Configuring Logging in Internet Security and Acceleration Server to a SQL Database

This article describes how to configure logging for Internet Security and Acceleration (ISA) Server to an SQL database. ISA Server provides an extensible, multiple-layer enterprise firewall and a scalable, high-performance Web cache server. You can store Microsoft Internet Security and Acceleration (ISA) Server logs to an ODBC database. In this article we will store the web proxy logs to an SQL server database named **ISA_Logs** under the **WebProxyLog** table.

Please follow these steps to accomplish this task.

Creating Database named ISA_Log

- 1. Start SQL Server Enterprise Manager from Start→Programs→SQL Server→Enterprise Manager.
- 2. Create a database named **ISA_Log** from the following node.



Creating Table named WebProxyLog

3. Launch SQL Server **Query Analyser** from Start→Programs→Microsoft SQL Server→ Query Analyser.

4. Select the **ISA_Log** database from the following location and paste the following code in the code window as shown below.



CREATE TABLE WebProxyLog (

[ClientIP]	varchar(32),
[ClientUserName]	nvarchar(32),
[ClientAgent]	varchar(128),
[ClientAuthenticate]	varchar(5),
[logDate]	datetime,
[logTime]	datetime,
[service]	varchar(16),
[servername]	nvarchar(32),
[referredserver]	varchar(32),
[DestHost]	varchar(255),
[DestHostIP]	varchar(32),
[DestHostPort]	int,
[processingtime]	int,
[bytesrecvd]	int,
[bytessent]	int,
[protocol]	varchar(12),
[transport]	varchar(8),
[operation]	varchar(8),
[uri]	varchar(255),
[mimetype]	varchar(32),
[objectsource]	varchar(12),
[resultcode]	int,
[CacheInfo]	int,
[rule#1]	nvarchar(128),
[rule#2]	nvarchar(128)

)

CREATE INDEX [IX_WebProxyLog_Date] ON [WebProxyLog]([logDate]) ON [PRIMARY] GO

CREATE INDEX [IX_WebProxyLog_DateTime] ON [WebProxyLog]([logDate], [logTime]) ON [PRIMARY] GO

- 5. Click the **Parse** button (Blue colored good sign) or press CTRL+F5 to check the syntax of this query and then click **Execute** button (green colored play sign) or press F5 to execute this query.
- 6. You will get the following message after running this query successfully.

🚭 SQL Query Analyzer - [Query - SERVE	R.ISA_L g.sa - Untitle [1*] #p	_ 🗆 × _ 🗗 ×
🎦 • 🗲 🖶 🗐 🗶 🛍 🛍 🖉 /	🝇 🕫 🎟 - 🍾 🏌 🔳 📋 ISA_Log	💽 🗧 🚰 🔍 😭
Object Browser	CREATE TABLE WebProxyLog (
SERVER(sa)	[ClientIP]	varchar(32),
💼 📔 ISA Log	[ClientUserName]	nvarchar(32)
🗄 🗍 master	[ClientAuthenticate]	varchar(5),
🕀 🛄 model		
I ⊞… 📋 msdb		f=11=
	Ine command(s) completed success	rully.
E pubs		
Common Objects		
🗄 💼 Configuration Functions		
Euror Functions		
Date and Time Functions	Linds III Messages	
😁 Objects 🖽 Templates	Query SERVER (8.0) sa (53) ISA_Log 0:00:01	0 rows Ln 2, Col 1
	Connections: 1	NUM //

Creating ODBC for ISA server

- 7. Click Start > Programs > Administrative Tools > Data Sources (ODBC).
- 8. On the System DSN tab, click Add.

🕙 ODBC Data Source	Administrator	?×
User DSN System D	SN File DSN Drivers Tracing Cor	nnection Pooling About
System Data Source	s:	
Name Drive LocalServer SQL	r Server	Add Remove Configure
An ODB the indic on this m	C System data source stores information ated data provider. A System data source achine, including NT services. OK Cancel	about how to connect to ce is visible to all users Apply Help

9. In the Create New Data Source, select the SQL Server driver for the database.

Microsoft FoxPro VFP Driver (*.dbf)	6.
Microsoft ODBC for Oracle	2.
Microsoft Paradox Driver (*.db.)	4.
Microsoft Paradox-Treiber (*.db.)	4.
Microsoft Text Driver (*.txt; *.csv)	4.
Microsoft Text-Treiber (*.txt; *.csv)	4.
Microsoft Visual FoxPro Driver	6.
Microsoft Visual FoxPro-Treiber	6.
SQL Server	2 🗸
I I I I I I I I I I I I I I I I I I I	
	Microsoft FoxPro VFP Driver (*.dbf) Microsoft ODBC for Oracle Microsoft Paradox Driver (*.db) Microsoft Paradox-Treiber (*.db) Microsoft Text Driver (*.txt; *.csv) Microsoft Text-Treiber (*.txt; *.csv) Microsoft Visual FoxPro Driver Microsoft Visual FoxPro-Treiber SQL Server

10. Create the data source with the following information.

Create a New Data Sourc	ce to SQL Server	×
Selaci a diver to me olt dasse i olt dasse i biorent Excel biorent Excel	This wizard will help you create an ODBC data source that you of connect to SQL Server. What name do you want to use to refer to the data source? Name: ISAProxyLog How do you want to describe the data source? Description: ISA Server Proxy Service Logs Which SQL Server do you want to connect to? Server: [local]	can use to
	Finish Next > Cancel	Help

Note: This data source name will be used in ISA server for database connectivity. 11. Click next to define your SQL server authentication.

Microsoft SQL Server DS	N Configuration	×
Select a dirver to me otr dbase I otr dba	How should SQL Server verify the authenticity of the login ID?	
	< Back Next > Cancel Help	

12. Click **Next** to select your desired Database (ISA_log).

Microsoft SQL Server DS	N Co	onfiguration
Select a driver ro-		Change the default database to: ISA_Log Attach database filename
Microsoft Tex Solution	ব	Create temporary stored procedures for prepared SQL statements and drop the stored procedures: C Only when you disconnect. When you disconnect and as appropriate while you are connected. Use ANSI quoted identifiers.
5722 <mark></mark> 748226	${\color{black}\overline{\checkmark}}$	Use ANSI nulls, paddings and warnings.
		Use the failover SQL Server if the primary SQL Server is not available.
		< Back Next > Cancel Help

13. Click **Next**, accept default settings and then click **Finish** button to confirm and test your Data source from the following window.

ODBC Microsoft SQL Server Setup	×
A new ODBC data source will be created with the following configuration:	
Microsoft SQL Server ODBC Driver Version 03.80.0194	A
Data Source Name, ISA HoxyLog Data Source Description: ISA Server Proxy Service Logs Server: (local)	
Database: ISA_Log Language: (Default) Translate Character Data: Yes	
Log Long Running Queries: No Log Driver Statistics: No	
Use Integrated Security: No Use Regional Settings: No Prenared Statements Option: Drop temporary procedures on	
disconnect Use Failover Server: No	
Use ANSI Quoted Identifiers: Yes Use ANSI Null, Paddings and Warnings: Yes Data Encryption: No	
	-
Test Data Source OK Cano	el

14. You will get the following successful test result.

SQL Server ODBC Data Source Test	×
⊢ Test Results	
Microsoft SQL Server ODBC Driver Version 03.80.0194	<u> </u>
Running connectivity tests	
Attempting connection Connection established Verifying option settings Disconnecting from server	
TESTS COMPLETED SUCCESSFULLY!	
	-
OK	

Configuring Logging to Database

15. In the console tree of ISA Management, click **Internet Security and Acceleration Server**, click **Servers and Arrays**, click the name of the server or array, click **Monitoring Configuration**, and then click **Logs**.

ISA Management	
<u>A</u> ction <u>Vi</u> ew ← → 🗈 🖬 🖨	
Tree	Component
Internet Security and Acceleration Server	Packet filters
🖻 📲 Servers and Arrays	ISA Server Firewall service
🗄 🚽 SERVER	ISA Server Web Proxy Service
🕀 📇 Monitoring	
Computer	
🗄 🗳 Access Policy	
🕀 🔄 Publishing	
Bandwidth Rules	
🗄 彛 Policy Elements	
🗄 🦣 Cache Configuration	
🖻 📆 Monitoring Configuration	
Alerts	
Report Jobs	
🗄 – ở Extensions	
🕀 📠 Network Configuration	
Client Configuration	

- 16. In the details pane, right-click the **ISA Server Web Proxy Service**, and then click **Properties**.
- 17. On the Log tab, click Database.
- 18. Modify the following parameters
 - ODBC data source (DSN)
 - \circ Table name
 - User account

Like below

ISA Server Web Proxy Service P	roperties ?X
Log Fields	,
Log storage format:	
O File	
Format:	ISA Server file format
Create a new file:	Daily
Name: WEBDyyyymmdd.	log Options
Database	
ODBC data source (DSN):	ISAProxyLog
Table name:	WebProxyLog
Use this account:	
	Set Account
Enable logging for this servic	e
	OK Cancel Apply

19. Now open any site like <u>www.microsoft.com</u> and then check your database for proper logging as shown below.

👼 SQL Query Analyzer - [Query - SERVI	ER.ISA_Log.sa -	Untitled1*]		<u>_ ×</u>
File Edit Query Tools Window Help				
🎦 🗕 😅 🔚 🗐 🐰 🖻 🕞 🗹 (時 い 田 -	- 🗸 🕨 🔳 🚺 IS/	A_Log 🗾	🗄 🦉 🔍 😭
Object Browser	select	* from webproxyl	loq	
SERVER(sa)			2	
ISA_Log Imaster Imaster				
⊕… 📋 Northwind		ClientUserName	(ClientAgent 🔺
itempdb	1	anonymous	1	Mozilla/4
Common Objects	2	anonymous	1	Mozilla/4
Configuration Functions		anonvmous	I	Mozilla/4
Date and Time Functions	Grids 🗐) Messages		
😵 Objects 🗐 Templates	SERVER (8 sa (52) ISA_Log 0:00:00	Grid #1: 48 rov	vs Ln 8, Col 19
Connections: 1 NUM				