11.2.8.a.5 ExamService Setup for Single Instance of ED

This page covers **Setting Up ExamService for Single Instance of ExamDeveloper**. If you are running multiple instances of ExamDeveloper, you can go to ExamService installation and configuration for multiple instances of ExamDeveloper in **ExamService Setup for Multiple Instances of ED**.

> ⚠ **The following is applicable only for ExamDeveloper version 7.1610.0.0 and above.**

This page describes the following:

1. **Configure the ExamService Service**
2. **Installation of ExamService Windows service**
   a. **Install the ExamService**
   b. **Start the ExamService**

Configure the ExamService Service

> ⊘ It is important to ensure that all the values in the config files such as service name, URLs, username, and password are case-sensitive. ExamDeveloper may not run as expected if care is not taken to ensure that case sensitivity is maintained.

1. Create a folder where you want to install ExamService, such as *C:\EDEXS\ExamDeveloper* (henceforth known as *<EDEXSinstallDir>*) a nd copy all the contents of *<SVNFolder>\Exam* (or *<SVNFolder>\ExamService*) to this folder. In case of **ExamDeveloper version 7.1610**, the *<SVNFolder>\ExamService* folder contains a ZIP file *ExamService.zip*, please extract it to *<EDEXSinstallDir>* while ensuring that the folder structure within the archive is recreated.

2. Open the various configuration files for ExamService located in *C:\EDEXS\ExamDeveloper\configs* (*<EDEXSinstallDir>\configs*) - *appSet tings.config*, *connectionStrings.config*, and *log4net.config* - with Notepad or a suitable text file editor.

3. In the *appSettings.config*, enter a unique name and unique display name for the ExamService service, which is to be created and run on the application server.

   ```
   <add key="serviceDescription" value="ExamDeveloper Exam Service Description"/>
   <add key="serviceDisplayName" value="UniqueExamServiceDisplayName"/>
   <add key="serviceName" value="UniqueExamServiceName"/>
   ```

   where,
   UniqueExamServiceName and *UniqueExamServiceDisplayName* are the unique name and display name given to the ExamService service. These names needs to be unique per install and should not contain any space.

4. In the *appSettings.config*, ensure that the values of the keys "basicAuthUserName" and "basicAuthPassword" match the values in ExamDeveloper *httpClients.config* of the keys "userName" and "password" respectively for the line with httpClientConfig name

"ExamSection" as in **step 11** of **Configure ExamDeveloper**.

```xml
<add key="basicAuthUserName" value="examDeveloper"/>
<add key="basicAuthPassword" value="Dummy_Password"/>
```

5. If a line with the key "useSsl" exists, set the value to "true" as follows:

```xml
<add key="useSsl" value="true"/>
```

6. If a line with the key "relativeUri" exists, set the value to "UniqueExamServiceName" as follows:

```xml
<add key="relativeUri" value="UniqueExamServiceName"/>
```

where *UniqueExamServiceName* is the name the ExamService service.

7. In the *connectionStrings.config*, update connection string value to match the value from the EDRS *connectionStrings.config* file as in **step 2.a** of **EDRS Installation and Configuration**.

```xml
<connectionStrings>
    <add name="examDeveloper" connectionString="Data Source=WIN-VSGF1NBSVPB;Initial Catalog=ExamDeveloper;Persist Security Info=True;User ID=ExamDev;Password=P@s$w0rd"/>
</connectionStrings>
```

⚠️ **Step 8** is applicable only for **ExamDeveloper version 7.1612** and above.

8. In the *massTransit.config* file, update the values to match the corresponding values from *massTransit.config* of EDRS as detailed in **step 2.c** of **EDRS Installation and Configuration**. This means that the name of the Virtual Host *ExamDeveloper* created in **Create and configure RabbitMQ Virtual Host** section of the **RabbitMQ Setup and Configuration** page, should be appended to the *massTransit/host/rabbit@hostAddress* attribute, which is *rabbitmq://localhost/ExamDeveloper* in our example. The username and password must match the RabbitMQ user (having access to the Virtual Host *ExamDeveloper*), created in the **Create a RabbitMQ user for EDRS** section of the **RabbitMQ Setup and Configuration** page, which in our example are *ExamDeveloper* and *Password* respectively.

```xml
<host>
    <rabbit hostAddress="rabbitmq://localhost/ExamDeveloper" username="ExamDeveloper" password="Password"/>
</host>
```

⚠️ If RabbitMQ is installed on a separate server, then you must substitute "localhost" with the hostname of that server. If *RabbitMQ-URL* is the server hostname where RabbitMQ is installed, then the line becomes:

<rabbit hostAddress="rabbitmq://RabbitMQ-URL/ExamDeveloper" username="ExamDeveloper" password="Password"/>

🛇 It is extremely important that the same RabbitMQ Virtual Host name should not be shared between different instances of ExamDeveloper, as this can result in issues such as data loss and security breach.

It is important to ensure that the RabbitMQ Virtual Host name, username, and password are case-sensitive. You will encounter an error while trying to log into ExamDeveloper if care is not taken to ensure that both are specified exactly as they are in the new RabbitMQ Virtual Host and user setup for this instance of the ExamDeveloper application.

9. Update the values in the <log4net> section of the *log4net.config* file as shown below to indicate the path where the log file for ExamService service is to be located.

```
<log4net>
  <appender name="RollingFile" type="log4net.Appender.RollingFileAppender">
      <file value="C:\ExamDeveloperData\Logs\ExamService\ExamService.log"/>
```

By default, the log file *ExamService.log* is saved to the User service folder (*C:\EDEXS\ExamDeveloper* in our example). You can specify a different path to save it by modifying the value to something like *"C:\ExamDeveloperData\Logs\ExamService\ExamService.log"* as shown above.

Installation of ExamService Windows service

Install the ExamService Service

1. Open an Administrator command prompt and run the following command:

   netsh http add urlacl url=https://+:443/UniqueExamServiceName user=Everyone

   where *UniqueExamServiceName* is the name of the ExamService service.

   > ⚠️ If you get an error stating "Url reservation add failed" on running the above command, please ignore it as it means that this has already been taken care of.

2. Open an Administrator command prompt (click the **Start** button, type "*command*" in the search box, right click **Command Prompt** in the search results that appear, and click **Run as administrator** from the context menu) and navigate to *<EDEXSinstallDir>*.
3. Run the following command:

   ExamService.exe install --sudo --localservice

   Here, *ExamService.exe* is the name of the ExamService service executable file. This file may be available with any other name in the format *[ApplicationName].exe*.

Start ExamService Service

1. Once the service is installed successfully, to start ExamService service, open the Administrator command prompt.
2. Navigate to *<EDEXSinstallDir>* and run the following command:

   ExamService.exe start

   > ⚠️ The installed service runs in the default Local Service account. If the service does not start, inspect the Windows application logs to understand the reason.

   > ⓘ **Ensure that the ExamService service is running**
   > Ensure that the ExamService service is running in the following way:
   >
   > 1. Run "services.msc" (click **Start Run** or **Windows + R** keys together, type "services.msc" in the Run dialog box, and click **OK**). Ensure that the **Status** for the ExamService service instance shows as **Started** and the **Startup Type** is **Automatic**.
   > 2. If you don't see the status as mentioned in **step 1**, then right-click the ExamService service instance name in the list, which should appear as *UniqueExamServiceDisplayName*, and click **Properties** to open its properties window.
   > 3. Select **Automatic** from the **Startup type** drop-down and click the **Start** button under **Service status**.
   > 4. This starts the ExamService service and sets it to start automatically at Windows startup.

   ⌄ If you need to stop or uninstall the ExamService service, click here to learn how...

   If you need to stop or uninstall the ExamService service, you need to follow the following steps.

Stop ExamService service

1. Open the Administrator command prompt and navigate to *<EDEXSinstallDir>*.
2. To stop installed service, run the following command:

   ExamService.exe stop

Uninstall ExamService service

1. Open the Administrator command prompt and navigate to *<EDEXSinstallDir>*.
2. First stop the service by running the following command:

   ExamService.exe stop

3. To uninstall the service, run command:

   ExamService.exe uninstall --sudo --localservice

⚠ Please visit **ExamService Configuration Settings** to learn more about the various settings mentioned above.

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