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PRODUCT
GUIDE

MiContact Center Enterprise

Database Interface Kit – User Guide

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Mitel
Powering connections

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INTRODUCTION

The MiCC Enterprise Database Interface Kit contains a SQL backup file of an empty MiCC Enterprise database. The database can be used to view the schema of a MiCC Enterprise database without the requirement to purchase and install a complete MiCC Enterprise system. The kit is located in the DBInterfaceKit folder on the installation media.

The Database Interface Kit consists of:

- Readme File (Readme.htm)
- User's Guide (dbkit_ug.pdf)
- MiCC Enterprise Database (nextccdb.bak)

DATABASE SETUP

The MiCC Enterprise database (nextccdb.bak) is supplied in the form of a Microsoft SQL Server 2008 backup file. The file should be restored to an existing Microsoft SQL Server version 2008 or later. The file can be restored using SQL Server Management Studio. Refer to the SQL Server documentation for help on restoring databases.

ACCESSING THE DATABASE

The MiCC Enterprise system uses Microsoft SQL Server as its Database Management System (DBMS). This provides an open interface to the MiCC Enterprise database. For example, you can combine your existing applications together with information from the MiCC Enterprise by fetching the data via ODBC or you can develop your own applications to meet your specific requirements.

The easiest way to connect to a database is probably by means of ODBC. In this section we will discuss how to:

1. Set up the ODBC Data Source
2. Access the MiCC Enterprise database through Access or OSQL

WHAT IS ODBC

ODBC or Open Database Connectivity is a de facto industry standard. It provides a more user-friendly and homogeneous interface to DBMS.

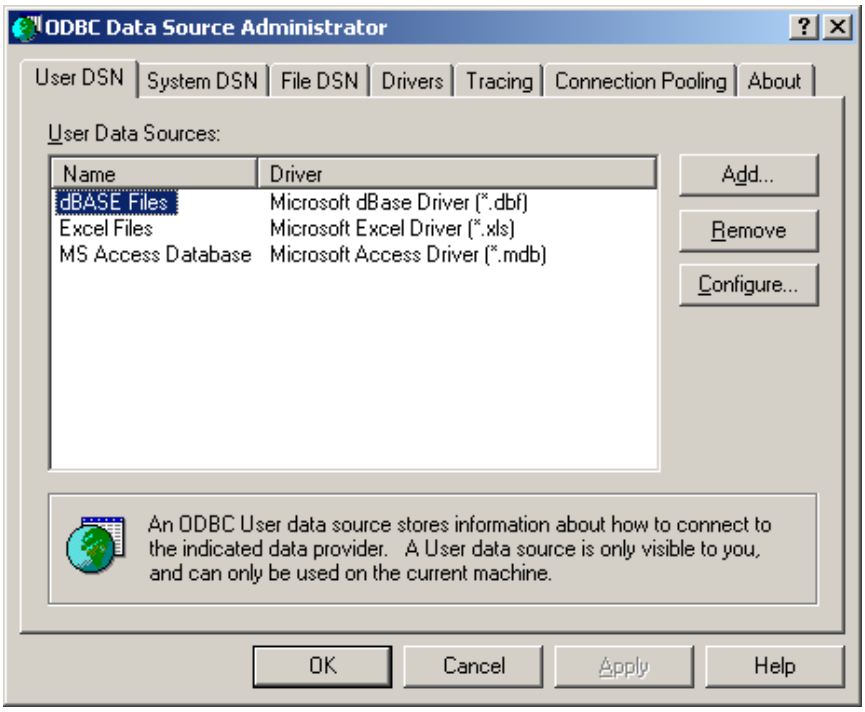
ODBC SDK

Microsoft provides an SDK (Software Development Kit) for ODBC. The SDK contains all the information needed to help develop your own ODBC-enabled applications and ODBC drivers. In this SDK you will, for example, find ODBC Programmers Reference and ODBC SDK Guide, On-line Help, test utility, samples, drivers and the ODBC Administrator.

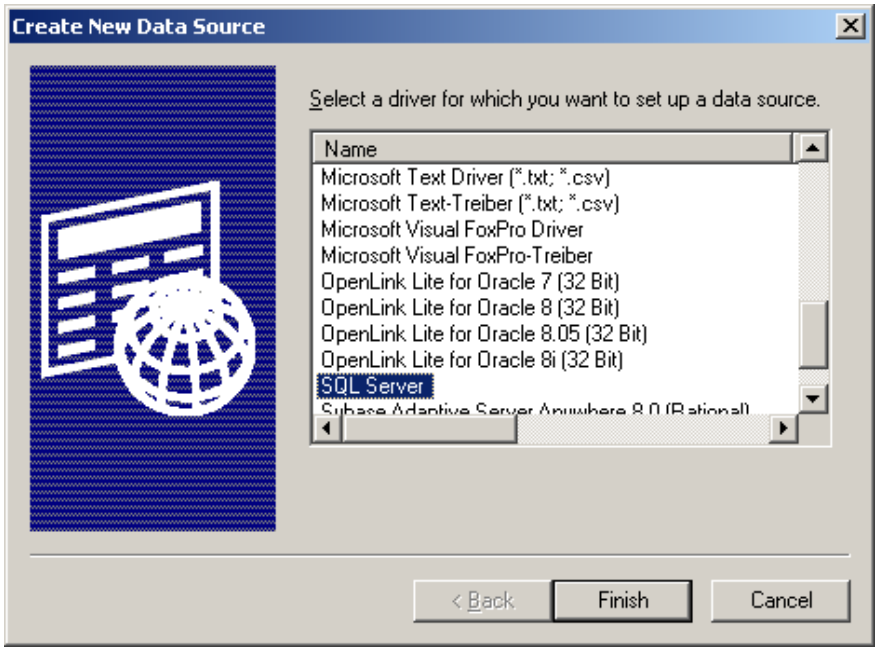
SETUP OF ODBC

In order to use, for instance, Excel or Access to retrieve data from the SQL database, the data source must be defined within ODBC.

1. Locate and double-click the Data Source (ODBC) from Administrative Tools. Mostly, you will find ODBC Data Source Administrator in the Control Panel. After starting up the ODBC Data Source Administrator, the following screen appears.



2. In the **ODBC Data Source Administrator** dialogue box, click the **Add** button to invoke the **Create New Data Source** dialogue box where you can add the new MiCC Enterprise data source.



3. In the **Create New Data Source** dialogue box, select **SQL Server** and click the **Finish** button. The **Create a New Data Source to SQL Server** dialogue box will appear.

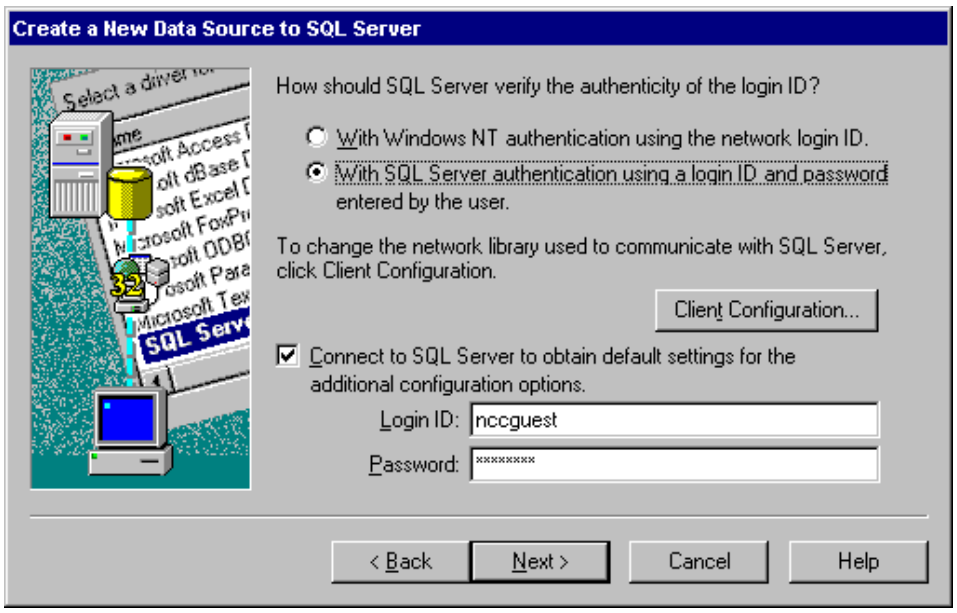
4. In the Create a New Data Source to SQL Server dialogue box:

   a. Enter **MiCC Enterprise** in the **Name** text box.

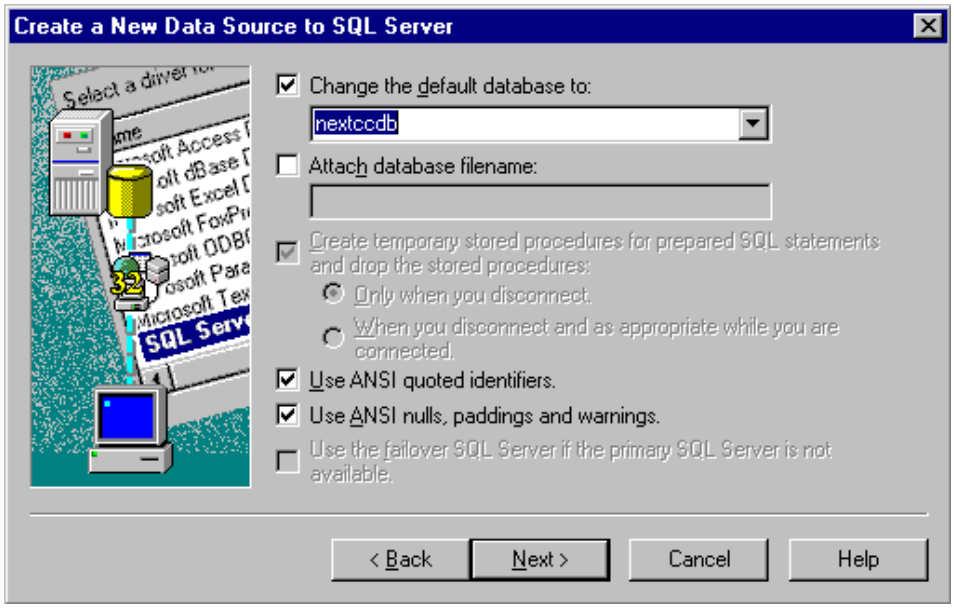
   b. Enter MiCC Enterprise Kit in the Description text box.

   c. Make sure that the machine name selected in the Server drop-down list is the NT machine name of the PC where SQL Server resides.

   d. Click the Next button.

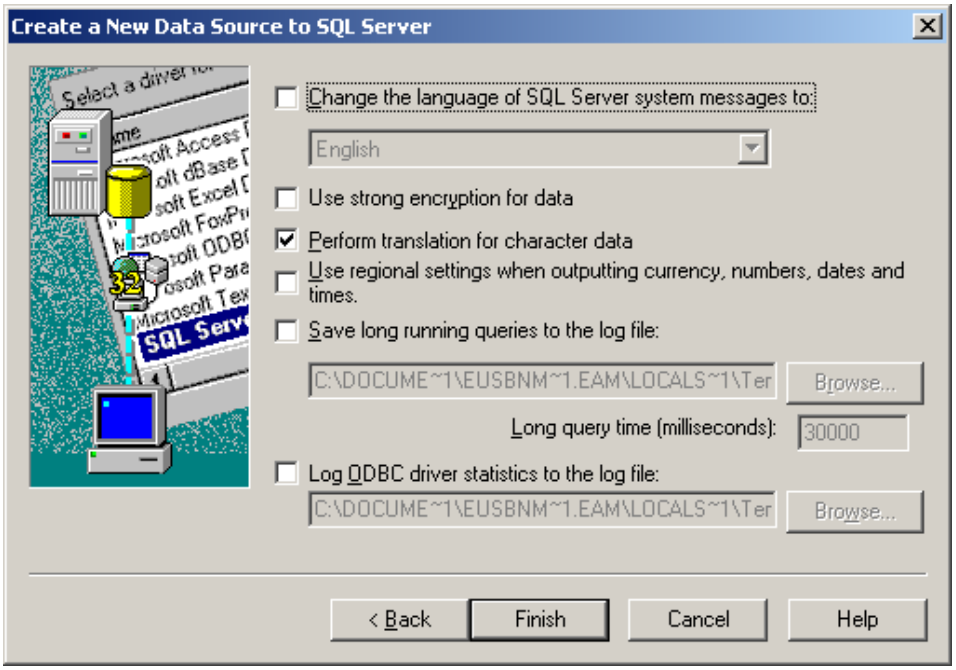


e. Enter **nccguest** in the **Login ID** and **Password** text boxes and click the **Next** button.



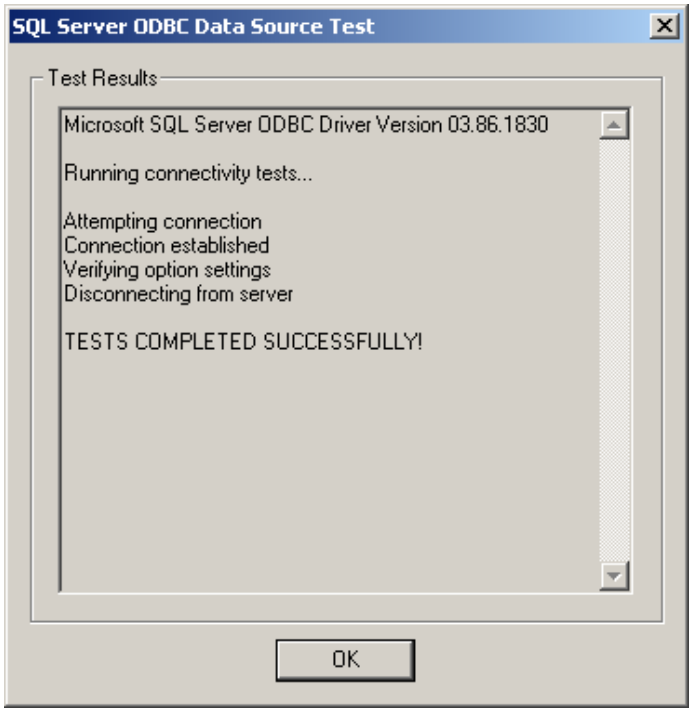
f. Enter nextccdb in the Change the Default Database to: text box. This is the name of the MiCC Enterprise database.

g. Click the Next button. The Create a New Data Source to SQL Server dialogue box will appear as follows:



h. In the Create New Data Source dialogue box, select Perform translation for character data and click the Finish button. The ODBC Microsoft SQL Server Setup dialogue box will appear.

i. Click the Test Data Source button. The SQL Server ODBC Data **Source Test** dialogue box will appear.



j. The **SQL Server ODBC Data Source Test** dialogue box lists the result of the test connection. Click the **OK** button.

k. You will return to the **SQL Server ODBC Data Source Test** dialogue box. Click the **OK** button.

l. You will return to the **ODBC Data Source Administrator** dialogue box. The MiCC Enterprise data source that you have just added will appear in the dialogue box. Click the **OK** button.

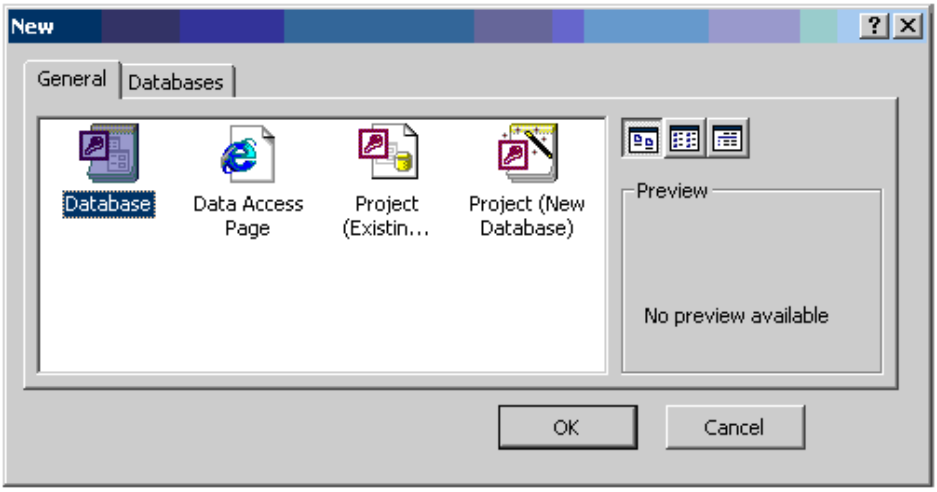
5. The ODBC part is now completed. Applications using ODBC (for example, Microsoft Excel or Access) can now retrieve data from the MiCC Enterprise database.

EXAMPLE USING ACCESS

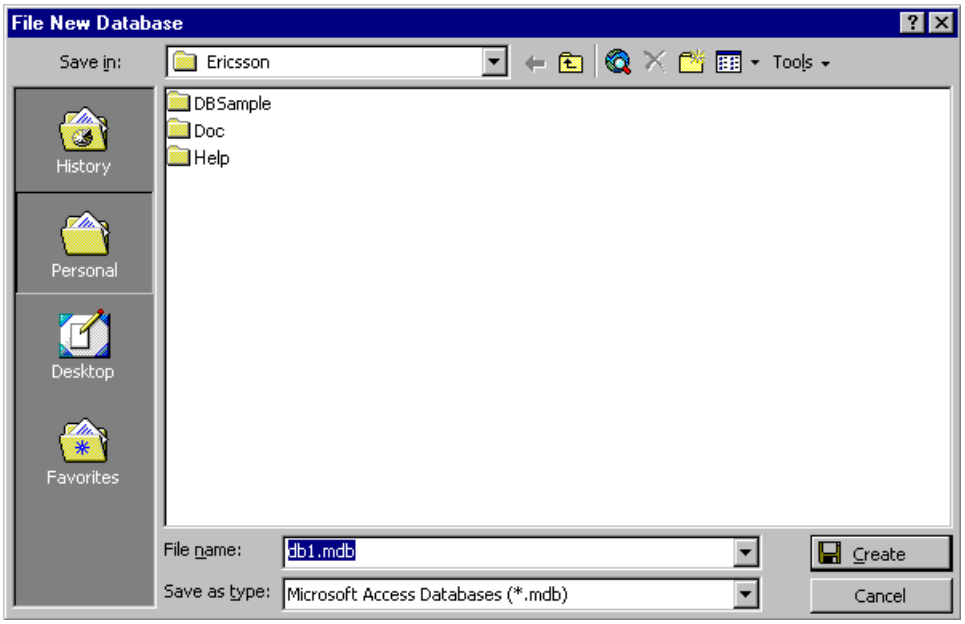
This example gives you step-by-step instructions on how to retrieve MiCC Enterprise data when using Microsoft Access.

1. Start Access by double-clicking the Microsoft Access icon.

2. To create a new database, select **New** from the **File** menu or press CTRL+N. The **New** dialogue box will appear.

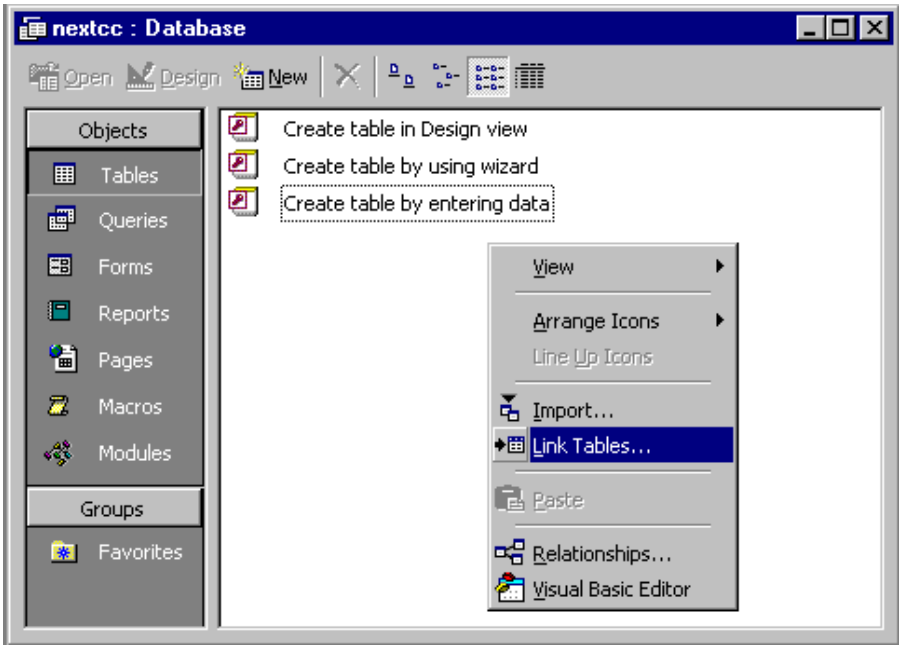


3. Select (double-click) on the Database icon from the **New** Dialog box. The **File New Database** dialog box will appear.



4. In the **File name** box, enter the desired name (for example, **nextcc.mdb**) and select the file path where you want the database to reside. Click the **Create** button. The **(Name): Database** dialogue box will appear.

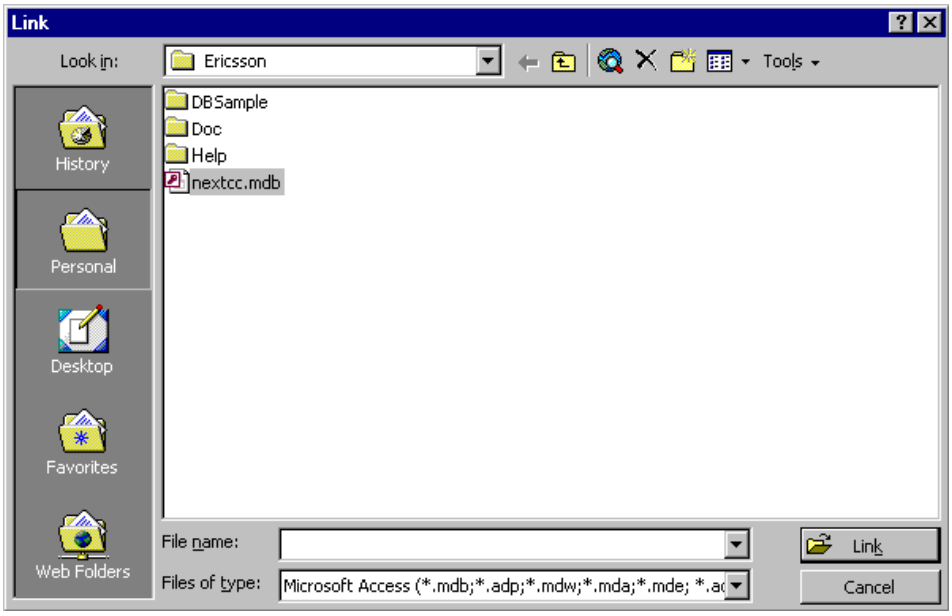
Note: In our example, since we have entered **nextcc** in the **File name** box of the **File New Database** dialogue box, the name of this dialogue box will depict **nextcc : Database**.



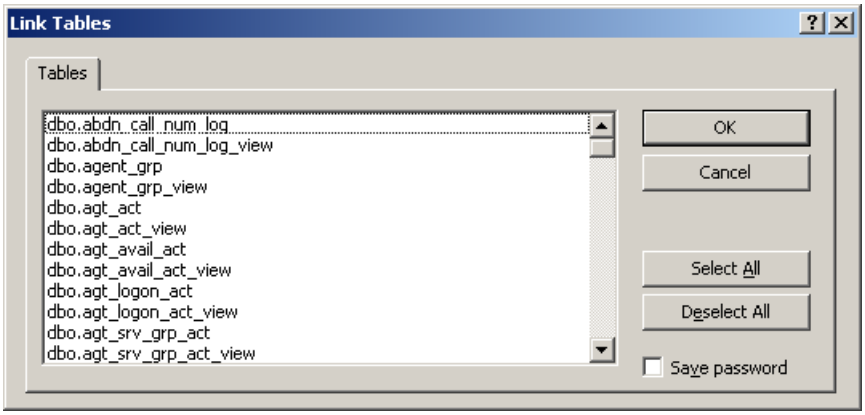
5. Click the right mouse button in the **Tables** tab of the **nextcc : Database** dialogue box. A shortcut menu will appear. From the shortcut menu, you can select to import or link to the MiCC Enterprise database. In order for the actual values within the MiCC Enterprise database

to be visible, it is recommended that **Link Tables** be selected. Otherwise, the current values will be imported; and only a snapshot of the current MiCC Enterprise components in the SQL database will be provided.

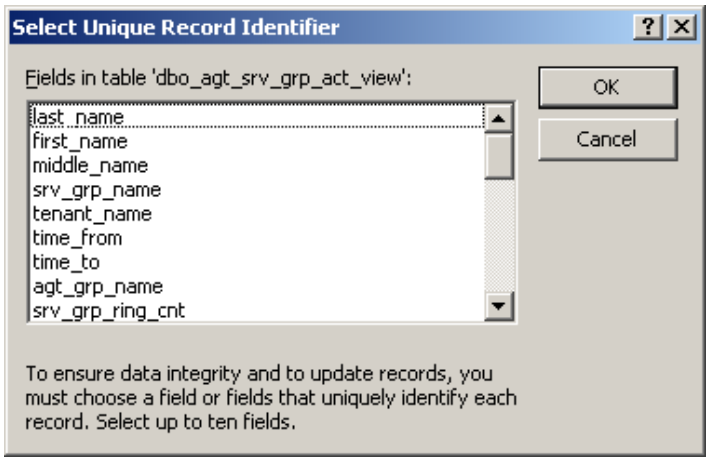
6. Select **Link Tables** and the **Link** dialogue box will appear.



7. In the **Files of type** drop-down list of the **Link** dialogue box, select the ODBC database. The **Select Data Source** dialogue box will appear.
8. In the Select Data Source dialogue box, click the Machine Data Source tab.
9. The MiCC Enterprise data source that has been defined in ODBC setup will appear on the **Machine Data Source** tab of the **Select Data Source** dialogue box. Select the MiCC Enterprise data source and click the **OK** button.
10. The **Link Tables** dialogue box will appear.



11. All the MiCC Enterprise tables within the SQL database will appear in the **Link Tables** dialogue box. Select the table that you want to link and click the **OK** button. For each table selected, the **Select Unique Record Identifier** dialogue box will appear.



12. In the **Select Unique Record Identifier** dialogue box, select the field(s) that uniquely identifies each record. You may select up to ten fields. Click the **OK** button when done. You will return to the **nextcc : Database** dialogue box.

13. In the nextcc: Database dialogue box, open the desired table by double-clicking it. Once the table is opened, all the columns within the table and all the data within the columns will be available for viewing.

RETRIEVING MICC ENTERPRISE DATA USING OSQL

To retrieve MiCC Enterprise data from the SQL database using OSQL from the command line or a batch file, perform the following procedure.

1. Start the CMD window.

2. Type **C:\>osql /?** at the prompt. This command will show you all the options that must or can be used with the OSQL command. See Table 1.

Table 1 OSQL command

Usage: osql [-U login id] [-e echo input]	
	[-p print statistics] [-n remove numbering]
	[-c cmdend][-h headers] [-w columnwidth] [-s colseparator]
	[-m errorlevel] [-t query timeout] [-l login timeout]
	[-L list servers] [-a packetsize]
	[-H hostname] [-P password]
	[-q “cmdline query”] [-Q “cmdline query” and exit]

	[-S server] [-d use database name]
	[-r msgs to stder] [-E trusted connection]
	[-i inputfile] [-o outfile]
	[-b On error batch abort]
	[-O use old OSQL behavior disables the following]
	<EOF> batch processing
	Auto console width scaling
	Wide messages
	default errorlevel is 1 va 1
	[-? Show syntax summary (this screen)]

For example, if you want to retrieve data from the dbo_acd_abandoned_call_vi ew, using BT-INV1512 as the Server name, nccguest as the username and password, nextccdb as the database, ncc_out.txt as the output text file and exit OSQL after the query "SELECT * FROM agt_act_view", type the following at the command prompt:

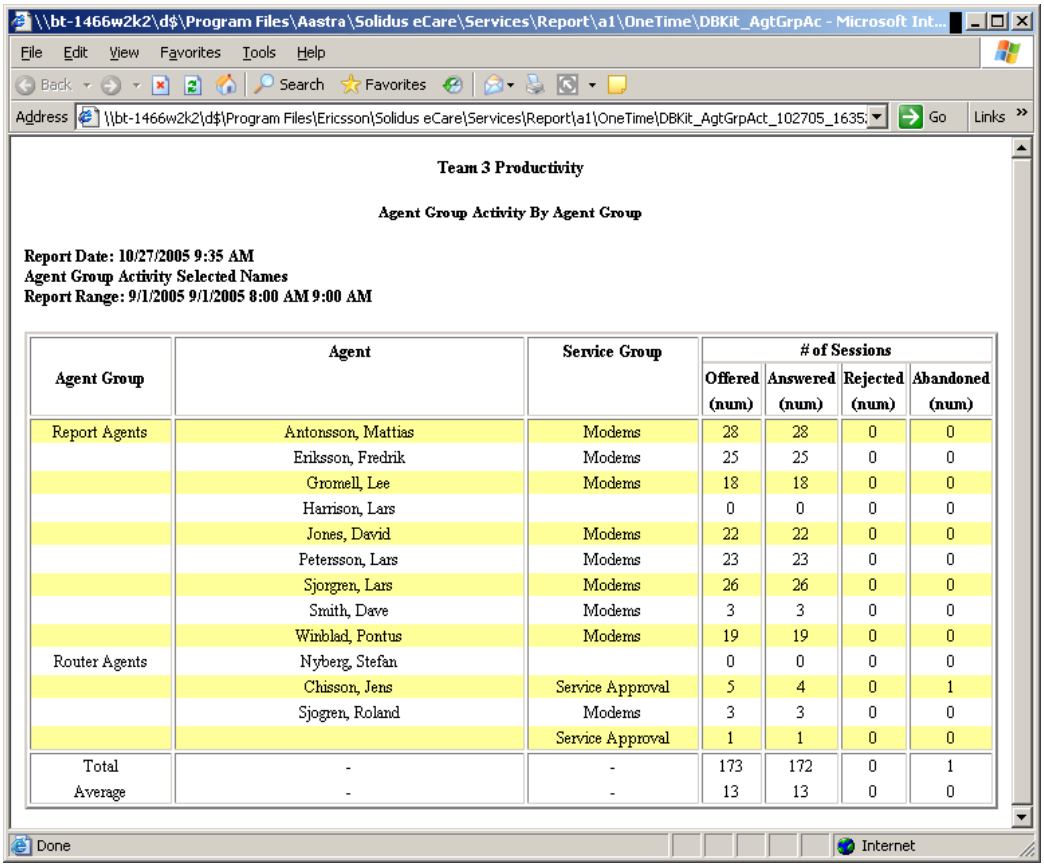
C:\>osql -Unccguest -Pnccguest -SBT-INV1512 -dnextccdb -oncc_out.txt

-Q “SELECT * FROM agt_act_view”

The result can be found in the **ncc_out.txt** file.

SAMPLE REPORT FROM MICC ENTERPRISE

The following report is one of the sample reports that can be provided by the MiCC Enterprise system. It can be used as an example on how you can create your own customized reports by accessing views from the MiCC Enterprise database.



\\bt-1466w2k2\d$\Program Files\Aastra\Solidus eCare\Services\Report\a1\OneTime\DBKit_AgtGrpAc - Microsoft Int...

File Edit View Favorites Tools Help

Back Search Favorites

Address \\bt-1466w2k2\d$\Program Files\Ericsson\Solidus eCare\Services\Report\a1\OneTime\DBKit_AgtGrpAct_102705_1635: Go Links

Team 3 Productivity

Agent Group Activity By Agent Group

Report Date: 10/27/2005 9:35 AM
Agent Group Activity Selected Names
Report Range: 9/1/2005 9/1/2005 8:00 AM 9:00 AM

Agent Group	Agent	Service Group	# of Sessions			
			Offered (num)	Answered (num)	Rejected (num)	Abandoned (num)
Report Agents	Antonsson, Mattias	Modems	28	28	0	0
	Eriksson, Fredrik	Modems	25	25	0	0
	Gromell, Lee	Modems	18	18	0	0
	Harrison, Lars		0	0	0	0
	Jones, David	Modems	22	22	0	0
	Petersson, Lars	Modems	23	23	0	0
	Sjorgren, Lars	Modems	26	26	0	0
	Smith, Dave	Modems	3	3	0	0
	Winblad, Pontus	Modems	19	19	0	0
Router Agents	Nyberg, Stefan		0	0	0	0
	Chisson, Jens	Service Approval	5	4	0	1
	Sjogren, Roland	Modems	3	3	0	0
		Service Approval	1	1	0	0
Total	-	-	173	172	0	1
Average	-	-	13	13	0	0

Done Internet

Figure 1 Agent Group Activity By Agent Group Report shows information regarding agent activity for each agent group. The report above shows information for one or more selected Agent Groups for a selected date and time period.

Note: Data is collected from the table **agt_act_view**, see **Error! Reference source not found.**.

Table 2

REPORT COLUMN		DESCRIPTION
Agent		Name of the Agent.
Service Group		Name of service group that the agents serve.
# of Sessions	Offered	Number of service group calls offered to this agent(s) phone.
	Answered	Number of service calls answered by the agent.
	Rejected	Number of calls rejected by the agent.
	Abandoned	Number of service calls abandoned while the telephone was ringing before being answered by the agent.

DATABASE DESCRIPTION

The MiCC Enterprise database is named “nextccdb." It consists of a number of tables. SQL Server users can access the MiCC Enterprise database tables by using views.

Views allow the user to see only a selected portion of information in the database. Using views, the user can only select, not insert, update or delete data from the MiCC Enterprise database tables Refer to the document, *Database Views* in the CPI for a description of the available database views and columns.

During the MiCC Enterprise installation, one SQL Server logon ID is created for users of the MiCC Enterprise views. The logon ID is nccguest and the password is nccguest. The sample database provided in the MiCC Enterprise Database kit does not contain the account. Database access must be setup by a SQL Server Administrator.