**This is document revision 2 of the Confirmit Horizons v2019.6.1 CATI Supervisor Installation User Guide, published in June 2019. The information herein describes Confirmit Horizons CATI Supervisor and its features as of Build nr. 2019.6.1. New features may be introduced into the product after this date. Go to www.confirmit.com or check "News" on the Customer Extranet for the latest updates.**

# What's New in this Revision?

**Note: Only the latest changes to this documentation are listed here. Changes made to earlier revisions are listed in the "Changes to the User Documentation" document which can be downloaded from the Confirmit Extranet at https://extranet.confirmit.com.**

The following changes have been made in revision 2 of the Confirmit Horizons v2019.6.1 CATI Supervisor Octopus Based On-Premise Deployment procedure description:

- CATI server prerequisites have been updated - see Prerequisites for Multimode Servers on page 1.

**Note: The general layout and language in this document is continually being corrected, adjusted and improved to ensure the user has the best possible source of information. Only NEW information and details of functionality that has changed since the previous issue are listed here - minor corrections to the text and document layout are not listed.**

**Important**

**We need your feedback so we can improve this document and provide you with the information you require. If you have any comments or constructive criticism concerning the content or layout of this documentation, please send an email to documentation@confirmit.com. Please include in your email the section number and/or heading text of the section to which your comment applies.**

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# 1 Building a Confirmit Multimode Site

## 1.1 Server Hardware

Please mind that the minimum requirements listed below should be notably exceeded to allow for acceptable system performance.

The minimum server hardware requirements are as follows:

- Dual CPU
- Minimum 4 GB RAM
- Installation requires approximately 500MB for the CATI Supervisor software (this estimate includes space required to deploy the backend part of the software). Available disk space should be significantly larger on a PC which hosts CATI databases. Database size will depend on usage volume, it may exceed 1 TB. We suggest using a scalable hardware solution, where you can upgrade the system by attaching additional storage capacity.

## 1.2 Prerequisites for Multimode Servers

The CATI Multimode system can be deployed either on a single PC, or on a number of PCs.

1. **Installation on a single PC**

   In case the CATI Multimode system is deployed on a single PC all the CATI Supervisor software files, background components, databases and console installation bundles are located on that PC.

   The following requirements are applied in this case.

- MS Windows Server 2012 R2 or newer
- IIS must be enabled
- ASP.NET must be enabled
- .NET Framework must be enabled (check for version number - it must be 4.6.2 or newer)
- Node 10.15.3
- .NET Core 2.2 Runtime & Hosting Bundle for MS Windows
- IISnode 0.2.26 (for details refer to https://github.com/Azure/iisnode/releases)
- IIS URL Rewrite 2.1 (for details refer to https://www.iis.net/downloads/microsoft/url-rewrite)
- A latest version of SQL Server 2014, or SQL Server 2016 should be installed
- Microsoft System CLR Types for SQL Server 2012 (x64)
- Microsoft SQL server 2012 Management Objects (x64)
- Microsoft SQL Server 2012 Transact-SQL ScriptDom
- A code signing certificate for the CATI consoles (Windows Authenticode). Must be valid for code signing.

2. **Installation on a number of PCs.**

   This scenario can possibly involve two or more machines. We will describe a case where three PCs are used - the CATI Supervisor software (along with backend components) is installed on one PC, another PC is allocated for CATI databases and yet another one is used for keeping CATI Consoles installation bundles.

   The following requirements are applied to a ***PC hosting the CATI Supervisor software***:

- MS Windows Server 2012 R2 or newer

- IIS must be enabled
- ASP.NET must be enabled
- .NET Framework must be enabled (check for version number - it must be 4.6.2 or newer)
- Node 10.15.3
- .NET Core 2.2 Runtime & Hosting Bundle for MS Windows
- IISnode 0.2.26 (for details refer to https://github.com/Azure/iisnode/releases)
- IIS URL Rewrite 2.1 (for details refer to https://www.iis.net/downloads/microsoft/url-rewrite)
- Microsoft System CLR Types for SQL Server 2012 (x64)
- Microsoft SQL server 2012 Management Objects (x64)
- Microsoft SQL Server 2012 Transact-SQL ScriptDom

The following requirements are applied to a ***PC hosting the CATI databases***:

- MS Windows Server 2012 or newer
- .NET Framework must be enabled (check for version number - it must be 4.5 or newer)
- A latest version of SQL Server 2014, or SQL Server 2016 should be installed

The following requirements are applied to a ***PC hosting the client side console installation files***:

- MS Windows 7 or newer
- .NET Framework 4.5 Client Profile (will be automatically installed along with the client side console installation files).
- A code signing certificate for the CATI consoles (Windows Authenticode). Must be valid for code signing.

## *1.3 SQL Prerequisites*

Confirmit recommends that the CATI Multimode system is run on a separate SQL Instance from that running the Confirmit SQL databases.

The CATI system productivity will be improved if these separate SQL instances are installed on different PCs.

### 1.3.1 SQL Server where Multimode Databases are to Reside

If the Confirmit and Multimode databases are to reside on different SQL servers, protocols must be enabled on both SQL servers (at least Pipes and TCP/IP). To do this, go to:

Microsoft SQL Server 2012 > Configuration Tools > SQL Server Configuration Manager > SQL Server

Network Configuration > Protocols for MSSQLSERVER

### 1.3.2 Linked Servers

CATI Multimode relies on Linked Server to access, attach and use survey databases.

The linked servers used by CATI Multimode must be created prior to the installation start.

**Important A Linked Server entry must exist for all SQL instances used with Confirmit.**

There are two different scripts you should run to create linked servers - one script should be run on the Confirmit SQL instance to establish a link with the Multimode SQL instance, and another one - on the Multimode SQL instance to establish a link with the Confirmit SQL instance.

The picture below shows the script code. This is an example of the PowerShell script that should be run on the Confirmit SQL instance.

In the script shown in the picture below replace <Multimode SQL Instance> with the Multimode SQL Server name.

Run this script on all Confirmit SQL Instances after replacing variables in brackets.

In case SQL 2012 server version is used the following server option should have the following value: @provider=N'SQLNCLI11'

All server options shown in the script example should retain their default values except for the **'rpc'** and **'rpc out'** options - these should be set to **"true"**.

```
USE [master]
GO

/****** Object:  LinkedServer [FusionLinkedServer]    Script Date: 23.03.2015 13:37:10
******/
EXEC master.dbo.sp_addlinkedserver @server = N'FusionLinkedServer', @srvproduct=N' ',
@provider=N'SQLNCLI11', @datasrc=N'[Multimode SQL Instance]'
 /* For security reasons the linked server remote logins password is changed with
######## */
EXEC master.dbo.sp_addlinkedsrvlogin
@rmtsrvname=N'FusionLinkedServer',@useself=N'True',@locallogin=NULL,@rmtuser=NULL,@rmt
password=NULL

GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'collation
compatible', @optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'data
access', @optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'dist',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'pub',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'rpc',
@optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'rpc out',
@optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'sub',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'connect
timeout', @optvalue=N'0'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'collation
name', @optvalue=NULL
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'lazy schema
validation', @optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'query
timeout', @optvalue=N'0'
GO

EXEC master.dbo.sp_serveroption @server=N'FusionLinkedServer', @optname=N'use remote
collation', @optvalue=N'true'
GO
```

**Figure 1 Creating linked server on the Confirmit SQL instance**

The picture below shows an example of the PowerShell script that should be run on the CATI Multimode SQL instance.

In the script shown in the picture below replace <Confirmit SQL Instance> with the Confirmit SQL Server name.

Run this script on all CATI Multimode SQL instances after replacing variables in brackets.

In case SQL 2012 server version is used the following server option should have the following value: @provider=N'SQLNCLI11'

All server options shown in the script example should retain their default values except for the **'rpc'** and **'rpc out'** options - these should be set to **"true"**.

```
USE [master]
GO

/****** Object:  LinkedServer [ConfirmitLinkedServer]    Script Date: 23.03.2015 13:37:10
******/
EXEC master.dbo.sp_addlinkedserver @server = N'ConfirmitLinkedServer', @srvproduct=N' ',
@provider=N'SQLNCLI11', @datasrc=N'[Confirmit SQL Instance]'
 /* For security reasons the linked server remote logins password is changed with ########
*/
EXEC master.dbo.sp_addlinkedsrvlogin
@rmtsrvname=N'ConfirmitLinkedServer',@useself=N'False',@locallogin=NULL,@rmtuser=NULL,@rmt
password=NULL

GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'collation
compatible', @optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'data access',
@optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'dist',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'pub',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'rpc',
@optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'rpc out',
@optvalue=N'true'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'sub',
@optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'connect
timeout', @optvalue=N'0'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'collation
name', @optvalue=NULL
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'lazy schema
validation', @optvalue=N'false'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'query
timeout', @optvalue=N'0'
GO

EXEC master.dbo.sp_serveroption @server=N'ConfirmitLinkedServer', @optname=N'use remote
collation', @optvalue=N'true'
GO
```

**Figure 2 Creating linked server on the Multimode SQL instance**

### 1.3.3 SQL DTC Configuration

On all SQL servers where Confirmit and Multimode instances reside, and on all CATI servers ensure that the following properties are set:

- Enable Network DTC Access (check the corresponding box);
- Enable Allow Outbound (check the corresponding box);
- Enable Allow Inbound (check the corresponding box);
- Choose the Mutual Authentication Required option below;
- Check that the Enable SNA LU 6.2 Transactions option is marked.

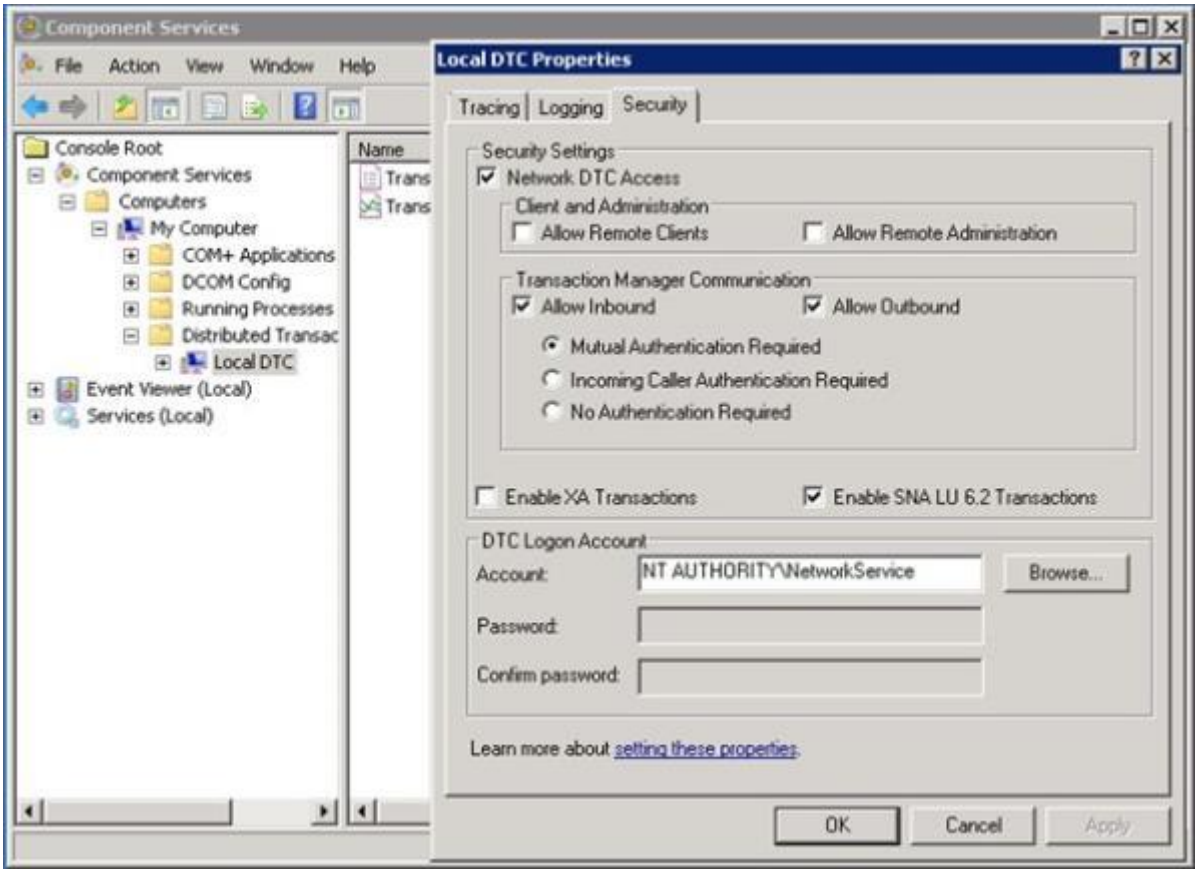


**Figure 3 The Local DTC Properties dialog**

These are the recommended DTC Settings on a Standalone SQL Server Setup. The same settings apply in a clustered environment.

## *1.4 Confirmit Dialer System Requirements*

If your company plans to utilize a Dialer as part of your CATI activities via the Confirmit Software, a number of additional system requirements will apply. Full system requirements are found in the Horizons Local Dialer System Requirements document, available on the Confirmit site, and on the Confirmit Extranet.

Please note that a separate dedicated Web Service server, acting as a proxy between Confirmit CATI and the dialer service, is required when using a dialer.

The following bandwidth requirements for Dialer service hosting are applied:

- A persistent connection to the Confirmit platform is required;

- Interviewing involves data exchange on a page-by-page basis.
- Connection reliability is essential;
    - Low latency and high quality of service
- Recommended line types:
    - Leased line.
    - Fibre.
- Minimum recommended connection bandwidth is 2 Mbps.

The CATI Solutions Team can provide more details about bandwidth requirements and configurations.

# 2 Octopus aided setup procedure

## 2.1 Understanding Octopus aided CATI Multimode setup process

The CATI Multimode system is set up with the use of the convenient and reliable release management software system called the Octopus Deploy server.

The current manual only deals with procedures that are performed in the course of the CATI Multimode system deployment. It merely lists the parameters required to install the CATI Multimode system correctly on the specified machines. This User Guide is not meant to explain how the Octopus Server should be installed, prepared or configured to perform the CATI Multimode deployment. Please refer to the Octopus Deploy software documentation for any question concerning Octopus software installation, configuration and functions.

The Octopus Deploy Server is a friendly deployment and release management automation system. Use of the Octopus Deploy server helps to facilitate the deployment process. A flawless and trouble free deployment and update routine is created by saving and reusing the deployment configurations, steps and environments to which the Confirmit software is deployed.

**IMPORTANT! Normally the CATI Multimode system deployment procedure does not require any changes in setup configuration. All you have to do is follow the prompts that appear in the course of the installation. The complete instruction can be found in Confirmit CATI On-Premise Deployment Procedure on page 12. Proceed directly to this section if you do not intend to make changes to the Octopus Deploy Server account.**

Any consequent update of the installed Confirmit software is also carried out with the use of the Octopus Deploy software. As a rule any update is performed confidently, without hassle and quickly - thanks to templates. The person initiating the update procedure only has to choose from a number of preset configurations and start the process, the rest happens automatically.

Please pay attention that any new CATI Multimode version is installed into a separate freshly created folder (this is true for all machines included into the chosen environment). When deployment is successfully completed the newly created folders containing the latest CATI Multimode version are specified as the working folders. All folders containing previous CATI Multimode versions are not deleted, although they are not used any more.

## 2.2 General procedures required to configure the CATI Multimode setup

The deployment process performed with the help of the Octopus Server involves a number of "stages" which are configured separately.

Usually you will be provided with access to the already configured Octopus Deploy Server account although you may need to reconfigure some of the settings. The following descriptions will tell you which deployment parameter you should turn to.

**IMPORTANT! If you have been provided with access to a configured Octopus Deploy Server account we suggest that you turn to the Confirmit CATI On-Premise Deployment Procedure on page 12 to start deploying the software. The instruction provided in that section is all that you need to complete the CATI Multimode software installation.**

**Please do not alter any Octopus account setting unless you are fully aware of the consequences. Normally you need not change any setting except for cases described in Step 6 of the Confirmit CATI On-Premise Deployment Procedure on page 12 (adding new roles + adding new tentacles).**

The instructions provided below help you understand the main steps required to configure the Octopus Deploy Server account.

In case you have to manually change any setting in the Octopus Deploy Server account configuration you should follow the instructions below.

We strongly encourage reading the Octopus Deploy Server documentation prior to performing any operation that is described in the present section. You should make yourself familiar with the Octopus software GUI before you perform any operation with its help. Current manual does not provide any instructions on how to work with the Octopus Deploy GUI: you have to study and understand the corresponding software instructions before you begin.

In general the Octopus account configuration routine looks like this.

1. Compose the "Environment" by adding different local and remote servers to the list on the Environment tab. The CATI Multimode system will be installed on these added machines. You should choose and assign a "Role" to each of the added machines: different CATI Multimode components will be installed on each of the listed machines according to the selected "role". Available roles are: the CATI Backend server, the CATI Supervisor server, the CATI Interviewer Console, the CATI Monitoring Console, the Dialer Web Service.

   Whenever you need to add, or exclude a machine from the environment, or change a role of any machine in the environment, you should do so on the Environment tab.

2. Specify the deployment "Process" by adding and configuring consequent "Steps" on the Process tab. Each step can include an action (or a number of actions): running a PowerShell script or deploying a NuGet Package (or any other required action). Once you create and configure a Process (along with all its Steps) it can be saved and reused, or edited before it is used.

   Please note that the Step that specifies running of the PowerShell script should be performed first. All other Steps should follow it.

   Whenever you need to change the order in which the setup actions are performed, or add, or exclude a step, you should do so on the Process tab.

   Whenever you need to write or edit a script that should be used on some step of the setup procedure you should do so on the Process tab by adding or editing a Step. Mind that you cannot extract and edit PowerShell scripts from a NuGet package in the same way.

   Each NuGet package can include components pertaining to a server which should play one of the assigned "Roles". NuGet packages are composed beforehand and can include different components required to run the software as well as a set of PowerShell scripts needed to deploy and configure these components.

   NuGet packages are shipped by Confirmit along with the PowerShell script and should be uploaded to Octopus Deploy Server prior to creating Steps that involve deployment of these packages. NuGet packages can be uploaded through the "Library" page.

3. PowerShell scripts included in the NuGet packages contain a number of variables which are used as deployment configuration parameters. Such variables are listed on the "Variables" tab. These variables are utilized at the moment when NuGet packages are being deployed. The "Variables" tab also contains a short description of each variable which helps in understanding its purpose and possible values (please refer to List of Variables used in the PowerShell scripts on the facing page for the complete list of variables). Variables from this list can have similar names but can be used for different "Scopes" (for example, one can be used simultaneously for deployment of the CATI Dialer Web Service, and of the CATI backend server). You can change the Scope for any variable by assigning it to a different Environment, or Role, or Step (mind the variable name - it should not be similar for variables with similar Scopes).

   Whenever you need to change the deployment parameters of any CATI Multimode component it should be done by altering the corresponding variable value on the Variables tab. The Scope can also be edited on the Variables tab.

4. Each separate set of NuGet packages forms a "Release". You can save all your current updates (updates that were introduced during the current session) on this tab. Usually the list of saved items includes:

   - the list of NuGet packages which you have included in this release;
   - the current state of Processes;
   - the current state of variables.

   Please note that if any changes are introduced to the variables after the Release is saved, the variable list should be updated on the "Releases" tab.

Each Release is assigned a specific number which you compose yourself. You can apply any existing Release to a different environment using a different deployment pattern: choose another Environment, or change the current one, choose from the existing Processes or edit any Process Step before you apply the Process.

All information regarding all the releases that were once deployed can be found on the Releases tab. You can also start deployment of any release on the Releases tab.

## *2.3 List of Variables used in the PowerShell scripts*

| Name of Parameter | Used in Roles | | | Possible values | Description |
|---|---|---|---|---|---|
| | Backend | Super-visor | Consoles | | |
| Cati.Database.ServerName | X | X | X | | Name of the SQL server containing CATI databases |
| Cati.Database.AdminUserName | X | X | | | User name of account with admin rights used to connect to CATI SQL server |
| Cati.Database.AdminPassword | X | X | | | Password for account with admin rights used to connect to CATI SQL server |
| Cati.Database.UserName | X | | X | | User name of account used to connect to CATI SQL server with the same rights as ConfirmitDeploy user in Confirmit |

| Name of Parameter | Used in Roles | | | Possible values | Description |
|---|---|---|---|---|---|
| | Backend | Super-visor | Consoles | | |
| Cati.Database.Password | X | | X | | Password for account used to connect to CATI SQL server with the same rights as ConfirmitDeploy user in Confirmit |
| Cati.Database.LinkedServerNameToConfirmit | X | | | | The name of the Confirmit linked server which is used to link the CATI SQL server to the Confirmit SQL server (containing confirm and confirmlog databases) |
| Cati.Database.UseSimpleRecoveryMode | X | | | True/False | Use 'simple' or 'full' mode for new CATI databases |
| Cati.Database.Confirmit.ServerName | X | X | | | SQL server name with Confirmit databases (containing |

| | | | | |
|---|---|---|---|---|
| | | | | confirm and confirmlog) |
| Cati.Database.Confirmit.UserName | X | X | | User name of account to connect to Confirmit SQL server |
| Cati.Database.Confirmit.Password | X | X | | Password for account to connect to Confirmit SQL server |
| Cati.Database.Server.DataPath | X | | | Local path where mdf files of CATI databases will be stored |
| Cati.Database.Server.LogPath | X | | | Local path where ldf files of CATI databases will be stored |

| Name of Parameter | Used in Roles | | Possible values | Description |
|---|---|---|---|---|
| | Backend | Super- visor Consoles | | |
| Cati.Parameters.ValidWCFIpAddresses | X | | IP addresses separated by semicolon | Valid IP address list for WCF (all IPs are used in CATI system) |
| Cati.Parameters.NotificationEmailBcc | X | | | Notification email BCC. Used to get email about errors in CATI system |
| Cati.LoadBalancer.UseLoadBalancer | X | | True/False | Will load balancer be used in CATI system or not |
| Cati.LoadBalancer.UseNonDisruptiveUpdateMode | X | | True/False | Type of installation - non-disruptive or disruptive |
| Cati.LoadBalancer.IsAlivePageUrl | X | | | URL path to IsAlive.htm file |
| Cati.LoadBalancer.IsAlivePageRenameTimeout | X | | Number | Timeout after renaming the IsAlive.htm file |
| Cati.SSL.GenerateTestCertificate | X | | True/False | Generate a test certificate or use a real one. Makes sense if load balancer isn't used. |
| Cati.SSL.TestCertificateName | X | | | Certificate name of generated certificate. Makes sense if test certificate will be generated. |
| Cati.SSL.CertificatePath | X | | | Path to a certificate file. Makes sense if a test certificate will not be generated |
| Cati.SSL.CertificatePassword | X | | | Password for a certificate. Make sense if a test certificate will not be generated |

| Name of Parameter | Used in Roles | Possible | Description |
|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| | | | values | |
| | Backend | Super-visor | Consoles | |
| Cati.Msi.Parameters.InstallLocation | X | | | Install location on servers, that are updated by old msi installation. Can be omitted if we don't use an old msi installation or have already used it for initial deployment (with DB creation) |
| Cati.SessionState.Mode | | X | SQLServer-/InProc/Redis | Session state mode |
| Cati.SessionState.Database.ServerName | | X | | Name of the SQL Server containing ASPState database. Makes sense if session state mode is set to "SQLServer" |
| Cati.SessionState.Database.UserName | | X | | Name of the user account on the SQL server used to connect to SQL server with ASPState database. Makes sense if the mode is set to "SQLServer" |
| Cati.SessionState.Database.Password | | X | | Password to the user account on the SQL server used to connect to SQL server with ASPState database. Makes sense if the mode is set to "SQLServer" |

| Name of Parameter | Used in Roles | | | Possible values | Description |
|---|---|---|---|---|---|
| | Backend | Super-visor | Consoles | | |
| Cati.SessionState.Redis.HostName | | X | | | Name of the server containing the redis service. Makes sense if the mode is set to "Redis" |
| Cati.SessionState.CookieName | | X | | | Session state cookie name |
| Cati.Parameters.IsEventlogLoggingEnabled | X | X | | True/False | Can be used for testing the system (DO NOT use for production) |

| | | | |
|---|---|---|---|
| Cati.Console.Parameters.InterviewerVirtualDirectoryName | X | | Virtual directory name for Interviewer Console (slashes allowed) |
| Cati.Console.Parameters.MonitoringVirtualDirectoryName | X | | Virtual directory name for Monitoring Console (slashes allowed) |
| Cati.Console.Parameters.DeploymentServerName | X | | Deployment server name |
| Cati.Console.Parameters.CatiServerName | X | | Cati server name (or load balancer name) |
| Cati.Console.Parameters.InstallConfirmitBrandedPage | X | True/False | True - will install files for the Confirmit default page. False (the page does not exist) will install regular publish.html page |
| Cati.Console.Certificate.Path | X | | Path to the certificate file.<br>Any certififcate type will do. Must be valid for code signing. |
| Cati.Console.Certificate.Password | X | | Certificate password. Can be blank. |

## *2.4 Confirmit CATI On-Premise Deployment Procedure*

1. Log in to the On-Premise Octopus server with Remote Desktop.
2. Open a PowerShell command prompt as Administrator.
3. Type the command to begin the Octopus Installer, in this example we have an Octopus server where Confirmit Horizons CD is used.

   If you want to do the initial installation using an older version of CATI then you need to specify the version number. The latest CATI version is installed by default.

4. The installer dialog is opened

   Click on **Install and Configure Octopus.**

**NB! The Installer Settings are shared between all Confirmit Horizons and application (CATI, AM, Flex) installations and should normally NOT be changed/used.**

5. The installation script completes and you will now see the CATI project in Octopus.
6. For each of the environments where you want to deploy CATI the tentacles have to be installed/configured and the Octopus variable set for CATI needs to be initialized with the correct values.

   a. Select the environment in the dropdown;

   b. Click **Install and Configure Octopus Tentacle(s);**

Add the unassigned roles to the existing server or specify a new tentacle.

Click Apply (Note - if you want to delete a tentacle from any desired machine, just remove it from the environment).

c. Click **Configure variables for new installation.**

Update file with correct values for the target environment and click Apply.

This window will close. The Installer window will become active.

7. Click **Exit** in the Installer window and you are done.

The CATI release is now ready for deployment.

Any new releases that are published to the On-Premise feed in Artifactory will now automatically be imported into Octopus and will appear in the release list ready for deployment.

Please note that the above described procedure is only applicable to the Continuous Deployment version.

# 3 CATI Multimode Installation

The setup utility which allows configuring the installation procedure provides the following installation options:

- **Removal of the existing CATI Multimode Installation** - this action removes the installed CATI Multimode system but does not remove the existing databases (keeps all databases intact). See CATI Multimode Removal on page 50 for description;
- **Installation of the CATI Multimode system and simultaneous creation of a completely new database** - this type of installation allows to create a CATI Multimode system along with the database. This is the so called "fresh" installation mode, when no CATI Multimode system and no corresponding database exist. The setup procedure will walk the user through all steps required to configure and install the CATI Multimode system and also create the required database and connect to it. See Fresh CATI installation below for description;
- **Installation of the CATI Multimode system in a situation when an existing database should be used** - this scenario assumes that the CATI Multimode system is already installed on another machine, and the database which should be used by the new system already exists, too. In such case the setup procedure will also prompt the user to specify the name of the server on which the default CATI Multimode system resides, to enter the database administrator and user credentials required to work with the database. Other parameters required by the setup process are taken from this database. See Fresh CATI installation on a second server on page 33 for description;
- **Upgrade of the CATI Multimode system** - this action upgrades the CATI Multimode system which is already set up on this machine. This installation procedure is almost similar to that performed to install the CATI Multimode using the existing database. The main difference is that in this case the user does not have to specify any parameter value except for the database administrator credentials. When run in this mode the setup procedure first updates the database if this is required. If the database update completes successfully, then the setup procedure removes the current CATI Multimode version, and finally installs a new version of the CATI Multimode system. See Multimode Upgrade Routine on page 61 for description.

When CATI Multimode system is installed on a number of backend servers and the "load balancer" is present in the system there is a possibility to utilize the convenience of a Load Balanced Environment setup mode. It will allow you to perform the setup procedure in a "non-disruptive" mode. This means that the CATI Multimode system can remain busy performing any kind of routine operation while the setup procedure gradually updates its components. Please see the "Disruptive" and "Non-disruptive" mode descriptions in The "Disruptive" deployment mode on page 28 and in The "Non-disruptive" deployment mode on page 28.

In addition to the CATI Multimode system a separate set of files should be installed. This is the Interviewer Console and Monitoring Player Installation bundle. This set of files is required for the end user to install the Interviewer Console and Monitoring Player on their machine. Please refer to (go to Multimode Interviewer Console and Monitoring Console Deployment on page 54 for more information)

To use the advantages of the "non-disruptive" mode you have to choose the corresponding option on the certain setup step - refer to Choosing between the Load Balanced Environment and the Single Server Environment on page 26 for more information.

## *3.1 Fresh CATI installation*

Please note that this instruction should be used to install CATI Multimode on the very first server in the system. We will refer to this installation as to a "fresh" installation.

You may add other servers to the system by installing CATI Multimode to other PCs after the "fresh" installation on the first PC is completed. The setup procedure of the CATI Multimode on other servers which are planned to be used as part of the same system is described in Fresh CATI installation on a second server on page 33.

When all steps of the setup procedure described below are completed then all the parameters which were specified during this procedure are saved to the database which is created in the course of the installation. These parameter values will be used at the next installation run, i.e. when you install another backend server and add it to the existing CATI Multimode system. Whenever you need to change any parameter you should do so on the relevant step of the setup process - please refer to Changing the setup configuration parameters on page 35

The PC on which you are going to perform fresh CATI Multimode installation should not contain any CATI Multimode version installed.

Close all other programs before you start.

Run the setup file. The following dialog is displayed upon running the setup file:

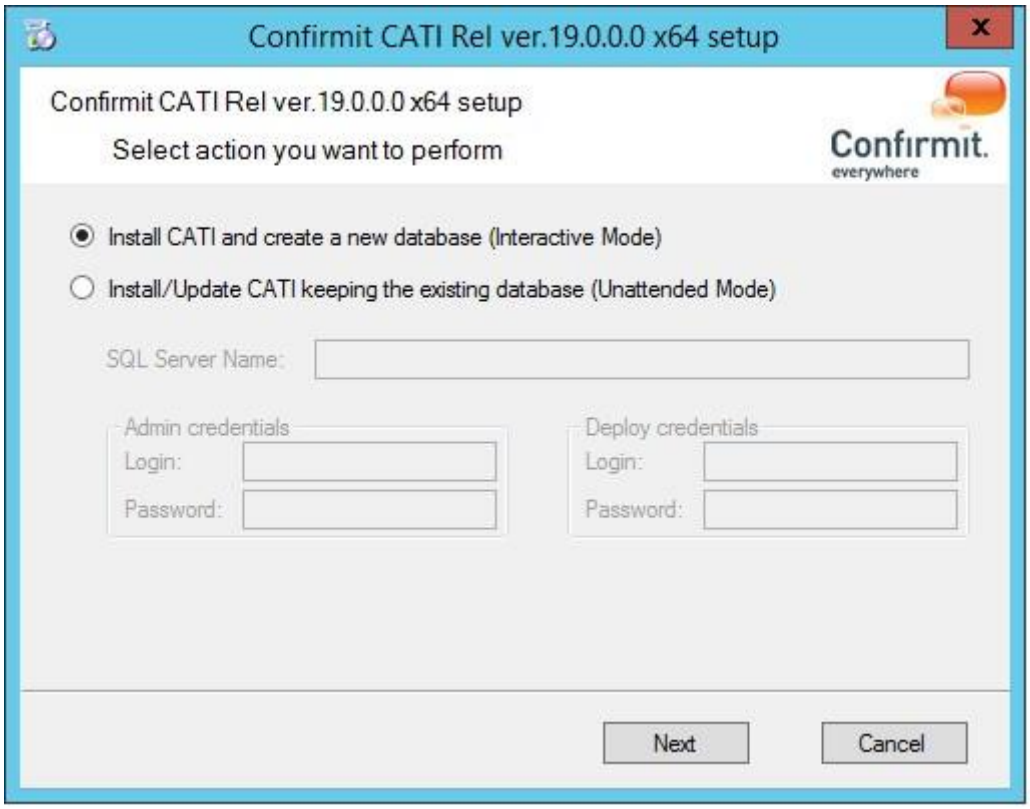


**Figure 4**

The appropriate option is selected by default.

Press Next to proceed (or you may simply press Enter to proceed on any installation step).

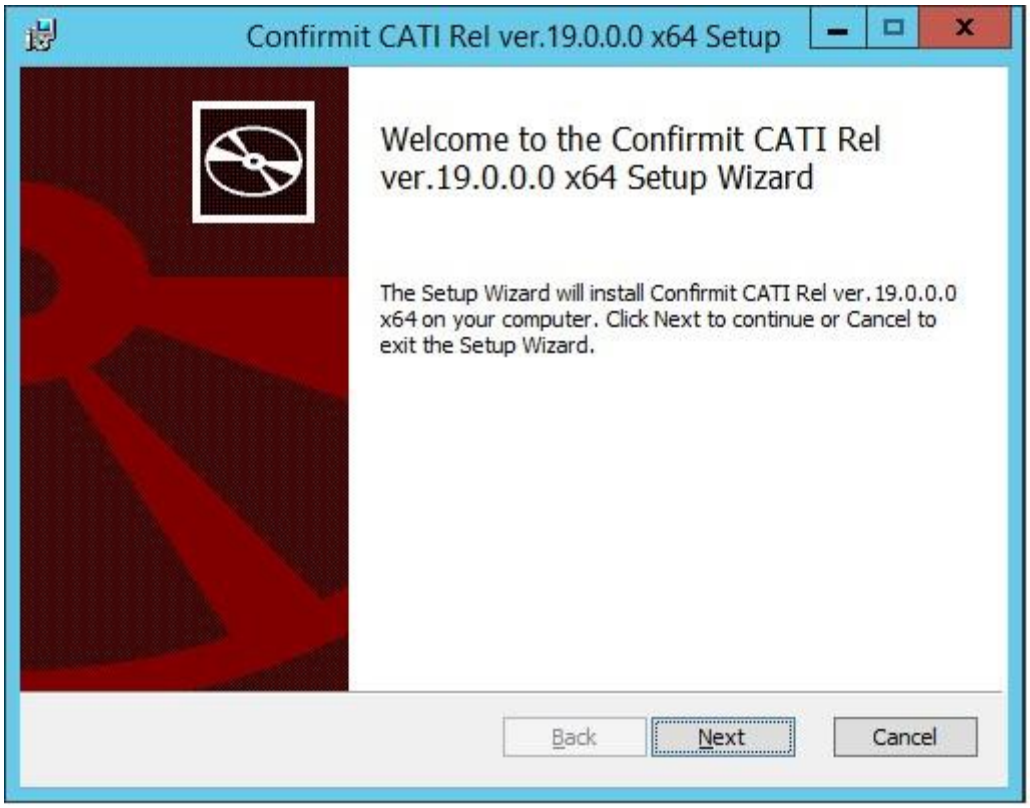


**Figure 5**

Press Next to proceed.

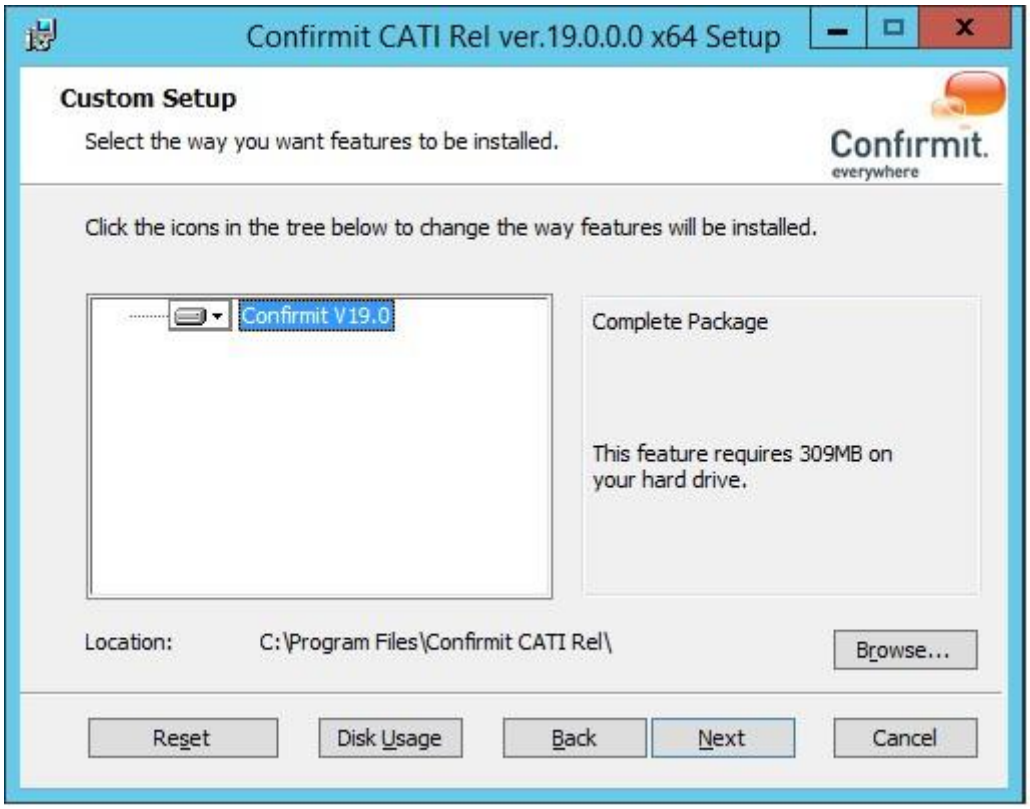

**Figure 6**

Choose the installation path and press Next to proceed.

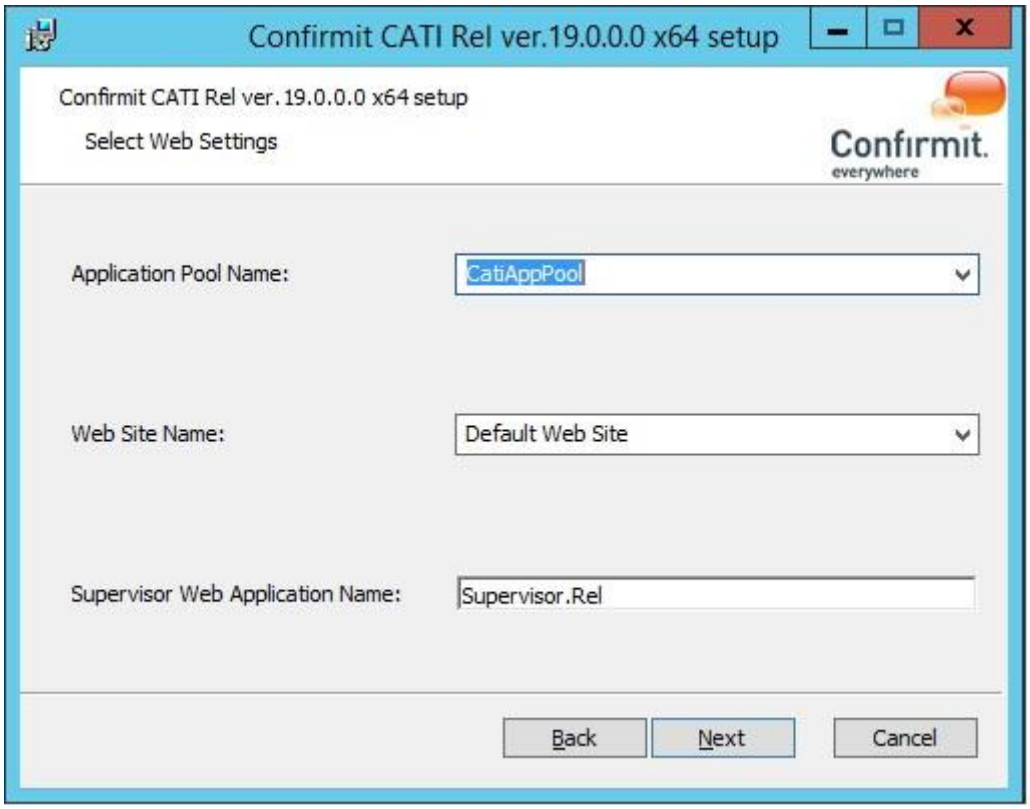


**Figure 7**

Specify all the required settings and press Next. In case you choose a non-existent Application pool name it will be created automatically - you do not have to double-check for it, or create one manually at a later time.

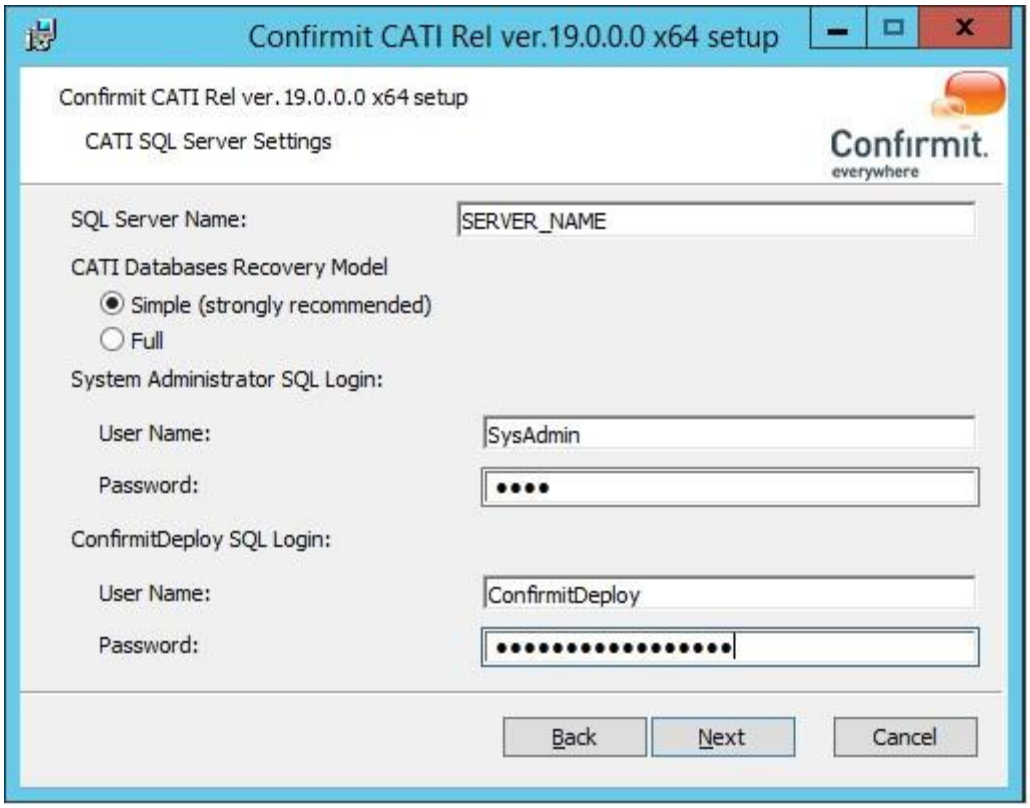


**Figure 8**

Specify SQL Server settings for CATI databases and press Next.

These parameters are verified when the Next button is pressed.

Please do not choose the “Full” recovery model if you are unaware of how it works. Databases containing large amounts of data were not tested in this mode. Use the “Simple” mode to avoid problems.

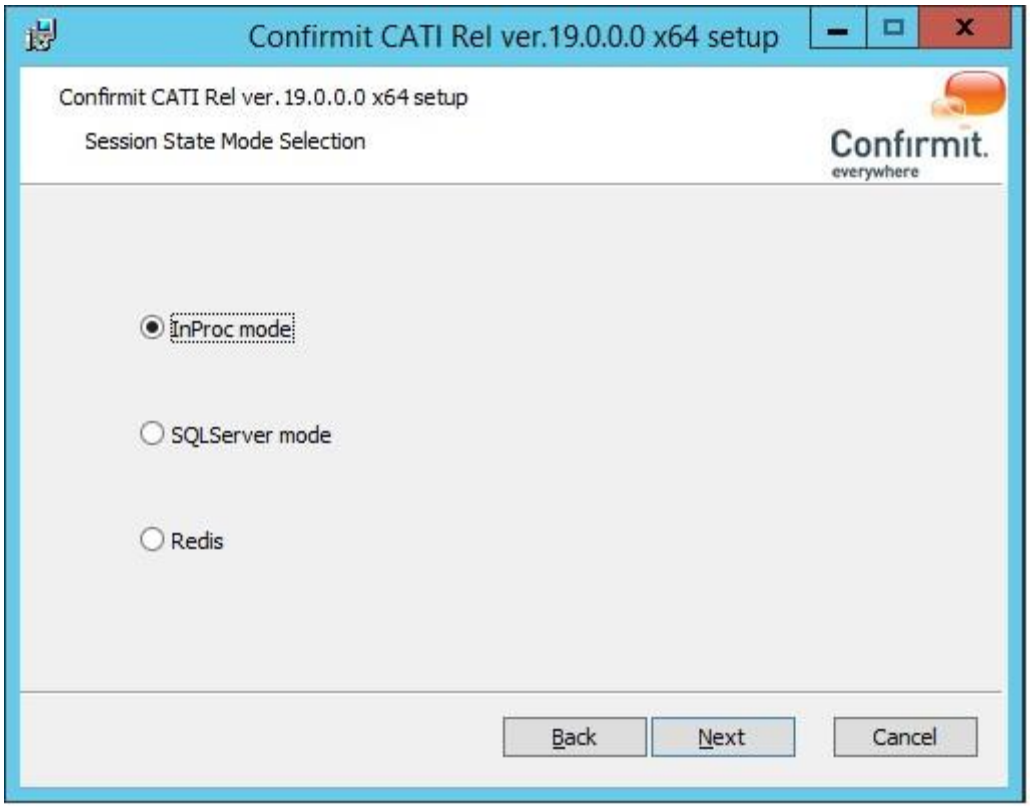


**Figure 9**

Choose the desired Session State mode.

Note that the "SQL Server mode" is preferred.

The set of parameters shown on the next step depends on the chosen Session State mode.

If you use SQLServer mode (corresponding parameter set shown in the picture below - refer to Figure 11 ), enter the Server Name or Alias, then the user name and password for your main Confirmit SQL Server (where Confirmit Session State database resides). SQL Server also sends and requests cookies - please specify a name which would clearly identify the cookie source.

Different parameter set is displayed when you choose Redis Session State mode (please refer to Figure 12 ).

If you opt to choose the InProc mode, you do not have any parameter to configure and you are transferred directly to the next step configuration dialog (please refer to Figure 13 ).

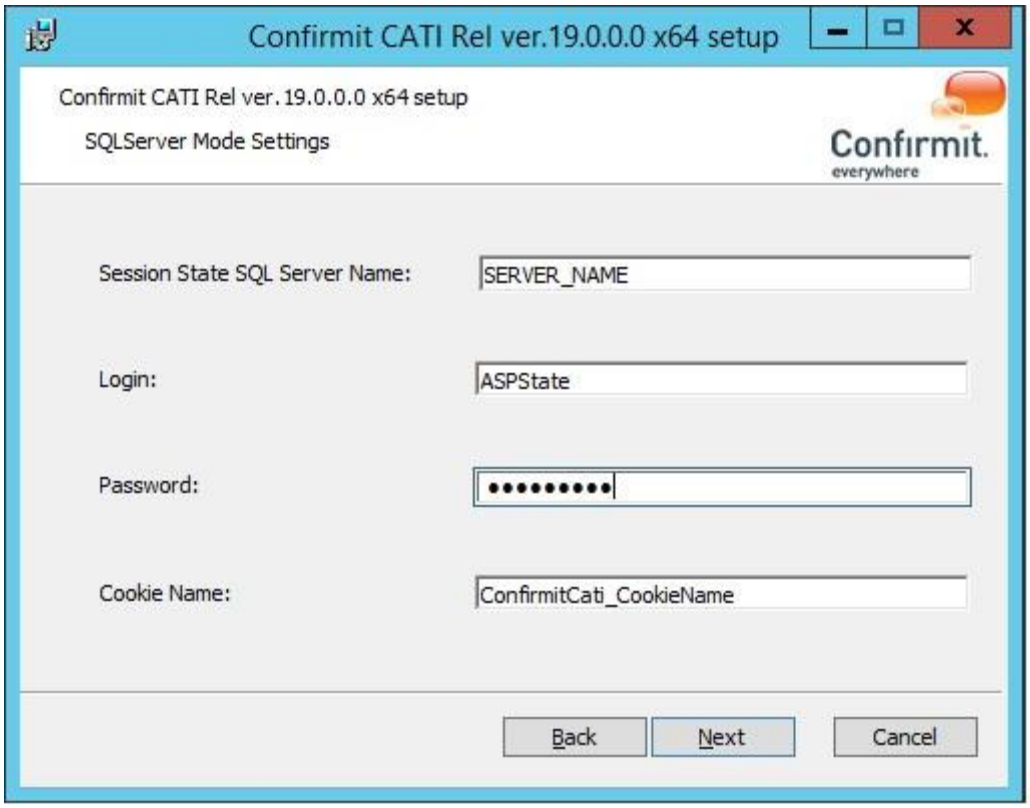


**Figure 10**

Specify the parameters and press Next when you are done. All parameters are verified by the setup utility and in case they are valid you proceed to Confirmit Server settings (please refer to Figure 13 ).

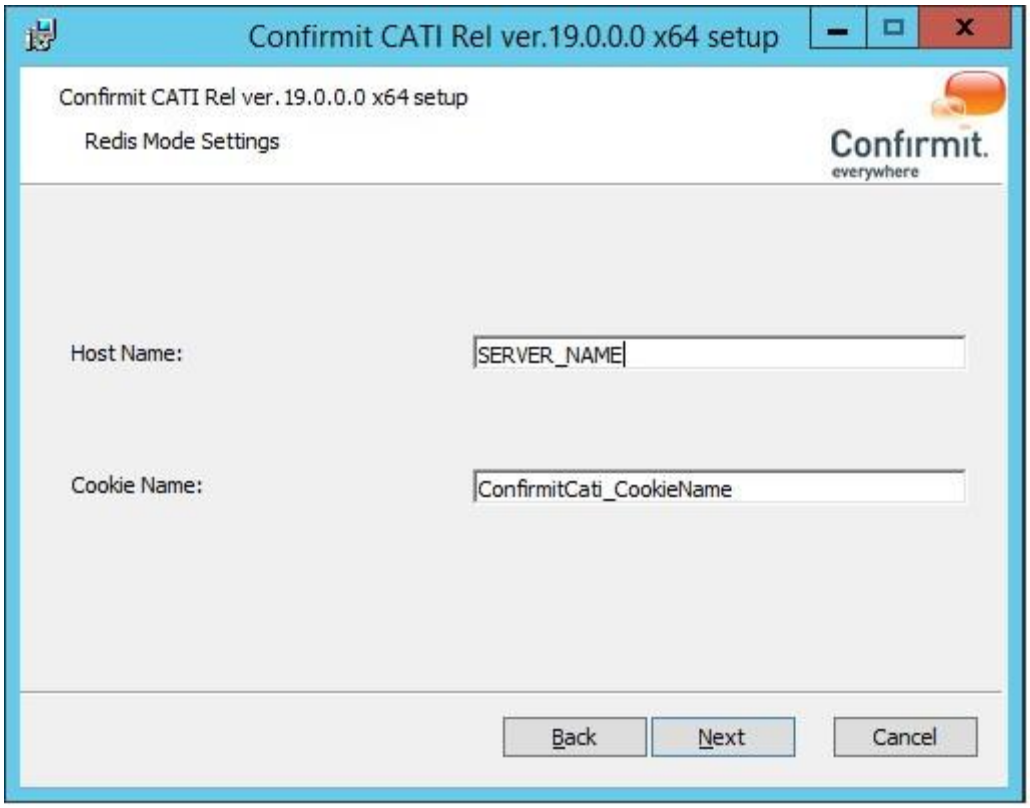


**Figure 11**

The picture you see above is a setup dialog step containing parameter set corresponding to the Redis Session State mode. Specify the parameters and press Next when you are done. All parameters are verified by the setup utility and in case they are valid you proceed to Confirmit Server settings (please refer to Figure 13 ).

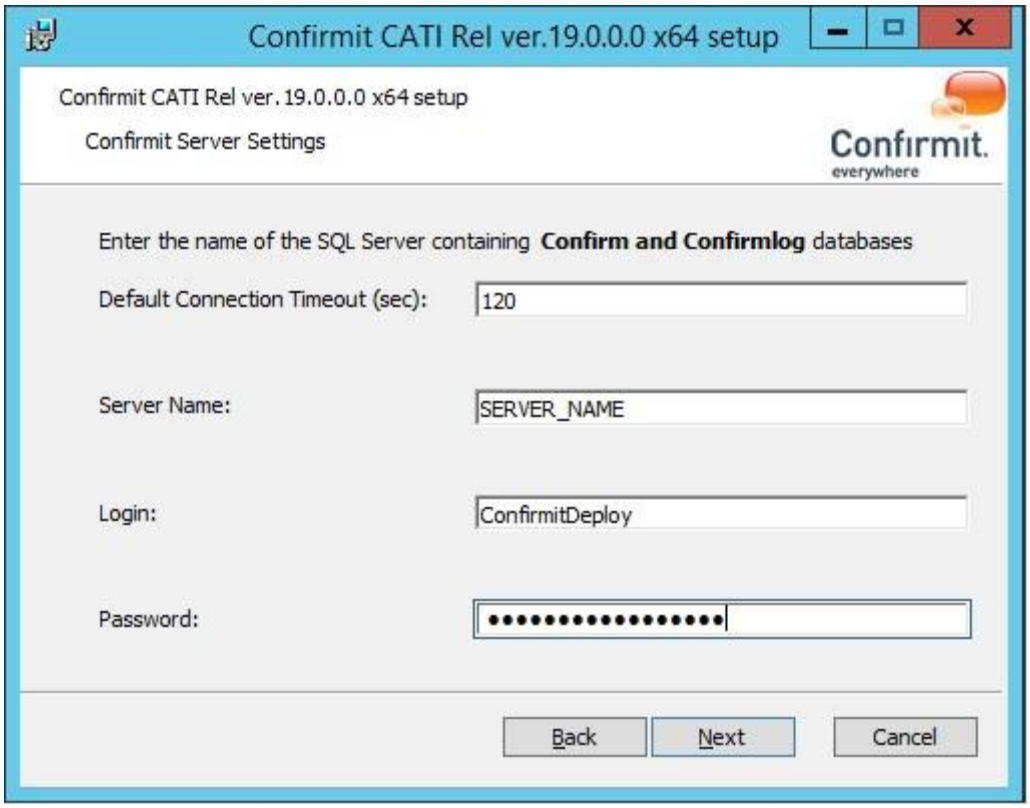


**Figure 12**

Enter the Server name / Alias and user name for the server containing your Confirmlog database. Press Next when you are done. All parameters are verified by the setup utility and in case they are valid you proceed to the next step. The next setup step depends on whether you have specified different SQL servers for CATI and for Confirmit databases. If you have specified such, you have to specify the name of the linked server which was created on a Multimode server.

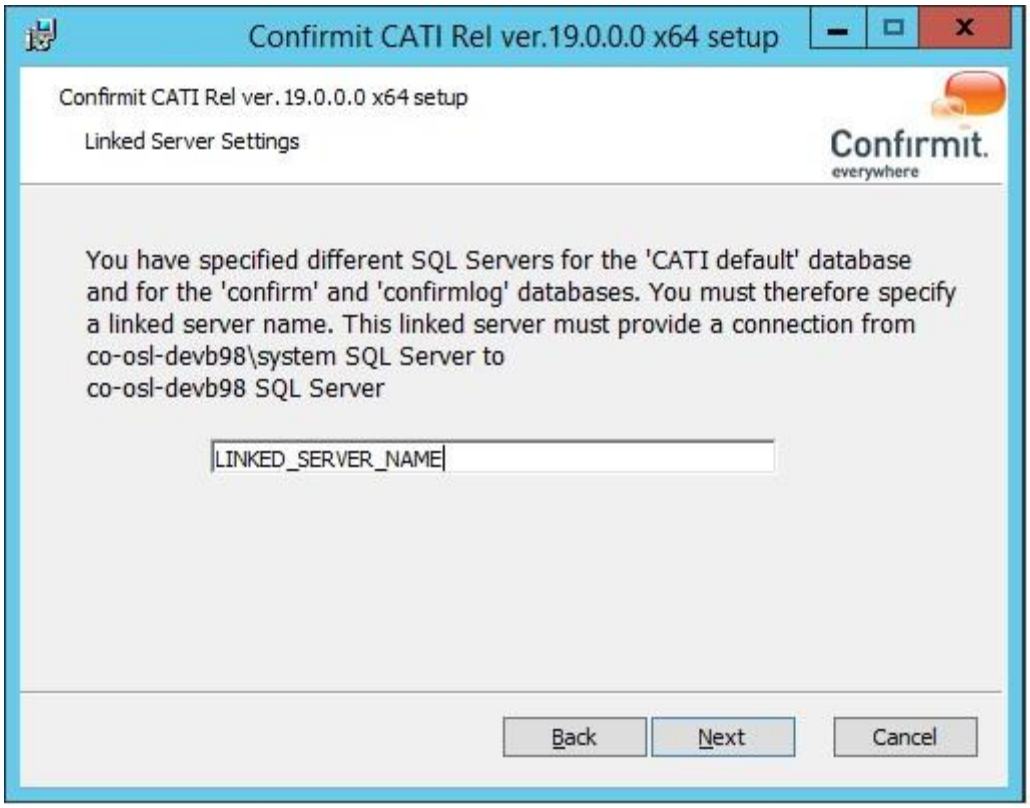


**Figure 13**

Specify a working linked server object to be used and press Next to proceed. The validity of the linked server will be checked by the setup utility.

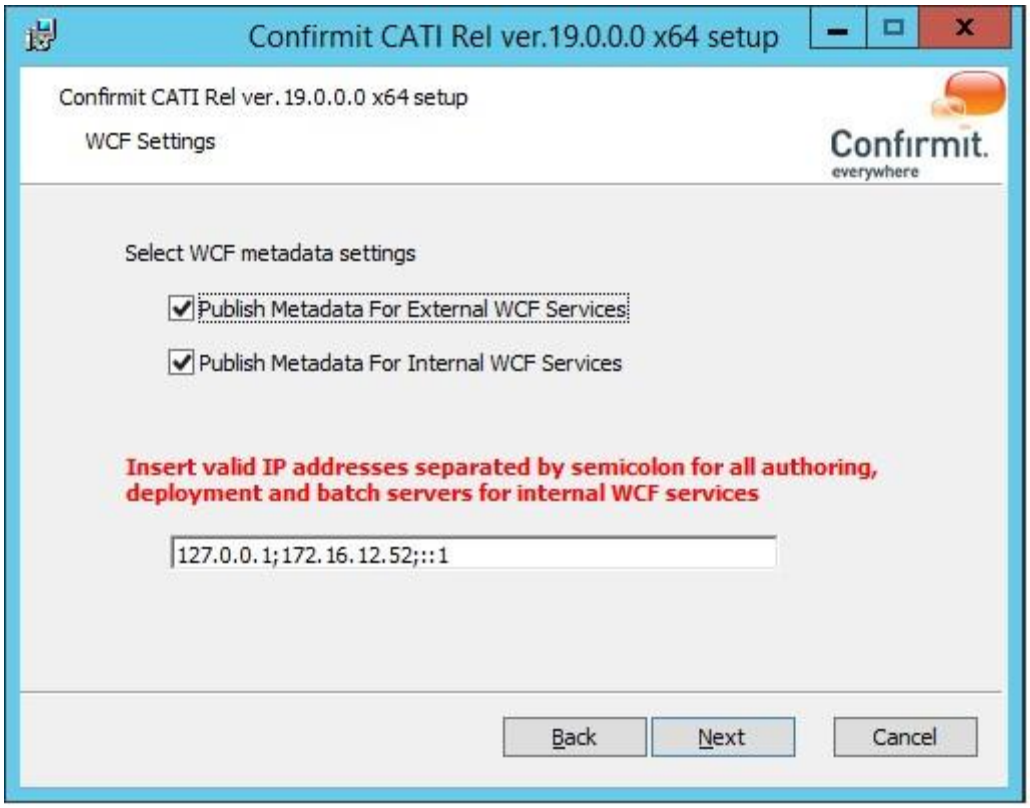


**Figure 14**

Specify settings and press next.

On this step you have to list IP addresses of all servers which are utilized by the CATI Multimode system you plan to deploy. All connections from unknown IP addresses are blocked by CATI system.

We remind that you have a possibility to add IP addresses later into default CATI database by editing the following parameter:

ConfirmitCATIV15 -> “BvSystemSettigns” table -> “Server.AccessAllowedIPAddresses” .

Press Next to proceed when you are done.

Choosing between the Load Balanced Environment and the Single Server Environment

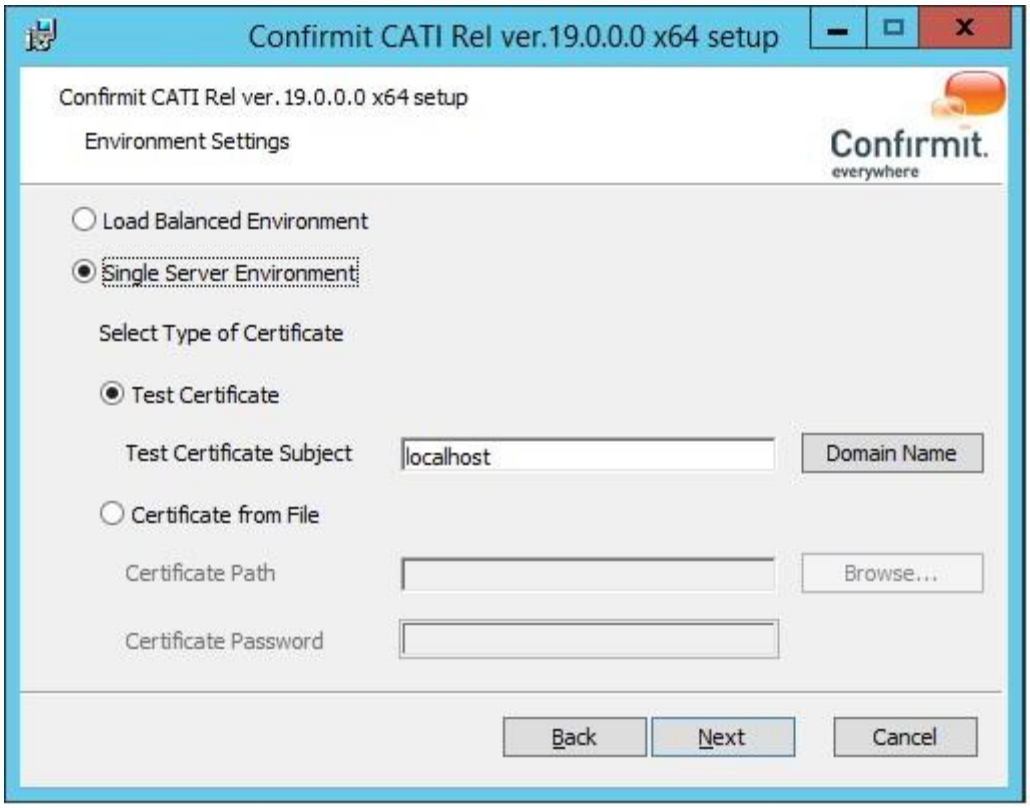


**Figure 15**

The next step allows to select between the Load Balanced Environment and the Single Server Environment. Simultaneous use of a server pool in a Load Balanced Environment lets you redistribute tasks between these servers and thus temporarily exclude a single server from this pool. This approach allows to execute the setup process on a busy system. Please be aware that the system performance can decrease in that situation, you may experience delays but still the system will remain operational. The Single Server Environment does not provide such advantage and the setup process in such environment can only be performed in a conventional way - when the system is shut down and no operation is performed.

Please mind that whatever Environment option you select on this step this choice will be saved and stored in the database. It will be used the next time you run the setup utility.

By default this setup step suggests the Single Server Environment option.

When the Single Server Environment option is selected you will have to specify a test or a real certificate to protect WCF connections. The test certificate will be generated automatically. Use full domain name to avoid problems.

Pressing Next in this situation will take you to the next step of the regular installation procedure - please see SQL Server Paths setup on page 29.

The picture below shows another option selected on the same setup step which provides a choice between the Load Balanced Environment and the Single Server Environment (please see the chapter Choosing between the Load Balanced Environment and the Single Server Environment on page 1)

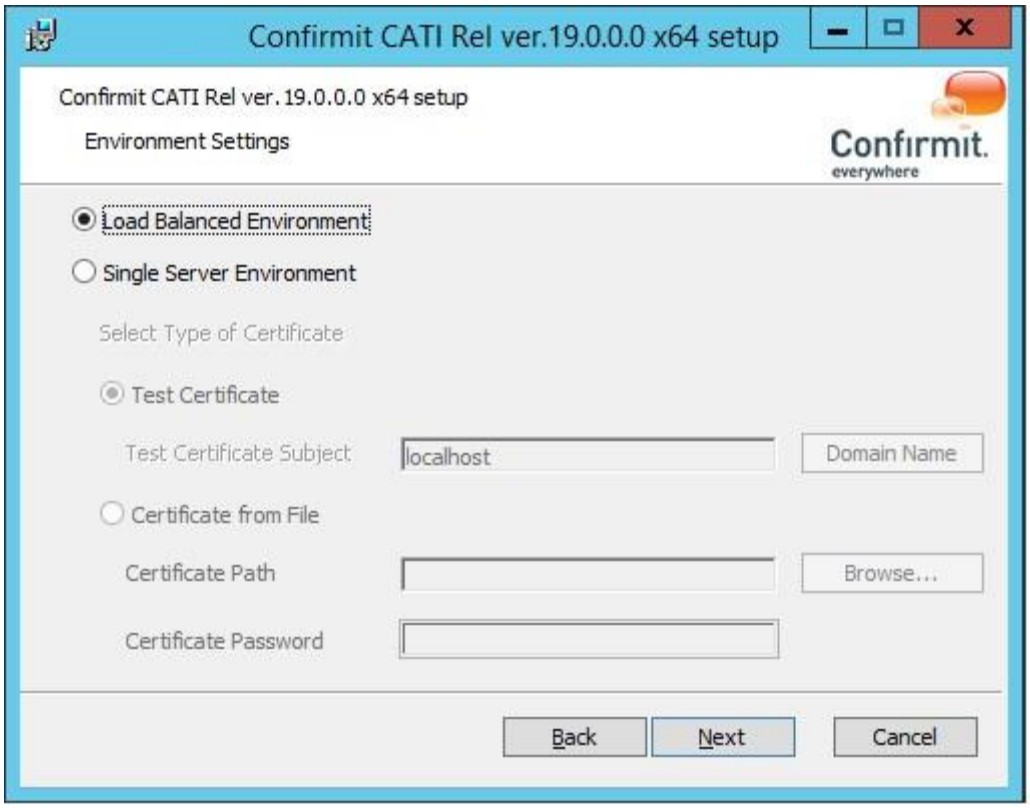


**Figure 16**

If you are going to use a Load Balanced Environment, select the corresponding option. By selecting the Load Balanced Environment option you get a choice of whether to proceed with the installation using a regular procedure (which we will refer to as a "Disruptive"), or to select a "Non-disruptive" approach.

The "Disruptive" deployment mode

The regular deployment approach assumes that all running CATI services are stopped before an update could be performed. Only after that the files could be replaced with the updated versions and the updated services could be started again. This means that the system becomes inoperable until these services are started again. This deployment mode is the only one possible in a Single Server Environment.

The "Non-disruptive" deployment mode

The "Non-disruptive" approach involves using a Load Balanced Environment which helps to avoid stopping webservices and thus interrupting interview or any operation that is in progress at the moment. When a "non-disruptive" approach is selected all operations that require connections with the database are not affected. This is achieved by way of redistributing server load (using the Load Balancer).

If you choose the Load Balanced Environment option on this step and then press the Next button, the next step dialogue will let you choose between the "disruptive" (regular) and the "non-disruptive" installation modes. In case you choose the Non-disruptive mode you will have to specify the path to the IsAlive.htm file and enter the timeout value (in seconds) during which the system will wait before initiating the setup process. This timeout lets the load balancer to "exclude" the server from the working pool and let all running operations be completed. The default value is 180 seconds.

URL of the IsAlive.htm file and timeout value

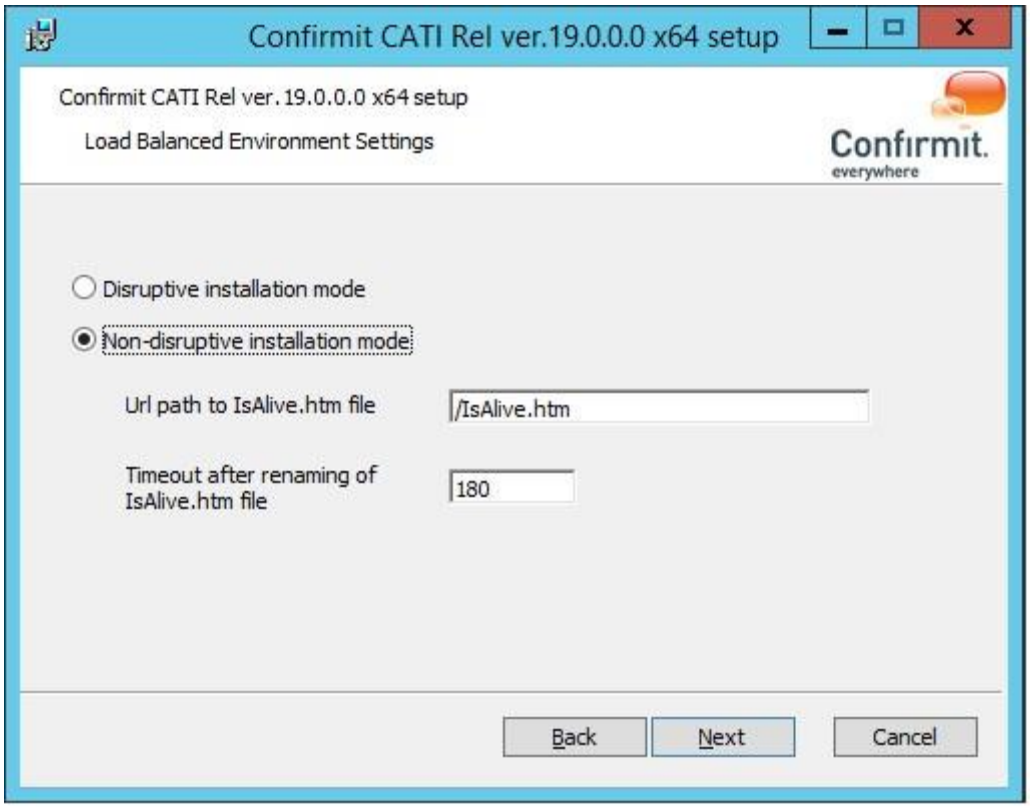


**Figure 17**

Pressing Next with the Non-disruptive installation mode selected in this dialogue will take you to the next setup step (shown below).

You are also taken to the step shown in the picture below in case you choose the Disruptive installation mode for the Load Balanced Environment.

SQL Server Paths setup

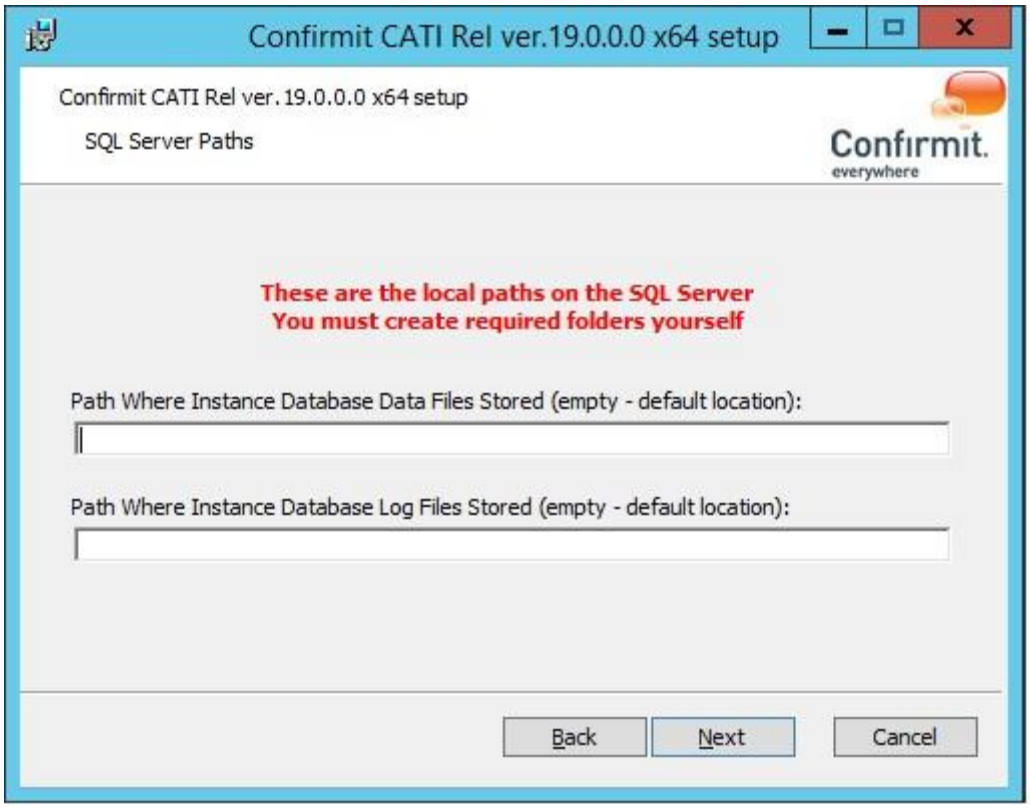


**Figure 18**

Enter data and log directories where databases will reside (Local path on SQL Server). The specified directories should exist at the specified location - the setup utility will check these folder paths and names for validity.

Press Next to proceed.

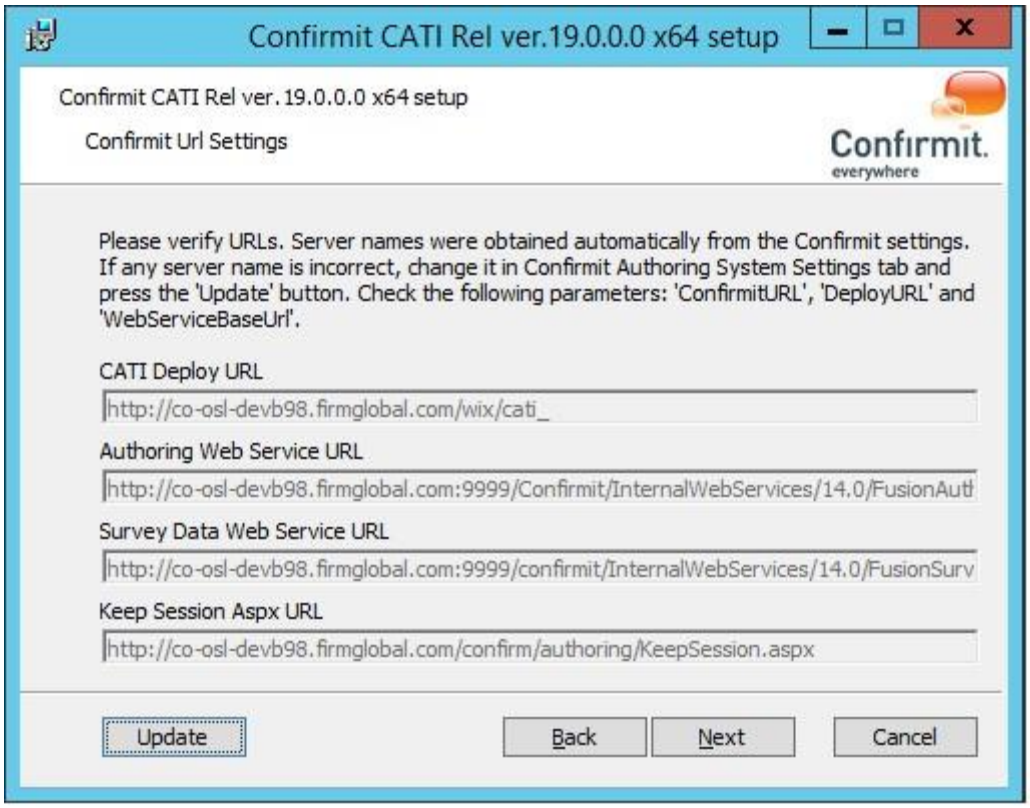


**Figure 19**

The setup procedure contacts the Confirmit server and reads the required parameter values (URLs) from the Confirmit database. Check the displayed URLs carefully. If any URL is found to be incorrect go to the System Settings tab in the Confirmit Authoring module and edit all URLs that require changing. Press the Update button when you have saved all the changes on the System Settings tab. The updated URLs will be displayed in the corresponding fields then.

Press Next to proceed.

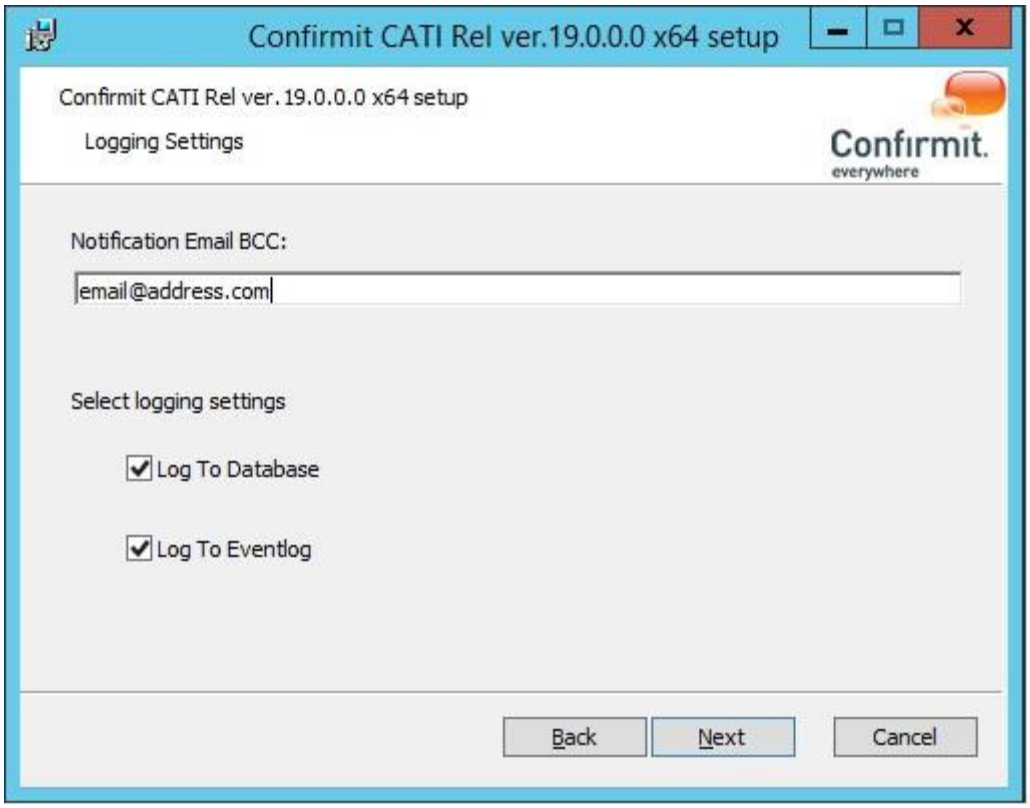


**Figure 20**

Specify a valid email address where notifications regarding errors arising during the work of the system will be sent to.

**In an environment with much activity it is recommended that you unmark "Log to Eventlog".**

Press Next to proceed.

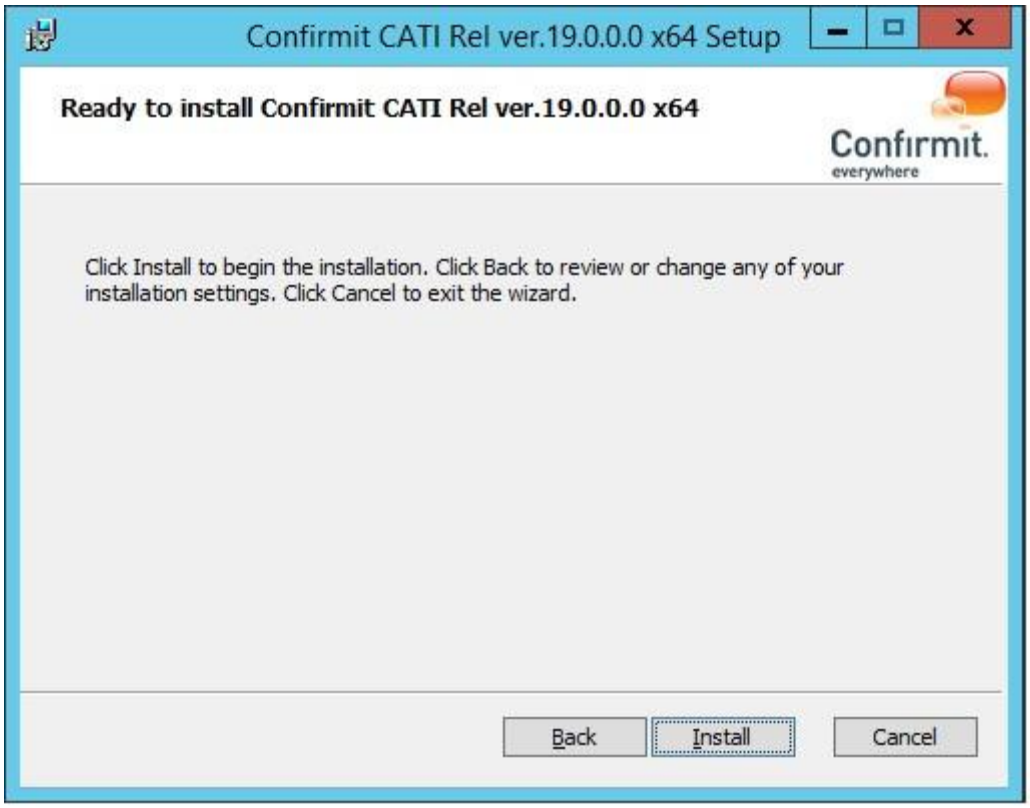


**Figure 21**

Press Install to begin the setup process.

The setup process is logged and the resulting log file is stored in a folder named using the current time/date stamp which is created inside the same folder as the setup file resides. You can use the log file for troubleshooting.

## *3.2 Fresh CATI installation on a second server*

If you have already installed CATI Multimode on one backend server but plan to use more backend servers in a single system, you have to install CATI on all other servers using an approach which differs from that described in Fresh CATI installation on page 15.

Please mind that the setup configuration which you choose at the time of the initial installation (see Fresh CATI installation on page 15) is saved and stored in the database. Any time you run the installation this configuration is used and will be applied if you accept all setup parameters it contains. You can change any available parameter on the relevant step of the setup procedure (see Changing the setup configuration parameters on page 35).

Run the installation file and select the "Install/Update" option in the setup dialog that appears:

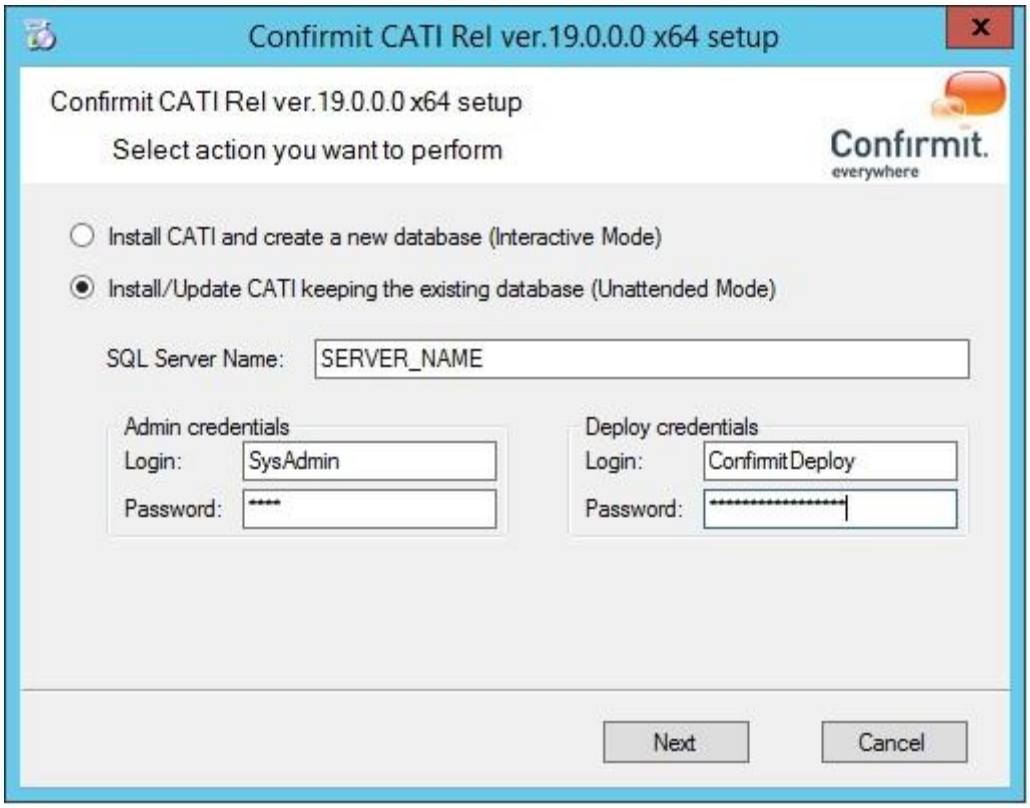


**Figure 22**

Specify SQL server name and user credentials which you have supplied during fresh installation in CATI server settings dialog (go to Fresh CATI installation on page 15 for more information). Make sure that you use the same credentials for all backend servers to avoid trouble.

Press Next. If connection to the database is made you will see the following dialog.

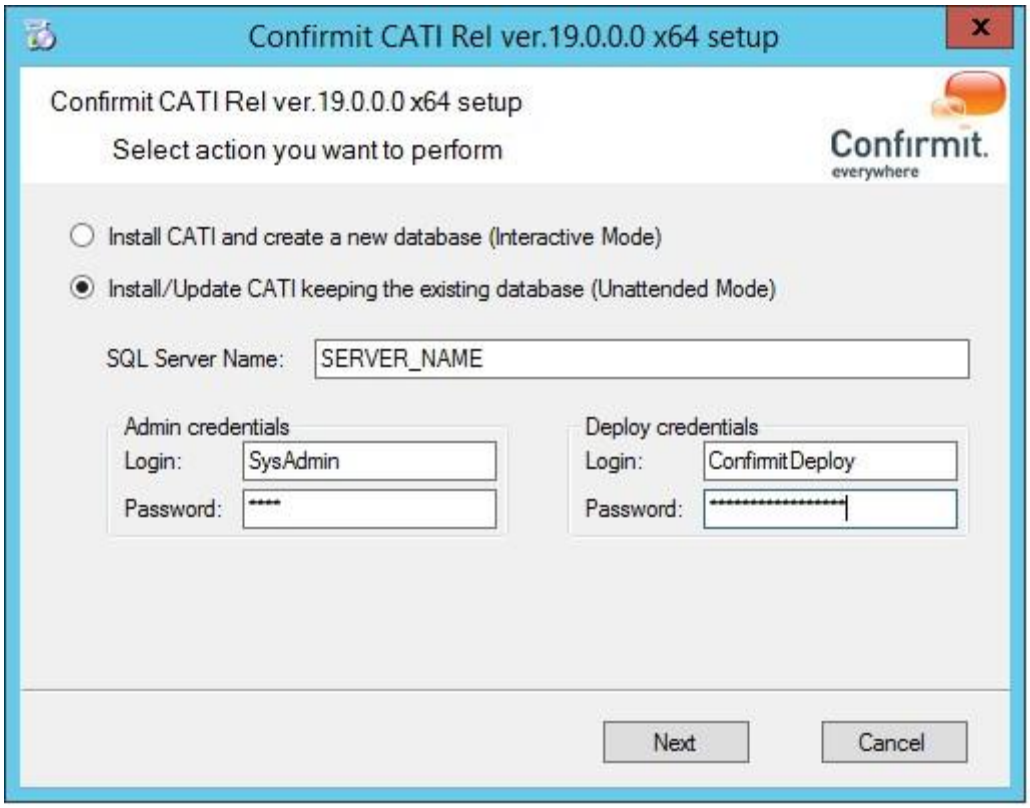


**Figure 23**

**Changing the setup configuration parameters**

On the next step you can choose to change installation parameters in the default CATI database if you want to change the setup configuration (i.e. run installation in a "Disruptive" instead of previously selected "Non-disruptive" mode).

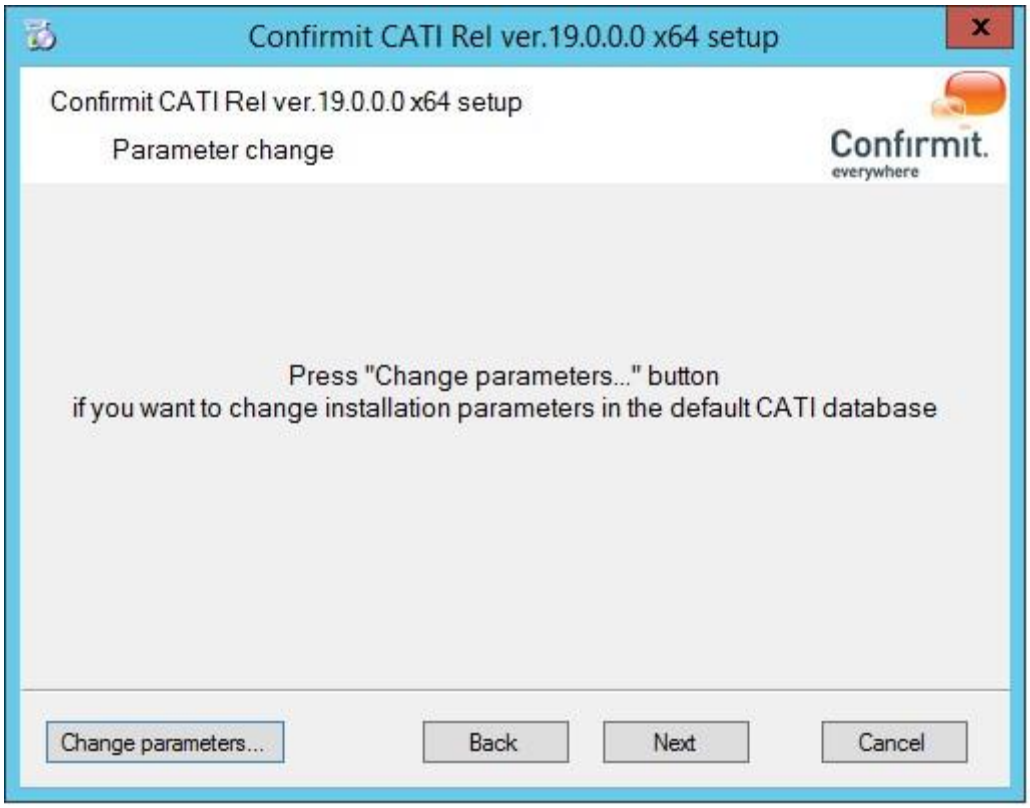


**Figure 24**

Press the "Change parameters…" button to display the following dialog.

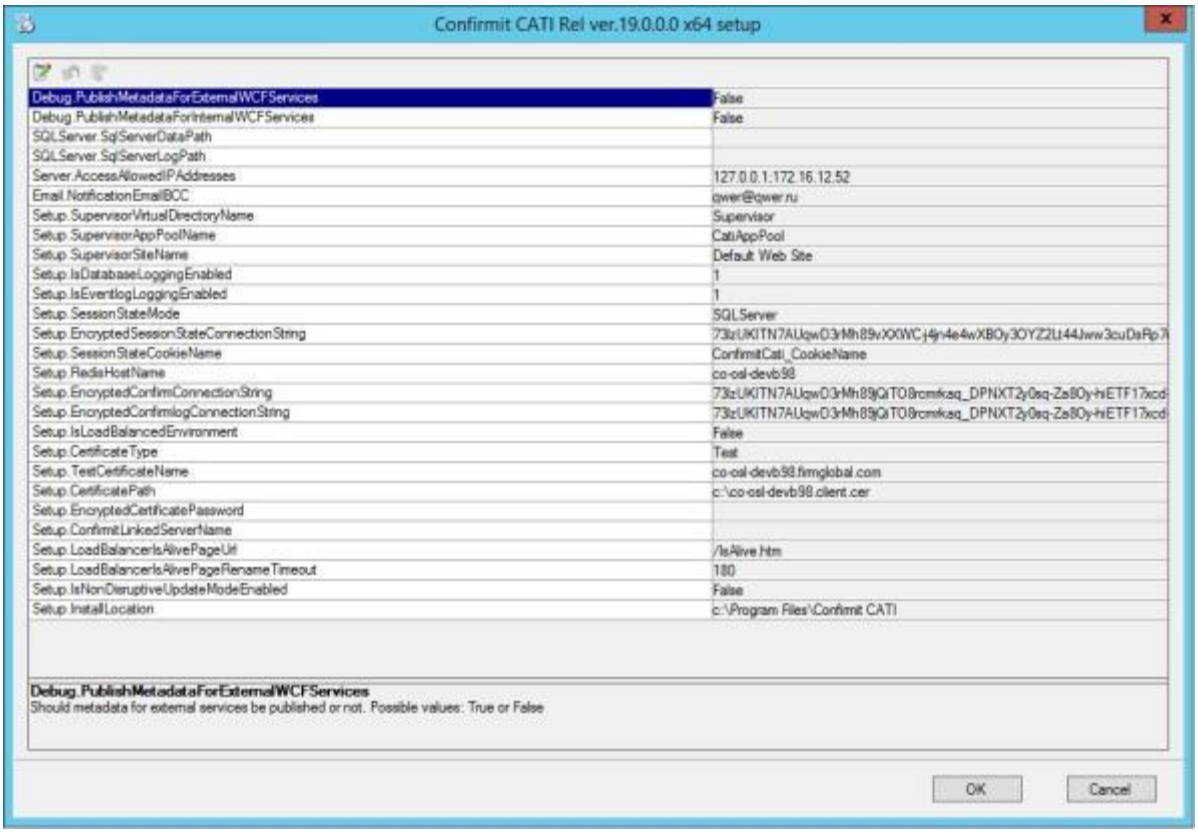


**Figure 25**

To edit existing parameters you have to make corresponding field editable. Press the "Edit" button on the toolbar and change value in the field. You can change one or more parameters. Press OK when you are done.

You can also use "Set default" and "Undo" buttons in the toolbox to set the default value or undo all changes made in the currently selected field.

Use a context menu for your convenience.

If there is a new field that is missing from the database the following dialog is displayed.

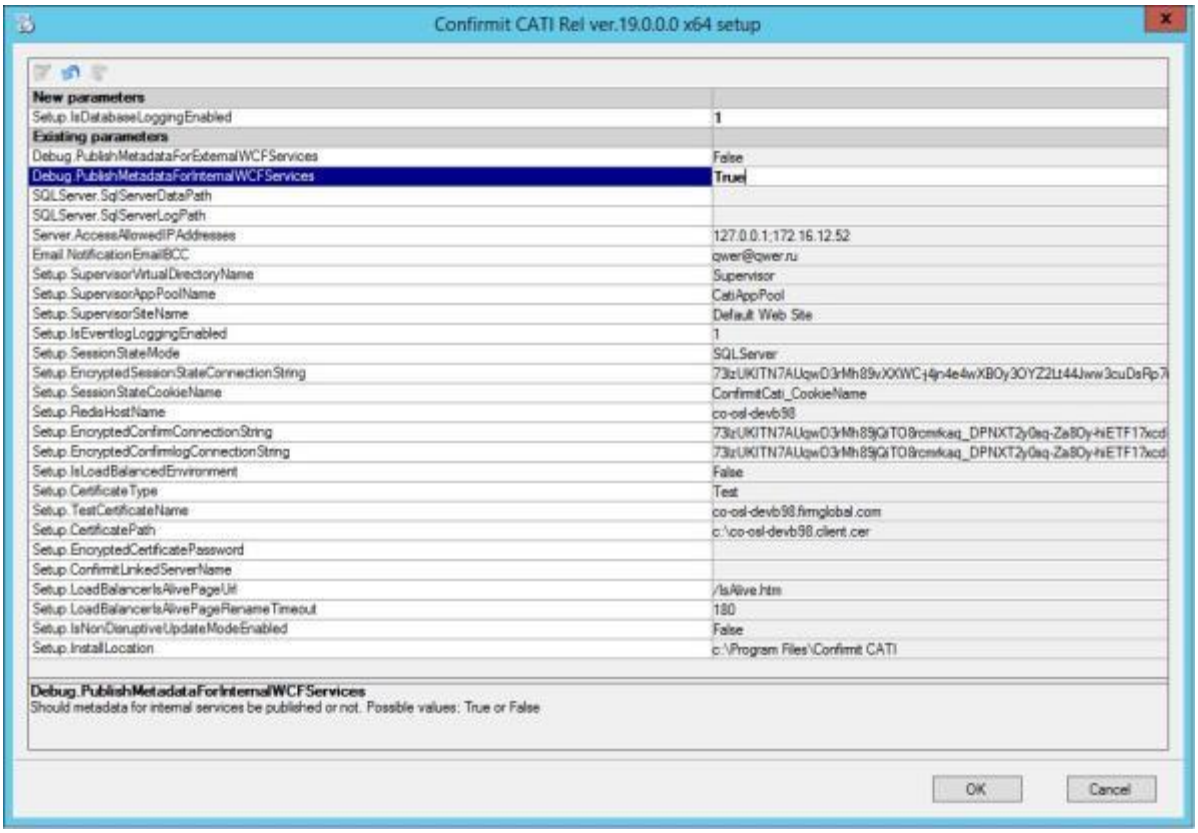


**Figure 26**

The new parameter will be added to the database. You can also change other parameters in this dialog box.

This dialog is closed when OK is pressed and you are returned to the previous dialog. This time it will contain the complete list of the selected parameters.

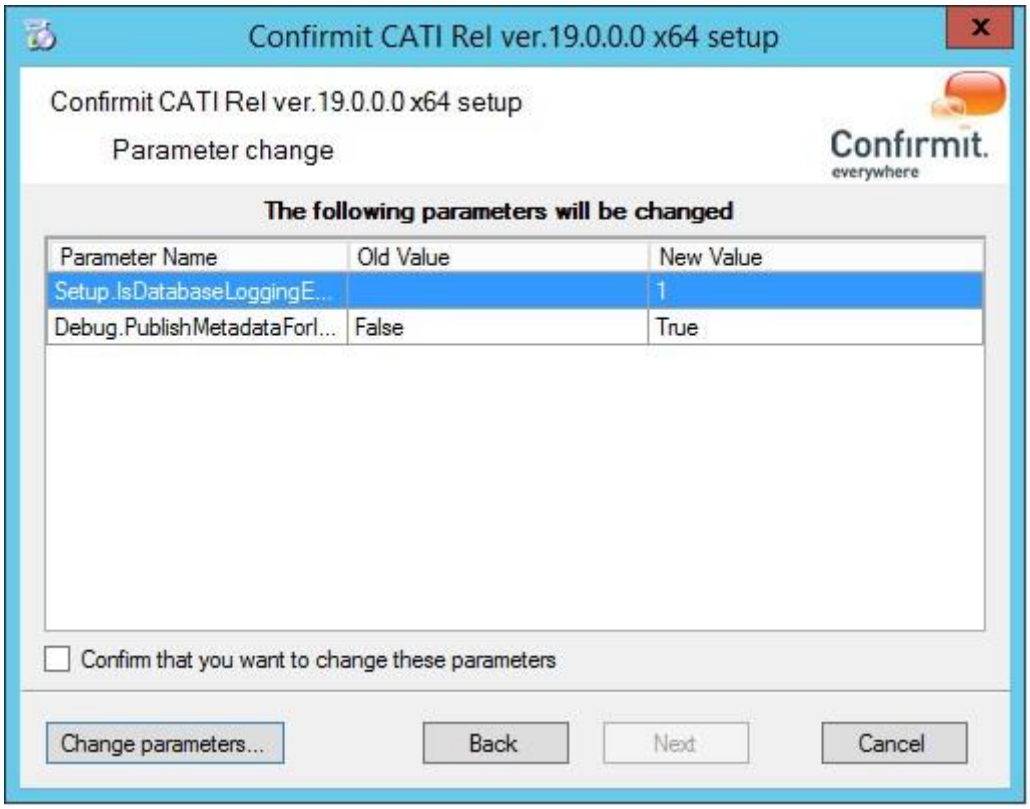


**Figure 27**

The list of all pending parameter changes is displayed next. You have to confirm that you want to change these parameters.

Check the box and press Next.

Parameter verification starts. If all parameters are correct the next dialog is displayed.

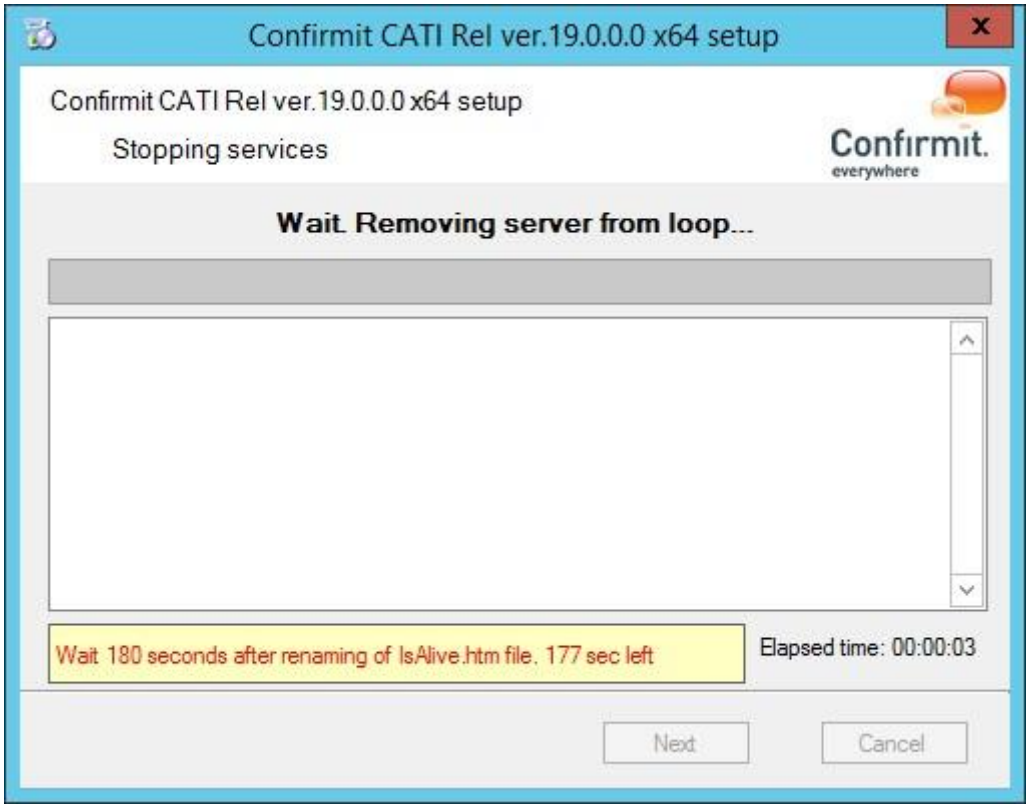


**Figure 28**

Next setup step depends on which mode was selected for the update. In case the "non-disruptive" mode is used, the dialog on this step will show the countdown of the time specified for the timeout required for the system to remove this server from the server pool (see URL of the IsAlive.htm file and timeout value on page 28). When the countdown reaches zero local services will be stopped and update of the server will commence. Services running on other servers will remain available and the system will continue operating as usual. When the update finishes, the IsAlive.htm file will retain its original name and this updated server will again appear in the server pool and continue its work as usual.

The user then should perform the same procedure on all servers that are included in the pool and thus complete the update of the CATI Multimode system.

In case the "Disruptive" update mode was chosen then all services on all servers in the pool will be stopped. This means that the CATI Multimode system completely stops working.

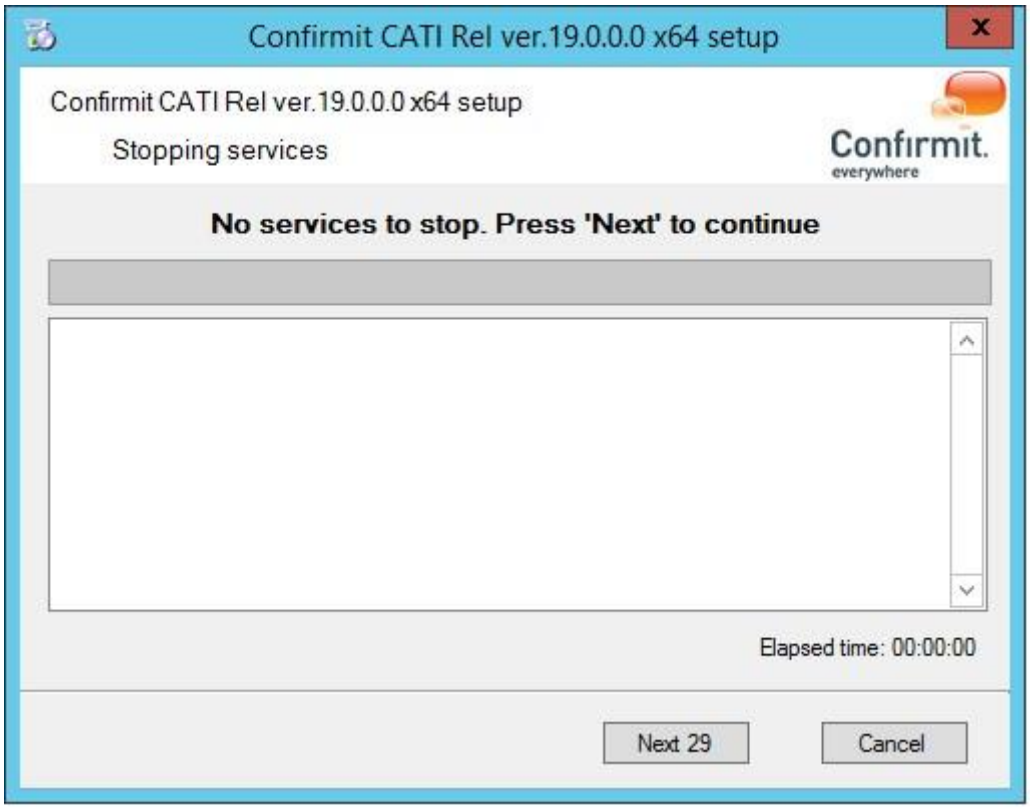


**Figure 29**

**Backend service stopping progress**

The next step dialog reflects progress in stopping services.

You will see a list of services which have to be stopped. You do not have to stop any of these manually. All services will be automatically stopped one by one; the stopped services will be removed from the list. Finally, when all running services are stopped the list will become empty.

After the service stopping process is finished you can wait 30 seconds or press Next to proceed with the installation.

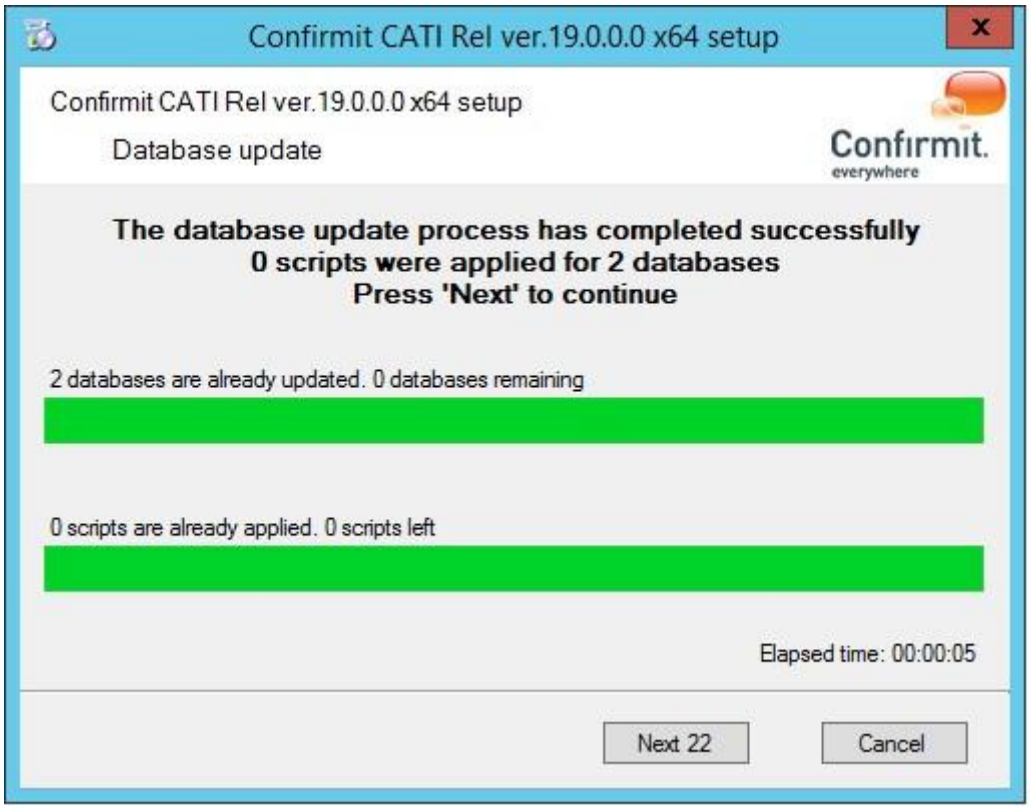


**Figure 30**

On the next step the database update dialog is displayed.

When database updating process is finished you can wait 30 seconds or press Next.

Next you are taken to the installation process. One or a couple of dialog boxes displaying the installation progress are shown (similar to that shown in the picture below).

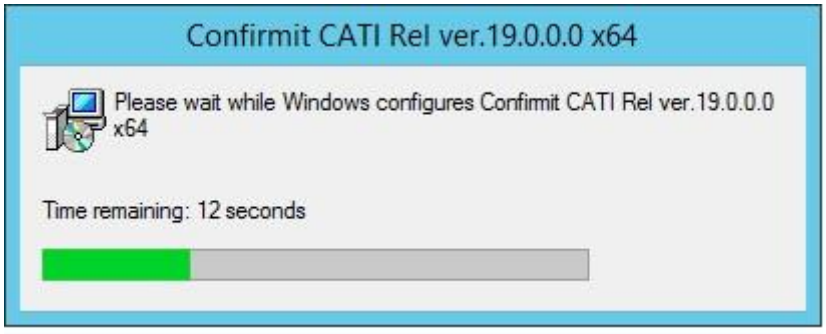


**Figure 31**

Please wait until the appropriate notification dialog is displayed.

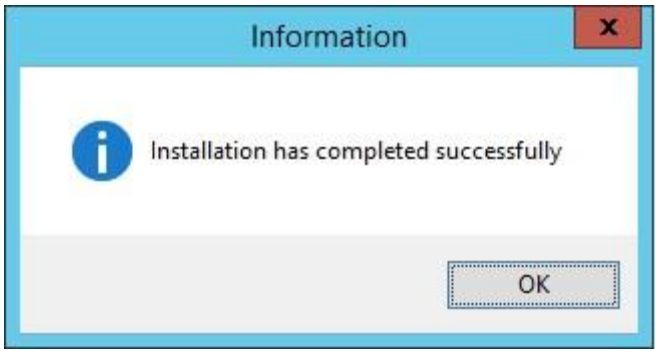


**Figure 32**

The CATI Multimode installation is now completed. Press OK to exit the setup procedure.

## *3.3 Multimode Interviewer Console and Monitoring Console Deployment*

This procedure creates an installation set on the existing CATI server which will allow the end user to install the Interviewer Console and Monitoring Console on his machine.

1. Start the Console Deployment setup (run the Confirmit CATI Clients Deployment Rel 19.0.0.0 x64.exe file).

This will display the initial installation screen.

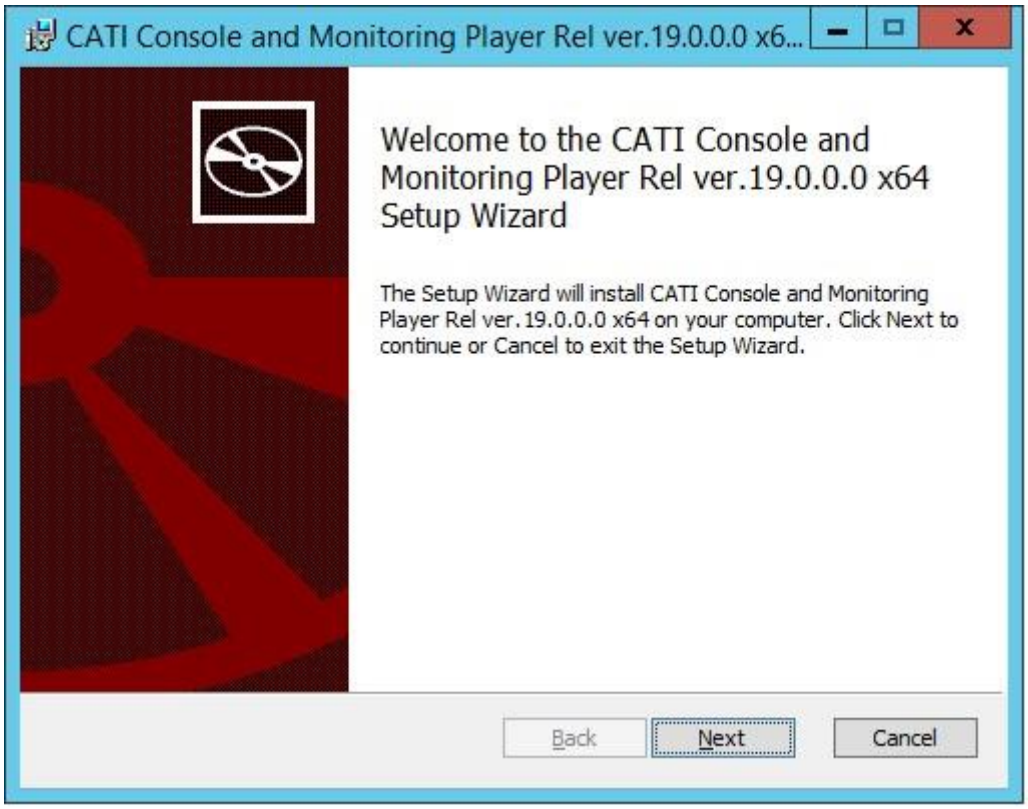


**Figure 33 Starting the Console Deployment setup**

2. Click Next to continue.

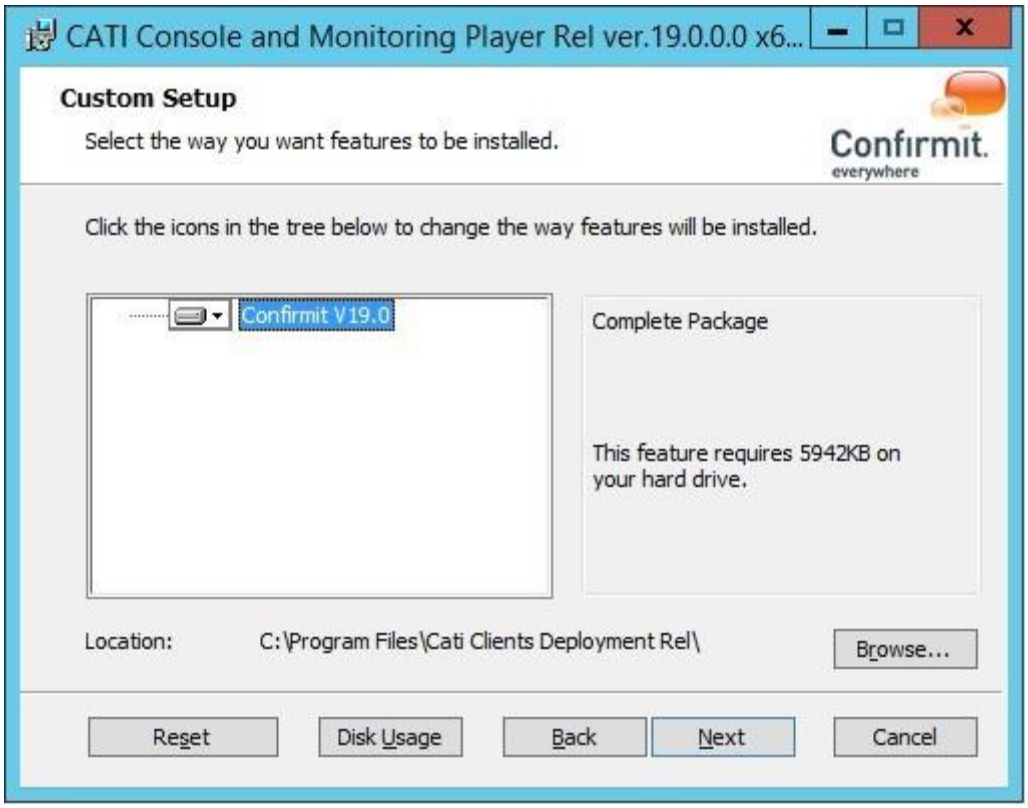


**Figure 34 Selecting how you want the features to be installed**

3. Next you should provide parameters for connecting to the SQL server which contains CATI databases: the name of the server and the user login and password. Click Next to continue.

   Please note that the installation procedure sets the Console version numbers to the current value and therefore all consoles which are installed on user's PCs and have versions that differ from the current one will stop working until they are updated. The software update will take place automatically.

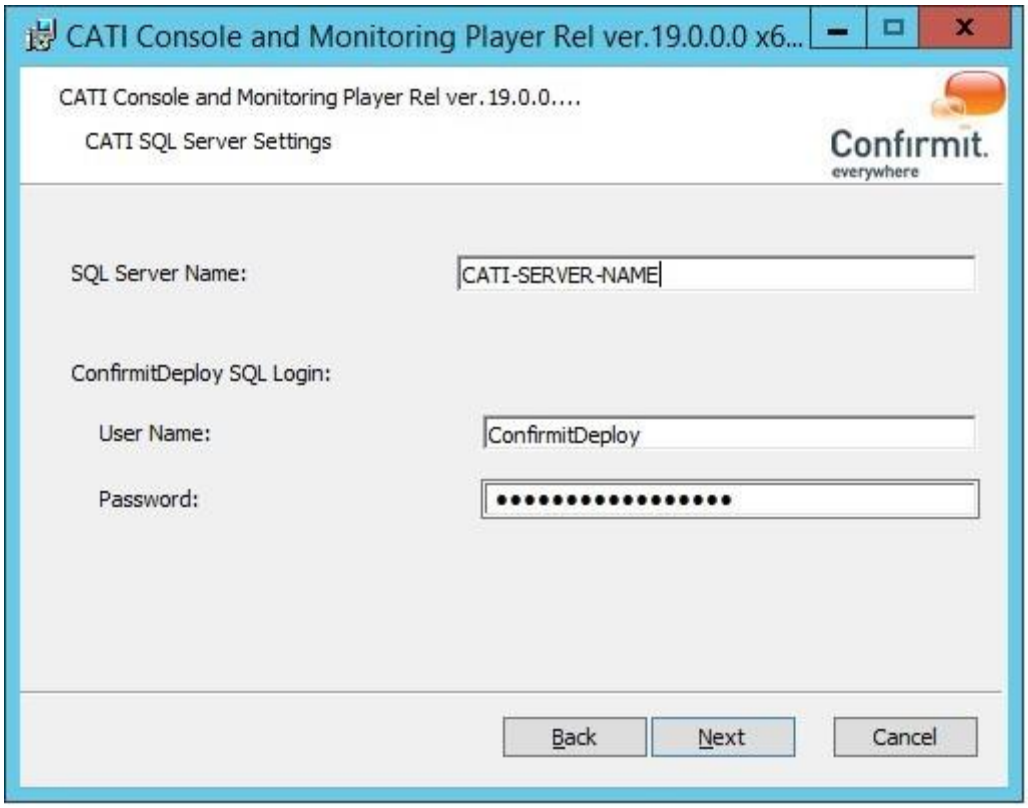


**Figure 35 Selecting the virtual directory**

4. Next you should select whether you are going to specify a virtual directory that points to the console downloads. You may select the "Do Not Create Virtual Directories" option if such directory was already created. Select the Console Virtual Directory and click Next.

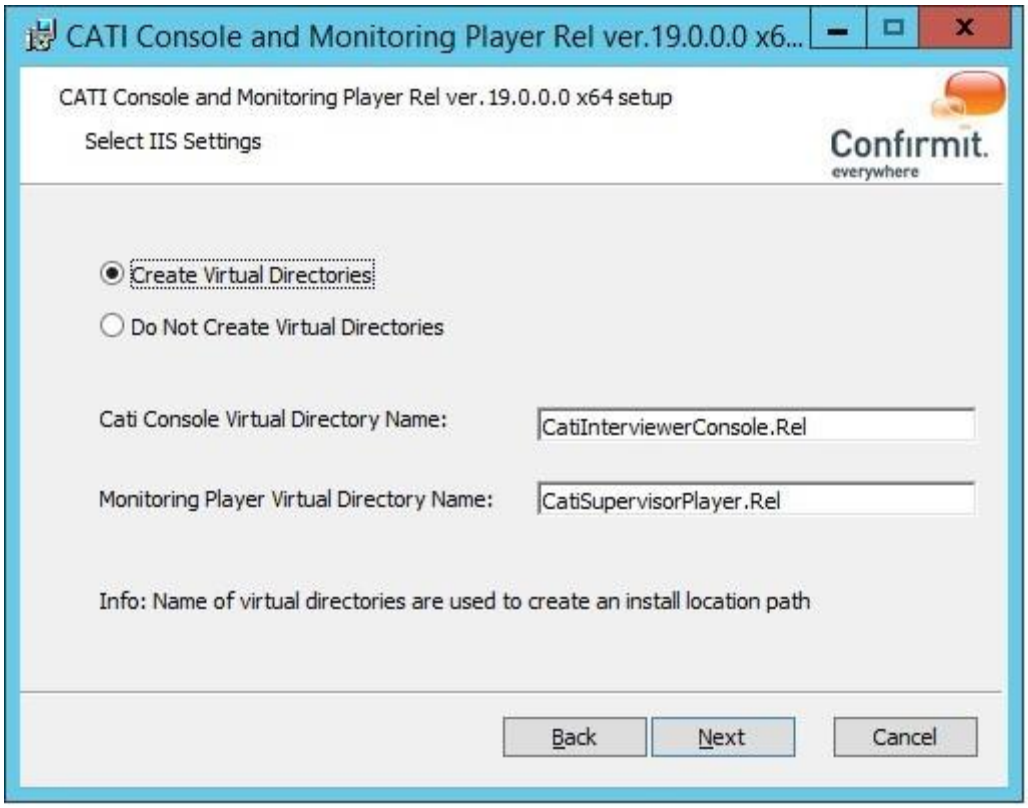


**Figure 36 Entering the virtual directory names**

5. The next step is for configuring other installation parameters:

- The Deployment Server Name specifies the name of the server where this installation will be deployed (this could also be the name of the Load Balancing machine);
- The CATI Server Name specifies the name of the server where the CATI Multimode is currently installed (this could also be the name of the Load Balancing machine). This is exactly the server that hosts the running CATI Multimode services;
- The Environment Name is the system ID - usually this is EURO for a European site, US - for a site in the USA, AU - for an Australian site.

  Click **Next** when all values are specified.

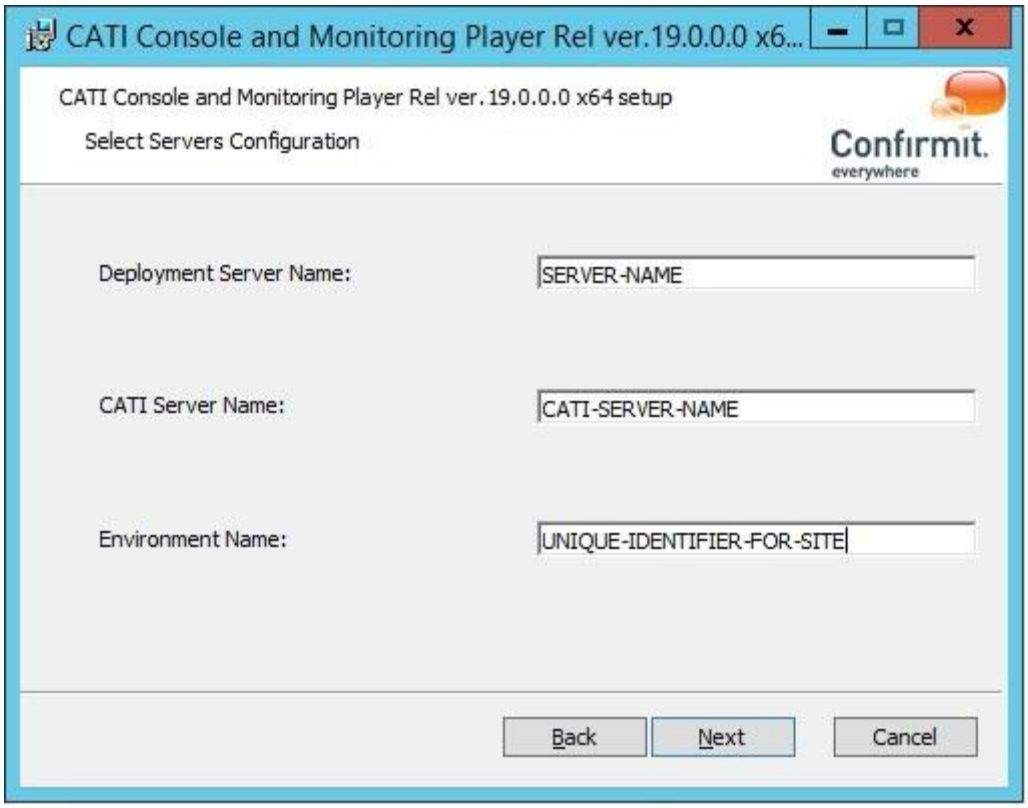


**Figure 37 Configuring the installation parameters**

6. The next step is for selecting a certificate that will be used to sign the Interviewer and Monitoring Console files which will be installed on the end user's machine.

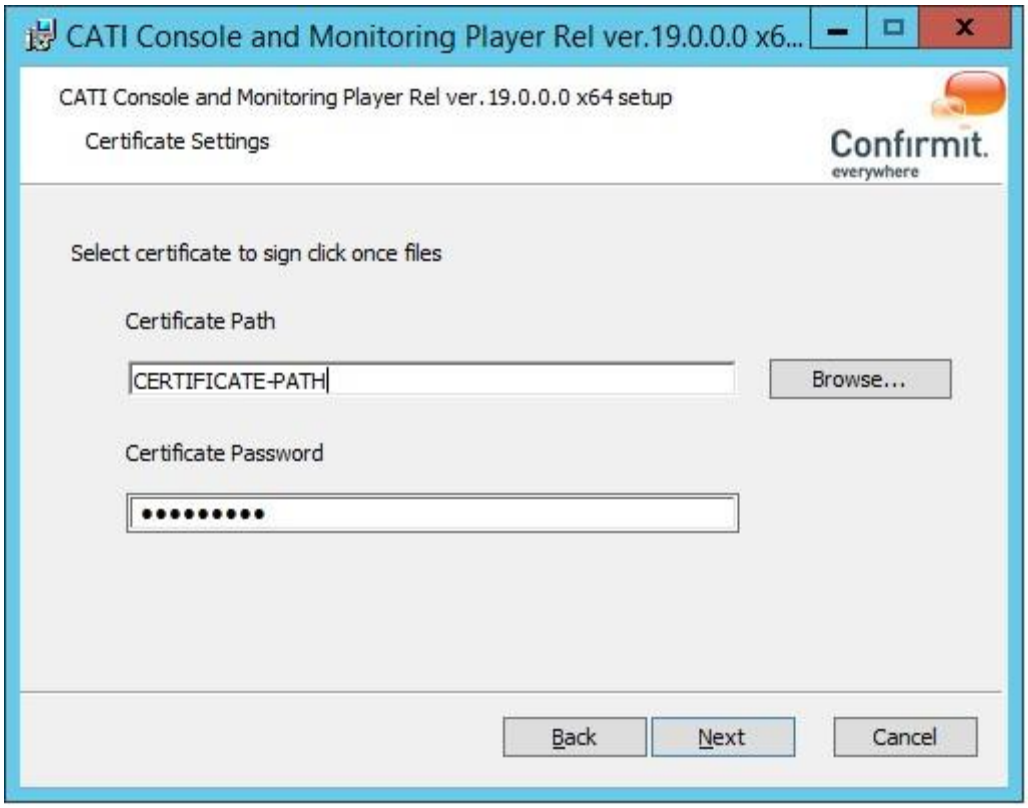


**Figure 38 Selecting a certificate to be used for signing the installation files**

7. The final dialog informs you that the installation procedure is now configured and files are ready to be deployed. Click Install to start the deployment.

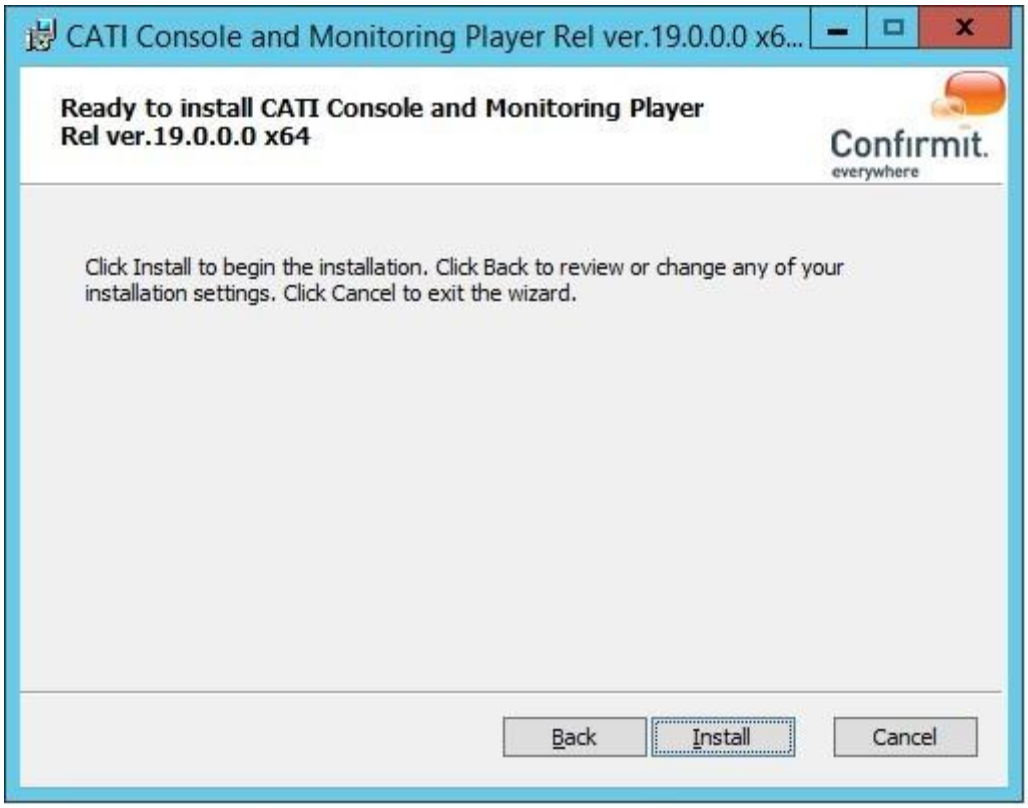


**Figure 39 Ready to install**

# 4 CATI Multimode Removal

You can remove the CATI Multimode module which is installed on the current machine. To this end you should run the setup utility and select the "Remove" option in the dialog box that appears.

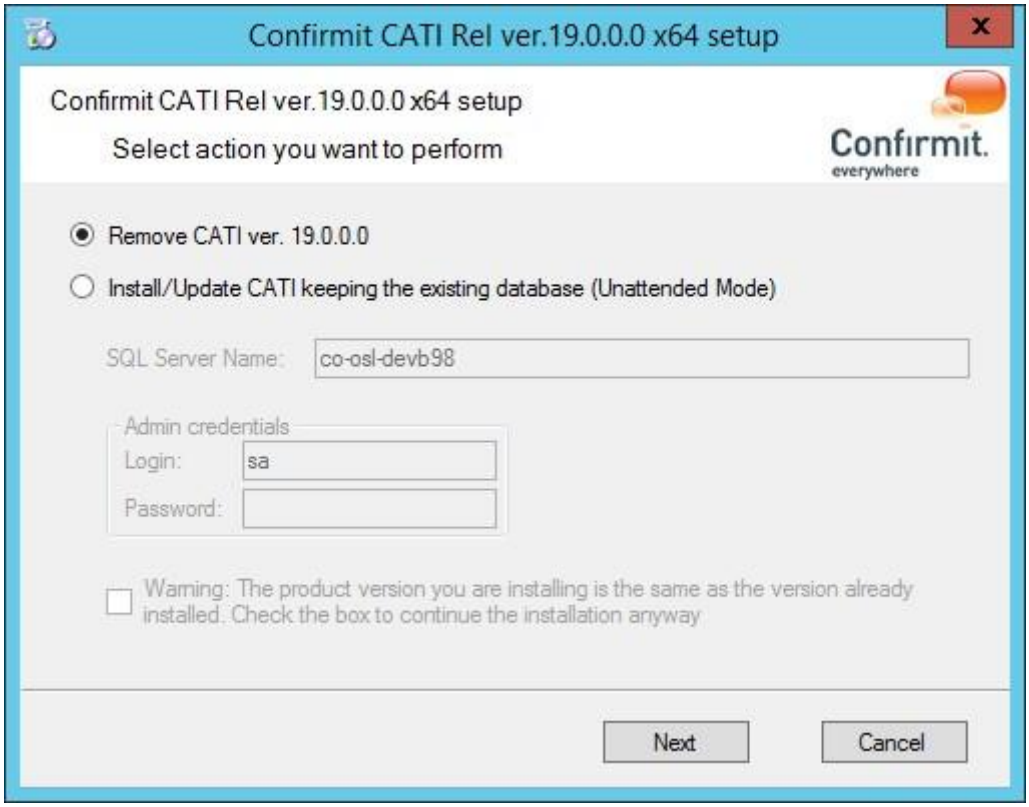


**Figure 40**

**NOTE Please mind that the removal procedure removes the CATI Multimode module only - it keeps all databases intact and these databases can be used later.**

**NOTE The setup procedure in the "Removal" mode does not rename the IsAlive.htm file. In case the system from which you are removing the CATI Multimode module uses the load balancer you will have to do the following to create a workaround for this situation: you should manually exclude the required machine from the server pool.**

Choose Next to start the removal operation. This operation is performed silently in the background. The setup utility will inform you of the successful removal completion by displaying the finishing step dialog box.

# 5 Post-Installation Steps

The following steps are to be conducted after the installation.

## 5.1 Post-Configuration Using Confirmit

Set a link from Confirmit to the Multimode component.

1. Open Confirmit
2. Go to Admin > System Configuration > Multimode.

**CAUTION! When enabling Multimode in Confirmit mind that launch of the Multimode-enabled Surveys will fail if the Company is not Multimode Enabled. Please refer to the Confirmit Authoring manuals for instructions on how to manage Company properties.**

3. In MultimodeBaseURL, enter the URL to the Supervisor application: http://ServerName/Supervisor The default name is Supervisor.Rel unless this is changed during setup.
4. In MultimodeWebServiceURL, enter the URL to the Multimode Server: http://ServerName/Rel/ManagementMultimodeInstance

   Use a Fully Qualified Domain name for URLs.
5. On a multi server site, check SetConfirmitCookieDomain in Security settings on the root level. Make sure that ConfirmitCookieSuffix is set.

**In most cases, EnableMultimodeWebservicesIPLockdown must be checked in order for CATI to work.**


**Figure 41 Examples of the domain names in the System Configuration > Multimode section**

## 5.2 Post-Installation Setup

1. Make sure the company has been assigned the CATI add-on.
2. In Company Details, enable the CATI add-on (in Add-On Modules, select CATI).


**Figure 42 Enabling the CATI add-on**

3. Save the changes.
4. Click the Add Instance button in the Company Details page.

   This verifies that a new Service called Confirmit.CATI.Backend.Rel$[CompanyID], and on the SQL Instance a new database named ConfirmitCATIV15_[CompanyID], are created.

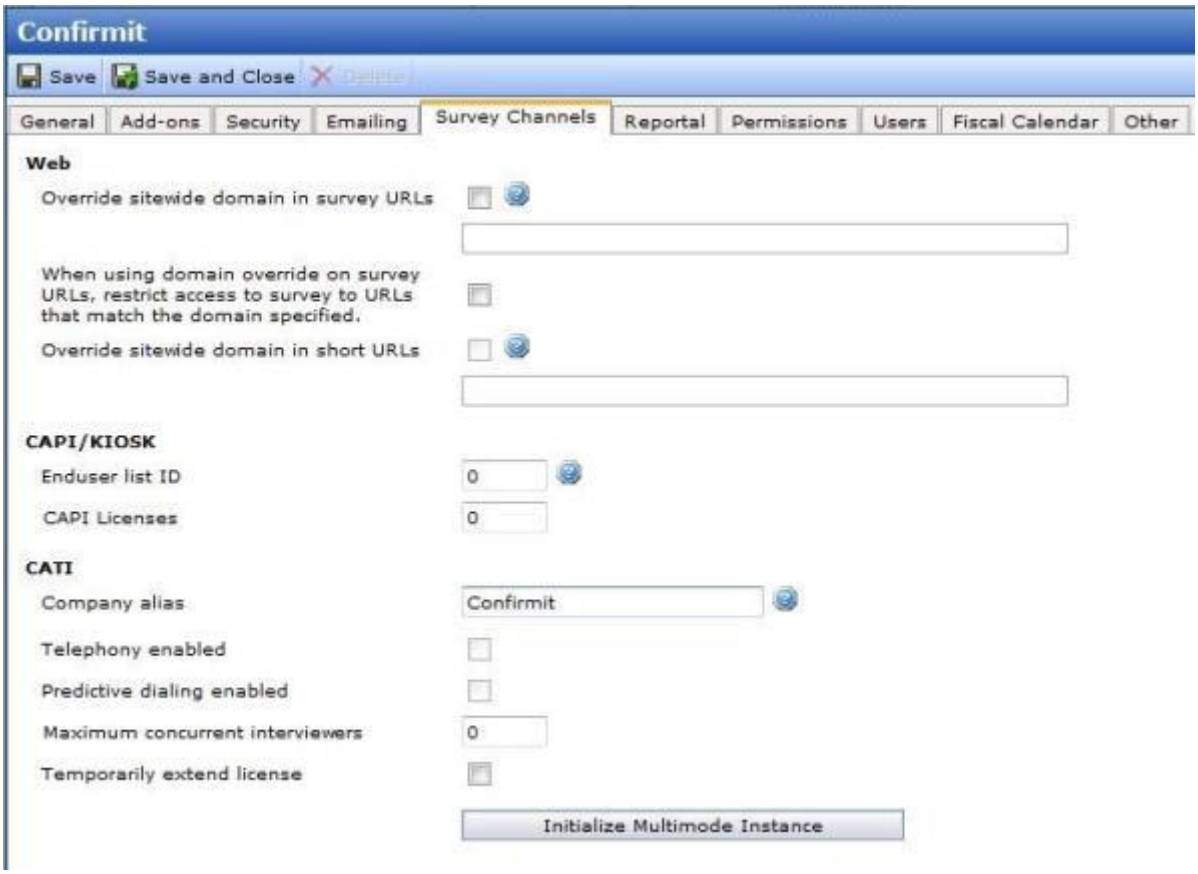


**Figure 43 Enabling the CATI add-on**

5. Create a user in the new company (Company Admin for example) with the Normal role, and grant the user the SYSTEM_CATI_SUPERVISOR permission.
6. Log in as Company Administrator.

7. To initialize a Multimode instance for the company, in the Survey Channels tab, click the Initialize Multimode Instance button.

The Multimode instance should initialize. In the event of problems, refer to the Trouble-shooting section in the appendix (go to Troubleshooting on page 66 for more information).

## *5.3 Caution when Enabling Multimode in Confirmit*

When entering MultimodeWebServiceURL and MultimodeBaseURL in Confirmit, all Multimode Surveys (CATI and CAPI) will start to use the Multimode components. You will have to initialize Multimode for all companies that use CAPI, and companies that are going to use CATI.

If you do not initialize Multimode, then launching of CAPI surveys will fail. Note that this will also affect existing surveys. CAPI surveys launched prior to installing Multimode must be re-launched so that databases can be updated.

Data collection for CAPI will NOT stop if this is not done, but the surveys will not log productivity statistics until this is done. It is therefore recommended to initialize the Multimode Component during a maintenance window.

## *5.4 Create a CATI Survey*

Refer to the Confirmit Authoring User Guide and the Confirmit CATI Supervisor manual for information on using the applications.

1. Log into Confirmit Authoring.
2. Create a new survey (Optimized DB format).
3. Add a Single question.
4. Launch the survey, ensuring that the 'CATI survey' survey mode is checked.
5. Create a respondent data file (simple file with telephone number as a header and then a list of telephone numbers).
6. Load the respondent data via Respondent > Upload.
7. Load the CATI Supervisor.

Go to CATI > Interviewer Management.

8. Add a new interviewer and ensure that it has a manual task choice.
9. Click on the Surveys tab.
10. Verify the survey appears with the sample loaded (size is given on right). Right-click on the survey and select Open.
11. Double-click on the survey.
12. Towards the bottom of the page, go to the Assignment tab and click Add.
13. Add your new interviewer.
14. Install the console (go to CATI > Download CATI Console).
15. Log in as the interviewer you created in point 8 in this procedure, using the appropriate username and password.

Note that "company" is typically the name of your company. This is configured in the Admin > Accounts > Companies property tab.

16. Verify that you can log in and perform an interview, and that afterwards the summary tab of the survey in the supervisor has more than just fresh sample (some completes).

# 6 Index

**No index entries found.**