

# CPR BROKER

*Installation and setup*

**MAGENTA**<sub>AS</sub>

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# INTRODUCTION

This document will describe how to install CPR Broker.

CPR Broker includes two parts, the CPR Broker and the Event Broker. The installation package installs both.

Before you begin, please make sure you have the requirement listed in the chapter System Requirements and also the information in chapter Needed information

Next, you can see the chapter Installing CPR Broker for details.

After the installation finishes, some configuration steps are necessary. See the chapter *Configuring CPR Broker* for details.

# 1SYSTEM REQUIREMENTS

Windows 2003 or Windows 2008 with IIS installed. Windows XP/Vista/7 with IIS installed will work for demonstration purposes but not for production due to the 10 concurrent connections limit these operating system impose.

For Windows 2008 you need to make sure that you have the *IIS 6 Management Compatibility* Role Service for *Web Server (IIS)* Role installed, as well as - of course - the *Web Server (IIS)* Role itself. You should also install the *.NET 3.5.1* Feature via *Server Manager*.

SQL Server 2005 (or SQL Server 2008).

.NET Framework version 3.5 SP1.

Any computer capable of running the above software will also be capable of running CPR Broker.

## 2NEEDED INFORMATION

You will need to have some information before you install CPR Broker. You will also need to make a few decisions for the names of database and web server entries.

### 2.1Windows

You will need a windows account that have administrative rights on the machine you are installing on.

### 2.2Web

CPR Broker can be installed as a root site (on Windows 2003 and 2008 only) or as a virtual directory to an existing root site. You need to decide on names for CPR Broker and Event Broker web sites (or virtual directories).

If you want to install CPR Broker as a root site (which is what is recommended) you must prepare a DNS record to point to the web server before beginning the installation. The installation program does not create this DNS record for you. You can do that locally by editing the hosts file, usually located at `c:\WINDOWS\system32\drivers\etc\hosts`

### 2.3Database

You need to know the machine name and server instance of the SQL Server instance that you plan to use for the broker. You need to have access to instance. The account you use must be a member of the sysadmin role (used only during the installation to create the database).

You need to decide the database names that you plan to use. The suggestion is CprBroker and EventBroker, but you can use whatever names you want.

You should also determine the login information that you want the broker to use in order to access the database. The installer can create it for you.

### 2.4Data providers

To configure CPR Broker after installation, you need information about how to connect to its data providers. Please refer to the section Data Providers for more details.

## 3INSTALLING CPR BROKER

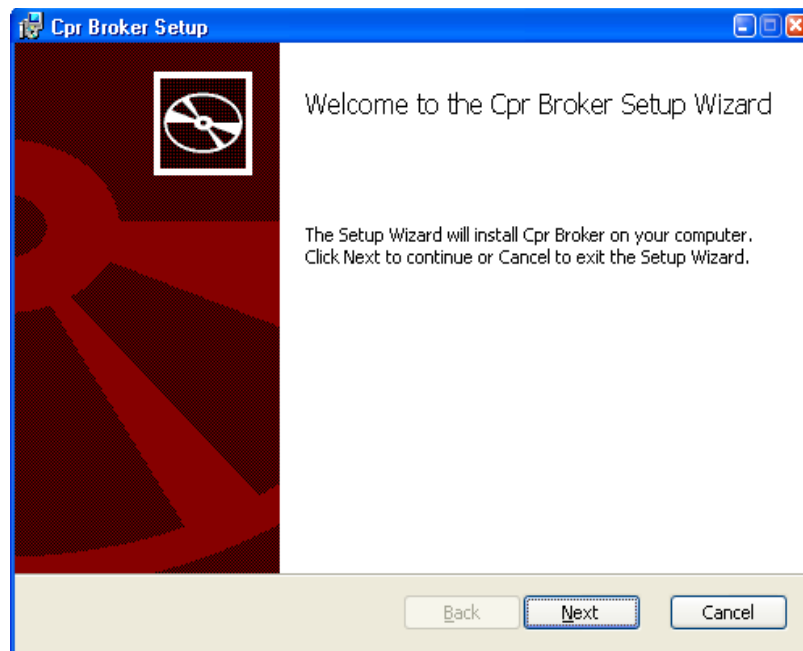
Copy the installer zip package to the computer with *IIS* installed. Unzip the package.

You can install CPR Broker using a wizard, or -if you know what you are doing- by a silent installation via the command line.

### 3.1Using the installation wizard

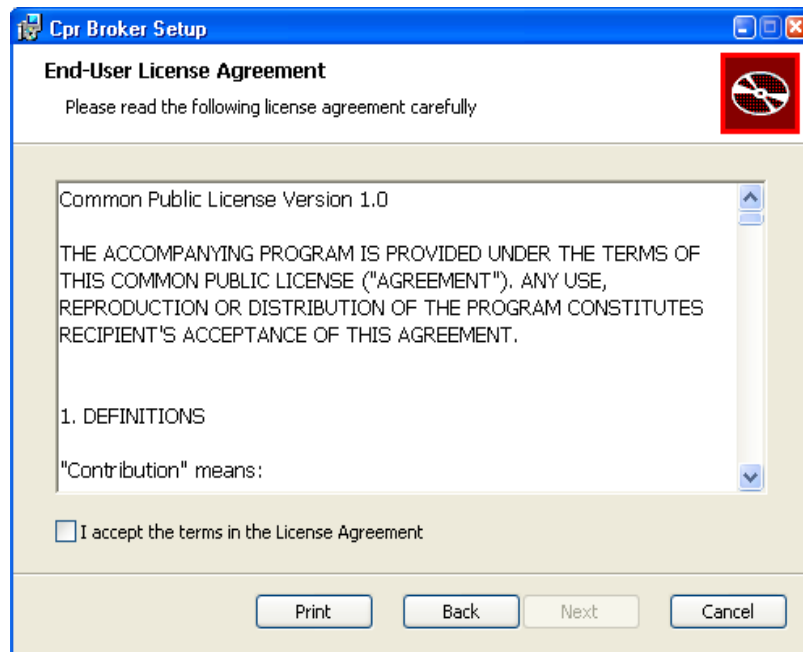
Double-click `InstallCprBrokerWix.msi` to launch and click *Next*.

Please note: On a computer with *User Account Control* (*Vista/2008/ 7*) please right click and select '*Run As Administrator*'

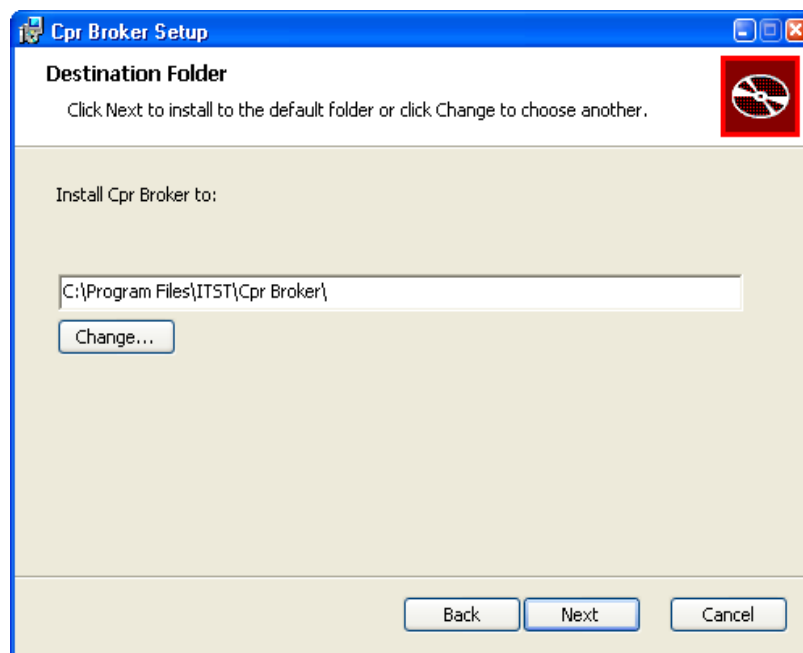


Click *Next* to continue.

The next screen will show the license terms. Accept and click *Next*.

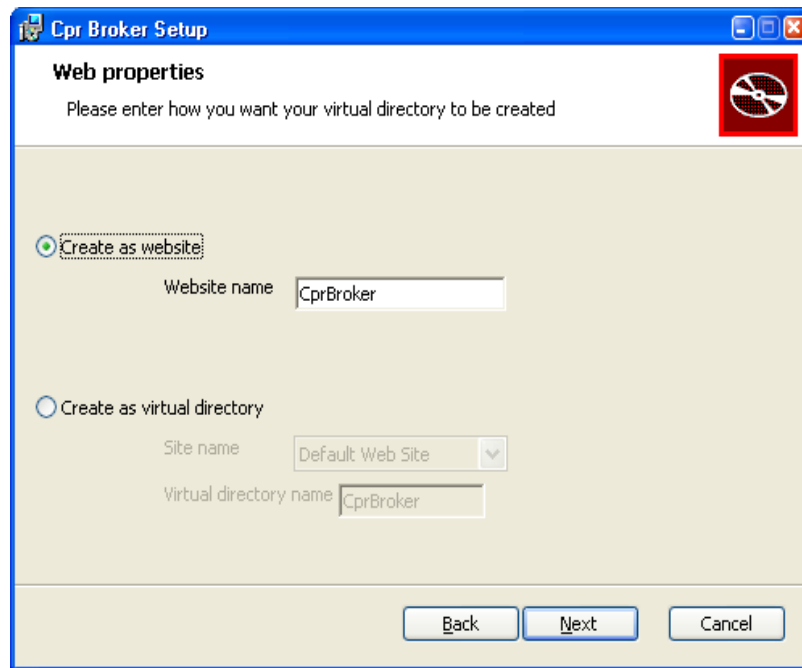


Now you will see this screen.



Choose where to install the files for CPR Broker. The default selection will most likely be a perfect fit. Click *Next*.

The installer now needs information on the CPR Broker web site should be installed



If your IIS can have multiple sites (on e.g. Windows 2003 and 2008), type the name of the website to be created. The default name is fine.

You can also choose to install as a virtual directory in an existing website. Choose the website from the list and type the name for the virtual directory. Default name is fine.

If you are installing on e.g. Windows XP you only have the option of installing as a virtual directory to the Default Web Site. The *CprBroker* application name will be okay for most purposes.

Click *Next*.

The installer now needs information necessary to create the database in which it stores copies of CPR -information.



**Cpr Broker Setup**

**Database connection**  
Please enter the database information here

Server name:

Database name:

**Admin connection**

☒ Integrated windows authentication  
☐ SQL Server authentication

User Id:   
Password:

**Application connection**

User Id:   
Password:

Back Next Cancel

The *Server name* is the name or IP-address of the computer on which the SQL Server resides. It could be *localhost* if the SQL Server resides on the same computer as the web site. If the server has multiple instances, type [ServerName]\[InstanceName]. Example is localhost\SQLEXPRESS

*Database name* is the name of the database. *CprBroker* would be a well chosen default name. If the database already exists, you will be given a warning message. If you accept it, the database will be used as it is. Please note that you will have to re configure the data providers because of encryption issues. Refer to the section “Data Providers” for details on how to do that.

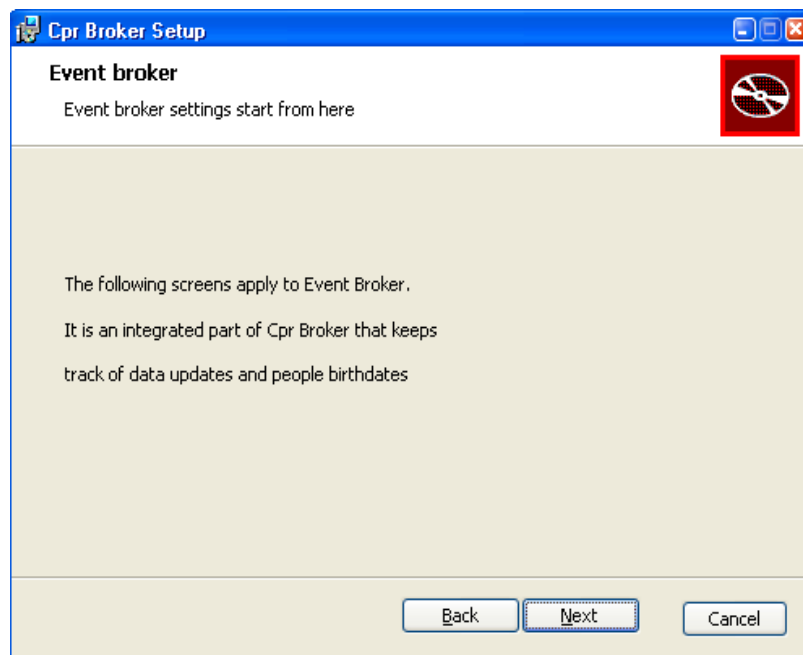
*Admin login* is used for logging into the SQL Server and creating the database with the necessary tables etc. Whether you should use *Windows authentication* or *SQL Server authentication* depends very much on your setup. If the SQL Server is on the same computer as the web site you should most likely use *Windows authentication*.

*Application login* is used by the web site and services to connect with the database. The credentials needed for this purpose do not need to have as many privileges as the *Admin login*. Type the *User Id* and *Password* that you want the broker to use. If the user exists as a login, the password has to be the correct user's password. If not, the installer will create a new SQL login for you. In all cases, the user will be added to the db\_owner role in the database.

When you are satisfied with your settings, click *Next*. The installer will test the information you have provided. You will see an error message if the information is invalid. Please check the information and click *Next* again in this case.

Now we have configured the web and database for the CPR Broker feature of the CPR Broker product. From this point, we will start entering the information for the Event Broker

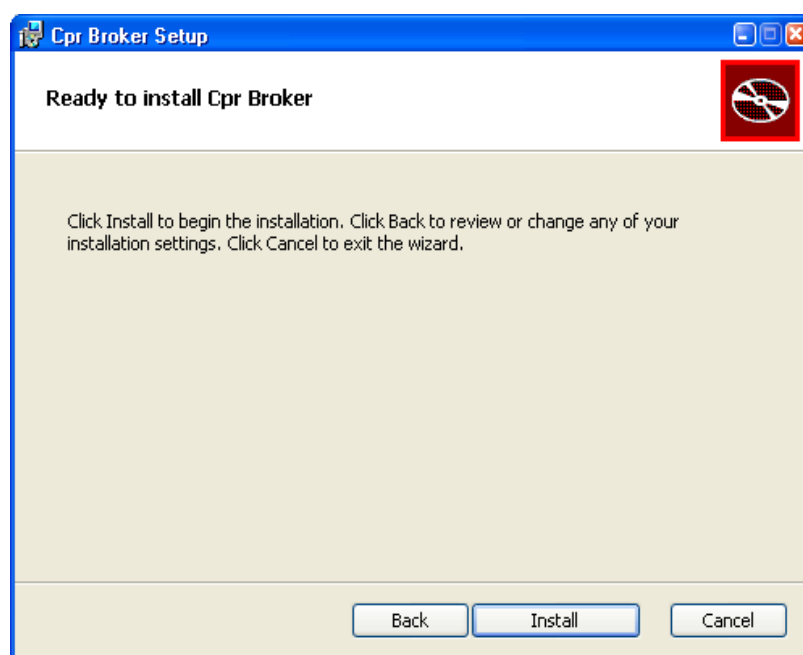
feature. The next screen will give you a warning.



Click *Next*.

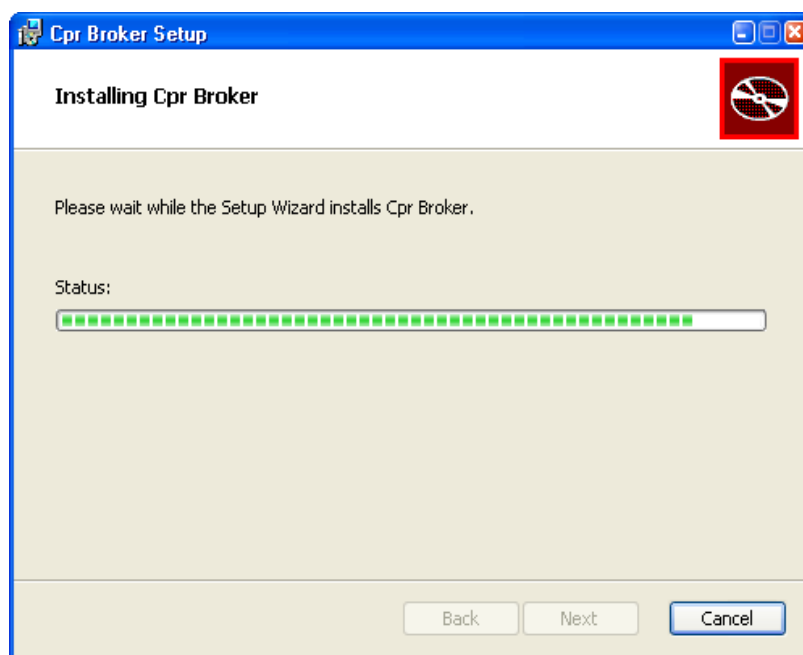
Now you will be prompted to enter the information for the web site and database of Event Broker. Please fill them as you did previously. Please make sure the web/database names you enter here are different from what you entered previously (for the CPR Broker feature).

After you are finished, you will see this screen.

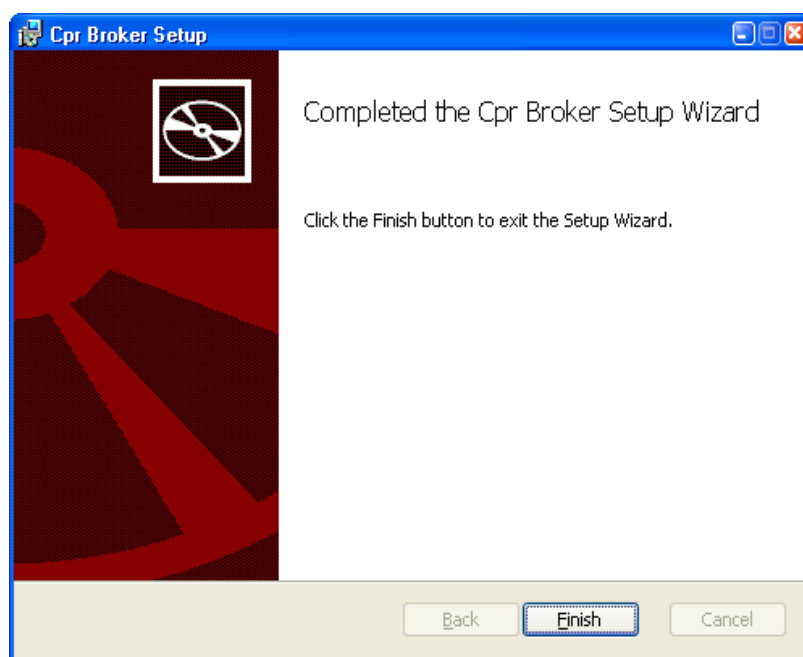


Now click Install to start the installation process.

You will see the progress screen



Wait until the process is finished. Then you will see this screen



Now everything is OK. Click *Finish* to close the wizard.

Done!!

CPR Broker

## 3.2 Silent installation

If you are the type of people who prefer to use command line interfaces, then you can also do a (semi) silent installation of CPR Broker.

The command to use is

```
msiexec /qb /i InstallCprBrokerWix.msi /lv* SilentInstall.log [PROPERTY=VALUE,.....]
```

The following tables describes the parameters in details.

### 3.2.1 Parameters belonging to windows installer

Parameter	Description	Example
/qb	Specifies user interface level. Could be	/qb
	/qn Completely silent installation	
	/qb Basic user interface. With progress dialogs	
	/qr Reduced user interface	
/i	Path to msi package	/i InstallCprBrokerWix.msi
/lv*	File to use as a log (optional)	/lv* SilentInstall.Log

### 3.2.2 Parameters specific to CPR Broker

These parameters are used to pass values for public properties. They are used in the form PROPERTYNAME=value

If the value contains a space, you need to enclose it in double quotations

PROPERTYNAME="value with space"

Property	Description	Example value
WEB_CREATEWEBSITE_CPR	To create CPR Broker feature as a website. "True" means create as website, anything else means "False"	True
WEB_SITENAME_CPR	Name of CPR Broker website. If WEB_CREATEWEBSITE_CPR = True, this property has to be the name of an existing IIS website.	CprBroker
WEB_VIRTUALDIRECTORYNAME_CPR	Name of CPR Broker virtual directory. Only needed if WEB_CREATEWEBSITE_CPR is false	CprBroker
DB_SERVERNAME_CPR	Name or IP address of database server on which to install CPR Broker database	SqlServer
DB_DATABASENAME_CPR	Database name for CPR Broker	CprBroker
DB_ADMININTEGRATEDSECURITY_CPR	If admin connection to SQL server uses integrated windows authentication. True or False.	True
DB_ADMINUSERNAME_CPR	User Id for admin connection (only if DB_ADMININTEGRATEDSECURITY_CPR <> True)	sa
DB_ADMINPASSWORD_CPR	Password for admin connection (only if DB_ADMININTEGRATEDSECURITY_CPR <> True)	<SqlPassword>
DB_APPSAMEASADMIN_CPR	Whether to use the same admin info for application login. Always set to False	False
DB_APPUSERNAME_CPR	User Id to be used by CPR Broker to connect to the database	CprBroker
DB_APPPASSWORD_CPR	Password for above user	<password>
WEB_CREATEWEBSITE_EVENT	To create Event Broker feature as a website. "True" means create as website, anything else means "False"	True
WEB_SITENAME_EVENT	Name of CPR Broker website. If WEB_CREATEWEBSITE_EVENT = True, this property has to be the name of an existing IIS website.	EventBroker
WEB_VIRTUALDIRECTORYNAME_EVENT	Name of Event Broker virtual directory. Only needed if WEB_CREATEWEBSITE_EVENT is false	EventBroker
DB_SERVERNAME_EVENT	Name or IP address of database server on which to install Event Broker database	SqlServer
DB_DATABASENAME_EVENT	Database name for Event Broker	EventBroker
DB_ADMININTEGRATEDSECURITY_EVENT	If admin connection to SQL server uses integrated windows authentication. True or False.	True

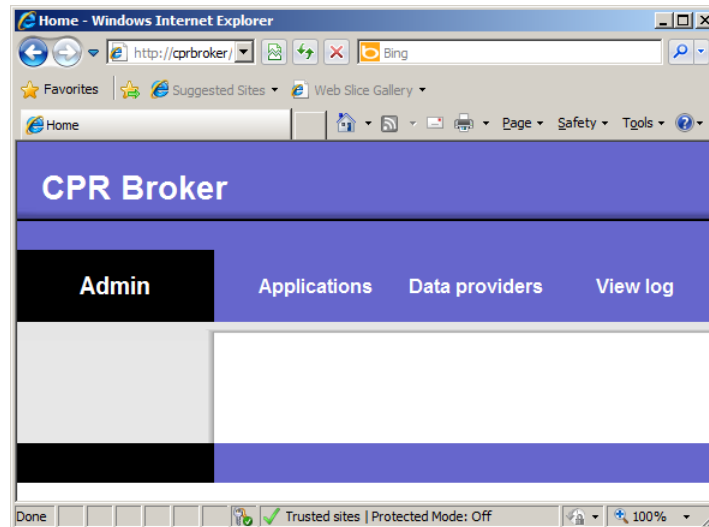
DB_ADMINUSERNAME_EVENT	User Id for admin connection (only if DB_ADMININTEGRATEDSECURITY_EVENT <> True)	sa
DB_ADMINPASSWORD_EVENT	Password for admin connection (only if DB_ADMININTEGRATEDSECURITY_EVENT <> True)	<SqlPassword>
DB_APPSAMEASADMIN_EVENT	Whether to use the same admin info for application login. Always set to False	False
DB_APPUSERNAME_EVENT	User Id to be used by Event Broker to connect to the database	CprBroker
DB_APPPASSWORD_EVENT	Password for above user	<password>

For example, this command will install CPR Broker to CprBroker and EventBroker websites, create CprBroker and EventBroker databases on SQL server SqlServer, using integrated windows authentication, and the installed sites will use CprBroker and EventBroker users to connect to the databases.

```
msiexec /qb /lv* SilentInstall.log /i InstallCprBrokerWix.msi
WEB_CREATEWEBSITE_CPR=True WEB_SITENAME_CPR=CprBroker
DB_SERVERNAME_CPR=SqlServer DB_DATABASENAME_CPR=CprBroker
DB_ADMININTEGRATEDSECURITY_CPR=True DB_APPSAMEASADMIN_CPR=False
DB_APPUSERNAME_CPR=CprBroker DB_APPPASSWORD_CPR=pwd
WEB_CREATEWEBSITE_EVENT=True WEB_SITENAME_EVENT=EventBroker
DB_SERVERNAME_EVENT=SqlServer DB_DATABASENAME_EVENT=EventBroker
DB_ADMININTEGRATEDSECURITY_EVENT=True
DB_APPSAMEASADMIN_EVENT=False DB_APPUSERNAME_EVENT=EventBroker
DB_APPPASSWORD_EVENT=pwd
```

## 4 CONFIGURING CPR BROKER

Open up a browser and point it to *http://localhost/CprBroker/Pages/default.aspx* (or wherever you chose to install it) to see whether your installation was successful



This is a basic interface but it does get the job done.

### 4.1 Applications

Now click *Applications*:

**CPR Broker**

**Admin** Applications Data providers View log

**Admin application**

This is the root application that is pre-created in the system. It cannot be edited or deleted.

Name	Base Application		
Token	07059250-E448-4040-B695-9C03F9E59E38		
Registration date	25/06/2009 00:00:00		
Approved date	01/01/1900 00:00:00		

**Applications**

These are new applications that can be used to access the system. You need a working application token to access the system's web services.

Name	Token	Registration date	Approved	Approved date		
CPR Business Application Demo	5f8b7af5-422e-46bb-9273-5e244dc37505	01/01/2011 00:00:00	<input checked="" type="checkbox"/>	01/01/1900 00:00:00	Edit	Delete
Event Broker	FCD568A0-8F18-4b6f-8691-C09239F158F3	01/01/2011 00:00:00	<input checked="" type="checkbox"/>	01/01/1900 00:00:00	Edit	Delete

**New application**

Name	<input type="text"/>
Approved	<input type="checkbox"/>
Insert	

For a client application to be able to use the broker, it needs to use an application token that uniquely identifies the application. This is modelled by the concept of *Application* in the broker.

An application has a unique name and a unique token. The name is a user friendly string

that can be seen in with the log entries identifying relevant log entries. The token is a unique key sent with all web service requests to tell the broker which application is making the call. The token is an auto generated GUID (Globally Unique Identifier) by default, but it can be changed to be any string that uniquely identifies the application. The application needs to be approved before it can be used.

Applications can be created through the Applications page and also through web services. Name and token can be changed through the user interface (only), but they still have to be unique.

The system comes with three pre approved applications. The *Admin application* is a built-in name for an application that is allowed to work with the administrative parts of the CPR Broker. The other two applications are the event broker and the demo application. Please leave these two applications untouched.

To approve an application, simply click *Edit* for the application in question and check the *Approved* check box. Then click *Update* (only shown after *Edit*).

To create an application, simply give it a *Name* and whether it should be initially approved (it probably should). Then click *Insert*. The application is now listed under *Applications*.

## 4.2 Data Providers

Now click *Data Providers*:

**CPR Broker**

Admin Applications **Data providers** View log

**Data provider types**

Possible types of data providers

Name	Assembly qualified name
DprDatabaseDataProvider	CprBroker.Providers.DPR.DprDatabaseDataProvider, CprBroker.Providers.DPR, Version=1.0.0.0, Culture=neutral, PublicKeyToken=null
KmdDataProvider	CprBroker.Providers.KMD.KmdDataProvider, CprBroker.Providers.KMD, Version=1.0.0.0, Culture=neutral, PublicKeyToken=null
PersonMasterDataProvider	CprBroker.Providers.PersonMaster.PersonMasterDataProvider, CprBroker.Providers.PersonMaster, Version=1.0.0.0, Culture=neutral, PublicKeyToken=null

**Data providers**

Available data providers. They will be used in the order listed here.

Type	Details	Enabled			
PersonMasterDataProvider	Address: http://personmaster-service-test-01/PersonmasterServiceLibrary.BasicOp.svc Context: CprBroker	Edit Yes (Disable)	Ping	Delete	▼
DprDatabaseDataProvider	Address: ITJOBS-P03 Port: 6003 Keep Subscription: True Data Source: DPR Initial Catalog: dpr User ID: DPR-CRRBroker Password: ***** Integrated Security: Other Connection String:	Edit Yes (Disable)	Ping	Delete	▲▼
KmdDataProvider	Address: http://195.50.36.114/bcprod.asp Username: cesde Password: *****	Edit Yes (Disable)	Ping	Delete	▲

**New data provider**

Type: CprBroker.Providers.DPR.DprDatabaseDataProvider ▼

Address:

Port:

Keep Subscription:

Data Source:

Initial Catalog:

User ID:

Password:

Integrated Security:

Other Connection String:

**Insert**

A *Data Provider* is a connector that provides the broker with information. CPR Broker itself does not produce data, but rather queries other systems for data.

To setup any of these connections you need an account and connection information from the provider. Then choose the appropriate provider type, enter the information and click *Insert*. You now have a Data Provider.

In order for the broker to be usable, it must be told where to get people's data from. There



are two groups of data providers :

### 4.2.1 Person master data providers

Used to assign UUID's to CPR Numbers. It gets UUIDs from the specified person master service.

*Address* is the address of the service (<http://.../PersonmasterServiceLibrary.BasicOp.svc>). *Context* is any arbitrary string that identifies the broker instance. *Spn name* is a parameter used by the service that you should get from the administrator, or by checking the WSDL file of the actual service instance.

### 4.2.2 CPR data providers

These data providers are the ones that retrieve the detailed information of persons. There are currently two data providers that are implemented; DPR and KMD

#### DPR

*Address* and *Port* are TCP address and port of the DPR forwarding (DPR Viderestilling) service.

Keep Subscription tells the instance to whether to set a subscription when requesting data from DPR forwarding in case data is not already in DPR. It can be either *True* or *False*.

Disable Diversion disables the usage of DPR forwarding altogether (in case you want to save money).

The rest of the parameters are used to build a *SQL Server* connection string that points to the DPR database.

#### P-Data (KMD)

*Address* is the web service base address (<http://their.domain/kmd/pData>). The broker will add the parameter *zservice=AN08002* (or whatever service) when actually calling the web services.

*Username* and *Password* are sent with the requests.

#### E&M

The configuration properties are used to connect to the E&M database. It is preferable not to use integrated windows authentication.

## 5 SETTING UP LOGGING

CPR Broker can log to file, Windows Event Log, to the Database and to email.

There place to setup logging: In the *loggingConfiguration.config* file for CPR Broker web service. The default position for this is *C:\Program Files\ITST\CPR Broker(Event Broker)\Web\Config*

**Additional location for Event Broker:** in the *CprBroker.EventBroker.Backend.exe.config* file for the Backend service. The default position for this is *C:\Program Files\ITST\Event Broker\Web\bin\*.

The procedure is the same for both files. Locate the `<loggingConfiguration>` tag in the specific config file. Under the `<listeners>` tag you will find four `<add` tags. The "CprDatabase" as well as the "EventLog" should be left untouched in all cases.

In "FlatFile" you should look for the `fileName` attribute. This should be set to the full path and name of the where to put the log file. By default, the path is "[InstallDir]CprBroker\Website\CPR Broker.log". The installer will create the file and give CPR Broker the necessary permissions to write to it.

In `name="Email"` there are more settings. The ones most likely to be adjusted are: `toAddress`, `fromAddress`, `smtpServer` and perhaps `smtpPort`.

Please note: If you change FlatFile, you need to make sure that the 'NT AUTHORITY\NETWORK SERVICE' account has sufficient access rights to the destination.

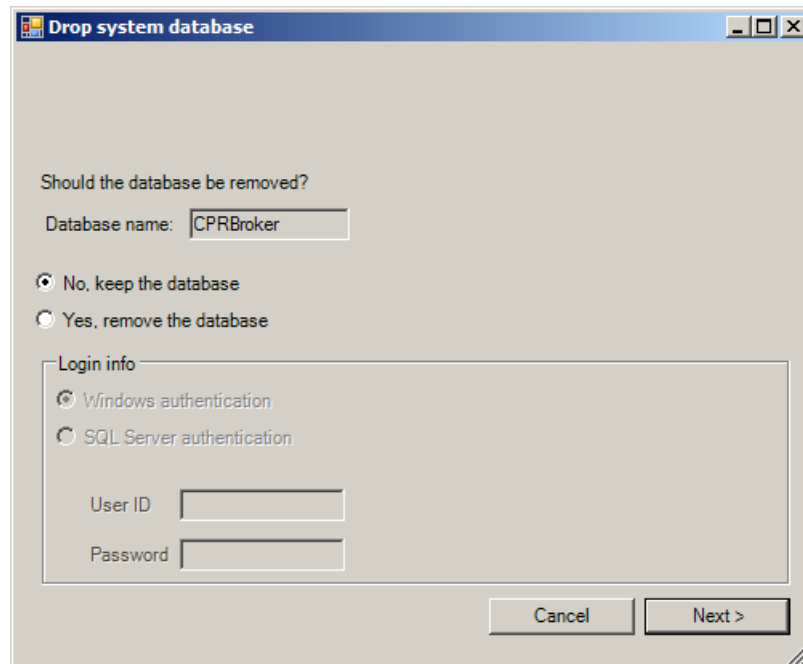
You have now adjusted the settings for each type of logging, but you have yet to set what types of logging are active. You now look for the `<specialSources>/ <allEvents>` tag. In this you will another `<listeners>` tag. Per default "CprDatabase" is active, which can be seen from the fact that it is not commented out like e.g. `<!--add name="EventLog" /-->` is.

To enable a specific listener simply remove the `<!--` and `-->` characters from the line. And to disable a listener simply put them back in.

## 6 UNINSTALLING CPR BROKER

If you want to uninstall CPR Broker please open the Add/Remove Programs in the Control Panel. Click *Remove*.

During the removal of CPR Broker you will be asked whether to delete the database:



You may need to provide a specific user name and password which have rights to delete the database from the SQL Server used.

Click *OK* and CPR Broker will be removed from the computer.

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