

# **Rsam Platform**

Installation Guide (Manual Method)

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# **Initial Setup**

This section explains the following topics:

- <u>Pre-Installation Requirements</u>
- Setting up Role Services on Windows Server
- Setting up Request Filtering
- Enabling Microsoft Message Queuing for Syslog

## **Pre-Installation Requirements**

Before installing the RSAM Web Interface on a server, make sure that the server meets the minimum requirements for Rsam, and that the following tasks have been completed:

- IIS v7.0 or higher has been installed on Windows Server 2012/R2, Windows Server 2016/2019/2022, or Windows 7.
- Microsoft .NET 4.7.2 Framework is installed.
- Crystal Reports 2013 Runtime Files have been installed for Web Reporting. A license key is not needed. Click **Next** button through the pages to finish.
- Latest Windows and IIS Security patches / updates are installed.
- A SQL server hosting the Rsam database is installed and configured.
- Microsoft Access Database engine 2010 or higher is installed.

Note: It is recommended to use HTTPS protocol for Rsam installation for security purposes.

## Setting up Role Services on Windows 2012/2016/2019/2022 Server

To set up role services on Windows 2012/2016/2019/2022 Server, perform the following steps:

- 1. Install the required roles by using the **Server Manager** tool.
- 2. In the navigation pane, expand **Roles**, right-click **Web Server (IIS)** and select **Add Role Services**.
- 3. Scroll to **Security** section and select the check boxes corresponding to **Basic Authentication** and **Windows Authentication**.

**Note:** Do NOT clear any already existing selections.

 Scroll to Application Development section and make sure that the check boxes corresponding to ASP.NET, .NET Extensibility, ISAPI Extensions, and ISAPI Filters are selected.

**Note:** Do NOT clear any already existing selections.





- 5. In the Select Role/Services panel, click Next, and then click Install on the Confirm Installations Selections panel.
- 6. Click **Close** to exit the Add Role Services wizard.

# **Setting up Request Filtering**

If you plan to import large files on a Windows 2012/2016/2019/2022 or IIS7 server, it will require adjusting the **Request Filtering** property of IIS to allow larger files. In some cases, this option may not be available. You can install the package available at *http://www.iis.net/download/AdministrationPack*.

- 1. In IIS Manager, select the Rsam server.
- 2. Double-click Request Filtering.





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Filter:		- 🔐 Go - 🕻	Show All	Group by: Are	a	-	
ab	1		<b>\$</b>	-			
Connection Strings	Machine Key	Pages and Controls	Session State	SMTP E-mail			
IIS							
2	<u>8</u>	<b>1</b>	CGI	Ð	0		
ASP	Authentic	Authorizat Rules	CGI	Compression	Default Document	Directory Browsing	
404	2			15		<b>j</b> 10	
Error Pages	Handler Mappings	HTTP Redirect	HTTP Respon	IP Address and Doma	Logging	MIME Types	
Modules	Output Caching	equest Filtering	SSL Settings	WebDAV Authori			

- 3. Click **Edit Feature Settings** on the right panel. The **Edit Request Filtering Settings** dialog box opens.
- 4. Set the value in **Maximum allowed content length (Bytes)** field to **4000000000** and click **OK**.

Edit Request Filtering Settings
General
Allow unlisted file name extensions
Allow unlisted verbs
Allow high-bit characters
Allow double escaping
Request Limits
Maximum allowed content length (Bytes):
4000000000
Maximum URL length (Bytes):
4096
Maximum query string (Bytes):
2048
OK Cancel

- 5. On the system, navigate to *C: inetpub wwwroot RSAM\_FINDINGS*.
- 6. Open the **web.config** file using a text editor.
- 7. Update the value for **requestLengthDiskThreshold** to **1000000** and save the file.



# **Enabling Microsoft Message Queuing for Syslog**

To enable message queuing, perform one of the following:

- Enabling Message Queuing for Windows Server
- Enabling Message Queuing for Windows 7

#### **Enabling Message Queuing on Windows Server**

- 1. Navigate to **Start > Control Panel > Programs > Turn Windows feature on or off**.
- 2. In the Server Manager Dashboard, click Add roles and features.

		Server Mana	Dui		
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E Centerard	WELCOME TO BERVER MANAGER				
Links Server     Links Server     Links Server     Links Strage Services     Fig. 11	Galer Store	ure this local server roles and features other servers to manage			
	anettinee (3) Crisa (3) Core	te a server group rect this server to cloud serv	ICPS.		Pride
	ROLES AND SERVER GROUPS Roles 7   Server proget 1   Server Initial 1				
	File and Storage 1 Services 1 (*) Manaplashity Events Services	D IIS II Manapeability Events Services	Excal Server     Manapatolity     Events     Services	Al Servers     Manapeability     Events     Services	•

3. In the Add Roles and Features Wizard, select the Installation Type tab, and select Rolebased or feature-based installation.



Select installation type       Select the installation type. You can install roles and features on a running physical computer on machine, or on an offline virtual hard disk (VHD).         Server Selection       Server Roles         Features       Confirmation         Results       Senote Desktop Services installation         Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine or session-based desktop deployment.		Add Roles and Features Wizard
Select Installation type  Before You Begin  Installation Type Server Selection Server Roles Features Confirmation Results  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on a running physical computer or machine, or on an offline virtual hard disk (VHD).  Select the installation type. You can install roles and features on the installation type. You can install relevance to the installation type. You can install roles and the installation type. You can installation type. You can install roles and the installation type. You can installation type. You can installation type. You can installation type. You can		. DESTINATION SERVER
Before You Begin         Installation Type         Server Selection         Server Roles         Features         Confirmation         Results	elect installatio	ип туре www.ebosh70v10u
Installation type         Server Selection         Server Roles         Features         Confirmation         Results	Before You Begin	Select the installation type. You can install roles and features on a running physical computer or virtual machine, or on an offline virtual hard disk (VHD).
Server Roles Features Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single server by adding roles, role services, and features. Configure a single services for Virtual Desktop Infrastructure (VDI) to create a virtual machine or session-based desktop deployment. Configure a single server by adding roles, role services, and role services, a	Server Selection	Role-based or feature-based installation
Server Roles         Features         Confirmation         Results    Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine or session-based desktop deployment.	Server Selection	Configure a single server by adding roles, role services, and features.
Confirmation Results Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine or session-based desktop deployment.		Remote Desktop Services installation
Commadon or session-based desktop deployment. Results		Install required role services for Virtual Desktop Infrastructure (VDI) to create a virtual machine-based
		or session-based desktop deployment.
< Previous Next > Install Car		< Previous Next > Install Cancel

- 4. Click **Next**.
- 5. Click **Server Selection** tab and select a server from the **Server Pool** section and click **Next**.
- 6. Click **Features** tab and in the **Features** section, select the check box corresponding **Message Queuing**. Ensure all the options under **Message Queuing** are enabled.
- 7. Click Next.

### **Enabling Message Queuing for Windows 7**

- 1. Navigate to **Start > Control Panel > Programs > Turn Windows feature on or off**.
- 2. Select the check box corresponding to **Microsoft Message Queue (MSMQ) Server**.





3. Click **OK**.

# Installing and Setting up Your Rsam Software

This section explains the following topics:

- <u>Copying Web Interface files</u>
- Configuring LDAP Server
- <u>Setting up Your SQL Data Source</u>
- <u>Setting up Your IIS Web Server</u>
- Enabling Assessment Questionnaire

# **Copying Web Interface files**

This process will copy the required Web Interface files to a directory on your web server and create the data access connections.

#### Notes on Upgrading from Previous Rsam Versions

If you have already installed a previous version of Rsam, take a backup and delete all files from the following directories (outlined in step 1 below) with the following exception. Do NOT remove:

- Datasource.ini
- Distweb.dat
- Distldap.dat
- Any other files ending in .dat
- RSAM\_Links.xml (if present)
  - 1. Create directories on your Web Server to hold the Rsam web files. Recommended directory names are as follows:
    - X:\inetpub\wwwroot\RSAM (for the core Rsam Main Web product)
    - X:\inetpub\wwwroot\RSAM\_WEBADMIN (for the Web Administration module)
    - X:\inetpub\wwwroot\RSAM\_REPORTING (for the Web Reporting module)
    - X:\inetpub\wwwroot\RSAM\_FINDINGS (for the Findings module)
    - X:\inetpub\wwwroot\RSAM\_PERMISSIONS (for the Permission assignment feature-set)
    - X:\inetpub\wwwroot\RSAM\_SSO (for the Single Sign-On module)
    - X:\inetpub\wwwroot\RSAM\_API (for the API)
    - X:\inetpub\wwwroot\RSAM\_SCHEDULER\_SERVICE (for the Scheduler feature-set)
    - X:\inetpub\wwwroot\RSAM\_UI (for the Home Page and Scheduler elements)
  - 2. Extract the contents of the Rsam zip files into these directories (it is highly recommended that the files be extracted directly into these directories, and not extracted and copied to these directories):



- RSAM\_WEB\_FULL\_X.zip into the RSAM directory
- RSAM\_WEBADMIN\_X.zip into the RSAM\_WEBADMIN directory
- RSAM\_WEB\_REPORTING\_X.zip into the RSAM\_REPORTING directory
- RSAM\_WEB\_FINDINGS\_X.zip into the RSAM\_FINDINGS directory
- RSAM\_PERMISSIONS\_X.zip into the RSAM\_PERMISSIONS directory
- RSAM\_SSO\_X.zip into the RSAM\_SSO directory
- RSAM\_INSTALL\_API into the RSAM \_API directory
- RSAM\_SCHEDULER\_SERVICE\_X.zip into the RSAM\_Scheduler\_Service directory
- RSAM\_INSTALL\_UI into the RSAM\_UI directory
- 3. Create a **DISTWEB.dat** connection file as follows:
  - a. Navigate to the location, X: |inetpub|wwwroot|RSAM and launch the application MAKE\_DISTWEB\_LDAP.exe (right-click and select Run as Administrator, if the web server is Windows Server 2012/2016/2019/2022).
  - b. Provide the following information when prompted.

Prompt	Required Information
Connection File	Name of the file to store SQL connection information into (the default of DISTWEB.dat is preferred)
SQL User ID	Name of the SQL user account Rsam Web must use when accessing the SQL Server (default RSAM_APP is preferred)
SQL Password	Password created by you for the <b>RSAM_APP</b> account during the SQL Server setup

#### c. Click **Create Connection** to finish the setup.

Create RSAM DIST	SQL connection file	
Web SC	L connection settings	
This setup wizard wi when accessing you	Il create a connection file for RSAM's web int r SQL server.	erface to use
1. Specify a connect	on file name to store these connection setting	s (default = DISTWEB.dat)
2. Enter the SQL use	r id and password that RSAM web will use to	access the SQL server (default = RSAM_APP)
3. Click the "Create (	Connection" button.	
Connection File:	DISTWEB.dat	
SQL User ID:	RSAM_APP	
Password:	1	
Confirm Password:		Create Connection

4. If you plan to allow users to search the LDAP server when assigning other users to assessments, then create a **DISTLDAP** file as follows:



- Navigate to the location, X: |inetpub|wwwroot|RSAM and launch the application MAKE\_DISTWEB\_LDAP.exe (right-click and select Run as Administrator, if the web server is Windows Server 2012/2016/2019/2022).
- b. Provide the following information when prompted.

Prompt	Required Information
Connection File	Name of the file to store SQL connection information into (the default of DISTLDAP.dat is preferred)
LDAP User ID	Name of the LDAP user account Rsam Web must use when querying the LDAP Serve
	<b>Note:</b> Do not use the format <b>DOMAIN   LDAP name</b> . Provide the LDAP name. If the fails, use the fully qualified LDAP name ( <b>CN=</b> ).
LDAP Password	The password to use when querying the LDAP Server.

- c. Click **Create Connection** to finish the setup.
- d. Copy the DISTLDAP.dat file into RSAM\_FINDINGS, RSAM\_PERMISSIONS, RSAM\_WEBADMIN, RSAM\_SSO (optional), and also into the RSAM\_SCHEDULER folder.

## **Configuring LDAP Server**

The LDAP User ID should be a service account created by the *LDAP Administrator*. If you have multiple LDAP Domains specified in the Rsam Web Admin 'LDAP Admin - Domain' option, additional DISTLDAP files must be created matching the name defined in the 'LDAP Domain – Server' configuration.

To access the configuration pages, log in to Rsam as an *Administrator* and navigate to **Manage** > **Administration** > **Options**. **LDAP Admin** – **Server** and **LDAP Admin** – **Domain** options are available.

1. LDAP Server configuration:

To configure the DISTLDAP file name, select **LDAP Admin - Server**. If there is more than one LDAP server, click **Add** to add the additional servers.



Update Server						×
Server Description:						
Rsam DC						
Server Name:						
RsamDC						
LDAP Port:						
636						
For Searches						
Bind Type: 🔘 Sing	le 🔘 Multi					
Server Bind	Anonymous	Delegation	Fast Bind Value	None None		
Readonly Server	Sealing	Secure Secure	Secure Sockets Layer (SSL)	Signing		
For Authentication						
Bind Type: 🔘 Sing	le 🔘 Multi					
Server Bind	Anonymous	Delegation	East Bind Value	None None		
Readonly Server	Sealing	Secure Secure	Secure Sockets Layer (SSL)	Signing		
Connection File:						
DistLdap.dat						
				Save	Close	

2. LDAP Domain configuration:

To configure the LDAP domain details, select **LDAP Admin - Domain**. Make sure to enter the **Domain String** in the format as *dc=...,dc=...* or *o=...* (do not enter it like Rsam2k3.local).

Add Domain	×
Domain Name: Rsam2k3	Populate Default Active Directory Settings
Domain Description Used for Rsam 2003 Domain	Populate Default SunOne Settings
Domain String: DC=rsam2k3,DC=local	
User Attribute Filter: (&( (objectClass=person)(objectCategory=user))(lobjectCategory=computer)	
Group Attribute Filter: [](objectClass=groupOfUniqueNames)(objectCategory=group))(iobjectCategory=computer)	
Unique ID Identifier: samAccountname	
Email Identifier:	
User Name Identifier:	
grvenname sn	
	Save & New Cancel

3. After configuring the LDAP Servers and domains, you must associate them. From one of the LDAP pages, use the **Related LDAP Domains** or **Related LDAP Servers** panel, establish the association.



Structures & Elements		LDAP Domains	Y	Related Ldap Servers
Criticality / Risk & Standards			Add Edit Delete	Show All Update Cancel
Workflow		Domain	0	Server 🛙 O
		Rsam2k3		Rsam DC
Reports & Views				
Environment Migration				
Options	•			
RSAM Options				
RSAM Registration				
Connectors				
LDAP Admin - Server				
LDAP Admin - Domain		75 << < Page	1 0f 1 >>>	

4. To enable LDAP-based authentication, go to Manage > Administration > Options > RSAM Options and select Security Options from the Option Categories drop down list. Select the check box corresponding to Enabled LDAP based authentication.

Structures & Elements	RSAM Options		
Criticality / Risk & Standards	Option Categories		
	Security Options 1		
Workflow			_
Reports & Viewe	Use SHA512 when hashing password for "Rsam authenticated users"	No t	Dh
Neporto el treno	Enable LDAP based authentication	G	
Environment Migration	Logging Level	Level 2: Security + Data Entry Logging 4	34
Options			1
RSAM Options	Login Banner		
RSAM Registration			
Connectors			
LDAP Admin - Server	Require users to change password after this many days	180	
LDAP Admin - Domain	Lockout user accounts after this many login failures	5	11
Administrative Groupings	Require passwords to have at least this many characters	8	5
	Require passwords to have at least this many ALPHA characters	0	٦.
		Save Options Can	pel .

- 5. Copy the newly created DISTWEB and DISTLDAP files to your other Rsam directories
  - X:\inetpub\wwwroot\RSAM\_REPORTING (for the web reporting module)
  - X:\inetpub\wwwroot\RSAM\_FINDINGS (for the findings module)
  - X:\inetpub\wwwroot\RSAM\_PERMISSIONS (for the permission assignment feature-set)
  - X:\inetpub\wwwroot\RSAM\_WEBADMIN (for the administration feature-set)
  - X:\inetpub\wwwroot\RSAM\_SSO (for the single sign-on module)
  - X:\inetpub\wwwroot\RSAM\_API
  - X:\Program Files\RSAM\_SCHEDULER\_SERVICE (for the Scheduler feature-set)
  - X:\Program Files\RSAM\_UI (for Rsam Home Page and Scheduler elements)

## Setting up Your SQL Data Source

To specify the SQL data source to be used by Rsam application, perform the following steps:



- 1. Use Windows Explorer and navigate to your newly created RSAM directory (usually x:\inetpub\wwwroot\Rsam).
- 2. Double-click the **datasource.ini** file.
- 3. Locate the entry that starts with **DATABASE\_SOURCE\_01: Data Source=** and type in the **Name** or **IP Address** of the Server hosting the Rsam database.

For Trusted connection

atasource.ini - Notepad	
Ele Edit Format View Help	
CONNECTION_STRING_01: Data Source= YOUR_SQL_SERVER_NAME;Database= DATABASE_NAME;Trusted_	Connection=True; 🔺
1	

#### For SQL authentication

Catesource.ini - Notepad	E X
Eile Edit Format View Help	
CONNECTION_STRING_01: Data Source= YOUR_SQL_SERVER_NAME;Database= DATABASE_NAME;User ID=*login*;Password=*passwo CONNECTION_FILE_01: DISTWEB.DAT	rd*; ^

- 4. **Save** the file and close the edit window.
- 5. Copy the updated datasource.ini file to your other Rsam directories:
  - X:\inetpub\wwwroot\RSAM\_REPORTING (for the web reporting module)
  - X:\inetpub\wwwroot\RSAM\_FINDINGS (for the findings module)
  - X:\inetpub\wwwroot\RSAM\_PERMISSIONS (for the permission assignment feature-set)
  - X:\inetpub\wwwroot\RSAM\_ADMINISTRATION (for the administration feature-set)
  - X:\inetpub\wwwroot\RSAM\_SSO (for the single sign-on module)
  - X:\inetpub\wwwroot\RSAM\_API
  - X:\Program Files\RSAM\_SCHEDULER\_SERVICE (for the Scheduler feature-set)
  - X:\Program Files\RSAM\_UI (for Rsam Home Page and Scheduler elements)

## **Setting up Your IIS Web Server**

The following steps should be completed to set up your Rsam Web Application on a Windows Server 2012/R2 or Windows Server 2016/2019/2022.

### **Setting up Rsam Application Pool**

Perform the following steps to setup the Application Pool:



- 1. Open Internet Information Services Manager (IIS Manager).
- 2. Expand your server instance, and then right-click **Application Pools** and select **Add Application Pool**.

Applicat	1	Add Application Pool	Ë,
D. Sues	-	Refresh	v v
	_		

- 3. Type **RSAM** in the **Name** field (this will be used with all the Rsam Web component virtual directories except RSAM\_Reporting module).
  - a. Set the .NET Framework version to **.NET Framework v4.0.xx**.
  - b. Set Managed pipeline mode as **Integrated**.
- 4. Click **OK**.

### Setting up Rsam Reporting Application Pool

You can add one more Application Pools by right-clicking **Application Pools** on the left panel and selecting **Add Application Pool**. Set the Name to **RSAM\_Reporting**.

#### Setting up Rsam Virtual Directory for Rsam Main Web

To configure the IIS web service, perform the following steps:

- 1. Open IIS Manager.
- 2. Expand your server instance and navigate to **Web Sites > Default Web Site**.
- 3. Create the RSAM virtual directory as follows:
  - a. On the left side of the panel, right-click the **RSAM** folder and select **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM.



Add Application	?	×
Site name: RsamV10 Path: /		
Alias: App <u>l</u> ication pool:		
RSAM RSAM	S <u>e</u> lect	
Example: sales		
Physical path:		
C:\inetpub\wwwroot\RsamV10\RSAM		
Pass-through authentication		
Connect as lest settings		
Enable Preload		
OK	Canad	
OK .	Cancer	
Select Application Pool ? ×		
Application pool:		
RSAM		
Properties:		
.Net CLR Version: 4.0 Pipeline mode: Integrated		
OK Cancel		

### **Setting up Permissions for the Temp folder**

- 1. Open Window Explorer and navigate to the RSAM Main folder (i.e. x:\inetpub\wwwroot\RSAM).
- 2. Right-click the **Temp** folder to open the **Properties** dialog box.
- 3. In the **Security** tab, click **Add**, and then type **servername\Network Service** (where *servername* is the actual name of the server this is installed on) and click **OK**.
- 4. Highlight Network Service, select Allow for Full Control and click OK.



### Setting up File Security in the RequiresAuthentication.xml file

This setup is required for Single Sign-On functionality.

To set up the file security, perform the following steps:

- 1. In IIS Manager, right-click the RSAM virtual directory and select **Switch to Content View**.
- 2. Right-click the **RequiresAuthentication.xml** file and select **Switch to Features View**.
- 3. Right-click **Authentication** and select **Open Feature**.
- 4. Right-click **Anonymous Authentication** and select **Disable**.



- 5. Right-click **Windows Authentication** and select **Enable**.
- 6. On the web server, double-click **ISAPI and CGI restrictions**.





7. Check and set all **ASP.net v4.0.x** to **Allowed**.

ISAPI and CGI Restrictions			
Use this feature to specify th	e ISAPI and CGI extensio	ns that can run on the Web server.	
Description	Restriction	Path	
Active Server Pages	Allowed	%windir%\system32\inetsrv\asp.dll	
ASP.NET v2.0.50727	Allowed	%windir%\Microsoft.NET\Framework64\v2.0.50727\aspnet_	
ASP.NET v2.0.50727	Allowed	%windir%\Microsoft.NET\Framework\v2.0.50727\aspnet_isa	
ASP.Net_32bit v4.0.3031	Allowed	C:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_	
ASP.Net_64bit v4.0.3031	Allowed	C:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspne	
WebDAV	Allowed	%windir%\system32\inetsrv\webdav.dll	

### Setting up Rsam Virtual Directory for Web Reporting

To set up an Rsam Virtual Directory for Web Reporting, perform the following steps:

- 1. Expand your server instance and double-click **Sites**.
- 2. Create the RSAM\_Reporting virtual directory as follows:
  - a. On the left panel, right-click **RSAM\_REPORTING** folder and select **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM\_Reporting.
  - c. Click **OK** in the dialog boxes to save the configuration.

#### Setting up Rsam Virtual Directory for Web Admin

To set up Rsam Virtual Directory for Web Admin, perform the following steps:

- 1. Expand your server instance and double click **Sites**.
- 2. Create the Rsam Administration virtual directory as follows:
  - a. On the left panel, right-click **RSAM\_WebAdmin** folder and select **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM.
  - c. Click **OK** in the dialog boxes to save the configuration.

#### **Set Permissions for the SSRS\_Temp folder**

- 1. Navigate to the RSAM Main folder (X:\inetpub\wwwroot\RSAM\_WebAdmin) and double-click it to list the sub-directories.
- 2. Right-click **SSRS\_Temp** folder to open the **Properties** dialog box.
- 3. In the **Security** tab, click **Add**.



- 4. Type *servername* | *Network Service* (where *servername* is the actual name of the server this is installed on).
- 5. Click **OK**.
- 6. Select Network Service, select Allow for Full Control and click OK.

### **Setting up Rsam Virtual Directory for Findings**

If you want to use the **Rsam Findings** module, you must create a separate virtual directory for it. Perform the following steps to create the Virtual Directory for Rsam Findings:

- 1. Open IIS Manager.
- 2. Expand your server instance and double-click **Sites**.
- 3. Create the Rsam Findings virtual directory as follows:
  - a. On the left the panel, right-click **RSAM\_Findings** and choose **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM.
  - c. Click **OK** in the dialog boxes to save the configuration.

#### Setting up Permissions for the Temp folder

- 1. Navigate to the **RSAM Findings** folder (X:\inetpub\wwwroot\RSAM\_FINDINGS) and doubleclick it to list the sub-directories.
- 2. Right-click **Temp** folder to open the **Properties** dialog box.
- 3. In the **Security** tab, click **Add**.
- 4. Type **servername\Network Service** (where *servername* is the actual name of the server this is installed on).
- 5. Click **OK**.
- 6. Select Network Service, select Allow for Full Control and click OK.

### **Setting up Rsam Virtual Directory for SSO**

#### **Note:** The Single Sign On feature should be configured only if you intend to use the functionality.

- 1. Open IIS Manager.
- 2. Expand your server instance and double-click **Sites**.
- 3. Create the Rsam SSO virtual directory as follows:
  - a. On the left the panel, right-click **RSAM\_SSO** and choose **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM.
  - c. Click **OK** in the dialog boxes to save the configuration.



## **Configuring Directory Security**

- 1. In IIS Manager, navigate to **Sites > Default Web Site**. Select the RSAM\_SSO virtual directory, and then click **Open Feature**.
- 2. Right-click **Anonymous Authentication** and select **Disable**.
- 3. Right-click **Windows Authentication** and select **Enable**.

### **Setting up Rsam Virtual Directory for Permissions**

- 1. Expand your server instance and double-click Sites.
- 2. Create the Rsam Permissions virtual directory as follows:
  - a. On the left the panel, right-click **RSAM\_Permissions** and choose **Convert to Application**.
  - b. In the Add Application dialog box, click Select and choose RSAM.
  - c. Click **OK** in the dialog boxes to save the configuration.

#### Setting up Rsam Scheduler Service

Note: Start this section only after completing Rsam Administration setup in the previous sections.

#### **Configuration on the Web Server**

- 1. Navigate to the Rsam Scheduler Service folder.
- 2. Right-click **INSTALL\_SCHEDULER.BAT** and select **Run as Administrator** to start installing the Rsam Scheduler service.
- 3. Open Windows services and make sure that **Rsam Scheduler** service is installed and running.

## **Enabling Assessment Questionnaire**

#### Importing the migration file

To import the migration xml file, perform the following steps:

- 1. Log in to Rsam as *Administrator*.
- 2. Navigate to Manage > Administration > Environment Migration > Import.
- 3. Click Browse to locate the MigrationFileName.xml script file and click Import.

On successfully importing the xml file, corresponding data is migrated to the database for that Rsam instance.



Structures & Elements					Import	
Criticality / Risk & Standards	Please select the so	ist file				
Workflow	RSAM_EXPORT - F	R5393v1.6.xml	Configurations in	port completed.	rowse	Preview Import Import
Reports & Views	Summary Log:	Vew Import Summ	ary Log Details			
Environment Migration	Table Name *	Total Records	ADDED	UPDATED	DELETED	SKIPPED
	7	v	v.	v	v	7
Export Wizard	ATTROBUTE	15		24		
Export Details	ATTRUBUTETYPE	52	-	52		
Import	ATTROBUTETYPE_O.					
1	ATTRODUTETYPE_W					
	FL_CATEGOR/TYPE	4		1		
	FL_FINDENGTYPE	\$		\$		
	FL, FINDINGTYPE	1283		1283		
	FL_FINDINGTYPE_	206	205	1	205	
	FL_FINDINGTYPE_	6				
	FL_FINDINGTYPE	2		2		
			Records per page	75	C Pape 1	141
	Note: To filter "-" records, please enter 0 in the filter low.					

### **Running Store Procedure and Script files**

To run the store procedure and script files, perform the following steps:

- 1. Obtain the **Upgrade\_To\_New\_Questionnaire.sql** and run the database script file.
- 2. Execute the **RS\_ONE\_TIME\_QS\_UPGRADE** stored procedure.



**Note**: Running the Store Procedure will take substantial amount of time depending on the volume of data.

# **Install Microsoft Access Database Engine**

If you plan to import Excel 2007 files or later, install either the **Office 2010 32-bit** or **64-bit** driver, depending on whether the web server is 32-bit or 64-bit:

#### If web server is a 32-bit system

http://download.microsoft.com/download/2/4/3/24375141-E08D-4803-AB0E-10F2E3A07AAA/AccessDatabaseEngine.exe - Office 2010 32-bit drivers

#### If web server is a 64-bit system

http://download.microsoft.com/download/2/4/3/24375141-E08D-4803-AB0E-10F2E3A07AAA/AccessDatabaseEngine\_X64.exe - Office 2010 64-bit drivers (use if Web server is a 64bit machine)

**Note:** In case the above links do not work, you can visit www.microsoft.com and search for **Microsoft Access Database Engine 2010 Redistributable** to find a download link.

Click **Download** and then install the file on the Web Server.

# Reports

The following section explains the steps to configure the Reports module in Rsam.

# **Install Crystal Reports 2013**

To install Crystal Reports 2013, perform the following steps:

1. Run the Crystal Reports MSI Package (CRRuntime\_64bit\_13\_0\_20.msi and later versions) on the FTP link.



2. Copy the sub folder **crystalreportviewers13** to root of WebSite that Rsam is installed, if not available by default.

By default, the Crystal MSI package installs the **aspnet\_client** folder in the root location of the WebSite that hosts Rsam (*C:\inetpub\wwwroot*). If the root location of the WebSite that hosts Rsam is not *C:\inetpub\wwwroot*, then you must copy the **aspnet\_client** folder to the corresponding location.

To determine the root of the WebSite where *RSAM\_REPORTING* virtual directory is, right-click **Default Web Site** and select **Manage Web Site** > **Advanced Settings**. Note the value set for **Physical Path**.

#### Installation Guide (Manual Method)



Adva	nced Settings	8 ×
	(General)	
	Application Pool	DefaultAppPool
	Bindings	http:":80:
	ID	1
	Name	Default Web Site
	Physical Path	C:\inetpub\wwwroot
	Physical Path Credentials	
	Physical Path Credentials Logon 1	ClearText
	Start Automatically	True
	Behavior	
Ð	Connection Limits	
	Enabled Protocols	http
P	<b>hysical Path</b> hysicalPath] Physical path to the c	content for the virtual directory.
		OK Cancel

## **Enabling Rapid Reports**

To enable Rapid Reports in your Rsam instance, use the RDL files available in the **RapidReports.zip**.





# **Configurations in Rsam**

This section explains the configurations to be done in Rsam after the installation is successful.

# **Rsam Option for Data Import**

If the Scheduler service is installed on a system other than the Web Server, log in to Rsam and navigate to Manage > Administration > Options > RSAM Options and select Data Import Options in the Option Categories drop down list and specify the path in the Path to temporary store uploaded files during import field.

## Setting up Rsam Web URLs

To set up the Web URLs in Rsam, perform the following steps:

- 1. Log in to Rsam as an Administrator.
  - a. Navigate to Manage > Administration > Options > RSAM Options and select URL Links in the Option Categories drop down list.
  - b. Provide the URL links for the specific Rsam Web components configured in your environment, on the web server.
  - c. Click Save Options.
- 2. Log in to Rsam as an Account Administrator (or higher) account.
  - a. Navigate to **Manage > Users/Groups**.
  - b. Check if there is already an account Scheduler. Else, add an account and set the User Privilege to Data Admin and clear the Force User to change password on next login check box.
  - c. Navigate to Manage > Administration > Options > RSAM Options and select Scheduler in the Option Categories drop down list.
  - d. Enter a number (in seconds) for Timer Interval (default value is 20).
  - e. Type the account (Rsam user ID) which will be used to schedule tasks in the **User ID for scheduled task** field. By default, the account name should be set to **Scheduler**.
  - f. Select the Enable Scheduler check box.
  - g. Click Save Options.