensure the **Create historic media server** check box is selected.  
This option is selected by default. The files will be imported into <installation drive>:\Program Files (x86)\prairieFyre Software Inc\CCM\DataDirectory. You can optionally choose to import the files to an alternate location, and not create a historical media server, by selecting the Target for Import check box. See step 11.
9. If you have multiple, interconnected 5000 media servers that are configured through a CT Gateway, select the **Synchronized system uses CT Gateway** check box.  
**NOTE:** if the Create historic media server check box is enabled, the Synchronized system uses CT Gateway option will be disabled.
10. If you want to summarize the data immediately after the conversion, select the **Summarize on completion** check box.  
This option is selected by default.
11. Optionally, to generate data files without creating a media server in the database, beside the **Target for Import** field, click **Browse**, and select a location to which you want to import the data.  
The Target for Import option is not available if you selected the Create historic media server check box.
12. Click **Import**.

## SETTING UP YOUR ENTERPRISE

You set up your site structure under YourSite=>Enterprise. Depending on your system capabilities, your customer might call you, email you, or chat online with you. You set up your site to reflect these possibilities, and to view statistics and enable reporting on all of these forms of contact. (See Figure 1.)

## Enterprise

The enterprise is all of the office locations comprising your company. The enterprise is the site where Business Reporter server software is installed, and branch offices.



**Figure 1: Enterprise structure**

There are three terms you must understand to set up your Business Reporter structure

- The *enterprise* is all of the contact center sites that comprise your company. The enterprise consists of a single site where the Enterprise Server is installed, and branch offices.
- A *site* is an office location.
- The *media servers* are the means by which the customer communicates with you. For example, if your system allows customers to contact you by phone only, and you have a 3300 ICP telephone system, then you would select the 3300 ICP media server.

For example, you have a business called ABC Company. There are two offices: one in Salt Lake City and one in Los Angeles. Your head office is in Los Angeles. The Salt Lake City site has Business Reporter software installed on the Enterprise Server. Both sites have the 3300 ICP telephone system and the Exchange Server installed. Your customers contact you at either site by phone or email.

When you set up your enterprise site structure, you first install Business Reporter software on the Enterprise Server. You then define the site with the Enterprise Server (Salt Lake City). You then add the Los Angeles site to the enterprise. Finally, you program two media servers at each site: 3300 ICP (for calls) and Multimedia Contact Center Email (for emails).

When you set up your enterprise you must link it to the contact center site that has Business Reporter software installed so that Business Reporter can properly manage the enterprise.

To set up your enterprise you must

1. Set up your enterprise structure.
  - Name the enterprise. See the *Business Reporter User Guide*.
  - Add sites to the enterprise. See the *Business Reporter User Guide*.
  - Add media servers to the sites. See the *Business Reporter User Guide*.
2. Configure the YourSite database.
3. Set up Contact Center Solutions and Business Reporter security.
4. Change the SQL default administrator password (optional).
5. Back up the YourSite database and raw telephone system data files.
6. Set the time the prairieFyre Maintenance Alarm Dispatcher service will run.
7. Install WallBoarder (optional).

## SETTING UP YOUR ENTERPRISE STRUCTURE

To set up your enterprise structure

1. Name the enterprise.  
See the *Business Reporter User Guide*.
2. Add sites to the enterprise.  
See the *Business Reporter User Guide*.
3. Add media servers to the sites.  
See the *Business Reporter User Guide*.

### *Media server types*

Business Reporter is designed for the 3300 ICP telephone system.

**NOTE:** The SX-200, Axxess, and 5000 media servers are not supported with Version 7.1, except as historical media servers. When upgrading to Version 7.1, SX-200 media servers, along with their associated extensions, agents, agent groups, queues, trunks, and trunk groups, are set to historical. Axxess and 5000 media servers must be marked as historical before upgrading to Version 7.1 to retain historical data.

The following media server types are available

- **3300 IP Communications Platform (ICP)**

The 3300 ICP ACD system streams SMDR and ACD real-time data over TCP/IP.

- **3300 ICP with MiTAI**

The 3300 ICP ACD system streams SMDR and ACD real-time data over TCP/IP. In addition, the MiTAI remote telephone system software is installed locally on the Enterprise Server and communicates over TCP/IP with the 3300 ICP.

## CONFIGURING THE YOURSITE DATABASE

Business Reporter has two main databases: the telephone system database and the CCMdata database in your SQL application. . Your dealer is responsible for assessing your company requirements and programming your telephone system database accordingly. The Business Reporter administrator is responsible for configuring the CCMdata database through YourSite Explorer to mirror the trunks, lines, routing and timing options, and extension positions in use on the telephone system. See the *Business Reporter User Guide*.

**NOTE:** Before you program devices and device groups in the YourSite database you must consider your reporting needs. You must configure the devices and device groups you will use for reporting in the YourSite database.

In Business Reporter, you create employees and associate them to extensions, and then associate the extensions to logical extension groups. For example, extension groups can represent different departments in your business. You create trunks and associate them to trunk groups. Then you create carrier plans and associate them to the trunk groups.

### *Determining how to configure your company*

If you want your employees to have only one extension ID each, then you must set up your company as described in Configuration scenario 1. If you want your employees to have an extension ID for each extension group to which they belong, then you must set up your company as described in Configuration scenario 2.

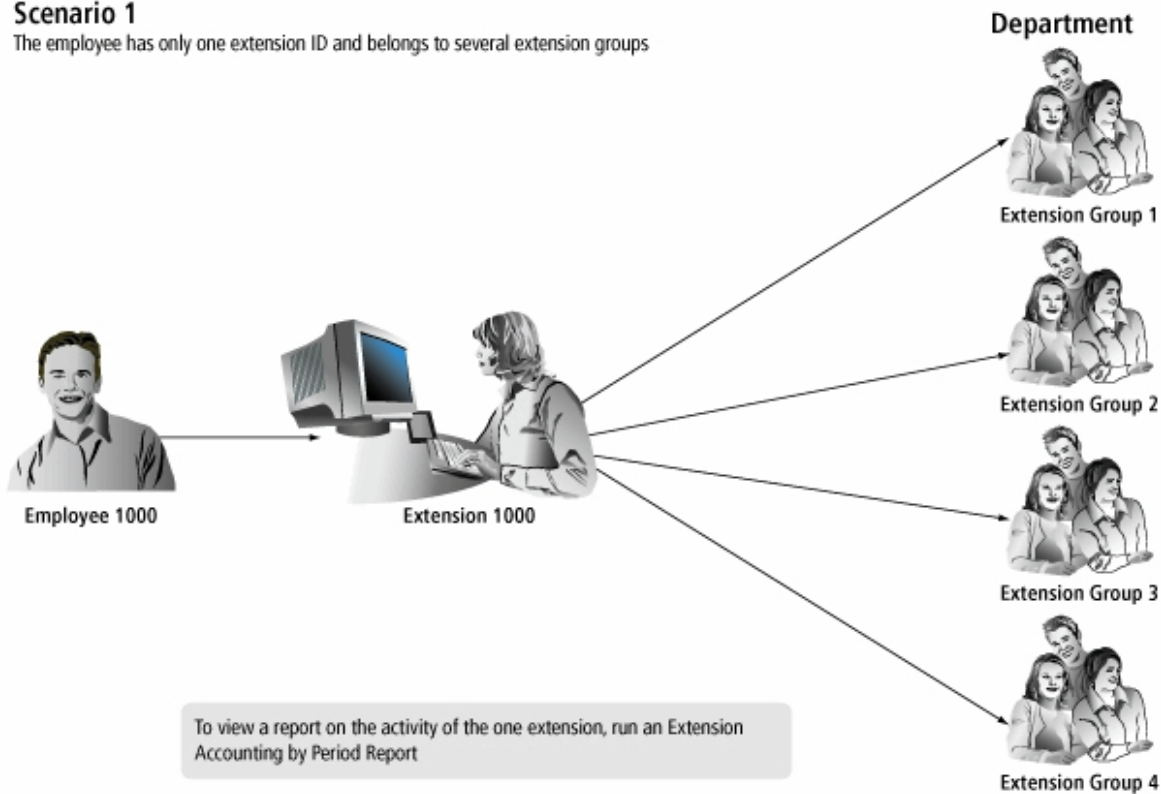
#### *Configuration scenario 1*

In configuration scenario 1, the employee has only one extension ID and belongs to several extension groups.

To cost an employee's call activity, run the Extension Accounting by Period Report. To cost by extension group, run the Extension Group Accounting by Extension report. The extension of each employee in the group is listed, along with the cost incurred by that extension. (See Figure 2.)

### Scenario 1

The employee has only one extension ID and belongs to several extension groups



**Figure 2: Configuration scenario 1**

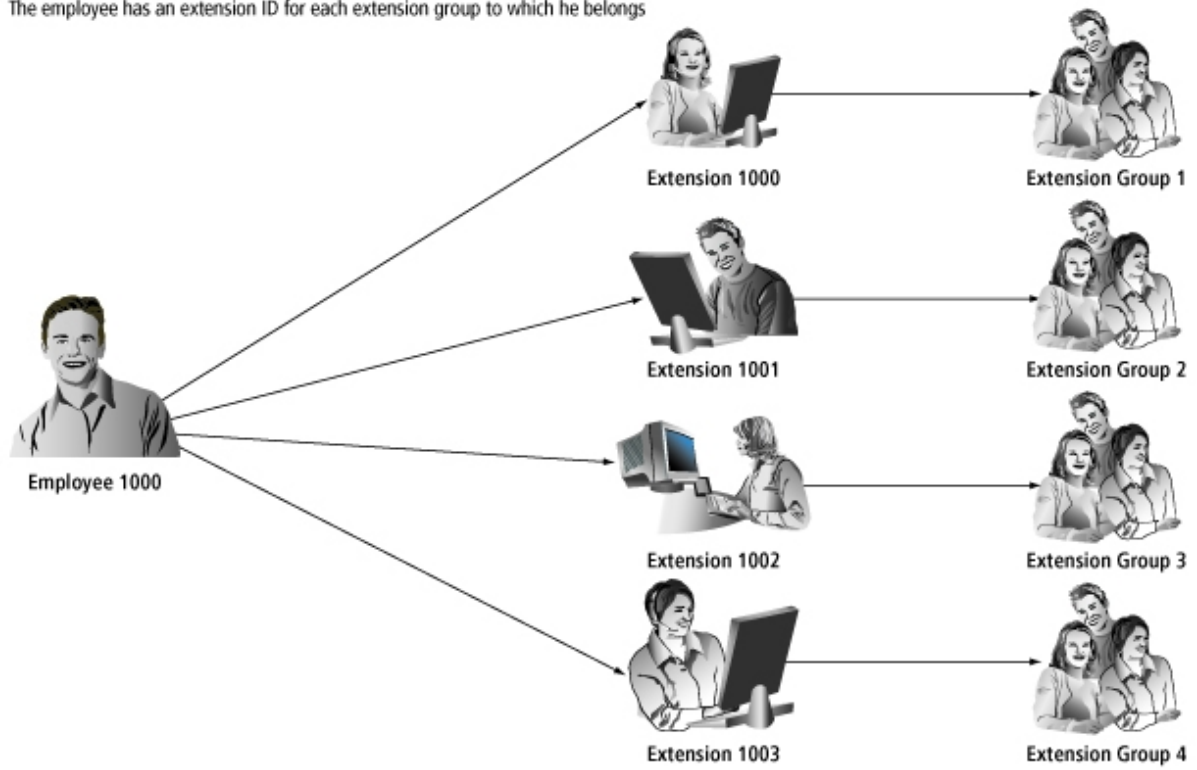
### *Configuration scenario 2*

In configuration scenario 2, the employee has several extension IDs - one for each extension group to which he belongs.

To cost an employee's call activity for each extension, run the Employee Accounting by Extension report. One employee's call costs are listed by extension. To cost by extension group, run the Extension Group Accounting by Extension report. The extension of each employee in the group is listed, along with the cost incurred by that extension. (See Figure 3.)

**Scenario 2**

The employee has an extension ID for each extension group to which he belongs



The employee has multiple extensions. Each extension is for a different Extension Group.

The one report that shows the activity of all of the employee's extensions is the Employee Performance by Extension Report

**Figure 3: Configuration scenario 2**

### *Ways to configure the YourSite database*

You can configure the YourSite database in the following ways:

- **Automatic Synchronization**

You can synchronize YourSite database with the telephone system database using Synchronization. Synchronization is the recommended way of synchronizing the telephone switch and YourSite database. See "Configuring the YourSite database using synchronization" on page 49.

- **Quick Setup**

If you want to add a range of employees, you use Quick Setup to configure your system. For more information on configuring devices and device groups using Quick Setup, see the *Business Reporter User Guide*.

- **Manual Configuration**

If you want to configure devices manually, see the *Business Reporter User Guide*.

# CONFIGURING THE YOURSITE DATABASE USING SYNCHRONIZATION

Synchronization functionality differs depending on the telephone system you use.

### **Synchronization for the 3300 ICP**

YourSite Explorer enables you to configure and write 3300 ICP queues, agent skill groups, and agents (including skill level), and validate/edit contact center related Class of Service, Class of Restriction, System Options, and SMDR Options settings using synchronization.

This enhanced functionality enables you to configure Business Reporter applications from your desktop. Validation of device and assignment form settings ensures quality data collection and accurate reporting. After running synchronization, Class of Service and Class of Restriction settings programmed in the telephone system can be edited in YourSite Explorer.

During synchronization, administrators can preview device changes, identify devices that should be excluded from synchronization, and manage the business rules related to synchronization of device names and associated device creation.

While synchronizing data, the telephone system continues to operate without experiencing downtime. After synchronization is complete, the Contact Center Client applications open on agent desktops will be refreshed with a device update. After synchronization is complete, all critical programming, such as SMDR Options, System Option, Class of Service, and Class of Restriction settings will be validated. We highly recommend that you correct invalid programming, as detailed on the Telephone system settings tab of media servers in YourSite Explorer, immediately.

In Mitel 3300 release MCD 4.0 SP4, configuring your network using SDS Directory synchronization mode is optional. Customers can continue to operate in the Classic mode, with OPS Manager if operating in a clustered environment. In Mitel 3300 release MCD 5.0 or greater, configuring your network using SDS Directory synchronization mode is mandatory for all sites operating with 20 nodes or less. For more information, see "Classic mode synchronization" on page 49 and "SDS Directory synchronization mode" on page 50.

### **Classic mode synchronization**

Using YourSite Explorer and the 3300 ICP in Classic mode, you can add, edit, and delete standard agents, agent groups, and queues, as well as ACD related Class of Service (COS), Class of Restriction (COR), SMDR Options, and System Options. When not in a clustered environment, you can also continue to add hot desk agents and all synchronization device names. Adding hot desk agents in a clustered environment requires the use of Mitel OPS Manager. For more information on adding resilient and Network ACD hot desking agents, see the *Business Reporter User Guide*.



### SDS Directory synchronization mode

Using YourSite Explorer and the 3300 ICP in SDS Directory synchronization mode, you can now add, edit and delete standard and hot desk agents, agent groups, queues, trunks, trunk groups, and extensions, synchronize device names, as well as ACD related Class of Service (COS), Class of Restriction (COR) SMDR options and System Options in both a single site and in a clustered environment. When operating in SDS Directory synchronization mode, you can configure Network ACD queue set up on the 3300 ICP without any manual configuration previously required using Mitel OPS Manager.

#### NOTE:

- You can only use synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems if you are using 3300 ICP Release MCD 4.0 SP42 or greater, with the SDS Directory synchronization option enabled on all of the telephone systems in your enterprise.
- If you edit the feature access code used for silent monitoring on the media server, you must also manually edit the feature access code on the telephone system. The feature access code entered in YourSite Explorer must be identical to that on the telephone system and be valid for use with silent monitoring. See "Editing System Options in YourSite Explorer" on page 56.

### *Preparing for Synchronization*

**NOTE:** Superset phones are not currently supported for synchronization. See the *Contact Center Solutions and Business Reporter System Engineering Guide* for a list of devices that are supported for synchronization.

Before you perform synchronization for the 3300 ICP

- Ensure the 3300 ICP is a V8.x or greater. You can only use synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems if you are using 3300 ICP Release MCD 4.0 SP2 or greater, with the SDS Directory synchronization option enabled on all of the telephone systems in your enterprise.
- Ensure that you have completed programming the 3300 ICP and created a user name and password for synchronization (on the 3300 ICP User Authorization Profile form). The 3300 ICP User Authorization Profile must include Application Access and System Admin Access. Desktop Admin and Group Admin options can be disabled. These steps must be completed for all 3300 ICPs in your Enterprise.
- Ensure your MiXML service is started by navigating to the Control Panel in Windows and selecting 'MiXML'. Verify that port 18000 is entered on the Settings tab and click Start.
- Ensure that your Windows or Corporate firewall is not blocking the following ports
  - SOAP: 18000 (HTTPS)
  - UDP: 53
  - TCP: 7011
  - TCP: 22
  - TCP: 443 (SSH)

- If you have multiple NICs on your Enterprise Server, you must specify the NIC to use for synchronizing data to the telephone system. To do this, navigate to the Control Panel in Windows and select 'MiXML'. After NIC IP Address, specify the primary NIC from the drop-down menu.
- Configure the user name and password for each of the 3300 ICP media servers in YourSite Explorer. If you are running 3300 ICP Release 9.x or earlier, resilient Network ACD and clustered telephone systems must be programmed using OPS Manager, RDNs, and cluster element IDs. 3300 ICPs programmed with Remote Agent Subgroups and ARS are not supported. Business Reporter clusters and cluster element IDs must match what is programmed on the telephone system. For more information on adding resilient and Network ACD hot desking agents, see the *Contact Center Solutions User Guide*.

### *Specifying synchronization settings*

YourSite Explorer enables you to specify the synchronization settings, read options, and write options used by synchronization. When you select a media server in YourSite Explorer, the following synchronization options are available from the ribbon, on the Telephone system tab:

#### **Settings**

- **Disabled**  
This option will fully disable synchronization.
- **Read**  
This option will read devices programmed on your telephone systems and synchronize them with the YourSite database.
- **Read/Write**  
This option will read the devices programmed on your telephone systems and synchronize them with the YourSite database and enable devices programmed in YourSite Explorer to be written to the telephone systems.

#### **Read Options**

- **Create employees with new agent**  
For every new agent added to the YourSite database, a new employee will be created and associated with the agent.
- **Create employees with new extensions**  
For every new extension added to the YourSite database, a new employee will be created and associated with the agent.
- **Use telephone system device names**  
Override device names programmed in YourSite Explorer with the device names configured on the telephone system.
- **Default employee license**  
Select the default employee license that you want to be applied when synchronizing new agents. Contact Center Enterprise Edition default employee licenses include None, Basic, Standard, Advanced, and Premium employees. Contact Center Business Edition default employee licenses include None, Reporting, and Desktop employees. Contact Center Workgroup Edition default employee licenses include None and Standard employees.
- **Default queue business hour schedule**  
Select the business hour schedule to be applied when synchronizing queues added on the telephone system.

### Write Options

- **Update telephone directory names**

Override telephone directory names with agent, agent group, queue, and extension names configured in YourSite Explorer.

**NOTE:** If you use MCD 4.0 with Enterprise Manager (OPS Manager) configured, we recommend you disable the 'Update telephone directory names' option.

### *Performing Synchronization*

There are two ways to perform synchronization:

- **Full synchronization**

Running full synchronization will synchronize the devices programmed on the telephone system and enable you to review all devices, and, optionally, exclude any devices, before committing changes to YourSite Explorer.

- **Telephone system settings synchronization**

Running telephone system settings synchronization will read the current telephone system settings and enable you to view any errors or warnings related to the telephone system configuration.

**NOTE:**

- You can only use synchronization to synchronize the YourSite database with resilient, Network ACD, and clustered telephone systems if you are using 3300 ICP MCD 4.0 SP2 or greater, with the SDS Directory synchronization option enabled on all of the telephone systems in your enterprise.
- As a best practice, we recommend all new installations run Full synchronization to ensure the telephone systems in your enterprise are synchronized with the YourSite database and that there are no critical telephone system programming errors.
- You must program your 3300 ICPs and perform synchronization before you can configure telephone system assignment form options in YourSite Explorer.
- We recommend you do not exchange the reporting number of one device with that of another device.
- Synchronization will not synchronize a device being added to the YourSite database with the telephone system if the device has the same reporting number as an existing device with a different dialable number.
- If you are synchronizing a single telephone system, agents and queues must be programmed on the same telephone system. Single node synchronization can disassociate agents and queues if agents and queues reside on separate telephone systems.
- If you are running 3300 ICP Release 9.x or earlier and you synchronized your network ACD assignments and/or resilient agents using OPS Manager, you must synchronize all of the 3300 ICPs in your enterprise. Otherwise, agent group and queue group associations will be lost.

To perform full synchronization

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a 3300 ICP media server from the list.
3. Click the **Telephone system** tab.

4. In the ribbon, specify the settings to use with synchronization.  
See "Specifying synchronization settings" on page 51.
5. In the ribbon, click **Run**.  
The Synchronization window opens.
6. Select the media servers to synchronize.
7. Ensure **Full synchronization** is selected.
8. If this is the first time you have run synchronization, click **Synchronize** and continue to step 11. If you have already run full synchronization, click **Next**.
9. Optionally, select the telephone system media servers and devices to include with synchronization.  
All media servers and devices are selected by default.
10. Specify how you would like to proceed with synchronization:
  - **Synchronize**—selecting this option will synchronize the devices programmed on the telephone system and enable you to review all entries and optionally exclude any devices before committing them to YourSite Explorer. If you select this option, continue to step 11.
  - **Save settings**—selecting this option will save the device settings you specified to be used for the next scheduled or on-demand synchronization. If you select this option, the synchronization window will close.
  - **Cancel**—selecting this option will cancel the synchronization. No changes will be made to the YourSite database or the telephone systems. If you select this option, the synchronization window will close.
  - **Auto commit**—selecting this option and clicking Synchronize will synchronize the devices programmed on the telephone systems and automatically commit them to YourSite Explorer. There will be no opportunity for you to review the entries and optionally exclude any devices before committing them to YourSite Explorer.
11. When the synchronization report displays, you have the following three options:
  - **Commit**—selecting this option will commit the specified changes and synchronize telephone system devices with YourSite Explorer.
  - **Cancel**—selecting this option will cancel the specified changes. No devices will be synchronized and the synchronization window will close.
  - **Edit**—selecting this option will rerun synchronization and enable you to modify the devices to be included in synchronization. If you select this option, return to step 9.

If this is the first time you have run synchronization, any telephone system errors and warnings will display in the synchronization report. You can correct any errors or warnings found in this report by clicking Edit, clicking the Telephone system settings tab and changing the telephone systems settings to the recommended settings. If this is not the first time you have run synchronization, the synchronization window will close once it is complete and you can review any telephone system setting errors and warnings on by selecting a media server in YourSite Explorer and clicking the Telephone system settings tab.

To perform telephone system synchronization

1. In YourSite Explorer, under **Enterprise**, click **Media servers**.
2. Select a 3300 ICP media server from the list.
3. Click the **Telephone system** tab.
4. In the ribbon, specify the settings to use with synchronization.  
See "Specifying synchronization settings" on page 51
5. In the ribbon, click **Run**.  
The Synchronization window opens.
6. Select the media servers to synchronize.
7. Ensure **Telephone system settings** is selected.
8. Click **Synchronize**.  
The Synchronization report window will open and display the progress and status of the synchronization. Once synchronization is complete, any telephone system errors and warnings will display in the synchronization report. You can correct any errors or warnings found in this report by clicking Edit, clicking the Telephone system settings tab and changing the telephone systems settings to the recommended settings.

### *Scheduling synchronization during the nightly maintenance routine*

We recommend you schedule Synchronization to run with the nightly maintenance routine to ensure the YourSite database and telephone system are properly programmed. If your synchronization is set to Read or Read/Write, synchronization will happen automatically during nightly maintenance. For more information, see "Specifying synchronization settings" on page 51.

## ACTIVE DIRECTORY SYNCHRONIZATION

You can synchronize your system with Active Directory at any time from within YourSite Explorer. Active Directory is a directory service created by Microsoft that is used for managing a domain. Active Directory Synchronization will align Active Directory security groups and users with Contact Center Solutions and Business Reporter employees and employee groups within selected organizational units.

At any time, you can optionally re-synchronize or reset all client computers running Contact Center Solutions and Business Reporter applications and refresh them with the latest configuration changes. Re-synchronizing will send a delta of the latest configuration changes to client computers, while resetting will completely drop client computer configurations and send the latest configurations from YourSite Explorer.

When you run Active Directory synchronization, employees and employee groups in YourSite Explorer are synchronized with users in Active Directory groups. Existing employees can also be associated with specific Active Directory users.

To run Active Directory synchronization

1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Active Directory**.
3. Under **Sync frequency (hh:mm)**, select how often you want automatic synchronization to occur.
4. Click **Select Sync paths**.

The Select paths to sync window opens.

5. Click > or < to add or remove Active Directory entities from the Active Directory tree on the left to the selected items list on the right and click **OK**.

The list of selected items on the right includes the Active Directory entities that will be synched.

6. Under **Security Role**, click the **Browse** button and select a default security role to apply to newly created employees.
7. Click **OK**.
8. Under **Sites**, click the **Browse** button and select a default site to apply to newly created employees.
9. Click **OK**.
10. Click **Run**.  
Active Directory synchronization is initiated and pertinent information is updated in YourSite Explorer.

To send recent configuration changes to client computers

1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Tools**.
3. Click **Re-synchronize clients**.

To completely reset client computers with the latest YourSite database configuration information

1. In YourSite Explorer, under **YourSite**, click **Enterprise** or **Employees**.
2. On the ribbon, click **Tools**.
3. Click **Reset clients**.

To associate an existing employee with an Active Directory user

1. In YourSite Explorer, under **YourSite**, click **Employee**.
2. Select the employee you want to associate with an Active Directory user.
3. On the ribbon, click **Active Directory**.
4. Click **Pick user**.
5. Select a user from the Active Directory tree and click **OK**.
6. Click **Save**.

## EDITING TELEPHONE SYSTEM ASSIGNMENT FORMS

After you run Synchronization in YourSite Explorer, you can edit a subset of contact center related 3300 ICP System Options, SMDR Options, Class of Service, and Class of Restriction assignment forms. Any changes made to the telephone system assignment forms in YourSite Explorer are written to the telephone system when a user clicks **Save**.

After running Active Directory Synchronization, if the 3300 ICP System options, SMDR options, Class of Service options, or Class of Restriction assignment forms are incorrectly configured, alerts will display describing what modifications need to be made to achieve accurate telephone system settings.

**NOTE:** You must have read/write capabilities enabled in YourSite Explorer before running Active Directory synchronization if you want to receive these alerts. See "Specifying synchronization settings" on page 51.

### *Editing System Options in YourSite Explorer*

Using YourSite Explorer, you can configure access codes and select options for the ACD 2000, ACD Real-time Events Feature Level, and ACD Make Busy Walk Away Codes. Recommended values for these system options are displayed in YourSite Explorer.

To edit System Options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **System options**.
6. Specify remaining system options as required.
7. Click **Save**.

### *Editing SMDR Options in YourSite Explorer*

Using YourSite Explorer, you can edit a subset of contact center related SMDR options. YourSite Explorer displays the recommended value for these SMDR options.

To edit SMDR Options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **SMDR options**.
6. Specify the SMDR options.
7. Click **Save**.

### *Editing Class of Service options in YourSite Explorer*

Using YourSite Explorer, you can edit a subset of contact center related Class of Service options. YourSite Explorer displays the recommended value for these Class of Service options.

**NOTE:** Users who will use the Extension by Position monitor must have the Class of Service HCI settings enabled.

To edit Class of Service options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **Class of Service**.
6. Under **Name**, select the Class of Service to edit.
7. In the right pane, after **Default type**, select a default class of service. Alternatively, select **None** and, after **Comment**, type a description for the Class of Service.
8. Specify the remainder of system options for each Class of Service.
9. Click **Save**.

### *Editing Class of Restriction options in YourSite Explorer*

Using YourSite Explorer, you can edit a subset of contact center related Class of Restriction options.

To edit Class of Restriction options

1. In YourSite Explorer, in the left pane, click **YourSite**.
2. Under **Enterprise**, click **Media servers**.
3. Under **Media servers**, select a 3300 ICP media server.
4. Click the **Telephone system settings** tab.
5. In the left pane, click **Class of Restriction**.
6. Under **Number**, select the Class of Restriction to edit.
7. After **Do you want this Class of Restriction to be the default setting**, click **Yes** or **No**.
8. After **Classes of restriction for the group**, enter the Class of Restriction numbers to include in the group.  
A range of numbers may be specified. Separate numbers using commas or dashes. For example, 1 through 9 may be entered as 1-9 or a combination of individual numbers and ranges may be entered as 1,2,3,7-10,13.  
**NOTE:** Class of Restriction numbers must be entered in ascending order within each group.
9. Click **Save**.

## SETTING UP BUSINESS REPORTER SECURITY

**NOTE:** You must change the administrator account password from the default to a unique password after each installation of Business Reporter.



## *Restricting access*

**NOTE:** In order for you to assign security roles, your account must be associated to a security role that does not restrict you from administering security.

Every time you run the Business Reporter installation, a default user is created. The default gives both the Mitel staff and the installer the assurance that there is at least one account with which to gain access to the Contact Center Management website. After you install Business Reporter, you must change the default account password to a unique password.

The default user name and password are

- Username: \_admin
- Password: \_password
- Security Role: Enterprise Administrator

The Business Reporter default security role ('Enterprise Administrator') allows employees full access to the application and devices including Write Back for synchronization. You can create basic and advanced security roles, and an unlimited number of combinations of these roles.

Security roles have two components

- **Basic**

Basic security controls user access to specific areas of Business Reporter.

You can use basic security to restrict user access from the following areas of Business Reporter: CCMWeb, reporting, YourSite configuration, logins, SMDR Inspector, contacts, Enterprise Configuration, and Security.

- **Advanced**

Advanced security controls user access to customized lists of devices, profiles, reports, sites, and users.

You can use advanced security to restrict user access to specific reports, running reports on specific devices, specific sites, and managing and configuring server alarms.

You can create security roles in an unlimited number of combinations of basic and advanced properties. For example, you can create a security role with basic security only by leaving the advanced security components set to Not restricted. Alternatively, you can create a security role with the basic component granting full access to all Business Reporter application areas and an advanced component that restricts access to a few reports and devices.

### *Applying security roles*

You can create a security role to restrict user access from specific areas of Business Reporter. (See Figure 4.)

For example, with basic security, you can restrict users from

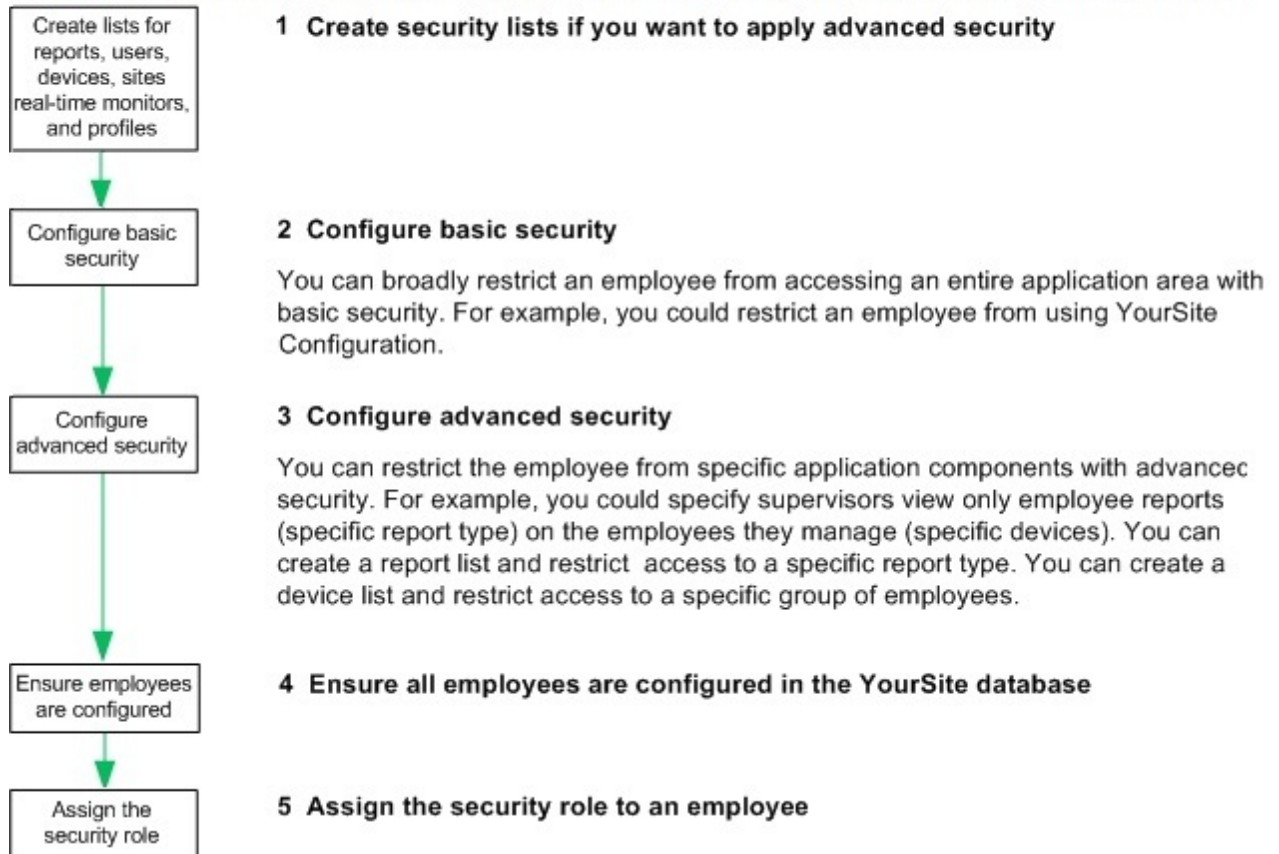
- Reporting
- YourSite Configuration
- Business Reporter logins
- Business Reporter Security
- SMDR Inspector
- Advanced Inspector
- Management Console
- CCMWeb

To create and apply a security role with basic and/or advanced components

1. Ensure employees are configured in the YourSite database.  
See the *Business Reporter User Guide*.
2. If using Advanced security, create security lists.  
See the *Business Reporter User Guide*.
3. Configure basic security.  
See the *Business Reporter User Guide*.
4. Specify advanced security.  
See the *Business Reporter User Guide*.
5. Verify security role properties.  
See the *Business Reporter User Guide*.
6. Assign the security role to one or more employees.  
See the *Business Reporter User Guide*.

**NOTE:**

You create a security role only if you want to restrict employees from certain components of Business Reporter. Basic security broadly restricts the employee from an entire application. Advanced security restricts the employees from components of a particular application. You create combination basic-advanced security roles if you want to broadly restrict the employees from some applications and restrict only certain components of other applications.



**Figure 4: Security flow chart**

### *Changing the SQL default administrator password*

You can optionally reconfigure the default password for the administrator account to prevent unauthorized users from gaining access.

To change the administrator password

1. Open **SQL Server Management Studio**.
2. Click **Security=>Logins**.
3. Double-click **sa**.  
The Security Logins properties dialog opens.
4. Type the new password.
5. Confirm the new password.
6. Click **OK**.

**NOTE:** If SQL Server Management Studio is not installed it can be found in the support directory on the Business Reporter installation directory or CD.

### *Backing up data*

#### **NOTE:**

- It is important you schedule the automated backup of the YourSite Database configuration and raw data files to occur at least a half an hour following the nightly prairieFyre Maintenance Alarm Dispatcher service.
- We recommend you back up the YourSite Database configuration and raw data files to an offboard media type (DVD, CD, tape, alternate network drive) each day as a precaution in case of server failure.

In the event of server failure, you can restore your telephone system history and configuration with

- A backup copy of the YourSite database
- The raw telephone system data files stored on the local hard drive
- The Business Reporter database

If you have any questions regarding backups, contact

- Mitel customer support at 1-800-722-1301 (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).

### *Setting the time the prairieFyre Maintenance Alarm Dispatcher service runs*

The prairieFyre Maintenance Alarm Dispatcher service runs nightly, at 2:00 A.M by default. This service performs the following nightly routines:

- Backs up the YourSite database to the local data directory
- Shrinks and truncates the SQL transaction log
- Purges the ANI database table and retains only 10,000 records or 30 days' worth of ANI data
- Re-summarizes the previous days data into the SQL database
- Zips data files in the data directory
- Deletes old files in the data directory as required (when the disk space is low)
- Purges error message queues populated by the prairieFyre MassTransit Runtime Services

For information on configuring Enterprise settings, including nightly maintenance, see the *Business Reporter User Guide*.

## REPORTING SERVICE

Reporting Service prints and emails reports and displays the status of your print and email jobs.

You can configure the interval at which Reporting Service attempts to print and email reports. Reporting Service must be running at all times in order to print and email reports automatically.

Reporting Service runs under the local Administrator user account. In order to print a report with Reporting Service, you must log on to the local Administrator account, install a printer, and set it as the default printer for that account. If you want to print reports to more than one printer, you must add the additional printers to the local Administrator account as well.

**NOTE:**

- If you do not set up at least one printer on the Mitel\_RD\_Account, Reporting Service will not be able to print reports.
- If you upgraded to Version 7.1 from Version 5.8.0.9, the local Administrator account will be Mitel\_RD\_Account.
- Reporting Service prints to the default printer unless the user specifies a preferred printer. If the preferred printer is not installed, reports will be sent to the default printer.

## SETTING UP REPORTING SERVICE

Before you can use Reporting Service, you must

1. Configure SMTP connections to Business Reporter
2. Configure user printer settings

### *Configuring SMTP connections to Business Reporter*

SMTP connections to Business Reporter are typically configured during the installation process. If the server information is not entered during installation or the information is incorrect, the settings can be configured in YourSite Explorer. For procedures on configuring SMTP connections, see the *Business Reporter User Guide*.

### *Configuring user printer settings*

You can configure Reporting Service to print on either a network printer or a local printer, for each employee. For instructions on how to configure user printer settings, see the *Business Reporter User Guide*.

## TROUBLESHOOTING REPORTING SERVICE

Why is Reporting Service not emailing or printing my reports?

- Ensure the SMTP Mail settings are correctly configured.
- Ensure the printer settings are correctly configured.
- View the log file for Reporting Service at <installation drive>\Program Files (x86)\prairieFyre Software Inc\CCM\Logs\Reporting.log to find out why reports are not being printed/emailed the way you expect in the installation/Log file

## INSTALLING THE CTI DEVELOPER TOOLKIT

### NOTE:

- This section contains CTI Developer Toolkit information that is specific to both Business Reporter and Contact Center Management. If you have Business Reporter only, the agent and queue functionality exposed by the CTI Developer Toolkit cannot be used, as agent and queue devices do not apply to stand-alone Business Reporter environments.
- If you are upgrading to a newer version of the CTI Developer Toolkit, you must manually uninstall the previous version from Add/Remove Programs.

Mitel CTI Developer Toolkit is a programmable, .NET, C# Dynamic-link library that can be used in any .NET Framework 4.5 application or website. In order to install the CTI Developer Toolkit, you must have Business Reporter installed and be licensed for the CTI Developer Toolkit.

Before installing the CTI Developer Toolkit, ensure

- The version of the CTI Developer Toolkit you are installing is the same as the version of the Business Reporter software you are using
- You have access to the Business Reporter Enterprise Server
- The Business Reporter Enterprise Server has been properly set up and configured with the extensions, agents, and queues that you will be using with your custom application. See the *Business Reporter User Guide*.
- The telephone system(s) in your enterprise has been properly set up and configured with the extensions, agents, and queues that you will be using with your custom application. See "Migrating a local SQL Server to remote" on page 107.
- You have Microsoft .NET Framework Version 4.5 installed on your workstation
- You have an IDE installed on your workstation, either Visual Studio 2005/2008 or SharpDevelop

To install the CTI Developer Toolkit

1. Log on to the Enterprise Server with a Windows administrator account.  
The account must have full administrative privileges.
2. Ensure all of the Windows programs are closed.
3. Using a web browser, browse to <http://www.mitel.com>.
4. Click **Login**.
5. Click **Mitel Online**.
6. Type your Mitel Online **Username** and **Password** and click **Login**.
7. Under **Support** click **Software Downloads**.
8. To download
  - Business Reportersoftware, click **Call Accounting =>Call Accounting Software Download**.
9. Under **Optional Release Components**, click **CTI Developer Toolkit**.  
The Disclaimer appears.

10. To download your software:
  - Click **I Agree [Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
  - Click **I Agree [Download using HTTP]** to download using your browser.

**NOTE:** If you click I Disagree, you are unable to download the software.
11. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
12. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.
13. If you save the file, browse to the downloaded installation file and run it.  
The CTI Developer Toolkit Installation Wizard opens.
14. If you run the file, the CTI Developer Toolkit Installation Wizard opens when the file finishes downloading.
15. Click **Next**.  
The End User License Agreement window opens.
16. To continue with the installation, select the **I accept the terms in the License Agreement** check box and click **Next**.  
The Custom Setup window opens.
17. To change the default location for the primary installation features (Documentation files, Redistributable files, and Sample applications), click **Browse**, specify a new location, and click **OK**.

**NOTE:**

  - The Sample applications feature, and all sub-features within the Sample applications, can be disabled by clicking the disk icon and choosing 'Entire feature will be unavailable'.
  - When the default installation location is customized for any of these product features, the new location is automatically used by the other product features.
18. Click **Next**.  
The Ready to install CTI Developer Toolkit window opens.
19. Click **Install**.  
The CTI Developer Toolkit is installed.
20. When the installation is complete, click **Finish**.  
Once the installation is complete, you should perform the steps listed below to ensure your development environment and the servers you will be using are properly configured.

To verify your environment and servers are configured properly for the CTI Developer Toolkit

1. Load the **DeviceMonitor.sln** sample in your IDE and build the application.
2. Run the **DeviceMonitor.exe** application, verifying the following operations
  - Connect to a Business Reporter Enterprise Server.
  - Execute the **Retrieve All Devices** option on the **Actions menu** and verify that all programmed devices are displayed.  
Device level operations, such as *SetMonitor*, *MakeCall*, and *Login* will display a message in the status bar indicating the number of devices affected by the operation. Refer to this message and the device state image icon displayed next to the device when performing the following tests.
    - Select an extension device and perform the following operations
      - Set Monitor
      - Make Call
      - Clear Call
    - Select an agent device that is in the logged out state and perform the following operations
      - Set Monitor
      - Login
      - Set Make Busy
      - Remove Make Busy
      - Logout
3. If any of the above operations are unsuccessful, you can find information on troubleshooting common CTI Developer Toolkit issues in the *Business Reporter User Guide*.

## UPGRADING THE CTI DEVELOPER TOOLKIT

When upgrading from a previous version of the CTI Developer Toolkit to the latest version of the CTI Developer Toolkit, we recommend you:

- Download the latest version of the CTI Developer Toolkit and install it on a development machine.
- Locate the redistributable files under *<installation directory>Redist* and copy them over the existing files in the custom written application.
- Recompile any applications developed on top of the CTI Developer Toolkit and test the applications against the latest version of a Contact Center Management / Business Reporter Enterprise Server to ensure that they behave as expected.

**NOTE:** Any applications being upgraded to Version 7.1 that use call details, such as a customer screen pop application using variables from IVR, must replace the MiTAI call ID parameter with a global call ID. *AddCallDetail(...)* and *AddClientCallDetailMonitor\_NoDevice(...)* in the *DeviceManagerClass* have been made obsolete and have been replaced with API calls that take the MiTAI global call ID instead. Global call ID can be obtained from *CallReceivedEvent*.



## CONFIGURING LIFECYCLE REPORTS

Lifecycle reports provide detailed information on all of the events related to the life of a specific call, from the moment the call enters the telephone system to call termination. You can generate Lifecycle reports on selected devices, and can filter the reports by a number of options. If you have clustered your enterprise into a single site, you can run a Lifecycle report onsite to report on your entire enterprise. Lifecycle reports also include call notes and links to call recordings. For more information on Lifecycle reporting, see the *MiVoice Business Reporter Reports Guide*.

### NOTE:

- Since Lifecycle reports detail all events related to calls, there are significant database storage implications. With Lifecycle reports enabled, your database can fill up rather quickly. If you are unable to store the amount of data required for Lifecycle reports, we recommend configuring the system to purge Lifecycle reports older than a certain number of days or turning off the Lifecycle report option.

To purge Lifecycle reports older than a specific number of days

1. In YourSite Explorer, under **Enterprise**, click **Enterprise**.
2. Click the **Maintenance** tab.
3. After **Purge Lifecycle reports older than**, specify the number of days.
4. Click **Save**.

To turn off Lifecycle reporting

1. In YourSite Explorer, under **Enterprise**, click **Enterprise**.
2. Click **YourSite=>Enterprise**.
3. On the **Enterprise** tab, disable the **Enable Lifecycle reports** check box.
4. Click **Save**.

## SETTING UP MITEL BORDER GATEWAY ON THE MITEL APPLICATION SERVER

Mitel Border Gateway V7.1 and V8 enable Contact Center Solutions and Business Reporter applications to run from any remote computer, without the use of a Virtual Private Network (VPN). This solution offers the same trusted characteristics as with standard Mitel Border Gateway V7.1 and V8 deployments (with a hard phone set): local streaming, secure RTP, jitter buffering and packet handling QoS, and G.729 and G.711 encoding.

### CONFIGURING MITEL BORDER GATEWAY ON THE MITEL APPLICATION SERVER

**NOTE:** Do not change the default port numbers unless otherwise instructed by Mitel technical service.

The system administrator configures Mitel Border Gateway V7.1 and V8 on the Mitel Application Server and then has the option of pre-registering agents' phones or providing agents with a password so that they can register their phones.

To configure Mitel Border Gateway V7.1 or V8 on the Mitel Application Server

1. Log onto the Mitel Border Gateway server and under Applications click **Mitel Border Gateway**.
2. On the **Status** tab, after **MBG status**, ensure **Enabled** is displaying. If it is not, after **Start or stop MBG**, click **Start**.
3. Click **Configuration=>ICPs**.
4. If there is a list of configured ICPs on this server, skip to step 7.
5. If there is no list of configured ICPs, click **Add ICP**.
6. After **Name**, **IP address**, and **Type**, **Installer password**, and **SIP DNS Hostname(s)**, type the required information and click **Save**.
7. If you want G.729 compression that will reduce the bandwidth used during calls and if the ICP does not support it directly, on the **Configuration=>Settings** tab, click **Edit** and select the checkbox after **G.729 transcoding**.
8. If multiple phone sets are located at the same site and you want to enable local streaming, on the **Configuration=>Settings** tab, click **Edit** and select the checkbox after **Local streaming**.
9. Click **Save**.
10. Click the **Applications** tab, select **Contact center configuration**, and click **Edit**.
11. Select the checkbox after **Contact Center connector enabled**.
12. After **Contact Center server IP address**, type the IP address of the Enterprise Server on your LAN and click **Save**.
13. To view the list of all ports that must be open to ensure the Mitel Border Gateway Connector functions properly, click **Applications=>Show all connectors**.
14. If your remote agents and employees will use the soft phone, configure your phones as 5020 IP phones on the telephone system and set up your phones to work with the Mitel Border Gateway Connector.  
See "Providing Mitel Border Gateway support to remote agents and employees" on page 75.

## CLIENT INSTALLATION

To gain access to Management Console on a client computer, you must install client software (Contact Center Client).

The first time you install Business Reporter Version 7.1, for each computer on which you want to run Management Console you must go to each client computer to install the client software. After the initial installation, the Updater Service will perform updates on client computers each time the Enterprise Server is updated.

**NOTE:**

- Launching client-side applications from the taskbar causes them to bypass the Updater Service process. To ensure successful updates from the Enterprise Server, after an upgrade close all client-side applications for 15 minutes or reopen them from the Start menu/Start screen.
- Verify the hardware and software requirements for running Business Reporter on client computers, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
- In order to guarantee a successful installation, we recommend User Account Control (UAC) is turned off on client computers before running the client installation. For complete details, see <http://windows.microsoft.com/en-US/windows-vista/Turn-User-Account-Control-on-or-off>
- The date format for Business Reporter is tied to the regional settings on your client computer. For example, if you configure your computer to display the date as mm/dd/yyyy, when you browse to the Business Reporter Web UI applications display the date as mm/dd/yyyy.
- Some group policy settings can disrupt the installation and upgrading process for client computers. We recommend all clients be configured with Local Administrators permission to install the Client Component Pack and that they be configured with, at the minimum, Power User permissions to update the Client Component Pack.
- The system administrator must provide all Business Reporter users with a user name and password.
- After an upgrade is performed on the Enterprise Server, any clients that use the Mitel Border Gateway Connector to connect to the Enterprise Server should close Mitel Border Gateway Connector to allow pending updates to be applied. Once the Mitel Border Gateway Connector has been updated, it can be restarted.
- Ensure antivirus software is disabled before installing the Client Component Pack.

# CLIENT ROLES

The Business Reporter client installation includes the Client Role Selector. It is a wizard that helps you install client applications and components. The role selector offers the following role types

- **Supervisor**  
The Supervisor role installation is designed for supervisors and managers who monitor devices (for example agents and queues) and run reports.
- **Agent**  
The Agent role installation is designed for agents who monitor themselves and/or other agents and queues.
- **Administrator**  
The Administrator role installation is designed for employees who manage the Enterprise Server.
- **Power user**  
The Power user role installation is designed for employees who may perform the functions of a supervisor, agent, and administrator.

If you purchased Business Reporter without Contact Center Management, you select the Administrator role for Business Reporter administrators who typically use Management Console.

If you purchased Business Reporter and Contact Center Management, you can select the Supervisor, Agent, Administrator, or Power user roles to install the applications and components typically used by these employees.

# CLIENT INSTALLATION PROCESS

**NOTE:** In order to guarantee a successful installation, we recommend User Account Control (UAC) is turned off on client computers before running the client installation.

To set up a client computer to use Business Reporter, on the client computer

1. Start Business Reporter.
2. Install Client Component Pack. See "Installing the latest version of Client Component Pack" on page 71.

**NOTE:**

- .NET Framework 3.5 SP1 and .NET Framework 4.5 must be installed on your system prior to installing Client Component Pack. If you are connected to the Internet, the installer will install these components for you. Note that Windows 8 and Windows 8.1 include .NET Framework 4.5.
  - The Microsoft Report Viewer 2010 Redistributable Package must be installed on all clients before upgrading to Version 7.1. If you are connected to the Internet, the installer will install this component for you. It can be downloaded from <http://www.microsoft.com/en-us/download/details.aspx?id=6442>.
3. Install prerequisite software.
  4. Use the Client Role selector to install client applications.

## STARTING BUSINESS REPORTER ON THE ENTERPRISE SERVER OR ON A CLIENT COMPUTER

To start Business Reporter on the Enterprise Server or on a client computer

**NOTE:** It is recommended that you add Contact Center Management as a Favorite and set it as your Home Page in Internet Explorer.

1. Start Internet Explorer and type your Enterprise Server IP address **http://[your Enterprise Server IP address]/CCMWeb/**. Alternatively, click the Business Reporter desktop icon.
2. If you do not see the Business Reporter desktop icon, to create a shortcut to Business Reporter, drag and drop the Internet Explorer icon from the web address to your desktop.
3. Type your user name and password and click **Submit**.
4. In Internet Explorer, click **Tools=>Internet Options=>Connections=>LAN Settings**.
5. Select the **Automatically detect settings** check box and click **OK**.  
This enables your computer to automatically detect all of your local area network and proxy settings.
6. Click **Tools=>Internet Options**.
7. Click the **Security** tab.
8. Click **Internet**.
9. Under Security level for this zone, adjust the slider to **Medium**.
10. Click **Trusted Sites**.
11. Click **Sites**.
12. Type the IP address of the Business Reporter Enterprise Server.
13. If required, clear the **Require server verification** check box.
14. Click **Add**.
15. Click **Close**.
16. Click **OK**.

## INSTALLING THE LATEST VERSION OF CLIENT COMPONENT PACK

### NOTE:

- Microsoft .NET Framework 4.5 must be installed on your system before you install the Client Component Pack. If .NET Framework 4.5 is not installed on client machines and you are connected to the Internet, the installer will install .NET Framework 4.5. If you are not connected to the internet, you must install .NET Framework 4.5 on client machines manually. Note that Windows 8 and Windows 8.1 include .NET Framework 4.5
- The Microsoft Report Viewer 2010 Redistributable Package must be installed on all clients before you install the Client Component Pack. If Microsoft Report Viewer 2010 Redistributable Package is not installed on client machines and you are connected to the internet, the installer will install Microsoft Report Viewer 2010 Redistributable Package during the installation. If you are not connected to the internet, it must be installed manually. It can be downloaded from <http://www.microsoft.com/en-us/download/details.aspx?id=6442>.
- If you use Contact Center PhoneSet Manager or Contact Center Softphone, you must install Visual C++ Redist 2010 RTM on client machines. If connected to the internet, this will be installed automatically during the installation. You can download this application from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.

You can install Client Component Pack on individual client computers or servers running Citrix Terminal Services.

To install Client Component Pack

1. On the client computer, start Internet Explorer and type **[http://\[your Enterprise Server IP address\]/CCMWeb](http://[your Enterprise Server IP address]/CCMWeb)**.
2. If prompted, type your user name and password and click **Submit**.
3. Click **Help=>Software downloads/Installations**.
4. Click **Client Component Pack**.  
The File Download - Security Warning window opens.
5. Click **Run**.
6. Click **Continue**.  
The Mitel Contact Center Solutions Client Component Pack Self Extractor window opens.
7. Click **Accept** to install Microsoft Visual Studio 2010 Report Viewer.
8. Click **Install** to install Microsoft WSE 3.0 Runtime, CheckForEnterpriseServerInstall, prairieFyre - Enable .Net, and prairieFyre - Client System Requirements Check.  
The Mitel Contact Center Solutions Client Component Pack - InstallShield Wizard opens.
9. Click **Next**.
10. After **Enterprise IP Address**, type the IP address of the Enterprise Server. Optionally, click **Test** to test the client computer connection to the Enterprise Server.

11. If your Enterprise uses SSL, select the **SSL** check box.
12. Click **Install**.  
The program features you selected are installed.
13. Click **Finish**.  
The Select role window opens. See "Installing client applications" on page 73.

**NOTE:** If the client is on an external network, you can either:

- VPN to the internal network and install the Contact Center Client
- Copy the Contact Center Client from the server to the client using a CD or USB key

## INSTALLING CLIENT COMPONENT PACK USING AN ADMINISTRATIVE PROCEDURE

You can install the Mitel Client Component Pack silently on remote desktops using an MSI (Microsoft Installer) administrative installation procedure. A silently installed program is a program that can be installed with no user interaction.

To install client software silently on remote desktops

1. Install the prerequisite software.
2. Locate the `client_setup_x86_x64.exe` and extract Client Component Pack.msi.
3. Perform the .msi procedure for the administrative installation.
4. Run the silent installations.

### *Installing the prerequisite software*

Before you install client software, you must install the prerequisite software. If client computers are connected to the Internet or run Windows 8 or Windows 8.1, skip step 1.

To install the prerequisite software

1. If the client computer runs Windows 7, or an earlier supported version, and is not connected to the Internet, install .NET Framework 4.5 on the machine.
2. On the Enterprise Server, start Internet Explorer and type the URL **`http://[the Enterprise Server IP address]/CCMWeb/`**.
3. Log in to CCMWeb and click **Help**.
4. Click on the **Software downloads/Installations** tab.
5. Click **Software Downloads**.
6. Download and run **Client Component Pack**.

### *Locating the client\_setup.exe and extracting Client Component Pack.msi*

To locate the `client_setup.exe` and extract Client Component Pack.msi

1. Go to the `src` folder located in your Contact Center Solutions Installation folder.  
**NOTE:** The default location of this folder is `C:\CCM\src`.
2. Open **`client_setup.exe`**.
3. Open the folder that was modified the same day you extracted `client_setup.exe`. The folder naming format will be `xxx_xxxx`.  
**Client Component Pack.msi** will be in that folder

### *Performing the MSI procedure for the administrative installation*

**NOTE:** See "Installing the prerequisite software" on page 72 for a list of programs that must be installed on each computer before you install the Client Component Pack.

You must create a command for the administrative installation that is similar to the following example:

```
msiexec /a"\\Mitel Installations\Setup\Client Component Pack.msi" SSLSTATUS=0  
ENTERPRISEIPADDRESS=10.1.4.12
```

To perform the MSI procedure for the silent installation

1. In Windows, open the command prompt window.
2. Open the folder where the msi file is located.
3. Type **MsiExec.exe /a**.
4. Press the spacebar.
5. Drag the msi file from the folder where it is located to the command prompt window.
6. Press the spacebar.
7. Type **SSLSTATUS=**.
8. If the Enterprise Server uses a secure socket layer, type **1**. If it does not, type **0**.
9. Press the spacebar.
10. Type **ENTERPRISEIPADDRESS=**.
11. Type the Enterprise Server IP address or DNS name.
12. Press **Enter**.
13. The InstallShield Wizard opens.
14. Follow the instructions of the Wizard.
15. Ensure the file is saved to a network drive.

### *Running the silent installation*

To silently install Client Component Pack

1. In Windows, open the **Run** command.
2. Type "**\\<path to administrative installation package>\Client Component Pack.msi**"/qb  
Contact Center Client and the prairieFyre Updater Service are installed.

## INSTALLING CLIENT APPLICATIONS

Run the Client Role Selector to install Business Reporter client applications. You can re-run Client Role Selector on a client computer at any time to change the components and applications installed on the client computer.

To view reports, Microsoft Excel 2007 or greater is required on all client computers. As a minimum, you may install Microsoft Excel Viewer, but clients will be unable to take advantage of distributing reports for printing. You can download Excel Viewer for free from Microsoft: <http://www.microsoft.com/en-us/download/default.aspx>.



**NOTE:** Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in Contact Center Management. If you use Excel 2010 to view reports, configure the following in Excel:

- Ensure the following Protected View options are not enabled:
  - Enable Protected View for files originating from the Internet
  - Enable Protected View for files located in potentially unsafe locations
  - Enable Protected View for Outlook attachments
  - Enable Data Execution Prevention mode
- Ensure that the following Trusted Location option is selected:
  - Allow Trusted Locations on my network (not recommended)

To run the Client Role Selector

1. If you are installing Version 7.1 software on the client computer for the first time, go to step 2. Otherwise, open the **Client Role Selector**.
2. Select your client role.
  - Supervisor—The Supervisor role installation is designed for supervisors and managers who monitor devices (for example agents and queues), run reports, and schedule agents.
  - Agent—The Agent role installation is designed for agents who monitor themselves and/or other agents and queues.
  - Administrator—The Administrator role installation is designed for employees who manage the Enterprise Server.
  - Power user—The Power user role installation is designed for employees who may perform the functions of a supervisor, agent, and administrator, and customize Contact Center Client.
3. Click **Next**.
4. Select the check boxes of the optional applications to install.
  - Contact Center Client
  - Contact Center Softphone
  - Mitel Border Gateway Connector
  - YourSite Explorer
  - Salesforce.com Connector
5. Click **Finish**.

After the wizard installs the features you selected, the Contact Center Client log on window opens.
6. After Username and Password, type the credentials of the employee who will use this client computer. If they are not yet configured use the default administrator credentials
  - Username: `_admin`
  - Password: `_password`
7. Verify the Enterprise Server IP address.
8. Click **Log on**.

Contact Center Client opens. See the *Business Reporter User Guide* for instructions on how to use Contact Center Client and the optional applications.

## SETTING UP SOFT PHONES

### NOTE:

- Before you set up a soft phone on client computers, you must configure the soft phone as a 5020 IP phone on the telephone system.
- Contact Center Softphone and Contact Center PhoneSet Manager extensions must have Real-time and reporting enabled in YourSite Explorer. If they are programmed as Historical reporting only, the Directory Numbers will not display in the list of available soft phone extensions when you launch the soft phone. For more information on adding extensions, see the *Business Reporter User Guide*.

Soft phone comprises Contact Center Softphone and Contact Center PhoneSet Manager.

To set up a client computer to use the soft phone, on the client computer

1. Run Client Component Pack.  
See "Installing client applications" on page 73.
2. Ensure your headset is connected.
3. Configure sound and audio device properties.  
See "Configuring sound and audio device properties" on page 75.
4. Launch Contact Center Client and select your soft phone extension.

## CONFIGURING SOUND AND AUDIO DEVICE PROPERTIES

To configure sound and audio device properties for Windows operating systems, you must set the PC speakers as the default audio device and adjust the volume of the PC speakers, headset speakers, and headset microphone.

## PROVIDING MITEL BORDER GATEWAY SUPPORT TO REMOTE AGENTS AND EMPLOYEES

Using Mitel Border Gateway Version 7.1 or V8, remote employees can connect to the Enterprise Server using a VPN-like connection, and use all Contact Center Solutions and Business Reporter applications as if they were in the office.

With the Mitel Border Gateway Connector, customers can now optionally configure connections to multiple instances of the Mitel Border Gateway. When employees connect to the system using the Mitel Border Gateway Connector, they can specify which Mitel Border Gateway they will connect to. After remote employees attempt to connect to the system for the first time, a Mitel Border Gateway system administrator must approve the Mitel Border Gateway certificate from the Mitel Border Gateway web application. Once approved, remote users are connected and have access to all of the Contact Center Solutions and Business Reporter applications for which they are licensed and have the required security permissions. While active, the Mitel Border Gateway Connector is visible in the Windows system tray and displays the name of the active connection. Only one connection can be made at a time. The name of the Mitel Border Gateway connection will become the address in all application login windows and users sign in with their normal username and password.

The Mitel Border Gateway Connector offers the same trusted characteristics as with a standard Mitel Border Gateway deployment: local streaming, secure RTP, jitter buffering and packet handling QoS, and G.729 and G.711 encoding.

**NOTE:**

- The Mitel Border Gateway Connector supports Mitel Border Gateway V7.1 and V8.
- The following corporate firewall ports must be open in order to take advantage of the full features and functionality provided by the Mitel Border Gateway Connector: 80, 443, 1433, 5024, 5025, 5026, 5030, 7001, 7003, 8083, 8084, 36000-36004, 35001-35007, and 42440.
- You must disable IIS and SQL Server Reporting Service services as they consume port 80, which is required for the Mitel Border Gateway Connector. Any other applications or services that consume port 80 and 443 should also be disabled or shut down.
- You cannot use the Windows Authentication sign-in model for Contact Center Solutions and Business Reporter.
- Ensure the Start button is enabled at all times on the Mitel Border Gateway web application user interface or the Mitel Border Gateway Connector will fail.
- The Mitel Border Gateway Connector is not supported for use in conjunction with Contact Center Management / Business Reporter Windows Authentication sign-in model. Windows Authentication requires direct access to a domain controller on the network and therefore a VPN solution must be used if you want to use the Mitel Border Gateway Connector remotely.
- You must be logged in as an administrator on a client computer in order to configure a connection to a Mitel Border Gateway. Once the connection has been made, any user on the computer can connect using the Mitel Border Gateway Connector.

## SETTING UP PHONES FOR REMOTE AGENTS AND EMPLOYEES

If you are working at the office and select Remember my credentials when you log on to Contact Center Client, and then subsequently attempt to log on at home, your logon will fail. Contact Center Client does not recognize your office IP address when you log on remotely.

**NOTE:** Before you set up the soft phone on your client computer, ensure your network administrator has configured your soft phone as a 5020 IP phone on the telephone system.

To set up Contact Center Softphone and Contact Center PhoneSet Manager to support the Mitel Border Gateway Connector, you must

1. Register your phones for use with Mitel Border Gateway V7.1 or V8.
2. Approve the Mitel Border Gateway V7.1 or V8 certificate.
3. Log in to client computers using an administrative account and set up the connection to the Mitel Border Gateway from the Mitel Border Gateway Connector.

## REGISTERING PHONES FOR USE WITH MITEL BORDER GATEWAY

The system administrator must register your phone before you can use the Mitel Border Gateway Connector. Contact Center PhoneSet Manager treats new extensions like new phones; each time you enter a new extension you must use the dial pad to type the password (provided by your system administrator) to register the phone.

To register your phone with Mitel Border Gateway

1. Ensure you have completed the steps listed under "Configuring Mitel Border Gateway on the Mitel Application Server" on page 66 and that you have added an ICP to the Mitel Border Gateway.
2. Click **Services=>MiNet Devices**.
3. Click **Add a MiNet device**.
4. For Contact Center Softphone phones, after **Device ID**, type **a1:21:00:00:xx:xx**, where xx:xx is the extension.
5. For Contact Center PhoneSet Manager phones, after **Device ID**, type the MAC address located under the agent's Mitel phone.
6. If required, specify other optional settings.
7. Click **Save**.

## RUNNING THE MITEL BORDER GATEWAY CONNECTOR

In order to use Contact Center Solutions and Business Reporter applications with Mitel Border Gateway, you must run the Mitel Border Gateway Connector and configure the connection to the Mitel Border Gateway.

**NOTE:** A user with administrative credentials must be logged in to client computers when configuring connections to the Mitel Border Gateway for the first time. After this is complete, any user can sign in to the computer, run the Mitel Border Gateway Connector, and connect to a Mitel Border Gateway.

To install and configure the Mitel Border Gateway Connector

1. If this is not the first time you have run the Mitel Border Gateway Connector, skip to step 9. Otherwise, consult your network administrator to confirm your soft phone extension number.
2. Ensure your headphone is connected.
3. Run Client Component Pack.  
See "Installing the latest version of Client Component Pack" on page 71.
4. If you are installing software on the client computer for the first time, go to step 5. Otherwise, open the **Client Role Selector**.

5. Click a client role.
  - Supervisor—The Supervisor role is for supervisors and managers who monitor devices, such as agents and queues, and schedule agents.
  - Agent—The Agent role is for agents who monitor themselves and/or other agents and queues.
  - Power user—The Power user role is for employees who may perform the functions of a supervisor, agent, and administrator.
6. Click **Next**.
7. Select **Mitel Border Gateway Connector** and all other options you need, such as Contact Center Softphone.
8. Click **Finish**.
9. In Windows, open the **Mitel Border Gateway Connector**.  
Ensure you are logged in to the computer with administrative credentials.
10. Click **New**.
11. After **Name**, type a name for the connection to the Mitel Border Gateway.
12. After **IP address**, type the IP address of the Mitel Border Gateway.
13. After MAC address
  - If you have a desk phone, type the MAC address located on the sticker under your desk phone.
  - If you have a soft phone, click **Extension**, type your soft phone extension number, and click **OK**.
14. Click **OK**.  
The connection to the Mitel Border Gateway you just created will display in the Mitel Border Gateway Connector list.

To run the Mitel Border Gateway Connector

1. Start the **Mitel Border Gateway Connector**.
2. Select a connection to a Mitel Border Gateway from the list.
3. Optionally, enable the **Connect automatically** checkbox.  
Enabling this checkbox will automatically connect you to the configured Mitel Border Gateway when you launch the Mitel Border Gateway Connector.
4. Click **Connect**.  
A message displays stating 'Waiting for certificate approval'. If the request is rejected, contact your system administrator to approve the certificate.  
  
Once your certificate has been approved, you can begin using all Contact Center Solutions and Business Reporter applications remotely as if you were in the office. Any user configured with administrative credentials on the computer can change the Mitel Border Gateway connection settings and delete connections from the Mitel Border Gateway Connector at any time.

## APPROVING THE MITEL BORDER GATEWAY CERTIFICATE

The Mitel Border Gateway system administrator must approve the Mitel Border Gateway V7.1 or V8 certificate before agents and employees can use the Mitel Border Gateway Connector.

To approve the Mitel Border Gateway certificate

1. Log on to the Mitel Border Gateway server.
2. In the left pane under **Security**, select **Certificate Management**.  
The Manage Certificates window opens.
3. Under **Queued CSRs**, select the certificate that needs approval.
4. Select **Approve** or **Revoke**.

## CONFIGURING CONTACT CENTER SCREEN POP

Configuring Contact Center Screen Pop enables you to specify which information fields the pop-up displays and whether an application or Web page is launched when an agent receives a call. See "Configuring Contact Center Screen Pop options" on page 79.

## ENABLING CONTACT CENTER SCREEN POP

To enable Contact Center Screen Pop

1. Start **Contact Center Client**.
2. On the ribbon, click **Soft Phone**.
3. Click the **Soft Phone** icon.
4. Click the **Screen pop** tab.
5. Select the **Display Contact Center Screen Pop** check box.
6. Click **OK**.

## CONFIGURING CONTACT CENTER SCREEN POP OPTIONS

To configure Contact Center Screen Pop options

1. In YourSite Explorer, click **YourSite=>Enterprise**.
2. Click the **Screen pop** tab.
3. If you want to launch an application or Web page when agents answer a call, select the **Launch an application or Web page when agents answer ACD calls** check box.
  - If you want to display call statistics for incoming ACD calls, select **Display the caller-specific Inbound trace report Web page**. The Inbound Trace report tells you how many times the caller has called in the last seven days and contains the following fields: Call Start Time, Call Duration, DNIS name, Agent name, Extension, and Account Code. (See Figure 5.)
  - A default path or URL is automatically entered in the Contact Center Screen Pop tab. Contact Center Screen Pop will launch this application or Web pagebox when it is used.

- If you have created a Web page or an application to launch when agents answer calls, select **Display a specific application or Web page** and type the path for the executable file or the URL of the Web page. Click **How do I enter this value?** for instructions.  
If you have typed text into the Contact Center Screen Pop will launch this application or Web page box, Display a specific application or Web page is automatically selected.  
**NOTE:** Before you can configure Contact Center Screen Pop to display an application or Web page, you must configure the application or Web page by following the recommended installation and configuration guidelines included with the product. Contact your approved vendor for all set up and troubleshooting issues. Ensure the application or Web page is working properly before activating the Contact Center Screen Pop integration.
  - If Mitel Professional Services has provided you with an integrated custom screen pop select **Display this Professional Services custom executable file or Web page**. Click **Manage** to review the Professional Services custom screen pop options.
4. If you want screen pop to launch for non-ACD calls, select the **Screen pop on non ACD calls** check box.
  5. Click **Save**.

Inbound Customer Trace					
Call start time 7/27/2007 9:20:50 AM					
<b>Patrick M</b> has called our company <b>43</b> times in the last 7 days Phone Number: 6135990045					
Call Start time (date and time)	Call duration	DNIS name	Agent name	Extension	Account Code
7/23/2007 4:15:24 PM	00:00:06	7777	2068	1278	
7/23/2007 4:14:59 PM	00:00:20	7777		6165	
7/23/2007 4:06:40 PM	00:00:19	7777	2030	1261	

Figure 5: Inbound Customer Trace Report

## TESTING CONTACT CENTER SCREEN POP SEARCH FUNCTIONS

This test will confirm that Contact Center Screen Pop will function with the software you selected. See "Configuring Contact Center Screen Pop options" on page 79.

To test the search function in Contact Center Screen Pop

1. Start **Contact Center Client**.
2. On the ribbon, click **Soft Phone**.
3. Click the **Soft Phone** icon.
4. Click the **Screen pop** tab.
5. Click **Test**.
6. Type the variables using the described format  
**PFCALLERNAME**—first name followed by last name, separated by a space (for example, John Smith)

**PFANI**—phone number (including area code if relevant) with no spaces, dashes, or brackets (for example, 6135558769)

**PFDNIS**—phone number (including area code if relevant) with no spaces, dashes, or brackets (for example, 8005556598)

**PFVERIFIEDCOLLECTEDDIGITS**—all digits the caller has entered since entering the telephone system, with no spaces, dashes or brackets (for example, 1113)

**Queue**—queue that the caller first entered (for example, P500)

7. Click **OK**.

A screen pop that contains the test parameters you specified will display. The outcome of the Contact Center Screen Pop test will change depending on the type of screen pop you have configured and the test parameters you entered.

## DISABLING CONTACT CENTER SCREEN POP

If you prefer some client computers do not use Contact Center Screen Pop, you can disable it on one or more computers. This procedure affects one agent profile only.

To disable Contact Center Screen Pop on a client computer

1. Start **Contact Center Client**.
2. On the ribbon, click **Soft Phone**.
3. Click the **Soft Phone** icon.
4. Click the **Screen pop** tab.
5. Clear the **Display Contact Center Screen Pop** check box.
6. Click **OK**.

## UPGRADING TO SALESFORCE.COM CONNECTOR VERSION 4.0

After upgrading to Business Reporter Version 7.1, if you were upgrading from a version older than Version 6.0.1, you must upgrade your Salesforce Call Center to Version 4.0. If you upgrade to Business Reporter Version 7.1 without updating your Salesforce Call Center, you will not be able to use your Contact Center Salesforce.com Connector.

**NOTE:** The Contact Center Salesforce.com Connector refers to the Contact Center Softphone application as it displays in Salesforce.com.

Upgrading to Salesforce Call Center 4.0 requires you to:

- Determine your version of Salesforce Call Center
- Import Salesforce Call Center 4.0
- Remove users from a previous call center
- Add users to the call center



To determine your version of Salesforce Call Center

1. Double-click the **Salesforce Connector** icon on your desktop.  
If the Salesforce Connector icon is not visible on your desktop, from the **Start** menu select **All Programs=>Mitel=>Salesforce Connector**.
2. In the task bar, right-click the **Contact Center Salesforce.com Connector** icon and select **About**.  
The Salesforce.com About window opens.
3. Under **Call Center Edition**, note the version number listed.  
If the version number is 4.0, you do not need to upgrade your Salesforce Call Center.  
If the version is 3.0, 3.0a, or 3.0b, follow the procedures below to upgrade your Salesforce Call Center to 4.0.

To import Salesforce Call Center 4.0

1. Log in to **www.salesforce.com**.
2. Click your user name and select **Setup** from the drop-down list.
3. Under **App Setup**, click **Customize=>Call Center=>Call Centers**.  
The All Call Centers page opens.
4. Click **Edit** beside **Mitel Contact Center Integration** to view your call center configuration settings.  
**NOTE:** You will have to re-enter these settings in the Mitel Contact Center Integration page when you upgrade to Salesforce Call Center 4.0. We recommend that you print or save this page in order to reference your settings.
5. At the top of the screen, click All Call Centers to return to the All Call Centers page.
6. Click **Import=>Browse**, and after **File name** navigate to the **Mitel3300.xml** file and click **Open**.  
**NOTE:** The file is generally held in C:\Program Files (x86)\prairieFyre Software Inc\CCM\Applications\SalesforceIntegration.
7. Click **Import**.
8. On the Call Center page, click **Edit** beside the new call center.
9. Using the information you saved or printed in step 4, enter the IP/Name of your Enterprise Server and other configuration settings for the call center.
10. Click **Save**.

To remove a user from a call center

1. In Salesforce.com, click your user name and select **Setup** from the drop-down list.
2. Under **App Setup**, click **Customize=>Call Center=>Call Centers**.  
The All Call Centers page opens.
3. In the All Call Centers page, select the call center from which you want to remove users.
4. At the bottom of the page, click **Manage Call Center Users**.  
The Manage Users page opens.
5. Select the checkboxes beside the call center users you wish to remove and click **Remove Users**.

To add a user to a call center

1. In Salesforce.com click, your user name and select **Setup** from the drop-down list.
2. Under **App Setup**, click **Customize=>Call Center=>Call Centers**.  
The All Call Centers page opens.
3. In the All Call Centers page, select the call center to which you want to add users.
4. At the bottom of the page, click **Manage Call Center Users**.  
The Manage Users page opens
5. Click **Add More Users**.  
The Search for New Users page opens.
6. Specify your search parameters using the drop-down list for each search field and click **Find**.  
**NOTE:** To see all users, do not select any parameters for the search fields.
7. Select the checkboxes for the users you want to add to the call center and click **Add to Call Center**.  
**NOTE:** Users can only be assigned to one call center at a time. Users who already belong to a call center are excluded from search results.

## REMOTE SERVER INSTALLATION

A Remote Server, optionally installed at a remote site, performs many of the functions of the Enterprise Server without requiring you to install an additional Enterprise Server or upgrade your licensing.

This section

- Provides an overview of Remote Server installation
- Explains how to install the Remote Server software

The Remote Server installation includes

- Collector Service
- Remote Routing Services, for IVR Routing
- Updater Service
- Contact Center Client
- Contact Center Management
- Flexible Reporting
- Workforce Scheduling
- YourSite Explorer

## OVERVIEW OF REMOTE SERVER INSTALLATION

To install a Remote Server, you

- Provision a Remote Server at a site and ensure any applicable media servers are configured. For more information on configuring media servers, see the *Business Reporter User Guide*.
- Install the Remote Server software.  
See "Installing the Remote Server software" on page 84.
- Verify data is streaming from the Remote Server to the Enterprise Server.  
See "Verifying that SMDR data is streaming" on page 39.

## INSTALLING THE REMOTE SERVER SOFTWARE

You install the Remote Server software on a computer other than the Enterprise Server. The computer on which you install Remote Server software must meet the appropriate hardware and software requirements. See the *Contact Center Solutions and Business Reporter System Engineering Guide* for more information.

**NOTE:** If you have Remote Servers in your enterprise, they are prompted with an update by the prairieFyre Updater Service following the upgrade of the Enterprise Server.

To install the Remote Server software

1. Using a web browser, browse to <http://www.mitel.com>.
2. Click **Login**.
3. Click **Mitel Online**.
4. Type your Mitel Online **Username** and **Password** and click **Login**.

5. Under **Support**, click **Software Downloads**.
6. To download
  - Business Reporter software, click **Call Accounting =>Call Accounting Software Download**.
  - software, click **=>**.
7. Under **Optional Release Components**, click **Remote Server Installer**.  
The Disclaimer appears.
8. To download your software:
  - Click **I Agree [Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
  - Click **I Agree [Download using HTTP]** to download using your browser.**NOTE:** If you click I Disagree, you are unable to download the software.
9. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
10. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.
11. If you save the file, browse to the downloaded installation file and run it.  
The Mitel Contact Center Solutions 7.1. self-extracting wizard opens.
12. If you run the file, the Mitel Contact Center Solutions 7.1. self-extracting wizard opens when the file finishes downloading.
13. Click **Accept** to accept all Microsoft prerequisites.
14. On the **Mitel Contact Center Solutions Remote Server Setup** window, click **Install**.
15. If prompted, click **Yes** to reboot the Remote Server.
16. Click **Next**.
17. Verify the Enterprise Server address and click **Test**.
18. If the client computer uses Secure Sockets Layer, select the **SSL** check box.
19. Click **Next**.  
The Remote Server Configuration Wizard Launches.
20. On the **Remote Server Configuration Wizard**, click **Next**.
21. After **Computer IP Address (this address)**, type the IP address of the Remote Server.
22. Click **Next**.
23. Click **Next**.
24. Click **Finish**.
25. On the Mitel Contact Center Solutions Remote Server InstallShield Wizard, click **Finish**.

## INSTALLING SALESFORCE.COM CONNECTOR

Salesforce.com Connector is installed during the installation of Contact Center Management. For information on setting up a Call Center in Salesforce.com and information on Salesforce.com Connector functionality, please consult the *Business Reporter User Guide*.

**NOTE:** To install Salesforce.com Connector on a client computer, you must install the Client Component Pack.

To install Salesforce.com Connector

1. In Contact Center Management, click **Help=>Software downloads/Installations**.
2. Click **Client Component Pack**.
3. Follow the steps in the wizard to install Client Component Pack.
4. Once the installation is complete, open the **Client Role Selector**.
5. Select a **Supervisor, Agent, Administrator, or Power User** role.
6. Click **Next**.
7. Select **Salesforce Connector**.  
Selecting Salesforce Connector creates a shortcut to Salesforce.com on your desktop.
8. Click **Finish**.

## CONNECTOR FOR MICROSOFT DYNAMICS CRM

Mitel® Contact Center Screen Pop Connector for Microsoft® Dynamics CRM delivers real-time customer data to employee desktops as calls arrive. With critical customer information at hand, employees can reduce call response and duration times. By streamlining business processes, contact centers of any size can improve efficiency, increase revenues, and boost customer satisfaction.

For details on Microsoft Dynamics CRM features and functionality and user documentation, see <http://crm.dynamics.com/>.

**NOTE:** The Connector for Microsoft Dynamics CRM is a Professional Services offering provided through Mitel Networks. You must contact [micc\\_customdevelopment@mitel.com](mailto:micc_customdevelopment@mitel.com) before purchasing or installing this product.

## INSTALLING BUSINESS REPORTER ON VMware

This section provides detailed instructions on deploying VMware Ready .ova virtual machines pre-loaded with Business Reporter. Pre-loaded .ova virtual machines enhance the speed and ease of installing and deploying Business Reporter by coming pre-loaded on a Windows Server 2012 R2 operating system, configured with all prerequisites, and only requiring minor software configuration changes to get your business operational.

**NOTE:** You need to install Microsoft Excel in order to generate reports. You must install the 64 bit version of Microsoft Excel (the 32 bit version is not supported).

## OVA FILE SPECIFICATIONS

Table 2 lists the default hardware specifications for the OVA files when shipped.

**Table 2: vApp hardware specifications**

vApp	VIRTUAL CPUS	RAM (GB)	HARD DISK SPACE (GB)
Business Reporter	4	8	120
Remote Server	4	8	120

**NOTE:** The values shown in the above table describe the hardware specifications for the vApp when shipped. After deployment, you can edit the virtual machine settings so that there are more or less CPU and RAM resources allocated, as necessary. The applications to which you have access are dependent on your licensing options.

## INSTALLATION OVERVIEW

Installing Business Reporter on VMware is a two-step process. First you must deploy the Business Reporter Enterprise Server, which is an .ova virtual machine that is installed on a supported VMware server. Once the virtual machine has been deployed, there are several post-deployment installation and configuration steps that must be completed to get your business up and running. These include:

- Licensing the virtual machine's copy of Windows Server 2012 R2
- Changing the administrator account credentials for the server
- Configuring a computer name and IP address for the server
- Licensing Business Reporter
- For Business Reporter
  - Configure media servers
  - Synchronize the telephone system(s) with the YourSite database

The following sections detail how to deploy Business Reporter .ova virtual machines and the post-deployment installation and configuration changes required for all applications.

### VIRTUAL MACHINE DOWNLOAD

To download the Business Reporter virtual machine

1. Log on to the Enterprise Server with a Windows administrator account.
2. The account must have full administrative privileges.
3. Ensure all of the Windows programs are closed.
4. Using a web browser browse to **http://www.mitel.com**.
5. Click **Login**.
6. Click **Mitel Online**.
7. Type your Mitel Online **Username** and **Password** and click **Login**.
8. Under **Support** click **Software Downloads**.
9. To download
  - Business Reporter software, click **Call Accounting=>MiContact Center Software Download Release 7.1.3.0**.
10. Click the link of the version of 7.1.3.0 you want to download.  
The Disclaimer appears.
11. To download your software:
  - Click **I Agree [Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
  - Click **I Agree [Download using HTTP]** to download using your browser.**NOTE:** If you click **I Disagree**, you are unable to download the software.
12. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
13. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.

## ENTERPRISE SERVER DEPLOYMENT AND INSTALLATION ON VMware

This section includes detailed instructions on how to deploy your Business Reporter virtual machine on a VMware server and all of the post-deployment installation and configuration changes required to get your business up and running.

### BEFORE RUNNING THE DEPLOYMENT

Before deploying Business Reporter on a VMware server, you must have configured your VMware server accordingly. For details on installing and configuring your VMware server(s), please consult your VMware documentation.

In order to deploy the Business Reporter .ova file, you must have installed and configured vSphere Client.

**NOTE:** VMware vSphere must be minimum version 5.1.



## DEPLOYING BUSINESS REPORTER VIRTUAL MACHINES

To deploy Business Reporter virtual machines

1. In vSphere Client, click **File=>Deploy OFV Template**.
2. After **Deploy from a file or URL**, click **Browse** and navigate to the location to which you downloaded the file.
3. Click **Next**.
4. Verify the .ova template details and click **Next**.
5. Review the End User License Agreement and click **Accept**.
6. Click **Next**.
7. Type a name for the deployed template and, under **Inventory Location**, select the data center to which you want to deploy the image.
8. Click **Next**.
9. If you have more than one host or a cluster, on the Host/Cluster window, specify the host/cluster IP address.
10. Click **Next**.
11. If you have more than one datastore, select the datastore in which to store the virtual machine files from the list.
12. Click **Next**.
13. Select the type of disk formatting you will use: **Thick** or **Thin**.  
For more information regarding thick and thin disk formatting, see the *Mitel Virtual Appliance Deployment Solutions Guide*.
14. Click **Next**.
15. Verify the .ova template options and click **Finish**.  
VMware will deploy your virtual machine.

## POST-DEPLOYMENT INSTALLATION AND CONFIGURATION

This section details all of the post-deployment installation and configuration instructions required to make Business Reporter operational once you have deployed your .ova virtual machine.

### *Installing and configuring Business Reporter*

To install and configure Business Reporter

1. From vSphere Client, power on and launch the newly created virtual machine.  
Windows will begin setting up your computer, then reboot, and then finish setting up your computer.
2. On the **Settings** screen, select **Country or Region**, **App language**, and **Keyboard layout**.
3. Click **Next**.
4. Enter your Windows product key.  
The product key was provided to you by Mitel during the software fulfillment process. If you are unable to locate the product key, email [miccorders@mitel.com](mailto:miccorders@mitel.com).
5. Review the Microsoft Windows license terms and select the **I accept** check box.
6. Click **Next**.

7. When prompted to enter the Administrator password, enter and reenter the password.
8. Click **Finish**.
9. On the login screen, log in as an Administrator, using the password from step 7.  
The Initial Configuration Tasks window opens.
10. Under **Provide Computer information**, click **Configure networking** and configure an IP address for the server.
11. Click **OK**.
12. Under **Provide Computer information**, click **Provide computer name and domain**, give the computer a meaningful name, and, optionally, join a domain.
13. Click **OK**.
14. Under **Activate Windows**, click **Activate Windows**.
15. Under **Configure MiContact Center**, click **Run Contact Center Management Configuration Wizard**.  
The Business Reporter Configuration Wizard opens.
16. On the Product Registration window, the wizard prompts you to select one of the following licensing options, then click **Next**.  
**NOTE:** To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 142.46.199.66.
  - If an active Internet connection is available and you can access the license server, you must register online. Select **I would like to register now**. The license key will be provided over the phone or by email by Mitel during the purchasing and registration process. After License key, paste the entire license key. You must submit your registration information to Mitel and implement your license files within thirty days to complete your software registration
  - If you do not have access to the Internet or if you cannot access our license server, select **I would like to register later**. Selecting this option will install a temporary demo license. Contact Mitel at 1-800-722-1301 or [miccsupport@mitel.com](mailto:miccsupport@mitel.com) to obtain your licensing key (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).
17. The **Configuring Enterprise Server** window opens and, based on your licensing, sets up the services for which you are licensed. When it has finished, click **Next**.
18. If you receive a warning that there was a failure in starting one or more services, note which services failed to start. You will need this information in step 20.
19. Click **Finish**.
20. If any services failed to start, in the **Control Panel=>Administrative Tools**, click **Services**.  
If there were no services that failed to start, skip to step 29.
21. Locate the name(s) of the services that failed to start.
22. Right-click the service and select **Properties** from the drop-down list.
23. Click the **Log On** tab and change the **Password** to match the password you created in step 6.
24. Click **Apply**.
25. Click the **General** tab.
26. Click **Start**.
27. Click **OK**.
28. Follow steps 21-27 for each service that failed to start.

29. Disable the firewall or add an exception for the MiXML service.
30. Add and configure your media servers.  
See the *Business Reporter User Guide*.
31. Configure the YourSite database using synchronization.  
See the *Business Reporter User Guide*.  
**NOTE:** Before running synchronization, you must either disable Windows Firewall or add appgw.exe to the firewall exclusion list.

### *Installing and configuring a remote server*

To install and configure a remote server

1. From vSphere Client, power on and launch the newly created virtual machine.  
Windows will begin setting up your computer, then reboot, and then finish setting up your computer.
2. On the **Settings** screen, select **Country or Region**, **App language**, and **Keyboard layout**.
3. Click **Next**.
4. Enter your Windows product key.  
The product key was provided to you by Mitel during the software fulfillment process. If you are unable to locate the product key, email [miccorders@mitel.com](mailto:miccorders@mitel.com).
5. Review the Microsoft Windows license terms and select the **I accept** check box.
6. Click **Next**.
7. When prompted to enter the Administrator password, enter and reenter the password.
8. Click **Finish**.
9. On the login screen, log in as an Administrator, using the password from step 7.  
The Initial Configuration Tasks window opens.
10. Under **Provide Computer information**, click **Configure networking** and configure an IP address for the server.
11. Click **OK**.
12. Under **Provide Computer information**, click **Provide computer name and domain**, give the computer a meaningful name, and, optionally, join a domain.
13. Click **OK**.
14. Under **Activate Windows**, click **Activate Windows**.
15. Under **Configure MiContact Center**, click **Run Remote Server Configuration Wizard**.  
The Remote Server Configuration Wizard opens.
16. Click **Next**.
17. Enter the **Enterprise Server Address**.
18. After **Computer IP Address**, confirm the auto-filled address is that of your remote server.
19. Click **Next**.
20. Click **Finish**.

## INSTALLING BUSINESS REPORTER ON VMware

This section provides detailed instructions on deploying VMware Ready .ova virtual machines pre-loaded with Business Reporter. Pre-loaded .ova virtual machines enhance the speed and ease of installing and deploying Business Reporter by coming pre-loaded on a Windows Server 2012 R2 operating system, configured with all prerequisites, and only requiring minor software configuration changes to get your business operational.

**NOTE:** You need to install Microsoft Excel in order to generate reports. You must install the 64 bit version of Microsoft Excel (the 32 bit version is not supported).

## OVA FILE SPECIFICATIONS

Table 3 lists the default hardware specifications for the OVA files when shipped.

**Table 3: vApp hardware specifications**

vApp	VIRTUAL CPUS	RAM (GB)	HARD DISK SPACE (GB)
Business Reporter	4	8	120
Remote Server	4	8	120

**NOTE:** The values shown in the above table describe the hardware specifications for the vApp when shipped. After deployment, you can edit the virtual machine settings so that there are more or less CPU and RAM resources allocated, as necessary. The applications to which you have access are dependent on your licensing options.

## INSTALLATION OVERVIEW

Installing Business Reporter on VMware is a two-step process. First you must deploy the Business Reporter Enterprise Server, which is an .ova virtual machine that is installed on a supported VMware server. Once the virtual machine has been deployed, there are several post-deployment installation and configuration steps that must be completed to get your business up and running. These include:

- Licensing the virtual machine's copy of Windows Server 2012 R2
- Changing the administrator account credentials for the server
- Configuring a computer name and IP address for the server
- Licensing Business Reporter
- For Business Reporter
  - Configure media servers
  - Synchronize the telephone system(s) with the YourSite database

The following sections detail how to deploy Business Reporter .ova virtual machines and the post-deployment installation and configuration changes required for all applications.

## VIRTUAL MACHINE DOWNLOAD

To download the Business Reporter virtual machine

1. Log on to the Enterprise Server with a Windows administrator account.
2. The account must have full administrative privileges.
3. Ensure all of the Windows programs are closed.
4. Using a web browser browse to **http://www.mitel.com**.
5. Click **Login**.
6. Click **Mitel Online**.
7. Type your Mitel Online **Username** and **Password** and click **Login**.
8. Under **Support** click **Software Downloads**.
9. To download
  - Business Reporter software, click **Call Accounting=>MiContact Center Software Download Release 7.1.3.0**.
10. Click the link of the version of 7.1.3.0 you want to download.  
The Disclaimer appears.
11. To download your software:
  - Click **I Agree [Download using Software Download Manager (Recommended)]** to download using the Software Download Manager.
  - Click **I Agree [Download using HTTP]** to download using your browser.**NOTE:** If you click **I Disagree**, you are unable to download the software.
12. If you are downloading with the Software Download Manager, select the destination for the download and click **Save**. When the file finishes downloading, click **Launch**.
13. If you are downloading using HTTP, depending upon the options presented in your browser, choose to save or run the installation file.

## ENTERPRISE SERVER DEPLOYMENT AND INSTALLATION ON VMware

This section includes detailed instructions on how to deploy your Business Reporter virtual machine on a VMware server and all of the post-deployment installation and configuration changes required to get your business up and running.

### BEFORE RUNNING THE DEPLOYMENT

Before deploying Business Reporter on a VMware server, you must have configured your VMware server accordingly. For details on installing and configuring your VMware server(s), please consult your VMware documentation.

In order to deploy the Business Reporter .ova file, you must have installed and configured vSphere Client.

**NOTE:** VMware vSphere must be minimum version 5.1.

# DEPLOYING BUSINESS REPORTER VIRTUAL MACHINES

To deploy Business Reporter virtual machines

1. In vSphere Client, click **File=>Deploy OFV Template**.
2. After **Deploy from a file or URL**, click **Browse** and navigate to the location to which you downloaded the file.
3. Click **Next**.
4. Verify the .ova template details and click **Next**.
5. Review the End User License Agreement and click **Accept**.
6. Click **Next**.
7. Type a name for the deployed template and, under **Inventory Location**, select the data center to which you want to deploy the image.
8. Click **Next**.
9. If you have more than one host or a cluster, on the Host/Cluster window, specify the host/cluster IP address.
10. Click **Next**.
11. If you have more than one datastore, select the datastore in which to store the virtual machine files from the list.
12. Click **Next**.
13. Select the type of disk formatting you will use: **Thick** or **Thin**.  
For more information regarding thick and thin disk formatting, see the *Mitel Virtual Appliance Deployment Solutions Guide*.
14. Click **Next**.
15. Verify the .ova template options and click **Finish**.  
VMware will deploy your virtual machine.

# POST-DEPLOYMENT INSTALLATION AND CONFIGURATION

This section details all of the post-deployment installation and configuration instructions required to make Business Reporter operational once you have deployed your .ova virtual machine.

## *Installing and configuring Business Reporter*

To install and configure Business Reporter

1. From vSphere Client, power on and launch the newly created virtual machine.  
Windows will begin setting up your computer, then reboot, and then finish setting up your computer.
2. On the **Settings** screen, select **Country or Region**, **App language**, and **Keyboard layout**.
3. Click **Next**.
4. Enter your Windows product key.  
The product key was provided to you by Mitel during the software fulfillment process. If you are unable to locate the product key, email [miccorders@mitel.com](mailto:miccorders@mitel.com).
5. Review the Microsoft Windows license terms and select the **I accept** check box.
6. Click **Next**.

7. When prompted to enter the Administrator password, enter and reenter the password.
8. Click **Finish**.
9. On the login screen, log in as an Administrator, using the password from step 7. The Initial Configuration Tasks window opens.
10. Under **Provide Computer information**, click **Configure networking** and configure an IP address for the server.
11. Click **OK**.
12. Under **Provide Computer information**, click **Provide computer name and domain**, give the computer a meaningful name, and, optionally, join a domain.
13. Click **OK**.
14. Under **Activate Windows**, click **Activate Windows**.
15. Under **Configure MiContact Center**, click **Run Contact Center Management Configuration Wizard**.  
The Business Reporter Configuration Wizard opens.
16. On the Product Registration window, the wizard prompts you to select one of the following licensing options, then click **Next**.  
**NOTE:** To ensure you are able to register online, any firewalls and proxies must be configured to allow traffic over port 80 to IP address 142.46.199.66.
  - If an active Internet connection is available and you can access the license server, you must register online. Select **I would like to register now**. The license key will be provided over the phone or by email by Mitel during the purchasing and registration process. After License key, paste the entire license key. You must submit your registration information to Mitel and implement your license files within thirty days to complete your software registration
  - If you do not have access to the Internet or if you cannot access our license server, select **I would like to register later**. Selecting this option will install a temporary demo license. Contact Mitel at 1-800-722-1301 or [miccsupport@mitel.com](mailto:miccsupport@mitel.com) to obtain your licensing key (North American customers) or your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific).
17. The **Configuring Enterprise Server** window opens and, based on your licensing, sets up the services for which you are licensed. When it has finished, click **Next**.
18. If you receive a warning that there was a failure in starting one or more services, note which services failed to start. You will need this information in step 20.
19. Click **Finish**.
20. If any services failed to start, in the **Control Panel=>Administrative Tools**, click **Services**. If there were no services that failed to start, skip to step 29.
21. Locate the name(s) of the services that failed to start.
22. Right-click the service and select **Properties** from the drop-down list.
23. Click the **Log On** tab and change the **Password** to match the password you created in step 6.
24. Click **Apply**.
25. Click the **General** tab.
26. Click **Start**.
27. Click **OK**.
28. Follow steps 21-27 for each service that failed to start.

29. Disable the firewall or add an exception for the MiXML service.

30. Add and configure your media servers.  
See the *Business Reporter User Guide*.

31. Configure the YourSite database using synchronization.  
See the *Business Reporter User Guide*.

**NOTE:** Before running synchronization, you must either disable Windows Firewall or add appgw.exe to the firewall exclusion list.

### *Installing and configuring a remote server*

To install and configure a remote server

1. From vSphere Client, power on and launch the newly created virtual machine. Windows will begin setting up your computer, then reboot, and then finish setting up your computer.
2. On the **Settings** screen, select **Country or Region**, **App language**, and **Keyboard layout**.
3. Click **Next**.
4. Enter your Windows product key.  
The product key was provided to you by Mitel during the software fulfillment process. If you are unable to locate the product key, email [miccorders@mitel.com](mailto:miccorders@mitel.com).
5. Review the Microsoft Windows license terms and select the **I accept** check box.
6. Click **Next**.
7. When prompted to enter the Administrator password, enter and reenter the password.
8. Click **Finish**.
9. On the login screen, log in as an Administrator, using the password from step 7.  
The Initial Configuration Tasks window opens.
10. Under **Provide Computer information**, click **Configure networking** and configure an IP address for the server.
11. Click **OK**.
12. Under **Provide Computer information**, click **Provide computer name and domain**, give the computer a meaningful name, and, optionally, join a domain.
13. Click **OK**.
14. Under **Activate Windows**, click **Activate Windows**.
15. Under **Configure MiContact Center**, click **Run Remote Server Configuration Wizard**.  
The Remote Server Configuration Wizard opens.
16. Click **Next**.
17. Enter the **Enterprise Server Address**.
18. After **Computer IP Address**, confirm the auto-filled address is that of your remote server.
19. Click **Next**.
20. Click **Finish**.



# Appendix A

## INSTALLATION AND UPGRADE CHECKLISTS

The following checklists are meant to provide dealers and installers who are familiar with Business Reporter software with a quick reference to the procedures required for installing and upgrading.

Included in the appendix are:

- A list of prerequisite and pre-installation notes for installations and upgrades
- A condensed list of steps for installing or upgrading Business Reporter
- A more detailed list, for installing Business Reporter Version 7.1 or upgrading from Version 6.x to Version 7.1

## INSTALLING AND UPGRADING TO BUSINESS REPORTER VERSION 7.1 (PREREQUISITES AND PRE-INSTALLATION NOTES)

Before installing or upgrading Business Reporter, please review the following notes:

- Verify hardware and software requirements for installing Business Reporter on the Enterprise Server, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
- Verify the hardware and software requirements for running Business Reporter on client computers, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
- Review the Licensing section of the *Contact Center Solutions and Business Reporter System Engineering Guide* to decide which licensing options best align with your needs.
- Read the latest Detailed Release Notes (DRN) to learn about new features and enhancements, product improvements, hot fixes not included in the current release, and known issues. To access the DRN, go to Mitel OnLine=>Products=>Applications=>Mitel MiContact Center. Under Related Links, click MiContact Center Partner Portal. Then click Download Center=>Currently shipping.
- Microsoft Excel 2007 or greater is required to both view Business Reporter reports and automatically distribute reports for printing. If you intend to use the Enterprise Server as both a server and a client, you require Excel 2007 (with the latest service packs) or greater on the server. Optionally, Microsoft Excel Viewer may be installed as an alternative to Microsoft Excel to view reports, but it cannot be used to automatically distribute reports for printing.
- Install the appropriate antivirus software with the latest virus definitions and data backup software on the Enterprise Server. Ensure antivirus software is disabled before installing Business Reporter.
- We recommend you install Business Reporter software on a server that is connected to the Internet.

- Business Reporter software is packaged inside a self-extracting executable file. When the file is extracted, it will save to a default location. It is highly recommended that you do not change the default extraction location.
- Adding any Mitel server to a domain is at the discretion of the customer. Mitel does not test with excessive group policies applied to the server and reserves the right to have the Mitel server removed from the domain if there is reason to believe that this is effecting the functionality of the software.
- If you install our software on the Enterprise Server on a drive other than the C drive, you must ensure you have sufficient space on the C drive because the MSI (Microsoft Installer) decompresses files on the Windows Volume before installing the software to the final location.
- During the installation you will be required to log on to the Enterprise Server using an administrative account. The following recommendations for creating an administrative account may require you to contact your IT administrator before you begin the installation, especially in cases where the Enterprise Server will be joined to a domain. If applicable, add the Enterprise Server to the domain before beginning the installation. Create either a local or regular domain user account on the same domain as the Enterprise Server. We recommend using a domain account, which must have local administrator privileges on the server, and we suggest calling this administrative account CCMSETUP. During installation, the Reporting Service will be set to run under this account. All other services run under LOCAL SYSTEM. The account should be configured with a password that never expires and, if you will use email distribution, should be email-enabled. Contact your IT administrator for SMTP server information and the CCMSETUP email address. If the password is changed, you may be required to reconfigure the Enterprise Server.

**NOTE:** Systems using Windows Authentication for their SQL databases may, depending on the security of their SQL databases, need to run all services under the administrative account they specified during installation.

- Some group policy settings can disrupt the installation and upgrading process for client computers. We recommend all clients be configured with Local Administrators permission to install the Client Component Pack and that they be configured with, at the minimum, Power User permissions to update the Client Component Pack.
- If you use Salesforce.com Connector, when you upgrade to Business Reporter Version 7.1, when you upgrade to Contact Center Management Version 7.1, ensure Salesforce Call Center is at Version 4.0. See "Upgrading to Salesforce.com Connector Version 4.0" on page 81.
- When upgrading to Version 7.1, you may choose to stage your deployment and provision a second Enterprise Server with Business Reporter Version 7.1, move clients over in stages, and retain a server that is running the previous release until you are confident that Version 7.1 is providing the stability you require. Ensure client software has been updated to the appropriate version. We do not support an older version of a client connecting to a newer release on a server. Certain reports and real-time data may not line up in a co-existence scenario.
- You must ensure the YourSite database is aligned with the programming of your telephone system assignment forms. This ensures Business Reporter can receive telephone system data records and generate reports. You can easily synchronize the telephone system with the YourSite database using Synchronization.

## INSTALLING BUSINESS REPORTER VERSION 7.1 (CONDENSED STEPS)

1. Program the telephone systems.
2. Verify the hard drive is formatted.
3. Verify the Windows operating system is installed with sufficient space. For information on storage space requirements, see the *Contact Center Solutions and Business Reporter System Engineering Guide*.
4. Install a network card and verify it works.
5. Install TCP/IP networking and verify it is enabled.
6. Install a video driver with 65 000 colors and verify it works.
7. If you want to be able to view reports or automatically distribute reports for printing on the Enterprise Server, install Microsoft Excel.
8. Run Windows Update and install the most recent service pack.
9. Install .NET Framework 4.5.
10. Install SQL Server 2008, 2012, or 2014 Express Edition or greater.
11. Verify that the client computers can communicate with the Enterprise Server.
12. Install Business Reporter on the Enterprise Server.
13. Navigate to the Mitel website and install the latest fix pack.
14. Change the default administrator password.
15. Register and activate the Version 7.1 license files.
16. Verify the installation was successful.
17. Verify your Enterprise Server IP address and IP port numbers are correct.
18. Perform full synchronization.
19. Validate the Golden Rules for your telephone system by opening each media server in YourSite Explorer and reading any alerts that display.
20. Verify the ACD/Agent shift and SMDR data is streaming (3300 ICP only) and the media servers are receiving telephone system data.
21. If you want to reconfigure the Enterprise Server, run the Contact Center Management Configuration Wizard.
22. If applicable, convert Callview and Contact Center Suite data.
23. Install client computer components. For more information, see "Client installation" on page 68.

## INSTALLING BUSINESS REPORTER VERSION 7.1 (WITH NOTES)

**Before** you install Business Reporter on the Enterprise Server, you must:

1. Program the telephone systems.
  - Refer to the Golden Rules when configuring your telephone system. See the relevant KB article at <http://micc.mitel.com/kb/>.
  - Program the telephone system assignment forms (3300 ICP).
2. Verify the hard drive is formatted and ensure partitioning leaves sufficient space for required applications.
3. Verify the Windows operating system is installed.
  - When installing Windows Server, ensure the name you assign to the computer does not exceed the 15 character NetBIOS limitation.
4. Install a network card and verify it works.
5. Install TCP/IP networking and verify it is enabled. We recommend you use a static IP address.
6. Install a video driver with 65 000 colors and verify it works.
7. Optionally, install Microsoft Excel. Microsoft Excel 2007 or greater is required to both view Business Reporter reports and automatically distribute reports for printing. If you intend to use the Enterprise Server as both a server and a client, you require Excel 2007 (with the latest service packs) or greater on the server. Optionally, Microsoft Excel Viewer may be installed as an alternative to Microsoft Excel to view reports, but it cannot be used to automatically distribute reports for printing

**NOTE:** Protected View is a Microsoft Office security feature that can impact the ability to view Excel reports in Contact Center Management. If you use Excel 2010 on the server to view reports, configure the following in Excel:

- Ensure the following Protected View options are not enabled:
    - Enable Protected View for files originating from the Internet
    - Enable Protected View for files located in potentially unsafe locations
    - Enable Protected View for Outlook attachments
    - Enable Data Execution Prevention mode
  - Ensure that the following Trusted Location option is selected:
    - Allow Trusted Locations on my network (not recommended)
8. Run Windows Update and install the most recent service pack.
    - We recommend switching off automatic Microsoft updates and only manually applying updates with a rollback plan. Later versions of key components, for example, .NET Framework, should only be applied as specified for the version of Contact Center Management or Business Reporter you are running. See the *Contact Center Solutions and Business Reporter System Engineering Guide* for specifications.
  9. Install .NET Framework 4.5.
    - Windows 8 and Windows 8.1 and Windows Server 2012 include .NET Framework 4.5.
    - If you are connected to the Internet, the installer will install .NET Framework 4.5 on the Enterprise Server. If the Enterprise Server runs Windows 2008 R2 or Windows 7 and is

not connected to the Internet, you must manually install .NET Framework 4.5. You can download .NET Framework 4.5 from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>

**10. Install SQL Server 2008, 2012, or 2014 Express Edition or greater.**

- SQL Server 2008 Express Edition can store 4 GB of data per database. SQL Server 2008 R2 Express, SQL Server 2012 Express, and SQL Server 2014 Express can store up to 10 GB of data per database. You must run SQL Server 2008 R2 Express or Workgroup Edition or higher, SQL Server Express 2012 or higher, or SQL Server Express 2014 or higher if you need to store more than 4 GB of data per database. If your data requirements exceed these values, you must purchase a licensed copy of SQL Server. For data storage examples and SQL Server guidelines, see the *Contact Center Solutions and Business Reporter System Engineering Guide*.
- If you will use Contact Center Management in conjunction with remote SQL Server, you must have SQL Management Studio Express for your version of SQL installed on the Enterprise Server in order for the two servers to communicate. You can download and install SQL Management Studio Express for your version of SQL from:
- SQL Server 2008  
<http://www.microsoft.com/en-ca/download/details.aspx?id=7593>
- SQL Server 2008 R2  
<http://www.microsoft.com/en-ca/download/details.aspx?id=30438>
- SQL Server 2012  
<http://www.microsoft.com/en-ca/download/details.aspx?id=29062>
- SQL Server 2014  
<http://www.microsoft.com/en-ca/download/details.aspx?id=42299>
- If you will use Business Reporter in conjunction with remote SQL Server, you must ensure that MSDTC is enabled on the SQL Server or YourSite Explorer will not function properly. See <http://micc.mitel.com/kb/KnowledgebaseArticle50896.aspx?Keywords=msdtc> for details.
- If you are installing SQL Server 2008, SQL Server 2012, or SQL Server 2014, ensure you follow these best practices:
- When the SQL Server Installation Center Dialog opens, click **Installation** to begin installing SQL Server 2008 or SQL Server 2012. If this is the first time you are installing SQL Server 2008 or SQL Server 2012, click **New SQL Server stand-alone installation or add features to an existing installation**. If you are upgrading from SQL Server 2000 or 2005, click **Upgrade from SQL: Server 2000 or SQL Server 2005**.
- Once the installation wizard opens, on the **Feature Selection** window, ensure you click **Select All** to select all features.
- On the **Instance Configuration** window, ensure you give the SQL Server instance a unique name that is not already in use. If you use the **Default instance** name and receive an error saying the instance name is already in use, try renaming the SQL Server instance.

- On the **Server Configuration** window, ensure you provide a local server administrator account name in the **Account Name** fields and have the service **Startup Type** fields set to **Automatic**.
  - On the **Database Engine Configuration** window, on the **Account Provisioning** tab, ensure you specify a local server administrator in the **Specify SQL Server administrators** pane. If the current user has local administrator privileges on the server, click **Add Current User**.
    - You can download SQL Server 2008, 2012, or 2014 Express Edition for free from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.
    - If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.
11. Verify that the client computers can communicate with the Enterprise Server by checking the IP address, computer name, and DNS name. If you do not have a fully qualified DNS name, skip that step.
- IP address: for example, 10.1.1.4
  - Computer name: for example, MITELCCM
  - DNS name: for example, widgets.com
12. Install Business Reporter on the Enterprise Server.

**After** you install Business Reporter on the Enterprise Server, you must:

1. Navigate to the Download Center and install the latest fix pack.
2. Change the default administrator password.
  - We recommend you change the default password for the administrator account to prevent unauthorized users from gaining access.
3. Register and activate the Version 7.1 license files.
  - If an active Internet connection is available and you can access the license server, you must register online. If you do not have access to the Internet or if you cannot access our license server, you can register offline.
  - When you install Business Reporter software, you have the option of implementing a demo with temporary license files in order to activate the software. You must register the software with Mitel within seven days of installing a demo or you will no longer be able to log on to the system. After you register the software, Mitel will send you permanent license files.
4. Verify the installation was successful.
  - You must have at least one media server and configure the Enterprise Server to communicate with the telephone system before you can verify data collection in the Data link window. For more information on adding media servers, see the *Business Reporter User Guide*.
5. Verify your Enterprise Server IP address and IP port numbers are correct.
  - We recommend using the following port numbers. Do not change any of the suggested port numbers unless instructed to by Mitel technical support.
    - Default Real-time port: 5024
    - Default Auditor port: 5025
    - Default MiTAI Proxy Server port: 5026

6. Perform full synchronization. Running full synchronization synchronizes the devices programmed on the telephone system and enables you to review all devices, and, optionally, exclude any devices, before committing changes to YourSite Explorer.
  - As a best practice, we recommend all new installations run full synchronization to ensure the telephone systems in your enterprise are synchronized with the YourSite database and that there are no critical telephone system programming errors.
  - You must program your 3300 ICPs and perform synchronization before you can configure telephone system assignment form options in YourSite Explorer.
  - If you are synchronizing a single telephone system, agents and queues must be programmed on the same telephone system. Single node synchronization can disassociate agents and queues if agents and queues reside on separate telephone systems.
  - If you are running 3300 ICP Release 9.x or earlier and you synchronized your network ACD assignments and/or resilient agents using OPS Manager, you must synchronize all of the 3300 ICPs in your enterprise, otherwise, agent group and queue group associations will be lost.
7. Validate the Golden Rules for your telephone system by opening each media server in YourSite Explorer and reading any alerts that display. The alerts advise you if you have configured the telephone system incorrectly.
8. Verify the ACD/Agent shift and SMDR data is streaming (3300 ICP only) and verify media servers are receiving telephone system data.
  - If you click the Reset SMDR link/Reset ACD link button and data does not start streaming, check your cabling connections from the telephone system to the TCP/IP sockets.
9. Review the Enterprise status by accessing the RSS feed icon in YourSite Explorer to see the list of active alarms. Resolve, or make a plan to resolve, all active alarms.
10. If you want to reconfigure the Enterprise Server, run the Contact Center Management Configuration Wizard.
11. If applicable, convert Callview and Contact Center Suite data.
  - In order to convert Callview or Contact Center Suite data to Contact Center Solutions and Business Reporter format, the Callview and Contact Center Suite database must be Version 3.x or 4.x.
  - The conversion tool requires the following files: System.mdw, config.mdb, and one or any combination of the following: Ha<MMYYYY>.mdb, Hc<MMYYYY>.mdb, Haday.mdb, Hcdlay.mdb, Hamonth.mdb, Hcmonth.mdb. For version 4.11 or earlier, select cvgwcfg.mdb instead of config.mdb.
12. Install client computer components. For more information, see "Client installation" on page 68.

## UPGRADING BUSINESS REPORTER VERSION 6.0.X TO VERSION 7.1 (CONDENSED STEPS)

1. Verify hardware and software requirements for installing Business Reporter on the Enterprise Server, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
2. Back up the YourSite database and raw telephone system data files.
3. If not already installed or enabled, install .NET Framework 4.5.

4. Install Microsoft Report Viewer 2010 Redistributable Package on all clients.
5. If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.
6. Ensure all Windows programs and Mitel applications are closed.
7. Run the Business Reporter installation on the Enterprise Server.
8. After all pre-requisites are installed, click Update.
9. When the Configuration Wizard opens, follow the steps to configure your system.
10. Navigate to the Download Center and install the latest fix pack.
11. If you use Contact Center PhoneSet Manager or Contact Center Softphone, you must install Visual C++ Redist 2010 RTM on client machines and Remote Servers.
12. If you were using telephone system simulation in the previous version of Business Reporter, contact Mitel at [miccsupport@mitel.com](mailto:miccsupport@mitel.com) for assistance in reinstalling simulation mode files.
13. Perform full synchronization.
14. Run Summarize.

## UPGRADING BUSINESS REPORTER VERSION 6.0.X TO VERSION 7.1 (WITH NOTES)

### NOTE:

- The duration of the upgrade process depends on the number of data rows that need to be migrated, the speed of your computer, and the network bandwidth. In extreme cases, it can take up to a day to complete the migration portion of the upgrade.
- .NET Framework 4.5 must be installed manually on all client computers and Remote Servers prior to upgrading.

**Before** you upgrade Business Reporter on the Enterprise Server, you must:

1. Verify hardware and software requirements for installing Business Reporter on the Enterprise Server, as detailed in the *Contact Center Solutions and Business Reporter System Engineering Guide*.
2. Back up the YourSite database and phone data to preserve your data in the event of an unsuccessful upgrade.  
See "Backing up the YourSite database and phone data" on page 18.
3. If not already installed or enabled, install .NET Framework 4.5 on the Enterprise Server, all client computers, and all Remote servers.  
If you are installing Business Reporter on a server that is connected to the Internet, .NET Framework 4.5 will automatically be installed on the Enterprise Server, otherwise, it must be manually installed.  
.NET Framework 4.5 must be installed manually on all client computers and Remote Servers. You can download and install .NET Framework 4.5 from Microsoft:  
<http://www.microsoft.com/en-ca/download/default.aspx>.
4. Install Microsoft Report Viewer 2010 Redistributable Package on all clients. It can be downloaded from <http://www.microsoft.com/en-us/download/details.aspx?id=6442>.



5. If you are using Remote SQL, you must have an instance of SQL Server 2012 or 2014 Express (or a full version of SQL Server 2012 or 2014) on the Enterprise Server named 'SQLEXPRESS'.
6. Ensure all Windows programs and Mitel applications are closed.
7. Run the Business Reporter installation on the Enterprise Server.
  - When installing Business Reporter on the Enterprise Server, you log on to the Enterprise Server with a Windows administrator account. Ensure this account has full administrative privileges.
  - After you install Business Reporter on the Enterprise Server, the prairieFyre Updater Service updates all applications and services for client computers and Remote Servers. This process can take up to an hour, depending on how many clients are being upgraded.
8. After all pre-requisites are installed, click **Update**.
9. When the Configuration Wizard opens, follow the steps to configure your system.  
**NOTE:** When upgrading to Version 7.1, re-enter your SMTP Server settings if they do not display in the SMTP mail server window during the installation.

**After** you upgrade Business Reporter on the Enterprise Server, you must:

1. Navigate to the Download Center and install the latest fix pack.
2. If you use Contact Center PhoneSet Manager or Contact Center Softphone, you must install Visual C++ Redist 2010 RTM on client machines and Remote Servers.
  - Download from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.
  - Also available in the installation package under: src\vc\credist\_x86 2010.
3. If you were using telephone system simulation in the previous version of Business Reporter, contact Mitel at [miccsupport@mitel.com](mailto:miccsupport@mitel.com) for assistance in reinstalling simulation mode files.
4. Perform full synchronization.
  - Running full synchronization synchronizes the devices programmed on the telephone system and enables you to review all devices, and, optionally, exclude any devices, before committing changes to YourSite Explorer.
5. You must run Summarize after completing the upgrade.
  - If you want to report on Account Code data collected prior to upgrading
  - Otherwise, historical reports will display blank columns instead of the proper location information

# Appendix B

## MIGRATING A LOCAL SQL SERVER TO REMOTE

Business Reporter uses SMDR and MiTAI data, collected from Mitel telephone systems.

Business Reporter gives a company the ability to report on telephone system costs at a single site, or a multi-site operation. As a web based application, Business Reporter can report on an entire organization where supervisors and managers gain access over the web.

## MULTI-NODE CONFIGURATION

Business Reporter Nodes give you the ability to collect and report on data from remote Mitel telephone systems. (See Figure 6.)

A Business Reporter Node enables you to connect directly to telephone systems that communicate over TCP/IP. The Business Reporter Node also consists of Business Reporter Node software. Installed at your remote office, a remote node server gives you a data collection point at that site. The data is then fed to the Enterprise Server. Redundant data collection provides insurance if the WAN goes down.

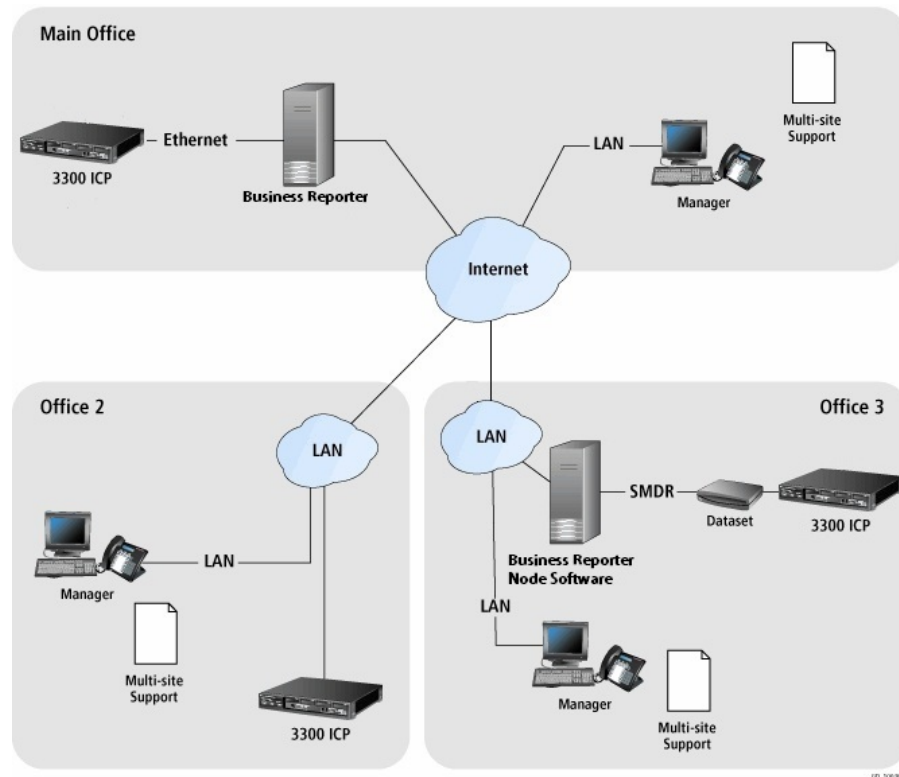


Figure 6: Multi-node configuration

## PROGRAMMING ASSIGNMENT FORMS

You must program telephone system assignment forms in order to receive telephone system data records and generate reports.

### COMMON 3300 ICP PROGRAMMING ERRORS

**NOTE:** When you program the 3300 ICP, it is imperative you perform the following steps. See "System Options Assignment Form" on page 114.

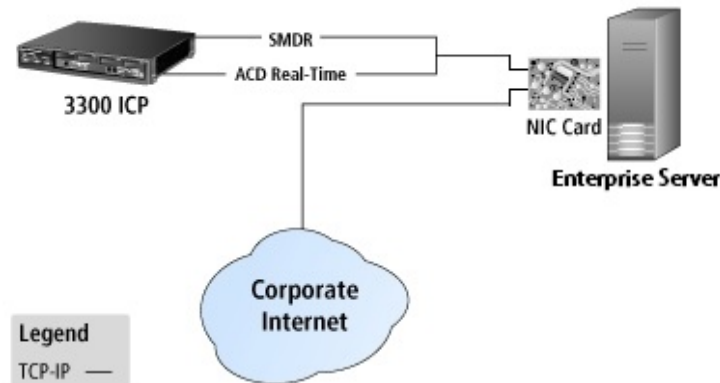
1. You must enable **Extended Digit Length** on the SMDR Options Assignment Form or your call data will be truncated.
2. You must enable All **MCD Report Transfers** on the SMDR Options Assignment Form.
3. If a significant part of your organization provides service for internal extensions to your telephone system, you must enable **Report Internal Calls** on the SMDR Options Assignment Form to track the queue information for these calls.
4. You must enable **SMDR** tracking in the Class of Service forms for all devices that can touch a call during call routing.

### 3300 ICP CONNECTIVITY TO THE ENTERPRISE SERVER

If Business Reporter is working in conjunction with a 3300 ICP, then SMDR data collection is provided over a network connection. (See Figure 7.)

We recommend you use the NIC interface between the 3300 ICP and Business Reporter over a TCP/IP connection. This guarantees network delivery of SMDR data without having to traverse the customer corporate network.

**NOTE:** If your NICs become disconnected, inactive, or corrupted for any reason, once they are functioning properly again you must restart all prairieFyre services.



**Figure 7: 3300 ICP connectivity to Business Reporter**

## EXTERNAL AND INTERNAL SMDR

External SMDR and internal SMDR are separate MCD options. Both external and internal SMDR is included with all 3300 ICP base packages.

### *External SMDR*

External SMDR collects data for outgoing and incoming trunk calls. You can use the data to determine the cost of external phone calls. Typically, external SMDR is used for

- Billing external calls back to individuals, customers or departments
- Evaluating the system trunks (e.g. number, type and traffic)

### *Internal SMDR*

Internal SMDR collects data for calls made between stations. You can use internal SMDR call data to

- Bill internal calls back to departments.
- Determine station usage.
- Track hoax calls that originate from a station.
- Keep a record of all internal calls that involve a particular station.

You can enable the system with either external SMDR, internal SMDR, or both. When both are enabled, external SMDR takes precedence over Internal SMDR. Therefore, if system programming allows for both an external SMDR record and an internal SMDR record to be made for a call, only the external SMDR record will be generated.

## SMDR REPORTING ON SIP TRUNKS

The 3300 ICP supports SMDR reporting from SIP trunks. When properly configured, this enables reporting on SIP trunk information.

To configure SMDR reporting on SIP trunks

1. Access the 3300 ESM.
2. Click **System Administrator**.
3. Click **System Config**.
4. Click **Trunks**.
5. Click **IP Networking/XNet**.
6. Click **SIP Peer Profile**.
7. Select your SIP Peer Profile.
8. Click **Change**.
9. Enter a number in the field after **SMDR Tag**.

**NOTE:** This must be a number from 1-9998, and must be unique from other reporting devices.

## PROGRAMMING TRAFFIC DATA COLLECTION FOR THE 3300 ICP

This section describes the options you must program on the Mitel 3300 ICP Traffic Options Assignment form in order to collect traffic data and produce reports with the Traffic Analysis application.

### *Traffic Options Assignment form*

The Traffic Options Assignment form gives the communications site manager a form-driven method of obtaining time-based traffic reports on the usage of the system. Reports may be generated as required, covering attendant usage, channel utilization, system activity, data station usage, delay to dial tone, extension-to-extension calls, feature usage, and trunk utilization.

#### **NOTE:**

- You can define up to six different time slots.
- If the start and stop time are blank while the time slot is active, an error message is displayed when the commit operation is attempted; in this case, the changes will not be committed.
- No two traffic slot stops should be less than 5 minutes apart. This time is required for the system time to generate the previous report.
- Making changes to the data in this form and recommitting interrupts a traffic report that is running.

To program the Traffic Options Assignment form

1. Log onto the 3300 ICP telephone system.
2. Under **Selection**, select **All forms (alphabetical)**.
3. Browse to the Traffic Report Options form.
4. Click **Change**.
5. Configure the traffic options as described in Table 4.

**Table 4: Traffic Options Assignment form**

OPTION	VALUE
Time Slot Active	<p>Enter Yes to start a traffic session at the time specified in Start Time field and finish at the Stop Time field for each of up to six different slots. The report is resumed the next day at the same time. Select No to suspend the traffic report for the associated time slot. The traffic report will not run until Yes is entered and the form recommitted. Default is No. There can be no overlapping of ACTIVE time slots.</p> <p>Select: Yes</p>
Start Time (-Hours, -Minutes)	<p>Select the time the traffic report is to start running. Default is blank. The start time must be assigned for active time slots; it can be blank for inactive time slots. If the start time equals the stop time then the time period is 24 hours.</p> <p>Select: 00:00</p>
Stop Time (-Hours, -Minutes)	<p>Select the stop time for the report. If the session is to run for 24 hours, enter the same time as the start time. Default is Blank. The stop time must be assigned for active time slots; it can be blank for inactive time slots. If the start time equals the stop time then the time period is 24 hours.</p> <p>Select: 24:00</p>
Period Length	<p>Select the length of time(15, 30, or 60 minutes) that data is to be collected for the session before a traffic report is formatted and output. Default is 60 minutes.</p> <p>Select: 15</p>
Usage Units	<p>Select the type of units (Erlangs or CCS) the report is to use. Default is Erlangs.</p> <p>Select: Erlangs</p>
Autoprint	<p>Enter Yes to spool the traffic report to the printer assigned to this function in the Application Logical Port Assignment form. Default is No. We will be using the LPR1 Port 1754 to output traffic.</p> <p>Select: Yes</p>
Maximum Number of Traffic Files	<p>Enter the maximum number of traffic reports to be stored in disk. Default is 10.</p> <p>Select: 10</p>
Sections to include in Traffic Report	
Enter Yes to enable the collection of data for each resource group that is to be included in the traffic report. Default is No	
Route Plans	Yes

Table 4: Traffic Options Assignment form (continued)

OPTION	VALUE
Route Lists	Yes
Routes	Yes
Trunk Groups	Yes
Trunks	Yes
Links	No
Groups of Links	No
Channels	No
DTMF Receivers	Yes
Data Transceivers	No
Modem Groups	No
Data Station Groups	No
Attendant Groups	Yes
Attendant Consoles	Yes
Attendants	Yes

### *Assigning a port*

You must assign a port to the 3300 ICP to output traffic data.

To enable traffic data output

1. Log on to the 3300 ICP telephone system.
2. Under **Selection**, select **All forms (alphabetical)**.
3. Browse to Application Logical Port Assignment.
4. Select **Traffic Report Port**.
5. Click **Change**.
6. Under **Port Physical Name**, type **LPR1**.
7. Click **Save**.

### *Testing traffic output*

To test that traffic is being output through port 1754.

1. Click **Start=>Programs=>Accessories=>Communication=>Hyperterminal**.
2. After **Name** type **Traffic**.
3. Ensure that the red telephone icon is selected.  
See Figure 8.



**Figure 8: Red Telephone Icon**

4. Click **OK**.
5. After **Connect using**, select **TCP/IP**.
6. After **Host address**, type the IP address of the 3300 ICP
7. After **Port number**, type **1754**.
8. Click **OK**.
9. Wait the Period Length you selected in the Traffic Options Assignment form, for example 15, 30 or 60 minutes. The traffic should then output to your screen.
10. After the output is complete, you can disconnect and close the hyper terminal window.

### *Configuring traffic options in Business Reporter*

To configure the traffic collection options in Business Reporter

1. Start YourSite Explorer.
2. Click **Media Servers**.
3. Select a 3300 ICP media server.  
**NOTE:** Make note of the Media Server ID. You will need this ID number later.
4. Click the **Data Collection** tab.
5. Verify the Traffic Analysis check box is selected and the port is 1754.
6. Click **Save**.
7. Wait the interval you selected in the Traffic Options Assignment, for example 15, 30 or 60 minutes.
8. Browse to **<installation drive:>\Program Files (x86)\prairieFyre Software Inc\CCM\Data Directory\Node\_[Media Server ID]**.  
This is the directory of the media server for which you configured traffic options.  
You should see a new file with the following naming convention, TYYYYMMDD.txt. For example, T20050127.txt, where YYYY is the year, MM is the month, and DD is the date.
9. Double-click the file to open it and view the traffic data.



## PROGRAMMING REPORTING OPTIONS FOR THE 3300 ICP

In order to generate reports, you must select telephone system reporting options on the following forms

- System Options Assignment
- SMDR Options
- Class of Service Options

### *System Options Assignment Form*

The System Options Assignment form is used to configure system-wide settings for call processing and data switching. It has the following headings.

For accurate reporting, ensure you configure the System Options Assignment form parameters according to the Business Reporter recommendations outlined in the following table. (See Table 5.)

Table 5: System Options Assignment Form

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
ACD Make Busy Walk Away Codes (Yes/No)	<p><b>NOTE:</b> If you want to report on these Make Busy Walk Away Codes, you must enter Yes.</p> <p>Enter Yes to allow ACD agents to enter reason codes when placing sets into a Make Busy state.</p>	No	Yes
ACD Real Time Events Feature Level	<p><b>NOTE:</b> If you want to report on these Hold Retrieve Real Time Events, you must enter '1'.</p> <p>Enter '1' to generate a Hold Retrieve event under the following conditions. A held call is retrieved on the key line on which the agent that initiated the hold originally placed the party. Any variation will be considered Hold Abandon.</p>	0	1
ACD Make Busy on Login Reason Code	<p>Enter the reason code that you want to apply to the Make Busy on Login feature.</p> <p>If an agent logs into an ACD set and the Make Busy with Reason option is enabled in the Class of Service for that agent, the reason code that is specified in this field is applied to the agent. Note that you must also enable the ACD Make Busy Walk Away Codes option in this form.</p>	0	0

### *SMDR Options Assignment Form*

**CAUTION:** When you program a telephone system for Business Reporter SMDR data collection, on the SMDR Options Assignment Form, you must choose between SMDR Real Time Reporting or SMDR File Transfer for OPS Manager. Do not enable both. If both are enabled, then the SMDR records will be duplicated and be reported on twice.

Use the SMDR Options Assignment Form to select SMDR parameters.

Ensure you configure the SMDR Options Assignment form parameters according to the Business Reporter Recommendations outlined in the following table. (See Table 6.)

Table 6: SMDR Options Assignment Form

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
DASS II - Call Charge Information Provided	Select Yes if call charge information applying to the call is to display on the SMDR record. Applies only to DASS II trunks, available in the United Kingdom only.	No	No
Extended Digit Length	Select Yes if the Called, Calling and Third Party fields are to allow space for 7-digit extension numbers, and the Duration of Call field is to allow space for up to 10,000 hours (9999 hours, 59 minutes, 59 seconds).	No	Yes
MCD - Report Transfers	Select All if all of the transfers including attendant transfers are to be reported. Enter MCD if all of the transfers except attendant transfers are to be reported. Select No for normal SMDR operation.	No	ALL
Network Format	<p><b>NOTE:</b> If you are running a network ACD environment, this setting needs be set to Yes.</p> <p>Select Yes to allow the recording of the originating line's identity in the Digits Dialed field.</p>	No	No
Report Account Codes	Select Yes if account codes are to be part of the SMDR reports.	No	Yes If you want to report on Account Codes, you must enter Yes.
Report Incoming Calls	Select Yes if incoming calls are to be part of the SMDR reports.	No	Yes If you want to report on incoming calls, you must enter Yes.

**Table 6: SMDR Options Assignment Form (continued)**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
Report Internal Calls	Select Yes if the Internal SMDR option was purchased and internal calls are to be part of the SMDR reports.	No	Yes If you want to report on internal calls, you must enter Yes. (If you have purchased Internal SMDR.)
Report Meter Pulses	Select Yes if meter pulses are to be part of the SMDR reports.	No	No
Report Outgoing Calls	Select Yes if outgoing calls are to be part of the SMDR reports.	No	Yes If you want to report on outgoing calls, you must enter Yes.
SMDR Meter Unit Per Station	Select Yes if SMDR meter reports are to be generated for account codes, stations and trunks.	No	No
SMDR Record Transfer	Select Yes if an SMDR record is to be generated after each outgoing call transfer, stating the duration and number of meter pulses for that user's portion of the call.	No	Yes
System Identification	Enter a unique number between 000 and 999 which will serve to identify the system in SMDR reports. This is operational and the default is blank.	blank	1 or whatever number you want, depending on the number of telephone systems
Time Change Reporting	Select Yes if a time stamp is to display when a TIME or DATE command is entered. Two records will display on the SMDR report. The first will indicate the time prior to the TIME or DATE command; the second will indicate the time entered by the SET TIME command. See Station Message Detail Recording (SMDR).	No	Yes

**Table 6: SMDR Options Assignment Form (continued)**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
Twenty-four Hour Time Reporting	Select Yes if all of the time entries in the SMDR reports are to be in 24-hour notation. Select No to obtain time reporting in 12-hour notation.	No	Yes
ANI/DNIS/ISDN CLASS Number Delivery Reporting	This field applies to the ANI/DNIS feature. Select Yes if ANI/DNIS digits or CLASS digits are to be part of the SMDR reports.	No	Yes If you want to report on ANI/DNIS/ISDN you must enter Yes.
SMDR Real Time Reporting	<p>Select Yes to enable SMDR real time reporting. Enabling this option allows you to reroute SMDR records directly to a previously defined printer port instead of waiting for these records to be stored on disk and then printed. The priority of the SMDR record system is raised to keep the output as near as possible to real time.</p> <p>After you enable this option, reload the system to ensure that the SMDR records are routed directly to the printer. The SMDR output port must be set to 9600 baud and the call logger or printer must be capable of operating at 9600 baud.</p> <p>Note that a real time SMDR report is deleted from the system once it is delivered to the printer port. The report is not saved on the hard disk. Therefore, you can't perform LOGS READ SMDR, LOGS CHANGE SMDR, or ROUTE commands on the report.</p> <p>Do not enable SMDR real time reporting unless the customer specifically requests it, since the SMDR records will be lost if the call logger or printer fails.</p>	No	No (3300 ICP)

**Table 6: SMDR Options Assignment Form (continued)**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
OLI Node ID Format for Incoming Trunk Calls	Select Yes to record the network node ID and the trunk number for incoming trunk calls that are routed across the network. The node ID and trunk number are prefixed by the letter T. This information is recorded in the 'Digits Dialed on the Trunk' field.	No	No
Extended Time To Answer	Select Yes to enable expanded Time To Answer field support.	No	Yes
SMDR File Transfer	If your system uses OPS Manager, enter Yes to enable SMDR file transfer support. Otherwise, enter No. If your system uses OPS Manager, it is recommended that it be used to automate the file transfer process.	No	Yes (3300 ICP)
Standardized Network OLI	Select Yes to enable standardized SMDR functionality. The System Identification parameter cannot be left blank, and it is recommended that the Network Format and OLI Node ID Format for Incoming Trunk Calls options be set to No when using this option.	No	No If you are using a networked PBX configuration, enter Yes.
Standardized Call ID Format	Select Yes to enable standardized call ID format functionality (the Standardized Network OLI option must also be enabled).	No	Yes
Suite Services Reporting	This option can only be set to Yes if the Suite Services feature has been enabled and the Standardized Network OLI option is set to No.	No	No
Report Internal Unanswered Calls	Select Yes to report incomplete internal calls. The SMDR Extended Reporting Option Level 1 must be enabled before this option.	No	Yes If you want to report on internal unanswered calls, you must enter Yes.

Table 6: SMDR Options Assignment Form (continued)

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
SMDR Extended Reporting Level 1	Select Yes to produce SMDR records in extended Reporting Level 1 format.  To enable this option, you must also enable Extended Digit Length, Extended Time to Answer, Standardized Network OLI, and Standardized Call ID Format fields in this form.	No	Yes
Report Attendant Name	Select Yes if the first four characters of the attendant name is to be part of the SMDR reports.	No	Yes
Account Code Reporting for Internal Calls	Select Yes if Verified and/or Unverified Account Codes are to be part of the SMDR reports.	No	Yes  If you want to report on Account Codes you must enter Yes.
Tag Call Reporting	To enable or disable the reporting of the Tag Call Identifier in the SMDR record. The default value is No. Tag Call Reporting cannot be set to Yes if there is no value for the Tag Call Identifier.	No	Yes
Tag Call Identifier	To specify the value that displays in the SMDR record for a tagged call. You can use up to 12 digits in a code to facilitate searching. The field is blank by default.	blank	999
Path Reporting for Internal ACD2 Calls	Select Yes if Path Reporting for Internal ACD2 Calls are to be part of the SMDR reports.	No	Yes  If you want to report on Internal ACD2 Calls, you must enter Yes.

**Table 6: SMDR Options Assignment Form (continued)**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
Number of Destination Address Digits to Mask	<p>Specify the number of digits to mask in the destination address of the record.</p> <p>Masked digits are replaced in the record with an X.</p> <p>The digits are masked in reverse order of dialing. The first digit masked is the last digit dialed.</p> <p>Default: Zero</p> <p>Minimum: Zero</p> <p>Maximum: 26</p> <p>Disabled: Zero</p> <p>Constraints:</p> <p>Masking occurs on the local node only.</p> <p>Masking affects the records of all calls that are made on the node on which this option is enabled.</p> <p>Masking applies to external calls made to a PSTN destination.</p> <p>Configuration Requirements:</p> <p>SMDR External must be enabled in the Class of Service for both the trunk and calling device.</p>	0	0
SMDR Extended Reporting Level 2	<p>Select Yes to produce SMDR records in extended Reporting Level 2 format (so that the start time include seconds).</p> <p>To enable this option, you must also enable Extended Reporting Level 1, Extended Digit Length, Extended Time to Answer, Standardized Network OLI, and Standardized Call ID Format fields in this form.</p>	No	Yes



Table 6: SMDR Options Assignment Form (continued)

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
Two B-Channel Transfer Reporting	<p>The 3300 ICP supports the tagging of Two B-Channel Transfer (TBCT) calls by the CO. Select Yes to allow the system to record these tags in SMDR. See Two B-Channel Transfer (NI-2 only) for details.</p> <p><b>NOTE:</b> This option only enables the recording of the TBCT tags. It does not enable the feature.</p>	No	No

### *SMDR SIP trunk option*

If you want to include trunk reporting numbers in the SMDR data stream, you must enable SMDR on the SIP Peer Profile assignment form.

To include trunk reporting numbers in the SMDR data stream

1. Log on to the 3300 ICP telephone system.
2. Click **System Administration tool**.
3. Under **Selection**, select **System Configuration**.
4. Click **Trunks**.
5. Click **IP Networking/XNET**.
6. Click **SIP Peer Profile**.
7. Click **Add** or **Change**.
8. After **SMDR Tag**, type a unique number between 1 and 9998.
9. Click **Save**.

### *Class of Service Options Assignment Form*

The Class of Service (COS) Options Assignment Form is used to select the classes of service and the options which constitute each COS for stations or trunks. The form has two columns. The first column lists all available COS options. The second column lists required options for the Class of Service. The class of service number which identifies the individual COS is located at the top of the form. The classes of service defined by this form are referenced in the Station Service Assignment and Trunk Service Assignment forms. The telephony options listed in the form are selected by entering Yes next to the required option, under the correct COS number. Entering No or leaving the entries blank will disallow the options.

**NOTE:** Users who will use the Extension by Position monitor must have the Class of Service HCI settings enabled.

To access the Class of Service Options Assignment Form

1. Log on to the 3300ICP telephone system.
2. Under **Selection**, select **System Administration => System Options**.
3. Click **Class of Service Options Assignment Form**.

The Class of Service Options Assignment Form has the following headings. (See Table 7.)

**NOTE:** It is vital you select the following settings for every active COS programmed in the telephone system—each voice mail port and each trunk. For SMDR records to be generated, all parties in the call must have COS selected for SMDR.

**Table 7: Class of service Assignment Form headings**

Class of service number	the identification numbers for the various COS. Refer to the Class of Service entry in the <i>Product Specification, Engineering Information, MITEL Feature Resource Dimensions</i> , for the maximum number allowed.
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To specify telephone system reporting options

1. On the Class of Service Options Assignment Form, select the Class of Service Number with which you want to work.
2. Click **Change**
3. Select **Yes** in the Select field for the Non-Verified Account Code option (if you are using call reasoning/account codes).  
This permits the entry of an account code from 2 to 12 digits that can be used for billing purposes.
4. Select **Yes** in the Select field for the SMDR External option.  
This option will activate trunking SMDR. External SMDR is given precedence over internal SMDR when the feature is selected for the trunk in the call.
5. Select **Yes** in the Select field for the SMDR Internal option.  
This option will activate station-to-station (internal) SMDR.
6. Click **Save**.

Ensure you configure the Class of Service Options Assignment form parameters according to the Business Reporter Recommendations outlined in Table 8.

**Table 8: Class of Service Options Assignment Form**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
Non-Verified Account Code	Select Yes to enable the use of the non-verified account code feature access code. This permits the entry of an account code from 2 to 12 digits that may be used for billing purposes. This account code is not verified by the system when it is entered.	Yes	Yes

**Table 8: Class of Service Options Assignment Form (continued)**

PARAMETER	DESCRIPTION	DEFAULT VALUE	BUSINESS REPORTER RECOMMENDATIONS
SMDR External	Select Yes to activate trunking SMDR. External SMDR is given precedence over internal SMDR when the feature is enabled for the trunk in the call.	No	Yes
SMDR Internal	Select Yes to activate station-to-station (internal) SMDR.	No	Yes

## Path Assignment Form

The Path Assignment Form is used to configure ACD paths. The path contains the information necessary to control an incoming call through the ACD system. It specifies the resources used, the order in which they are encountered, and the timing of the steps.

To access the Path Assignment Form

1. Log on to the 3300 ICP telephone system.
2. Under **Selection**, select **System Administration => Automatic Call Distribution (ACD)**.
3. Click Path Assignment.

The Path Assignment Form has the following headings. (See Table 9.)

**Table 9: Path Assignment Form headings**

Path Directory Number	is similar to the hunt group number in the system. Type a number from 1 to 7 digits in length
Path Name	a read-only field that displays the telephone directory name for the path directory number. This field is up to 20 characters long.
Path Reporting Number	a mandatory, programmable field that specifies the path number of the agent group. It is a required field for SMDR. The path reporting number must also be unique. Type a 3-digit number in the range of 1 to 999.

**NOTE:** The Real Time Events setting needs to be selected on the Path Assignment Form for all of the paths programmed in the switch for which you want real-time call waiting information.

To generate statistics for paths

- On the Path Assignment Form, type **Yes** in the Value field for the **Path Real Time Events Enabled** option.

The Path Assignment Form lists path directory and reporting numbers programmed in the telephone system. The path directory number for queues is referred to as the dialable number in the Business Reporter YourSite database. When you type a path directory number, such as 6900, in the telephone system you must also type it in the YourSite Database as 6900.

The path reporting number is referred to as the queue number in the YourSite Database. When you program the telephone system with a path reporting number such as 6, you must type this number in the YourSite Database as P006, as illustrated in Table 10.

**Table 10: Path Reporting Numbers and the corresponding database entry**

<b>PATH ASSIGNMENT FORM ENTRIES</b>	<b>YOURSITE DATABASE ENTRIES</b>
Path Directory Number = 6900	Dialable Number = 6900
Path Reporting Number = 6	Queue Number = P006

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# Appendix C

## MIGRATING A LOCAL SQL SERVER TO REMOTE

This section outlines the steps necessary to migrate your local instance of SQL Server to a remote instance of SQL Server for SQL Server 2008, SQL Server 2012, and SQL Server 2014.

**NOTE:**

- Both the CCMDData and the CCMStatistical databases are required for SQL Server to function properly. The migration steps below should be performed for both the CCMDData and the CCMStatistical databases.
- If you are using a remote SQL Server, we recommend using SQL Server Authentication as it is an easier type of authentication to set up and maintain. For information on configuring remote SQL Server to use SQL Server Authentication, see "Configuring remote SQL Server to use SQL Server Authentication" on page 131.
- As a best practice, we recommend making a backup of the .mdf files (CCMDData.mdf and CCMStatistical.mdf) and the .ldf files (CCMDData.ldf and CCMStatistical.ldf) for each database before you begin migrating your SQL Server.
- CCMRouting, CCMRuntimeServices, and CCMwa, the three databases in environments running Multimedia Contact Center, cannot be migrated to a remote SQL Server and must remain on the Enterprise Server.

To migrate your local SQL Server 2008 or 2012 to a remote SQL Server 2008 or 2012

**NOTE:** Ensure you perform the following steps for both the CCMDData and the CCMStatistical databases.

1. On the local SQL Server, start Microsoft SQL Server Management Studio.
2. Connect to the SQL Server using your log on credentials.
3. In the left pane, expand the **Databases** list in the tree.
4. Right-click **CCMDData** and click **Tasks=>Detach**.  
The Detach Database window opens.
5. Select the **Drop Connections** check box.
6. Click **OK**.  
**NOTE:** If you receive any errors while detaching the database, you must navigate to **Services**, stop all prairieFyre services, and repeat steps 4 to 6.
7. Browse to **Program Files=>prairieFyre Software Inc=>CCM=>Database**.
8. Copy the **CCMDData.mdf** and **CCMDData.ldf** files to a location on the remote SQL Server.
9. Make note of the location on the remote SQL Server to which you copy the files. You will need to attach these files to the remote SQL Server in a later step.
10. On the remote SQL Server, start SQL Server Management Studio.
11. In the left pane, expand the **Databases** list in the tree.

12. Right-click **Databases** and click **Attach**.
13. Click **Add**.
14. Browse to the location of the database files you copied to the remote SQL Server in step 8.
15. Select **CCMData.mdf**.
16. Click **OK**.
17. Click **OK**.  
CCMData will display in the Databases tree once the files are attached to the remote SQL Server Database.
18. On the Mitel Enterprise Server, navigate to the **Contact Center Management Configuration Wizard**.
19. Click **Next**.  
If you receive a warning saying that you have already run the Contact Center Management Configuration Wizard, click Yes to run the Wizard again.  
**NOTE:** Unless you want to change the Business Reporter settings you have already configured, only change the settings on the SQL Server screen of the Configuration Wizard.
20. Click **Next**.  
The SQL Server screen opens.
21. After **SQL Server name**, select the name of the remote SQL Server.
22. After **Authentication**, select the type of authentication you will use.  
If you are using SQL Server Authentication, type the user name and password of the valid SQL Authentication profile.
23. Click **Next**.
24. Complete the remaining steps of the Contact Center Management Configuration Wizard.  
To verify that the SQL Server migration was successful you can summarize some historical data in Business Reporter or make changes to the YourSite database. If you do not receive any errors, the migration was successful.

## MIGRATING A LOCAL SQL SERVER TO REMOTE

This section outlines the steps necessary to migrate your local instance of SQL Server to a remote instance of SQL Server for SQL Server 2008, SQL Server 2012, and SQL Server 2014.

### NOTE:

- Both the CCMData and the CCMStatistical databases are required for SQL Server to function properly. The migration steps below should be performed for both the CCMData and the CCMStatistical databases.
- If you are using a remote SQL Server, we recommend using SQL Server Authentication as it is an easier type of authentication to set up and maintain. For information on configuring remote SQL Server to use SQL Server Authentication, see "Configuring remote SQL Server to use SQL Server Authentication" on page 131.
- As a best practice, we recommend making a backup of the .mdf files (CCMData.mdf and CCMStatistical.mdf) and the .ldf files (CCMData.ldf and CCMStatistical.ldf) for each database before you begin migrating your SQL Server.
- CCMRouting, CCMRuntimeServices, and CCMwa, the three databases in environments running Multimedia Contact Center, cannot be migrated to a remote SQL Server and must remain on the Enterprise Server.

To migrate your local SQL Server 2008 or 2012 to a remote SQL Server 2008 or 2012

**NOTE:** Ensure you perform the following steps for both the CCMDData and the CCMStatistical databases.

1. On the local SQL Server, start Microsoft SQL Server Management Studio.
2. Connect to the SQL Server using your log on credentials.
3. In the left pane, expand the **Databases** list in the tree.
4. Right-click **CCMDData** and click **Tasks=>Detach**.  
The Detach Database window opens.
5. Select the **Drop Connections** check box.
6. Click **OK**.  
**NOTE:** If you receive any errors while detaching the database, you must navigate to **Services**, stop all prairieFyre services, and repeat steps 4 to 6.
7. Browse to **Program Files=>prairieFyre Software Inc=>CCM=>Database**.
8. Copy the **CCMDData.mdf** and **CCMDData.ldf** files to a location on the remote SQL Server.
9. Make note of the location on the remote SQL Server to which you copy the files. You will need to attach these files to the remote SQL Server in a later step.
10. On the remote SQL Server, start SQL Server Management Studio.
11. In the left pane, expand the **Databases** list in the tree.
12. Right-click **Databases** and click **Attach**.
13. Click **Add**.
14. Browse to the location of the database files you copied to the remote SQL Server in step 8.
15. Select **CCMDData.mdf**.
16. Click **OK**.
17. Click **OK**.  
CCMDData will display in the Databases tree once the files are attached to the remote SQL Server Database.
18. On the Mitel Enterprise Server, navigate to the **Contact Center Management Configuration Wizard**.
19. Click **Next**.  
If you receive a warning saying that you have already run the Contact Center Management Configuration Wizard, click Yes to run the Wizard again.  
**NOTE:** Unless you want to change the Business Reporter settings you have already configured, only change the settings on the SQL Server screen of the Configuration Wizard.
20. Click **Next**.  
The SQL Server screen opens.
21. After **SQL Server name**, select the name of the remote SQL Server.

22. After **Authentication**, select the type of authentication you will use.  
If you are using SQL Server Authentication, type the user name and password of the valid SQL Authentication profile.
23. Click **Next**.
24. Complete the remaining steps of the Contact Center Management Configuration Wizard.  
To verify that the SQL Server migration was successful you can summarize some historical data in Business Reporter or make changes to the YourSite database. If you do not receive any errors, the migration was successful.



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# Appendix D

## SETTING UP AUTHENTICATION FOR REMOTE SQL

The following section provides instructions for setting up Windows or SQL Server Authentication for a remote SQL Server. We recommend you use SQL Server Authentication if you have a remote SQL Server. Your system administrator can inform you of whether you will use Windows Authentication or SQL Server Authentication. Table 11 describes the advantages and disadvantages of Windows and SQL Server Authentication.

While it is possible to use remote SQL Server with Windows Authentication, certain additional configuration steps must be followed.

If you want to use Windows Authentication, please contact your approved Mitel vendor (for customers residing in Latin America, Europe, the Middle East, Africa, and Asia Pacific) and refer to the following Mitel Knowledge Base article:

<http://micc.mitel.com/kb/KnowledgebaseArticle51295.aspx>.

Due to varied and unique customer business models, we cannot troubleshoot Windows policy and security issues. If technical support has spent a reasonable amount of time investigating your Windows Authentication issues, we reserve the right to request that SQL Server authentication be used instead of Windows Authentication.

**Table 11: Windows Authentication and SQL Server Authentication compared**

AUTHENTICATION	ADVANTAGES	DISADVANTAGES
Windows Authentication	<ul style="list-style-type: none"><li>•Recommended by Microsoft</li><li>•More secure than SQL Server Authentication</li><li>•Part of Active Directory and central administration</li></ul>	<ul style="list-style-type: none"><li>•Subject to password policies (i.e. passwords can expire)</li><li>•Requires you to perform additional post-installation changes</li></ul>
SQL Server Authentication	<ul style="list-style-type: none"><li>•Easier type of authentication to configure and maintain</li><li>•Requires less privileges to configure</li><li>•Does not require post-installation changes need to be made</li></ul>	<ul style="list-style-type: none"><li>•Less secure than Windows Authentication</li></ul>

## CONFIGURING REMOTE SQL SERVER TO USE SQL SERVER AUTHENTICATION

The following section outlines the steps necessary to set up SQL Server Authentication. In order to use SQL Server Authentication, you must set up SQL Server Authentication, ensure SQL Authentication is enabled, and ensure the SQL Browser service is started.

**NOTE:** In order to set up SQL Server Authentication, you must have a copy of Microsoft SQL Server Management Studio. You can download a free copy of Microsoft SQL Server Management Studio Express from Microsoft: <http://www.microsoft.com/en-ca/download/default.aspx>.

To set up SQL Server Authentication

1. On the remote SQL Server, start Microsoft SQL Server Management Studio.
2. Connect to the SQL Server using your login credentials.
3. In the left pane, expand the **Databases** list in the tree.
4. In the left pane, expand the **CCMData** list in the tree.
5. In the left pane, expand the **Security** list in the tree.
6. Right-click **Users** and select **New User**.  
To optionally grant the required permissions to an existing user, right-click a user in the list and select Properties. Ensure that the db\_owner check box is selected under Database Role Management and click OK.
7. Type a user name.
8. Type a login name.
9. Under **Database Role Membership**, select the **db\_owner** check box.
10. Click **OK**.

To ensure SQL Server Authentication is enabled

1. Start Microsoft SQL Server Management Studio.
2. Connect to the SQL Server using your logon credentials.
3. Right-click the SQL Server name and click **Properties**.
4. Click **Security**.
5. Ensure that **SQL Server and Windows Authentication mode** is selected.
6. Click **OK**.

To verify the SQL Browser Service is started

1. In Windows, navigate to **Services**.
2. Scroll down the Services list and locate the SQL Browser service.  
**NOTE:** In SQL 2012, this is called SQL Server Browser.
3. Ensure the SQL Browser service is started.  
If the SQL Browser service is stopped, right-click SQL Browser and click Start.

