Oracle® Enterprise Single Sign-on Logon Manager How-To: Configuring ESSO-LM Event Logging with Microsoft SQL Server 2005 Release 11.1.1.2.0 **20413-01**  Oracle Enterprise Single Sign-on Logon Manager How-To: Configuring ESSO-LM Event Logging with Microsoft SQL Server 2005

Release 11.1.1.2.0

20413-01

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# Introduction

#### **About This Guide**

This document describes how to configure ESSO-LM to store event log data in an MS SQL Server 2005 database and how to prepare a database instance for this scenario. The instructions in this guide are based on Microsoft SQL Server 2005.

#### **Prerequisites**

Readers of this document should have a solid understanding of the MS SQL Server2005 database and the ESSO-LM Administrative Console. Information on ESSO-LM event logging is provided in the ESSO-LM Administrative Console Help.

#### **Terms and Abbreviations**

The following table describes the terms and abbreviations used throughout this guide:

Term or Abbreviation	Description
ESSO-LM	Enterprise Single Sign-On
Agent	ESSO-LM client-side software
Console	ESSO-LM Administrative Console

## **Accessing ESSO-LM Documentation**

We continually strive to keep ESSO-LM documentation accurate and up to date. For the latest version of this and other ESSO-LM documents, visit <u>http://download.oracle.com/docs/cd/E15624\_01/index.htm</u>.



# Configuring ESSO-LM Event Logging with MS SQL Server 2005

## **Overview**

In order to configure ESSO-LM to store event log data in a table in an MS SQL Server 2005 database, you must complete the following steps:

- 1. If you have not already done so, <u>install and configure MS SQL Server 2005</u> as described in the vendor's documentation.
- 2. <u>Set up the event log data table.</u>
- 3. Install the Database Event Extension component for ESSO-LM.
- 4. <u>Configure ESSO-LM to store its event log data in the table you created</u>.
- 5. <u>Test your event logging configuration</u>.



#### Step 1: Install and Configure MS SQL Server 2005

Before you begin configuring ESSO-LM event logging, install and configure an instance of the MS SQL Server 2005 database as described in the vendor's documentation, if you have not already done so. Unless your environment dictates otherwise, select the "Typical" installation scenario when prompted by the installer.

#### Step 2: Set Up the Event Log Data Table

Before ESSO-LM can store event log data in the database, you must set up a table that will store the data. The steps are as follows:

- 1. Launch the SQL Server Management Studio application and navigate the left-hand tree to expand the database of your choice.
- 2. Within the selected database, create a table that will store ESSO-LM event log data:
  - a. Under the selected database, right-click **Tables** and select **New Table**... from the context menu. MS SQL Server creates a table with a default name (e.g. Table 1).





- b. Rename the table as desired using the **Name** field in the **Properties** pane on the right-hand side. You will supply this table name to ESSO-LM later in this document.
- c. Set up the required table columns. These columns are:
  - Event log data columns, FieldX, where X is the column ID ranging from 1 to 10.
  - The AppName, Category, TimeStamp, and Type system data columns.

For each required column, do the following:

 Name the column. These column names will correspond to event log field names shown below that you will configure later in this document using the ESSO-LM Administrative Console.

**Caution:** Each event log field *must* have a corresponding column with an *identical* name in the event log data table. Otherwise, event data will not be recorded.

Oracle Enterprise Single Sign-on Logon Manager Administrative Console							
File Edit Insert Repository Tools Help							
				Help Search:	Go		
	AppName		AppName				
Provisioning Gateway	Category		Category				
Password Generation Policies	Field1	~	Field1				
·····⑦ Passphrase Questions ⊕	Field10	◄	Field10				
i ⊟∰ Global Agent Settings i ⊟∰ Live	Field2	▼	Field2				
🔄 🗐 End-User Experience	Field3		Field3				
Reporting	Field4	~	Field4				
🖻 🗐 Database	Field5		Field5				
Syslog ⊕⊡) Windows Event Viewer	Field6	◄	Field6				
XML File	Field7		Field7				
⊡ 🗐 Kiosk Manager	Field8	~	Field8				
🕀 📲 Primary Logon Methods 🕀 🗐 Reporting	Field9		Field9				
⊡≣ Security ∰ Synchronization	TimeStamp		TimeStamp				
Epository	Туре	~	Туре				
	Select a Setting above to view	its description	n below				
	Registry Location: Extensions\ Check the box and assign a fie	EventManage eld number to	ar\Database\EventFields: Type which to write the Type.		×		
	Default: Type Note: Not present in HKCU, no	ot present in S	ettings dialog.		Help		
Ready					1.		



- II. Select **char** as the data type.
- III. Set the data length to 255.
- IV. Enable the **Allow Nulls** option.
- V. When you have finished, save your changes (File  $\rightarrow$  Save Table).

When complete, the table configuration will look as follows:

K Microsoft SQL Server Management Studio									_O×
Elle Edit View Project Table Designer Iools Window Community Help									
🖳 New Query 📭 📅 📅 📅 🕞 👘 🥔 🕼 🕼 🎽 🐉 🖀 📮									
Object Explorer 🗸 🕂 🗙	1	able - dbo.Table_1	Summary			<b>▼</b> X	P	roperties	≁ ₽ ×
Connect 🕶 📑 🔄 🝸	Ĺ	Column Name	Data T	уре	Allow Nulls		נ	Tbl] dbo.Table	_1 •
🖃 🐻 SSOLABDC (SQL Server 9.0.1399 - SSOLAB\Administra		AppName	char(255)		~				
🖃 🧰 Databases		Category	char(255)		~			(Identitu)	
🕀 🧰 System Databases		TimeStamp	char(255)		<b>v</b>			(Name)	Table 1
Database Snapshots		Field1	char(255)		~			Database Name	v-GOAudit
Ordename     Ordename		Field2	char(255)		V			Description	
Tables		Field3	char(255)		V			Schema	dbo
🛨 🧰 System Tables		Field4	char(255)		2			Server Name	ssolabdc
		Field5	char(255)				E	Table Design	er
tiews		Fields	char(255)					Identity Column	1
🗄 🧾 Synonyms		rieluo	(liar(255)					Indexable	Yes
Programmability      Service Broker		Field/	char(255)					Regular Data S	: PRIMARY
		Field8	char(255)		~			Replicated	No
E Security		Field9	char(255)		✓			Row GOID Cold	DDIMADY
🕀 🧰 Security		Field10	char(255)		<b>v</b>			Text(IIIIage File	FRIMART
🕀 🧰 Server Objects		Туре	char(255)		•				
E Carlication									
Management     Matification Services	<b>—</b>								
SOL Server Agent (Agent XPs disabled)									
Je Ste Solver Agene (Agene Al S disabled)									
	6	olump Properties							
		<b>2</b> ↓   🖾							
		🗄 (General)							
		(Name)		AppNam	ie				
		Allow Nulls		Yes					
		Data Type		char					
		Default Value or Bindin	Ig						
		Length		255					
		- Lable Designer							
		(General)						Tdoobibu)	
							ľ	TOCHUCY)	
Ready									11.

#### Step 3: Installing the Database Event Extension Component for ESSO-LM

The Database Event Extension component must be installed in order for ESSO-LM to store event log data in the database. To install the component, do the following:

- 1. Click Start  $\rightarrow$  Settings  $\rightarrow$  Control Panel.
- 2. In the Control Panel, double-click the Add/Remove Programs icon.
- 3. In the Add/Remove Programs applet, navigate to the ESSO-LM Agent entry and click Change.
- 4. In the ESSO-LM Agent installer, click Next.
- 5. In the "Program Maintenance" dialog, select **Modify** and click **Next**.
- 6. In the "Custom Setup" dialog, expand **Extensions**  $\rightarrow$  **Event Manager**.
- 7. Under the **Event Manager** node, click the button next to **Database Event Extension** and select **This feature will be installed on local hard drive** from the context menu.

🔂 Oracle Enterprise Single Sign-on Logon Manager - In	stallShield Wizard 🔀
<b>Custom Setup</b> Select the program features you want installed.	
Click on an icon in the list below to change how a feature is inst Helper Objects Synchronization Manager Event Manager XML File Windows Event Extension Syslog Database Event Extension Reporting Extension	talled. Feature Description Event Management plug-in that supports logging of events to a Database This feature requires 72KB on your hard drive.
Help < Back	Next > Cancel

- 8. Click **Next**; then, in the dialog that follows, click **Install** and wait for the installation to complete.
- 9. When the installation completes successfully, click Finish.



#### Step 4: Configuring ESSO-LM Event Logging for Database Support

- 1. Launch the ESSO-LM Administrative Console and load your current configuration set.
- 2. In the tree, navigate to Global Agent Settings  $\rightarrow$  [Current Configuration Set]  $\rightarrow$  Event Logging.
- 3. Select the check box next to Select events to log and click the ellipsis [...] button.
- 4. In the "Select events to log" dialog, select the types of events you want to log.

Warning: You must select the Event Types: Info item; otherwise, no data will be logged.

"Select events to log:"	
<ul> <li>Application Password Change</li> <li>Backup/Restore</li> <li>Credential Add</li> <li>Credential Copy</li> <li>Credential Delete</li> <li>Credential Edit</li> <li>Event Types: Info</li> <li>Help</li> <li>Logon Field: Fourth Field</li> <li>Logon Field: System Domain</li> <li>Logon Field: System Username</li> <li>Logon Field: Username</li> <li>Logon Field: Username</li> <li>Primary Logon Method Change</li> <li>Provisioning</li> <li>Reauthentication</li> <li>Settings Change</li> <li>Startup/Shutdown</li> </ul>	OK Cancel Help
Select All Clear All	]

5. Under the Event Logging node in the tree, select Database and configure ESSO-LM as follows:

Cache Retry	Set to the desired retry interval. See Console Help for more information.
Interval	
Default	URL to your database server instance. This will be Server1.
Server	
Default Table	Name of the event log data table created earlier in this document.
	( <b>Table_1</b> in our example)
Extension	Absolute path to DatabaseExt.dll, including file name.
Location	
Log Which	Configure to exactly match the event types chosen in step 4.
Events?	
Servers	Provider= <sql_provider_name>;Password=<sql_admin_ user_password&gt;;User ID=<sqladmin_user_name>;Data Source=<database name=""></database></sqladmin_user_name></sql_admin_ </sql_provider_name>



- 6. Under the **Database** node in the tree, select **Event Fields**.
- For each field with a numeric ID (Field1, Field2, etc.), enter the name of the corresponding column in the event log data table. The names must match the column names you set in step 2c on pages 9 and 10 of this document.

Warning: Do not alter the values of the AppName, Category, TimeStamp ,and Type parameters.

🗢 Oracle Enternrise Single Sign-on Logo	n Manager Administrative	Console	
File Edit Insert Repository Tools Help			
D 😅 🖬   🕂 🗗 🕹			Help Search: Go
	AppName		AppName
Provisioning Gateway     Shared Accounts	Category	•	Category
Password Generation Policies	Field1		Field1
⊡ ∰ Passphrase Questions ⊡ ∰ Credential Sharing Groups	Field10		Field10
🖻 🦣 Global Agent Settings	Field2	~	Field2
End-User Experience	Field3	~	Field3
	Field4	~	Field4
⊡…≣] Database	Field5	~	Field5
∰ Syslog ∓ ∰ Windows Event Viewer	Field6		Field6
XML File	Field7		Field7
⊞ Advanced ⊞ Eiosk Manager	Field8		Field8
	Field9	~	Field9
Security     Synchronization	TimeStamp		TimeStamp
Repository	Туре		Туре
	Select a Setting above to view	w its descriptio	n below
	Registry Location: Extensions Check the box and assign a f	s\EventManag field number to	er\Database\EventFields: Type
	Default: Type Note: Not present in HKCU, r	not present in S	ettings dialog.
Ready			1

- 8. When finished, push the modified configuration set to your directory or write them to the local registry, whichever option suits your environment.
- 9. Proceed to the next section to test your event logging configuration.



## **Step 5: Testing Your Event Logging Configuration**

This simple test procedure allows you to check whether ESSO-LM is properly logging event data to the database. In our example, you will press the **Help** button in the Logon Manager and check the database to see if the button press is logged.

- 1. Open the Logon Manager and click Help.
- 2. Start the Microsoft SQL Server Management Studio application. Typically, the shortcut is located in Start → Program Files → Microsoft SQL Server 2005.
- 3. In the left-hand tree, navigate to the event log data table.
- 4. Right-click the event log data table and select **Open Table** from the context menu.



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The Microsoft SQL Server Management Studio will display all ESSO-LM events that have been logged in the database so far. The **Help** button press event should appear near or at the end of the list, as shown below.

Tabl	Table - dbo.Table_1 Summary										
	AppName	Category		TimeStamp		Field1	Field2	Field3	Field4		
	MAL	Feature		11/19/2008 11:13:39 AM		StartupShutdown,Startup	Username, administrator	Domain, SSOLAB	SyncInfo,admini		
	NULL	Feature		11/19/2008 2:14:43 PM		ReAuth, WinAuth SUCCESS	Username, administrator	Domain, SSOLAB	SyncInfo,admini		
	NULL	Feature		11/19/2008 2:14:48 PM		ReAuth, WinAuth SUCCESS	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/19/2008 2:15:16 PM		StartupShutdown,Shutdown	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/24/2008 4:00:29 PM		StartupShutdown,Startup	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/24/2008 4:02:40 PM		ReAuth, WinAuth SUCCESS	Username, administrator	Domain, SSOLAB	SyncInfo,admini		
	Avent	Logon		11/24/2008 4:02:41 PM		username,rad	Username, administrator	Domain, SSOLAB	SyncInfo,admini		
	Avent	Logon		11/24/2008 4:03:51 PM		username,rad	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/24/2008 4:03:58 PM		ReAuth, WinAuth SUCCESS	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	Avent	Logon		11/24/2008 4:04:04 PM		username,rad	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/24/2008 4:04:18 PM		StartupShutdown,Shutdown	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/26/2008 2:21:31 PM		StartupShutdown,Startup	Username, administrator	Domain,SSOLAB	SyncInfo,admini		
	NULL	Feature		11/26/2008 2:25:43 PM		ReAuth, WinAuth SUCCESS	Username,FerdinandP	Domain,SSOLAB	SyncInfo,Ferdin		
	NULL	Credential		11/26/2008 2:26:04 PM		add, Acrobat Reader	Username,FerdinandP	Domain,SSOLAB	SyncInfo,Ferdin		
	NULL	Credential		11/26/2008 2:26:05 PM		add,GoldMine	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
	NULL	Feature		11/26/2008 2:26:08 PM		StartupShutdown,Startup	Username,FerdinandP	Domain,SSOLAB	SyncInfo,Ferdin		
	NULL	Feature		11/26/2008 2:26:54 PM		Help,Logon Manager	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
	MAL	Feature		11/26/2008 2:27:00 PM		StartupShutdown,Shutdown	Username,FerdinandP	Domain,SSOLAB	SyncInfo,Ferdin		
	NULL	Feature		11/26/2008 2:28:18 PM		StartupShutdown,Startup	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
	NULL	Feature		11/26/2008 3:08:48 PM		StartupShutdown,Shutdown	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
	NULL	Feature		11/26/2008 3:09:41 PM		StartupShutdown,Startup	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
•	MUL	Feature		11/26/2008 3:13:34 PM		Help,Logon Manager	Username,FerdinandP	Domain, SSOLAB	SyncInfo,Ferdin		
*	MAL	NULL		NULL		NULL	NULL	NULL	NULL		