ADTRAN ®

NetVanta Unified Communications Technical Note
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Outdial Database Creation and Operation

Introduction

The purpose of this technical note is to build on *Outdial.exe Operation and Automation* technical note, available online at *http://kb.adtran.com*, and create a database using tables, which increase the usability of the Outdial capabilities.

This document is intended for system integrators and IT professionals who are already familiar with the ADTRAN product line, *Outdial.exe Operation and Automation* technical note, and Structured Query Language (SQL) technology.

Requirements

- An SQL database server is required to create the Outdial database. This technical note assumes you are using Microsoft SQL Server 2005, as well as the Object Structured Query Language (OSQL) command line utility. The scripts may not work on SQL servers other than Microsoft SQL Server 2005.

- The **xp_cmdshell** option must be set to **1** in order for the trigger to operate properly. A script to do this is included in this technical note.

- You must know the location of your SQL server.
  For example: COMPUTERNAME\SQLSERVERNAME.
  If the SQL scripts are run locally on the server, you can also use (local)\SQLSERVERNAME.

Creating the Database

The following steps will first enable xp_cmdshell on your MS SQL Server to allow Outdial.exe to be run. Then it will create a database named *outdial*. Next, a table named *query* will be created with a structure related to the parameters Outdial.exe takes. Finally, it will create a trigger in the query table that will detect whenever data is inserted, and use that data to run Outdial.exe.

Enabling xp_cmdshell

In order to allow the trigger to run Outdial.exe, xp_cmdshell must be enabled. By default, xp_cmdshell is disabled for security reasons. In order to enable xp_cmdshell, **show advanced options** is also enabled.

CAUTION: *This step changes settings on your SQL server. xp_cmdshell can run command line programs. The Windows® process started by xp_cmdshell has the same security rights as the SQL Server service account, so appropriate permissions should be placed on the SQL Server service account. xp_cmdshell requires the CONTROL SERVER permission. More information is available online at* http://msdn2.microsoft.com/en-us/library/ms175046.aspx.

To enable xp_cmdshell:

1. Extract **Enablexp_cmdshell.sql** from the .zip file titled *Outdial Database Creation and Operation* (located in the same directory as this document).
2. Select **Start > Run**.
3. Enter **cmd** and select **OK**.
4. Navigate to the location of Enablexp_cmdshell.sql.
5. Enter **osql –E –S(local)\ADTRAN–iEnablexp_cmdshell.sql**.

NOTE: *(local)\ADTRAN is the location and name of the server. Some other examples are ServerName\SQLSERVER and ComputerName\SQLSERVER.*

Creating the Table

To create the table:

1. Extract **CreateOutdialDatabase.sql** from the .zip file titled *Outdial Database Creation and Operation* (located in the same directory as this document).
2. Select **Start** > **Run**.
3. Enter **cmd** and select **OK**.
4. Navigate to the location of **CreateOutdialDatabase.sql**.
5. Enter **osql –E –S(local)\ADTRAN–iCreateOutdialDatabase.sql**.

NOTE: *(local)\ADTRAN is the location and name of the server. Some other examples are ServerName\SQLSERVER and ComputerName\SQLSERVER.*

Providing Accessibility

To provide access to the new database:

1. Select **Start** > **Control Panel** > **Administrative Tools** > **Data Sources (ODBC)** > **System DSN** tab > **A<u>d</u>d**.

2. Select **SQL Server** from the list of available drivers and select **Finish**.

3. Enter a name such as *Outdial*, a description, and the SQL server on which the database resides and select **Next**.

4. If you are using Windows NT authentication, select **Next**. If you are using SQL Server authentication, select the **With SQL Server authentication using a login ID and password entered by the user** button, then enter the login information and select **Next**.

5. Select the **Change the default database to** check box. Select **outdial** from the list, select **Next**, **Finish,** and then **OK.**

Using the Database

Basics

Using the database is straightforward and easy. The table consists of the following columns.

Column Name	Data Type	Allow Nulls	Explanation	Example
ID	int	No	A number unique to each record.	1, 42
User_Name	nvarchar(MAX)	No	The user name used to authorize the outdial request.	Admin
Password	nvarchar(MAX)	No	The user name's password.	password
Host	nvarchar(MAX)	No	The IP address or URL of the server.	MyServer.MyCompany.com
Phone_Numbers	nvarchar(MAX)	No	A comma-delimited list of phone numbers to try calling.	101,6135551234, 6135551369,6135551234
Pause	nvarchar(MAX)	Yes	The time in seconds to wait before starting the service after the call is answered.	1 (default) 2, 3
Delay_Time	nvarchar(MAX)	Yes	The time in minutes to wait between attempts.	3 (default) 1, 5
Retry	nvarchar(MAX)	Yes	The number of attempts to make.	3 (default) 1, 4
Service	nvarchar(MAX)	No	The name of the service to be used.	MyOutdialService Shared\SharedODService
Parameter_List	nvarchar(MAX)	Yes	A comma-delimited list of parameters to pass to the service. There can be up to ten parameters.	Parameter One,Horse,42,paper, 6135551369,six,seven, eight,nine,ten

- To create an Outdial request, insert a new record containing at least the user name, password, host, phone numbers to call, and the service to use.

- If any of the Pause, Delay_Time, or Retry values are left as NULL, the default values are used.

Accessing the Database Using a Service

Creating a Data Source

To create a data source:

1. In the **Administration** menu, select **Data Sources**. Right-click anywhere in the content pane.

2. Select **New > ODBC Source**.

3. In the **Name** box, enter a name for the data source.

4. From the **Table** list, select **query**.

5. Select **All** >> and then select **OK.**

Using a Data Source

To use a data source:

1. Open or create a service.

2. Add an **Add Data** database element.

3. Set the values for the **User_Name**, **Password**, **Host**, **Phone_Numbers**, and **Service**. **Optional:** Set the values for **Pause**, **Delay_Time**, **Retry**, and **Parameter_List**.

   Tip: Setting the values for **Phone_Numbers**, **Parameter_List**, and **Service to System** values or values obtained from other elements increases the versatility of the service.