

使用ODBC配置ISE 2.1的MS SQL

目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[配置](#)

[步骤1. MS SQL基本配置](#)

[步骤2. ISE基本配置](#)

[步骤3.配置用户身份验证](#)

[步骤4.配置组检索](#)

[步骤5.配置属性检索](#)

[故障排除](#)

简介

本文档介绍如何使用Microsoft标准查询语言(SQL)服务器配置身份服务引擎(ISE)，以便使用开放数据库连接(ODBC)进行ISE身份验证

注意：开放数据库连接(ODBC)身份验证要求ISE能够获取明文用户密码。密码可以在数据库中加密，但必须由存储过程解密。

先决条件

要求

Cisco 建议您了解以下主题：

- 数据库和ODBC概念
- Microsoft SQL 服务器

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 身份服务引擎2.1
- MSSQL服务器2008 R2

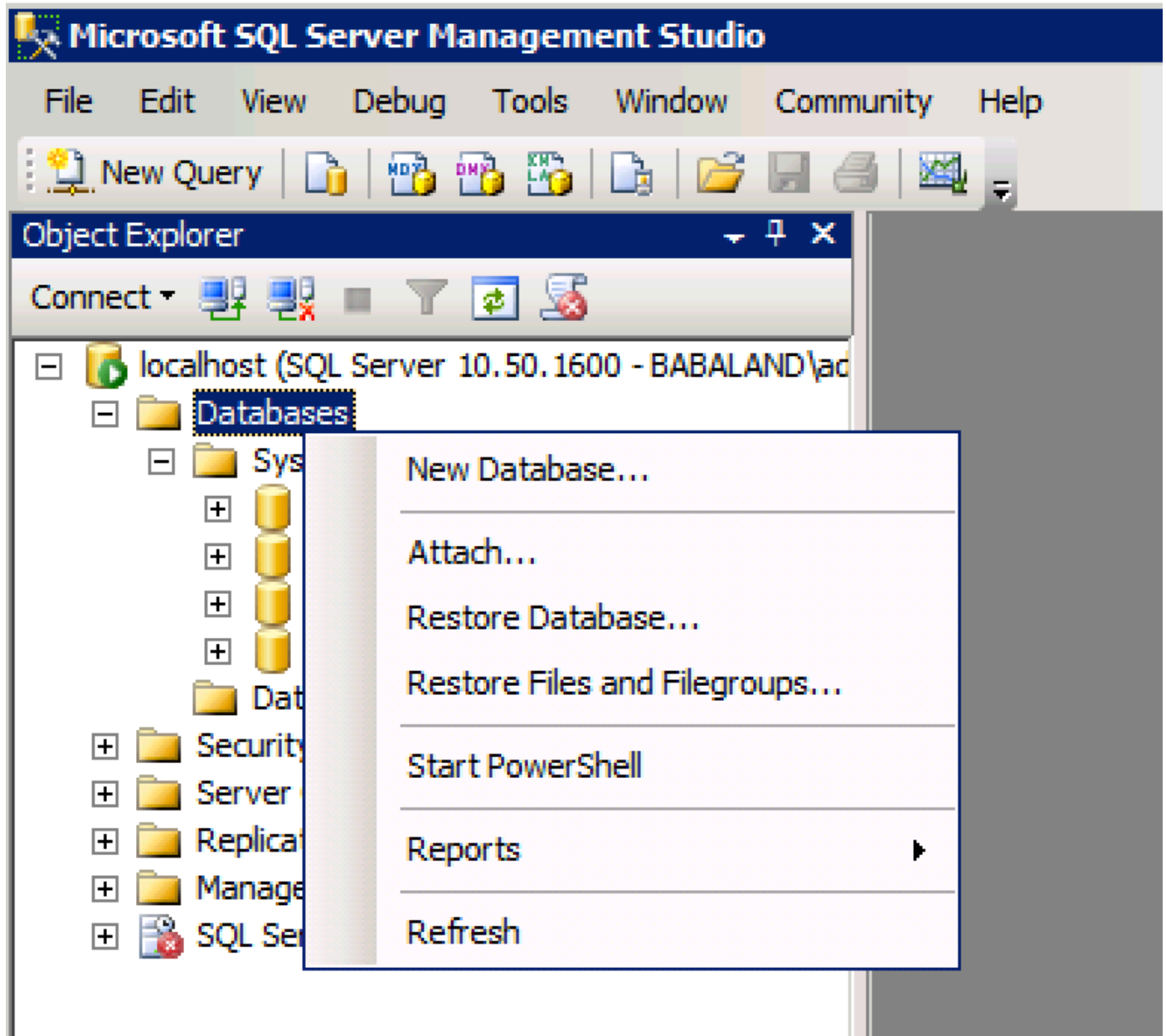
配置

步骤1. MS SQL基本配置

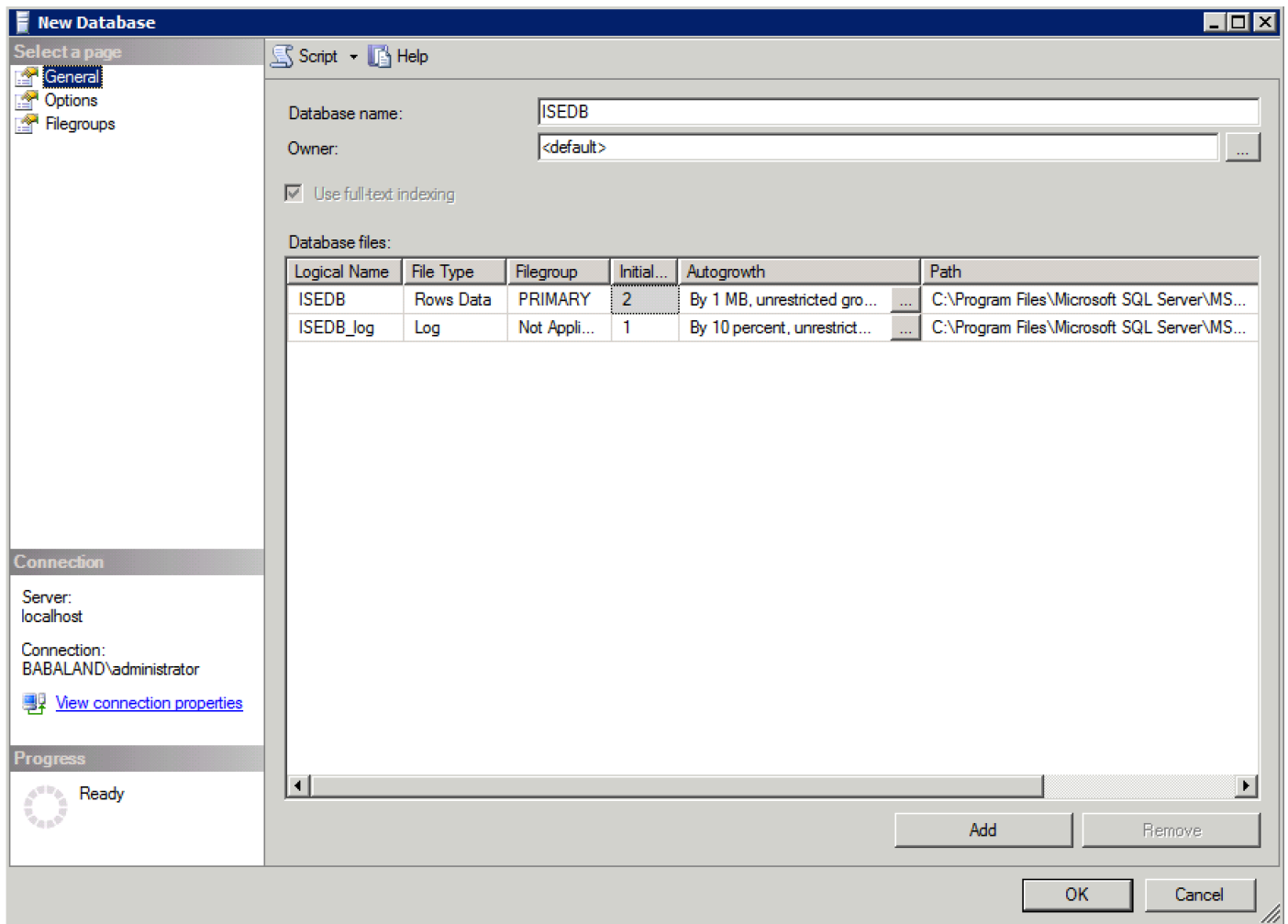
配置步骤包括为ISE创建数据库和一个具有访问该数据库权限的用户。

注意：ISE仅支持SQL身份验证，不支持Windows帐户。如果需要更改身份验证模式，请参阅[更改服务器身份验证模式](#)

1.打开SQL Server Management Studio(“开始”菜单> Microsoft SQL Server 2008 R2)并创建数据库：



2.保留默认选项或调整数据库设置，如下图所示：



3.创建用户并设置权限，如下图所示：

Microsoft SQL Server Management Studio

File Edit View Debug Tools Window Community



Object Explorer



- [-] localhost (SQL Server 10.50.1600 - BABALAND\ad...)
 - + Databases
 - [-] Security
 - [-] Logins
 - [New Login...]
 - Filter
 - Start PowerShell
 - Reports
 - Refresh
 - + Servers
 - + Credentials

New Login...
Filter
Start PowerShell
Reports
Refresh

Login - New [Minimize] [Maximize] [Close]

Select a page

- General
- Server Roles
- User Mapping
- Securables
- Status

Script Help

Login name: Search...

Windows authentication

SQL Server authentication

Password:

Confirm password:

Specify old password

Old password:

Enforce password policy

Enforce password expiration

User must change password at next login

Mapped to certificate

Mapped to asymmetric key

Map to Credential Add

Mapped Credentials

Credential	Provider
------------	----------

Remove

Default database:

Default language:

OK Cancel

Connection

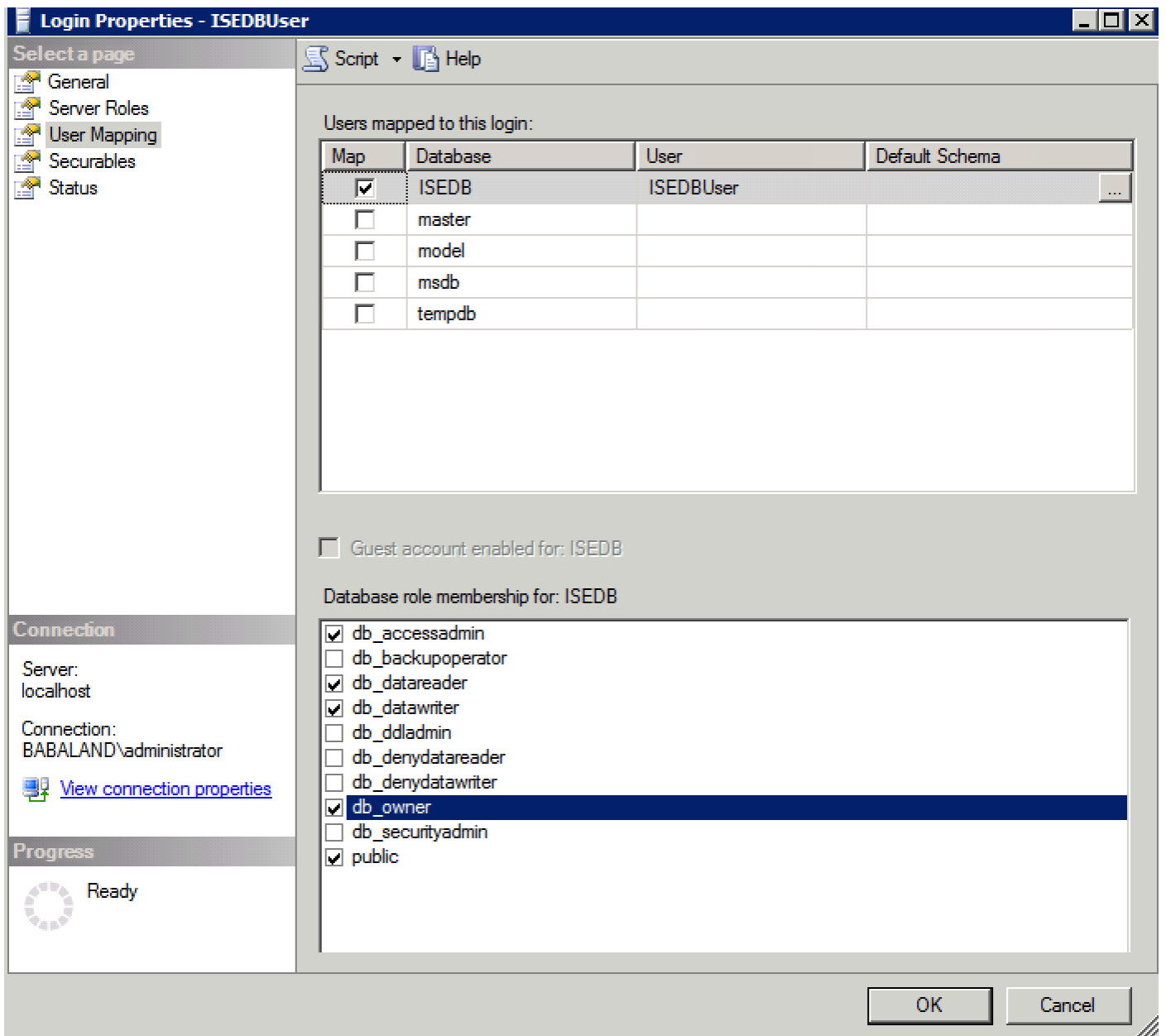
Server: localhost

Connection: BABALAND\Administrator

[View connection properties](#)

Progress

Ready



步骤2. ISE基本配置

在管理>外部身份源> ODBC和测试连接处创建ODBC身份源，并测试连接：

ODBC Identity Source

General

Connection

Stored Procedures

Attributes

Groups

ODBC DB connection details

* Hostname/IP[:port]

* Database name

Admin username ⓘ

Admin password

* Timeout

* Retries

* Database type

Test connection

Connection succeeded

Stored Procedures

⚠ Plain text password authentication - Not Configured

⚠ Plain text password fetching - Not Configured

⚠ Check username or machine exists - Not Configured

⚠ Fetch groups - Not Configured

⚠ Fetch attributes - Not Configured

步骤3.配置用户身份验证

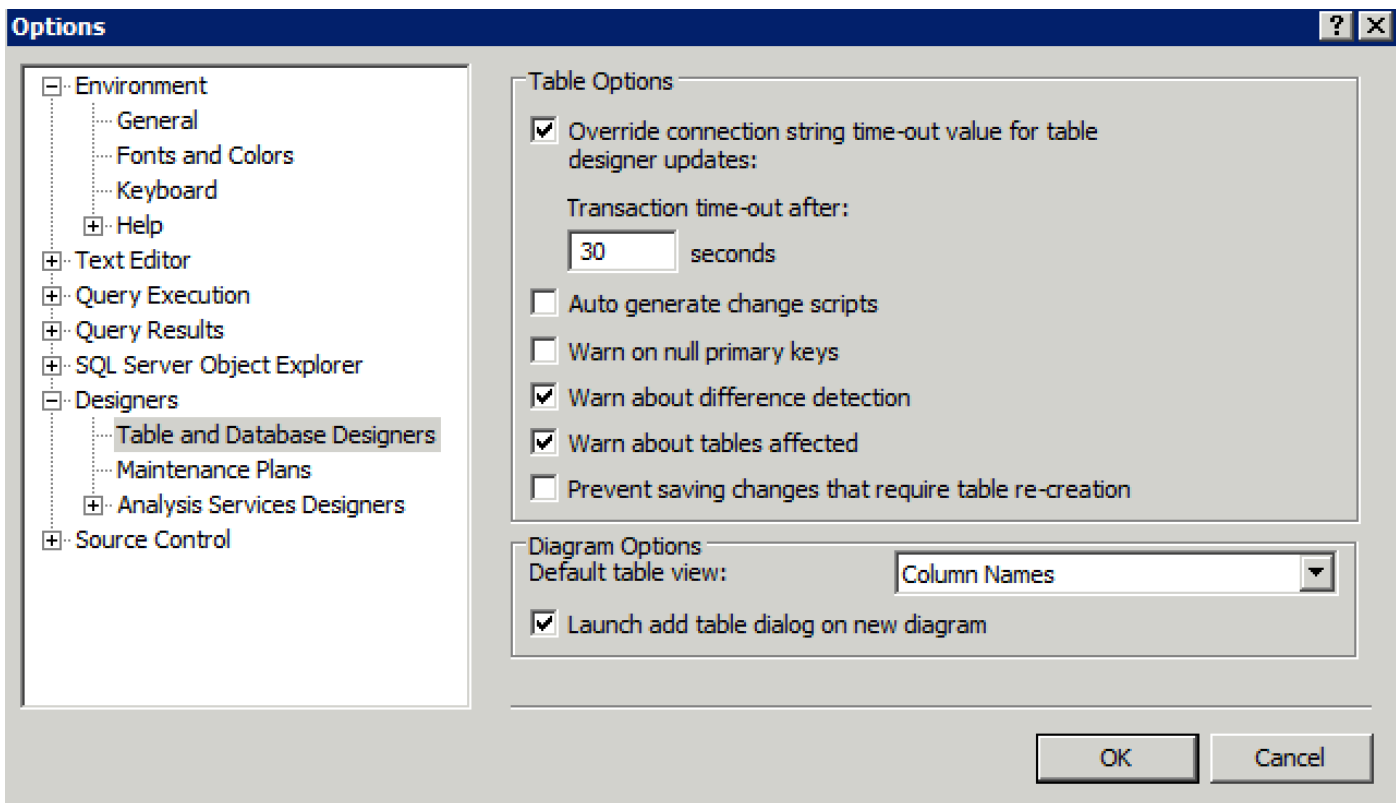
ISE对ODBC的身份验证使用存储过程。用于身份验证的存储过程返回结果集，语法为：

价值	类型
结果	整数
组（仅用于与ACS 4.2兼容）	整数或varchar(255)
帐户信息	varchar(255)
错误字符串	varchar(255)

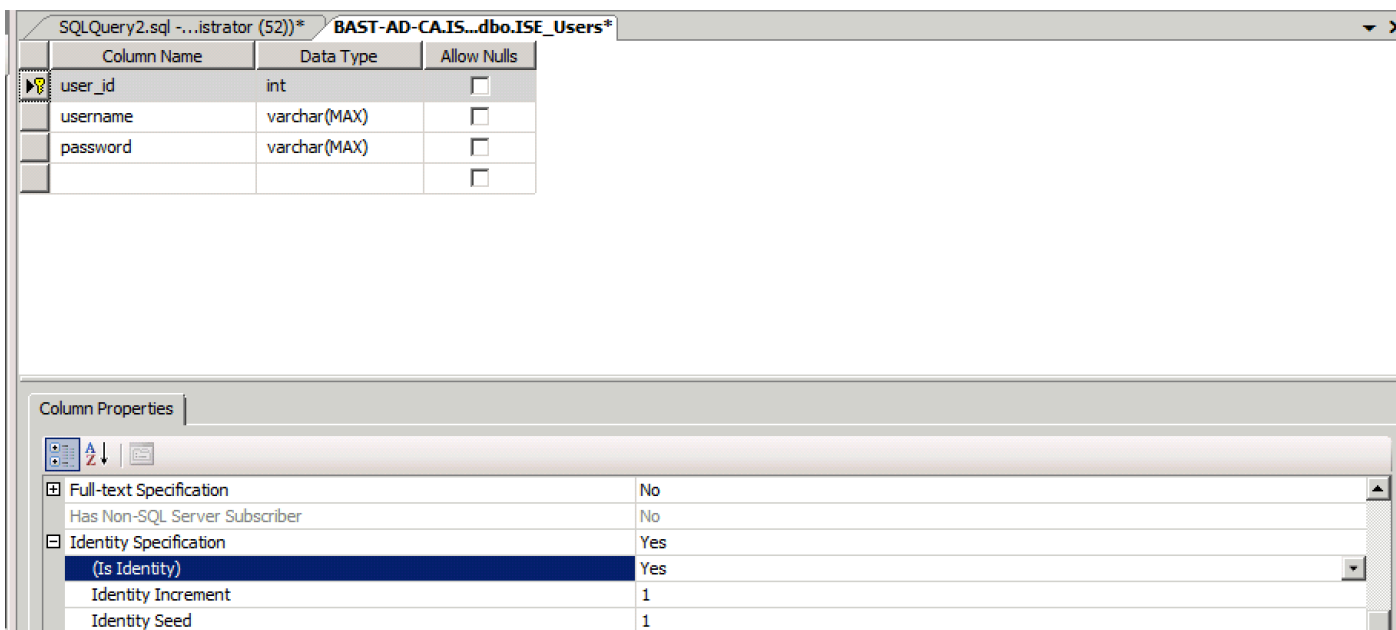
有关其他步骤，请参阅[思科身份服务引擎2.1管理指南](#)

提示：可以返回命名参数而不是结果集。它只是一种不同的输出类型，功能是相同的。

1.定位至选项并取消选中“防止保存需要重新创建表的更改”复选框（可选）：



2. 创建表。确保在主键上设置身份设置。要将user_id设置为主键，请右键单击：



最终SQL:

```
CREATE TABLE [dbo].[ISE_Users](
[user_id] [int] IDENTITY(1,1) NOT NULL,
[username] [varchar](max) NOT NULL,
[password] [varchar](max) NOT NULL,
CONSTRAINT [PK_ISE_Users] PRIMARY KEY CLUSTERED
(
```



```
[user_id] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS =
ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY]
```

3.运行此查询以插入一个用户：

```
insert into ISE_Users(username,password) values('odbcuser1','odbcpass');
```

4.创建纯文本密码身份验证的过程（用于PAP、EAP-GTC内部方法、TACACS）：

```
CREATE PROCEDURE [dbo].[ISEAuthUserPlainReturnsRecordset]
@username varchar(255), @password varchar(255)
AS
BEGIN
IF EXISTS( SELECT username
FROM ISE_Users
WHERE username = @username
AND password = @password )
SELECT 0,11,'This is a very good user, give him all access','No Error'
FROM ISE_Users
WHERE username = @username
ELSE
SELECT 3,0,'odbc','ODBC Authen Error'
END
```

5.创建纯文本密码获取过程(用于CHAP、MSCHAPv1/v2、EAP-MD5、LEAP、EAP-MSCHAPv2内部方法、TACACS):

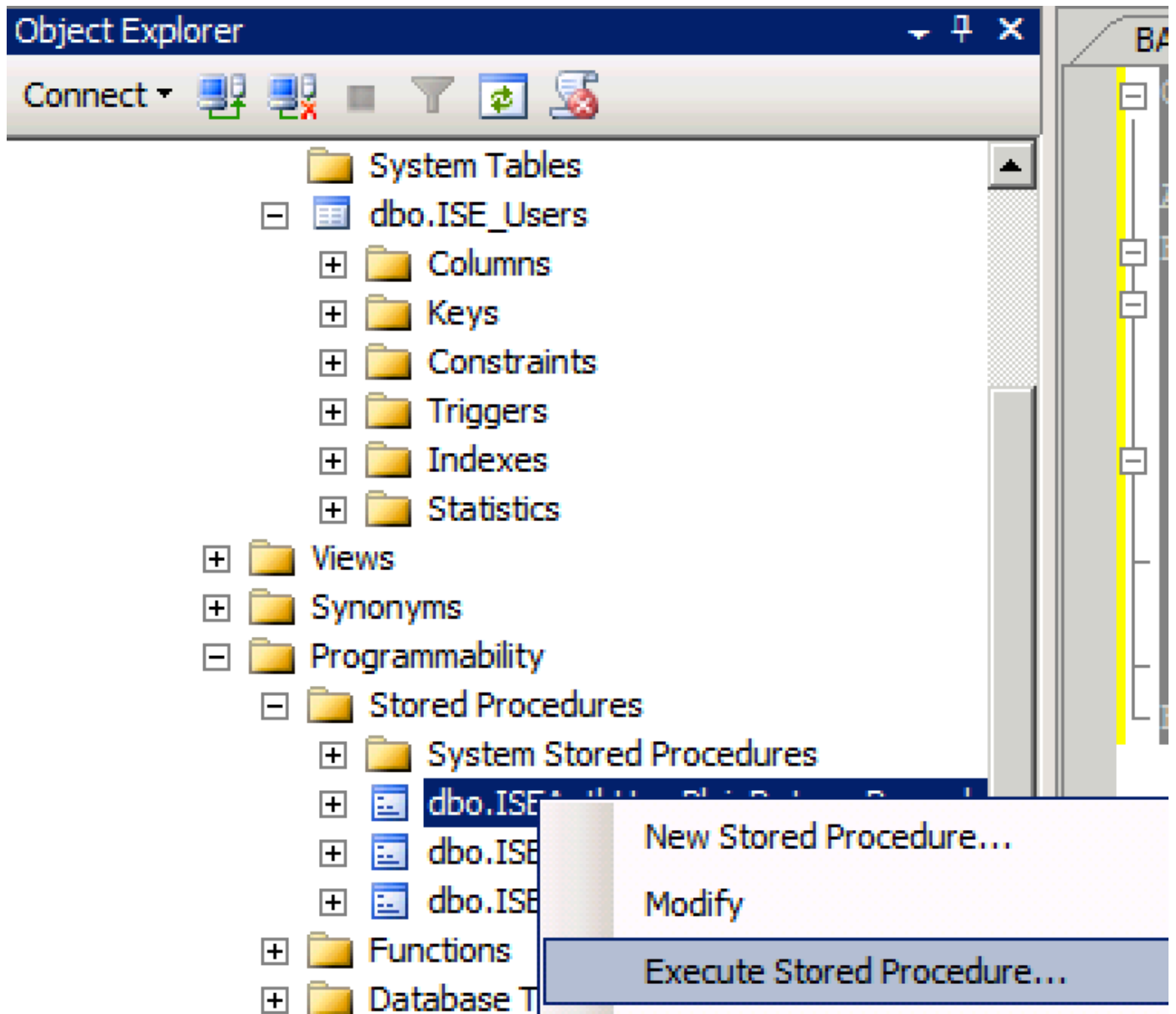
```
CREATE PROCEDURE [dbo].[ISEFetchPasswordReturnsRecordset]
@username varchar(255)
AS
BEGIN
IF EXISTS( SELECT username
FROM ISE_Users
WHERE username = @username)
SELECT 0,11,'This is a very good user, give him all access','No Error',password
FROM ISE_Users
WHERE username = @username
ELSE
SELECT 3,0,'odbc','ODBC Authen Error'
END
```

6.创建一个过程以检查用户名或计算机是否存在(用于MAB、PEAP、EAP-FAST和EAP-TTLS的快速重新连接):

```
CREATE PROCEDURE [dbo].[ISEUserLookupReturnsRecordset]
@username varchar(255)
AS
BEGIN
IF EXISTS( SELECT username
```

```
FROM ISE_Users
WHERE username = @username)
SELECT 0,11,'This is a very good user, give him all access','No Error'
FROM ISE_Users
WHERE username = @username
ELSE
SELECT 3,0,'odbc','ODBC Authen Error'
END
```

7.测试创建的程序：



Execute Procedure - [dbo].[ISEAuthUserPlainReturnsRecordset]

Select a page: General

Script Help

Parameter	Data Type	Output Parameter	Pass Null Value	Value
@username	varchar(255)	No	<input type="checkbox"/>	odbcuser1
@password	varchar(255)	No	<input type="checkbox"/>	odbcpass

Connection

Server: localhost

Connection: BABALAND\administrator

[View connection properties](#)

Progress

Ready

OK Cancel

SQLQuery5.sql -...inistrator (57)) BAST-AD-CA.IS...dbo.ISE_Users SQLQuery2.sql -...istrator (52))* BAST-AD-CA.IS...dbo.ISE_Users

```

USE [ISEDB]
GO

DECLARE @return_value int

EXEC @return_value = [dbo].[ISEAuthUserPlainReturnsRecordset]
    @username = N'odbcuser1',
    @password = N'odbcpass'

SELECT 'Return Value' = @return_value
GO

```

Results Messages

	(No column name)	(No column name)	(No column name)	(No column name)
1	0	11	This is a very good user, give him all access	No Error












以同样的方式测试其他程序。

8.在ISE上配置步骤并保存：

ODBC List > ISE_ODBC





ODBC Identity Source

General Connection **Stored Procedures** Attributes Groups

Stored procedure type	Returns recordset	
Plain text password authentication	ISEAuthUserPlainReturnsRecordset	 
Plain text password fetching	ISEFetchPasswordReturnsRecordset	 
Check username or machine exists	ISEUserLookupReturnsRecordset	 
<hr/>		
Fetch groups		 
Fetch attributes		 
Search for MAC Address in format	XX-XX-XX-XX-XX-XX	

9.使用ODBC创建简单身份验证规则并进行测试：

Authentication Policy

<input checked="" type="checkbox"/>	MAB	: If Wired_MAB OR Wireless_MAB	Allow Protocols : Default Network Access	and	Edit 
<input checked="" type="checkbox"/>	Default	:use Internal Endpoints			
<input checked="" type="checkbox"/>	Dot1X	: If Wired_802.1X OR Wireless_802.1X	Allow Protocols : Default Network Access	and	Edit 
<input checked="" type="checkbox"/>	Default	:use All_User_ID_Stores			
 <input checked="" type="checkbox"/>	test_aaa	: If Radius:Service-Type EQUALS Login	Allow Protocols : Default Network Access	and	Edit 
<input checked="" type="checkbox"/>	Default	:use ISE_ODBC			

```
b3560#test aaa group ISE236 odbcuser1 odbcpass legacy
Attempting authentication test to server-group ISE236 using radius
User was successfully authenticated.
```

Overview

Event	5200 Authentication succeeded
Username	odbcuser1
Endpoint Id	
Endpoint Profile	
Authentication Policy	Default >> test_aaa >> Default
Authorization Policy	Default >> Default
Authorization Result	PermitAccess

Authentication Details

Source Timestamp	2016-06-08 11:04:07.004
Received Timestamp	2016-06-08 11:04:07.005
Policy Server	bise236
Event	5200 Authentication succeeded
Username	odbcuser1
Authentication Identity Store	ISE_ODBC

Steps

```
11001 Received RADIUS Access-Request
11017 RADIUS created a new session
11117 Generated a new session ID for a 3rd party NAD
15049 Evaluating Policy Group
15008 Evaluating Service Selection Policy
15048 Queried PIP - Radius.NAS-Port-Type
15048 Queried PIP - Normalised Radius.RadiusFlowType (4 times)
15048 Queried PIP - Radius.Service-Type
15004 Matched rule - test_aaa
15041 Evaluating Identity Policy
15006 Matched Default Rule
15013 Selected Identity Source - ISE_ODBC
24852 Perform plain text password authentication in external ODBC database - ISE_ODBC
24849 Connecting to external ODBC database - ISE_ODBC
24850 Successfully connected to external ODBC database - ISE_ODBC
24855 Expect external ODBC database stored procedure to return results in a recordset - ISE_ODBC
22037 Authentication Passed
15036 Evaluating Authorization Policy
15048 Queried PIP - Radius.User-Name
15048 Queried PIP - Network Access.UseCase
15048 Queried PIP - Normalised Radius.RadiusFlowType (5 times)
15004 Matched rule - Default
```

步骤4.配置组检索

1.创建包含用户组和用于多对多映射的另一个表：

```
CREATE TABLE [dbo].[Groups](
[Group_ID] [int] IDENTITY(1,1) NOT NULL,
[Group_Name] [varchar](max) NOT NULL,
[Group_Desc] [text] NOT NULL,
CONSTRAINT [PK_Groups] PRIMARY KEY CLUSTERED
(
[Group_ID] ASC
)WITH (PAD_INDEX = OFF, STATISTICS_NORECOMPUTE = OFF, IGNORE_DUP_KEY = OFF, ALLOW_ROW_LOCKS =
ON, ALLOW_PAGE_LOCKS = ON) ON [PRIMARY]
) ON [PRIMARY] TEXTIMAGE_ON [PRIMAR
```

```
CREATE TABLE [dbo].[User_Groups_Mapping](
[user_id] [int] NOT NULL,
[group_id] [int] NOT NULL
) ON [PRIMARY]
```

```
ALTER TABLE dbo.User_Groups_Mapping ADD CONSTRAINT
FK_User_Groups_Mapping_Groups FOREIGN KEY
(
group_id
) REFERENCES dbo.Groups
(
Group_ID
) ON UPDATE CASCADE
ON DELETE CASCADE
```

```
GO
ALTER TABLE dbo.User_Groups_Mapping ADD CONSTRAINT
FK_User_Groups_Mapping_ISE_Users FOREIGN KEY
(
user_id
```

```

) REFERENCES dbo.ISE_Users
(
user_id
) ON UPDATE CASCADE
ON DELETE CASCADE

```

2. 添加组和映射，使ODBCUSER1同时属于两个组：

```

INSERT [dbo].[Groups] ([Group_ID], [Group_Name], [Group_Desc]) VALUES (1, N'ODBCGroup1', N'My Nice Group1')
INSERT [dbo].[User_Groups_Mapping] ([user_id], [group_id]) VALUES (1, 1)
INSERT [dbo].[Groups] ([Group_ID], [Group_Name], [Group_Desc]) VALUES (2, N'ODBCGroup2', N'My Nice Group2')
INSERT [dbo].[User_Groups_Mapping] ([user_id], [group_id]) VALUES (1, 2)

```

3. 创建组检索过程：

```

CREATE PROCEDURE [dbo].[ISEGroupsRetrieval]
@username varchar(255), @result int output
AS
BEGIN
if exists (select * from ISE_Users where username = @username)
begin
set @result = 0
select Group_Name from Groups where group_id in (select group_ID from User_Groups_Mapping where
User_Groups_Mapping.USER_ID IN (select USER_ID from ISE_Users where username=@username ) )
end
else
set @result = 1
END

```

4. 将其映射到Fetch组：

ODBC List > ISE_ODBC

ODBC Identity Source

General	Connection	Stored Procedures	Attributes	Groups
Stored procedure type		Returns recordset		
Plain text password authentication		ISEAuthUserPlainReturnsRecordset		
Plain text password fetching		ISEFetchPasswordReturnsRecordset		
Check username or machine exists		ISEUserLookupReturnsRecordset		
Fetch groups		ISEGroupsRetrieval		
Fetch attributes		ISEAttrsRetrieval		
Search for MAC Address in format		xx-xx-xx-xx-xx-xx		

5. 获取组并将其添加到ODBC身份源：

ODBC Identity Source

General Connection Stored Procedures Attributes **Groups**

Edit + Add - Delete

Name	Name in ISE
No data available	

Select Groups from ODBC X

Sample User or Machine Retrieve Groups

Name	Name in ISE
<input checked="" type="checkbox"/> ODBCGroup1	ODBCGroup1
<input checked="" type="checkbox"/> ODBCGroup2	ODBCGroup2

OK Cancel

6.添加不属于任何组的其他用户：

```
insert into ISE_Users(username,password) values('odbcuser2','odbcpass');
```

7.创建特定策略集并测试：

Policy Sets Profiling Posture Client Provisioning Policy Elements

Policy Sets

Search policy names & descriptions.

Summary of Policies

Global Exceptions

TestAAA

VPN

Default

Save Order Reset Order

Define the Policy Sets by configuring rules based on conditions. Drag and drop sets on the left hand side to change the order.

For Policy Export go to Administration > System > Backup & Restore > Policy Export Page

Status	Name	Description	Conditions	Permissions	Edit
<input checked="" type="checkbox"/>	TestAAA		Radius:Service-Type EQUALS Login		Edit

Authentication Policy

<input checked="" type="checkbox"/>	Default Rule (if no match)	Allow Protocols : Default Network Access	and use : ISE_ODBC		Edit
-------------------------------------	----------------------------	--	--------------------	--	------

Authorization Policy

Exceptions (0)

Standard

Status	Rule Name	Conditions (identity groups and other conditions)	Permissions	Edit
<input checked="" type="checkbox"/>	Group1Access	if ISE_ODBC:ExternalGroups EQUALS ODBCGroup1	then PermitAccess	Edit
<input checked="" type="checkbox"/>	Default	if no matches, then	DenyAccess	Edit

```
b3560#test aaa group ISE236 odbcuser2 odbcpass legacy
Attempting authentication test to server-group ISE236 using radius
User authentication request was rejected by server.
```

```
b3560#test aaa group ISE236 odbcuser1 odbcpass legacy
Attempting authentication test to server-group ISE236 using radius
User was successfully authenticated.
```

AuthorizationPolicyMatchedRule	Group1Access
CPMSessionID	0a3027eci0HeVTM3/bn5vLXkWMcJ0em5rzUDaOSnbMmAvL7jcfY
ISEPolicySetName	TestAAA
AllowedProtocolMatchedRule	Default
IdentitySelectionMatchedRule	Default
Network Device Profile	Cisco
Location	Location#All Locations
Device Type	Device Type#All Device Types
ExternalGroups	ODBCGroup1
ExternalGroups	ODBCGroup2
RADIUS Username	odbcuser1

步骤5.配置属性检索

1.为简化此示例，属性使用平面表：

```
CREATE TABLE [dbo].[User_Attributes](
[user_id] [int] NOT NULL,
[Attribute_Name] [varchar](max) NOT NULL,
[Attribute_Value] [varchar](max) NOT NULL
) ON [PRIMARY]
```

GO

```
ALTER TABLE [dbo].[User_Attributes] WITH CHECK ADD CONSTRAINT [FK_User_Attributes_ISE_Users]
FOREIGN KEY([user_id])
REFERENCES [dbo].[ISE_Users] ([user_id])
ON UPDATE CASCADE
ON DELETE CASCADE
GO
```

2.为以下用户之一创建属性：

```
INSERT [dbo].[User_Attributes] ([user_id], [Attribute_Name], [Attribute_Value]) VALUES (2,
N'AwsomenessLevel', N'100')
INSERT [dbo].[User_Attributes] ([user_id], [Attribute_Name], [Attribute_Value]) VALUES (2,
N'UserType', N'admin')
```

3.创建存储过程：

```
CREATE PROCEDURE [dbo].[ISEAttrRetrieval]
@username varchar(255), @result int output
AS
BEGIN
if exists (select * from ISE_Users where username = @username)
begin
```



```

set @result = 0
select attribute_name , attribute_value from user_attributes where USER_ID in(SELECT USER_ID
from ISE_Users where username = @username)
end
else
set @result = 1
END

```

4. 将其映射到“获取”属性：

[ODBC List > ISE_ODBC](#)

ODBC Identity Source

General Connection **Stored Procedures** Attributes Groups

Stored procedure type Returns recordset ▼

Plain text password authentication ISEAuthUserPlainReturnsRecordset ⓘ ⊕

Plain text password fetching ISEFetchPasswordReturnsRecordset ⓘ ⊕

Check username or machine exists ISEUserLookupReturnsRecordset ⓘ ⊕

Fetch groups ISEGroupsRetrieval ⓘ ⊕

Fetch attributes ISEAttrsRetrieval ⓘ ⊕

Search for MAC Address in format xx-xx-xx-xx-xx-xx ▼ ⓘ

5. 获取属性：

Select Attributes from ODBC

X

Sample User or Machine ⓘ Retrieve Attributes

<input type="checkbox"/>	Name	Type ▲	Default Value	Name in ISE
<input type="checkbox"/>	AwsomenessLevel	STRING	100	AwsomenessLevel
<input type="checkbox"/>	UserType	STRING	admin	UserType

OK Cancel

6.调整ISE规则：

Status	Rule Name	Conditions (identity groups and other conditions)	Permissions	
✓	Group1Access	if ISE_ODBC:ExternalGroups EQUALS ODBCGroup1	then PermitAccess	Edit ▾
✓	AwesomeUser	if ISE_ODBC:AwsomenessLevel EQUALS 100	then PermitAccess	Edit ▾
✓	Default	if no matches, then	DenyAccess	Edit ▾

Refresh Reset Repeat Counts Export To Filter

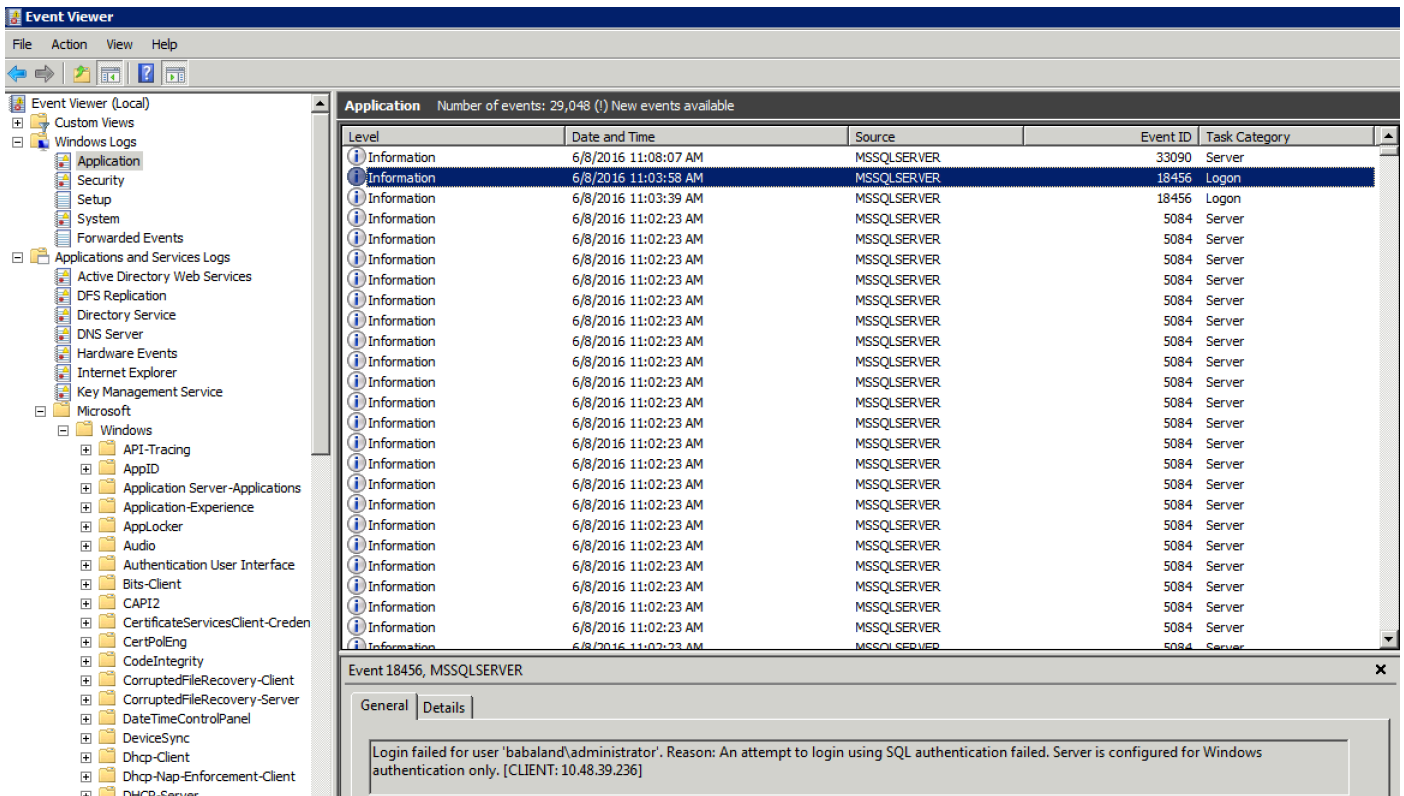
Time	Status	Details	Repeat ...	Identity	Endpoint ID	Endpoint Pr...	Authenticat...	Authorization Policy	Authorizatio...
Jun 08, 2016 12:21:45.596 PM	✓			odbcuser2		Endpoint Prof	Authenticator	TestAAA >> AwesomeUser	PermitAccess

故障排除

如果连接不成功，请检查windows事件日志。在ISE上，在尝试连接时使用命令show logging application prrt-management.log tail。

身份验证模式错误的示例：

```
bise236/admin# sh logg app prrt-management.log tail
2016-06-08 09:03:59,822 WARN [admin-http-pool177][]
cisco.cpm.odbcidstore.impl.MSSQLServerDbAccess -:bastien::- Connection to ODBC DB failed.
Exception: com.microsoft.sqlserver.jdbc.S
QLServerException: Login failed for user 'babaland\administrator'. ClientConnectionId:c74ade15-
4f34-415a-9a94-4c54c58c0fc3
com.microsoft.sqlserver.jdbc.SQLServerException: Login failed for user 'babaland\administrator'.
ClientConnectionId:c74ade15-4f34-415a-9a94-4c54c58c0fc3
at
com.microsoft.sqlserver.jdbc.SQLServerException.makeFromDatabaseError(SQLServerException.java:21
6)
at com.microsoft.sqlserver.jdbc.TDSTokenHandler.onEOF(tdsparser.java:254)
at com.microsoft.sqlserver.jdbc.TDSParser.parse(tdsparser.java:84)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.sendLogon(SQLServerConnection.java:2908)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.logon(SQLServerConnection.java:2234)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.access$000(SQLServerConnection.java:41)
at
com.microsoft.sqlserver.jdbc.SQLServerConnection$LogonCommand.doExecute(SQLServerConnection.java
:2220)
at com.microsoft.sqlserver.jdbc.TDSCommand.execute(IOBuffer.java:5696)
at
com.microsoft.sqlserver.jdbc.SQLServerConnection.executeCommand(SQLServerConnection.java:1715)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.connectHelper(SQLServerConnection.java:1326)
```

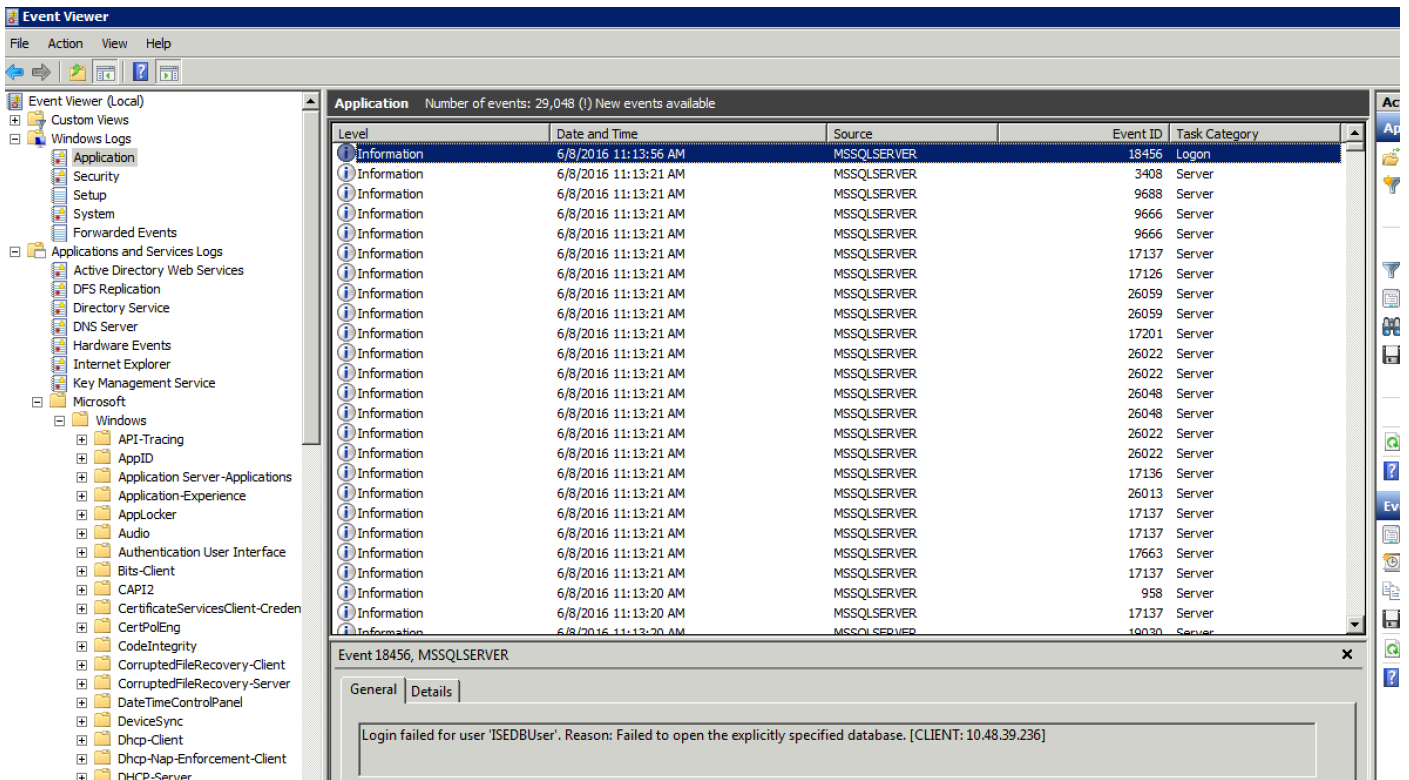


用户缺少打开数据库的权限的示例：

```

2016-06-08 09:13:57,842 WARN [admin-http-pool159][]
cisco.cpm.odbcidstore.impl.MSSQLServerDbAccess -:bastien::- Connection to ODBC DB failed.
Exception: com.microsoft.sqlserver.jdbc.SQLServerException: Cannot open database "ISEDB"
requested by the login. The login failed. ClientConnectionId:299c2956-6946-4282-b3ca-
2aa86642a821
com.microsoft.sqlserver.jdbc.SQLServerException: Cannot open database "ISEDB" requested by the
login. The login failed. ClientConnectionId:299c2956-6946-4282-b3ca-2aa86642a821
at
com.microsoft.sqlserver.jdbc.SQLServerException.makeFromDatabaseError(SQLServerException.java:21
6)
at com.microsoft.sqlserver.jdbc.TDSTokenHandler.onEOF(tdsparser.java:254)
at com.microsoft.sqlserver.jdbc.TDSParser.parse(tdsparser.java:84)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.sendLogon(SQLServerConnection.java:2908)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.logon(SQLServerConnection.java:2234)
at com.microsoft.sqlserver.jdbc.SQLServerConnection.access$000(SQLServerConnection.java:41)

```



要排除DB操作故障，请在Administration > System > Logging > Debug Log Configuration下，将记录组件odbc-id-store启用到DEBUG级别。

日志被放在prrt-management.log文件中。

odbcuser2示例:

```

2016-06-08 12:26:56,009 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC
ID Store Operation: Authenticate Plain Text Password. Username=odbcuser2,
SessionID=0a3027ecLA_rJLKsS5QAzurVluGWzdYe67rIgcG3MMQcpE8yKnw
2016-06-08 12:26:56,012 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.CustomerLog -:::- Write
customer log message: 24852
2016-06-08 12:26:56,012 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -
:::- OdbcConnectionPool - get connection
2016-06-08 12:26:56,012 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -
:::- OdbcConnectionPool - use existing connection
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -
:::- OdbcConnectionPool - connections in use: 1
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Authenticate plain text password
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Prepare stored procedure call, procname=ISEAuthUserPlainReturnsRecordset
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Using recordset to obtain stored procedure result values
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.CustomerLog -:::- Write
customer log message: 24855
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Text: {call ISEAuthUserPlainReturnsRecordset(?, ?)}
2016-06-08 12:26:56,013 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Setup stored procedure input parameters, username=odbcuser2, password=***
2016-06-08 12:26:56,014 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-
Execute stored procedure call
2016-06-08 12:26:56,017 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-

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Process stored procedure results

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2016-06-08 12:26:56,017 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Obtain stored procedure results from recordset  
2016-06-08 12:26:56,017 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Received result recordset, number of columns=4  
2016-06-08 12:26:56,017 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Results successfully parsed from recordset  
2016-06-08 12:26:56,018 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -  
:::- OdbcConnectionPool - release connection  
2016-06-08 12:26:56,018 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -  
:::- OdbcConnectionPool - connections in use: 0  
2016-06-08 12:26:56,018 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- Call  
to ODBC DB succeeded  
2016-06-08 12:26:56,018 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.OdbcAuthResult -:::-  
Authentication result: code=0, Connection succeeded=false, odbcDbErrorString=No Error,  
odbcStoredProcedureCustomerErrorString=null, accountInfo=This is a very good user, give him all  
access, group=11  
2016-06-08 12:26:56,019 DEBUG [Thread-4051][] cisco.cpm.odbcidstore.impl.CustomerLog -:::- Write  
customer log message: 24853  
2016-06-08 12:26:56,026 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC ID  
Store Operation: Get all user groups. Username=odbcuser2,  
SessionID=0a3027ecLA_rJLKsS5QAzuRvluGWzdYe67rIgcG3MMQcpE8yKnw  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC ID  
Store Operation: Fetch user groups. Username=odbcuser2,  
SessionID=0a3027ecLA_rJLKsS5QAzuRvluGWzdYe67rIgcG3MMQcpE8yKnw  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.CustomerLog -:::- Write  
customer log message: 24869  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:::-  
OdbcConnectionPool - get connection  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:::-  
OdbcConnectionPool - use existing connection  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:::-  
OdbcConnectionPool - connections in use: 1  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Fetch user groups  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Prepare stored procedure call, procname=ISEGroupsRetrieval  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Text: {call ISEGroupsRetrieval(?,?)}  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Setup stored procedure input parameters, username=odbcuser2  
2016-06-08 12:26:56,029 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Execute stored procedure call  
2016-06-08 12:26:56,031 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Process stored procedure results  
2016-06-08 12:26:56,032 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Received empty result set, no groups/attributes data can be obtained  
2016-06-08 12:26:56,032 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:::-  
Result code indicates success  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:::-  
OdbcConnectionPool - release connection  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:::-  
OdbcConnectionPool - connections in use: 0  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- Call to  
ODBC DB succeeded  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.CustomerLog -:::- Write  
customer log message: 24870  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC ID  
Store Operation: Get all user groups. Got groups...  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC ID  
Store Operation: Get all user groups. Username=odbcuser2, ExternalGroups=[]  
2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:::- ODBC ID  
Store Operation: Fetch user attributes. Username=odbcuser2,  
SessionID=0a3027ecLA_rJLKsS5QAzuRvluGWzdYe67rIgcG3MMQcpE8yKnw
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2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.CustomerLog -:- Write customer log message: 24872

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:- OdbcConnectionPool - get connection

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:- OdbcConnectionPool - use existing connection

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:- OdbcConnectionPool - connections in use: 1

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Fetch user attributes

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Prepare stored procedure call, procname=ISEAttrsRetrieval

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Text: {call ISEAttrsRetrieval(?,?)}

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Setup stored procedure input parameters, username=odbcuser2

2016-06-08 12:26:56,033 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Execute stored procedure call

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Process stored procedure results

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Received result recordset, total number of columns=2

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- According to column number expect multiple rows (vertical attributes/groups returned result)

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Fetched data: AwsomenessLevel=100

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Fetched data: UserType=admin

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Results successfully parsed from recordset

2016-06-08 12:26:56,035 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnection -:- Result code indicates success

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:- OdbcConnectionPool - release connection

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcConnectionPool -:- OdbcConnectionPool - connections in use: 0

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:- Call to ODBC DB succeeded

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.CustomerLog -:- Write customer log message: 24873

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:- ODBC ID Store Operation: Get all user attrs. Username=odbcuser2, Setting ISE_ODBC.AwsomenessLevel to 100

2016-06-08 12:26:56,036 DEBUG [Thread-84][] cisco.cpm.odbcidstore.impl.OdbcIdStore -:- ODBC ID Store Operation: Get all user attrs. Username=odbcuser2, Setting ISE_ODBC.UserType to admin