



THE
POWER
TO KNOW.

SAS[®] Marketing Operations Management 6.0 R14 Installation Guide

The correct bibliographic citation for this manual is as follows: SAS Institute Inc. 2012. *SAS® Marketing Operations Management 6.0 R14: Installation Guide*. Cary, NC: SAS Institute Inc.

SAS® Marketing Operations Management 6.0 R14: Installation Guide

Copyright © 2012, SAS Institute Inc., Cary, NC, USA

All rights reserved. Produced in the United States of America.

For a hardcopy book: No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without the prior written permission of the publisher, SAS Institute Inc.

For a Web download or e-book: Your use of this publication shall be governed by the terms established by the vendor at the time you acquire this publication.

The scanning, uploading, and distribution of this book via the Internet or any other means without the permission of the publisher is illegal and punishable by law. Please purchase only authorized electronic editions and do not participate in or encourage electronic piracy of copyrighted materials. Your support of others' rights is appreciated.

U.S. Government Restricted Rights Notice: Use, duplication, or disclosure of this software and related documentation by the U.S. government is subject to the Agreement with SAS Institute and the restrictions set forth in FAR 52.227–19, Commercial Computer Software-Restricted Rights (June 1987).

SAS Institute Inc., SAS Campus Drive, Cary, North Carolina 27513.

Printing 1, September 2012

SAS® Publishing provides a complete selection of books and electronic products to help customers use SAS software to its fullest potential. For more information about our e-books, e-learning products, CDs, and hard-copy books, visit the SAS Publishing Web site at support.sas.com/publishing or call 1-800-727-3228.

SAS® and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

Other brand and product names are registered trademarks or trademarks of their respective companies.

Table of Content

1. System and Software Configuration	4
1.1. Supported System Configurations	4
1.2. Software Stacks	4
1.3. Port Communication	6
1.4. End-User Machine Requirements	7
2. Pre-requisites for System and Software Configuration	8
2.1. For MOM Desktop	8
2.2. SQL Server Configuration	8
2.2.1. Configure Memory Options	8
2.2.2. Setting up communication protocol	9
2.2.3. Set Query execution timeout	9
2.3. For WebDAV	10
2.3.1. Installing and enabling WebDAV on Windows 2008 R2 and IIS 7	10
2.3.2. Enable WebDAV	13
2.3.3. Installing Windows Authentication on Windows 2008 R2 and IIS 7	17
2.3.4. Enabling Windows Authentication for ALDocShare Virtual Directory in IIS 7.....	18
2.4. IIS Settings	20
2.5. Start ASP.Net State Service	23
3. SAS Marketing Operations Management Software Installation	24
3.1. Single Machine Installation	24
3.1.1. Install All the Components	24
3.1.2. Install Media Processor for Illustrator on a Windows 7 machine.....	33
3.2. Multi Machine Installation	38
3.2.1. Install Solutions + BusinessEvents Server + Primary Cataloger on Web Server tier	39
3.2.2. Install Web Services+ Microsoft Office Processor + BusinessEvents Server.....	47
3.2.3. Install Cataloger + Media Streaming + Media Server + Media Generator	52
3.2.4. Install Media Processor for Illustrator on Windows 7 machine.....	58
3.2.5. Install Media Processor for InDesign	58
3.3. Next steps after Installation	61
3.3.1. Settings to be done on the Microsoft Office Processor machine	61
3.3.2. Settings to be done on the Illustrator machine	63
3.3.3. Security Permissions for Application Launch (DCOM Configuration).....	64

3.3.4.	Settings for DAM supporting Shared Network Folder	67
4.	Pre-Tenant Configuration	69
4.1.	Configure a Publishing Point for Media Streaming	69
4.2.	Create Database user in SQL Server	73
5.	Tenant Configuration	76
5.1.	Create Tenant	76
5.1.1.	Folder Permissions	77
5.2.	Create Cataloger Mount Point	77
6.	Post Tenant creation	79
6.1.	Configure FTP Sites for Artwork Producer	79
6.2.	Settings for Distributed Transaction Coordinator	79
6.3.	Start Pre-Requisite Windows Services	80
6.4.	Configure Schedule Tasks	81
6.4.1.	Configure and Schedule SAS Marketing Operations Management Cleanup Utility	84
6.4.2.	Schedule Task for DAM	86
6.4.3.	Schedule 'Security Policy' report generation for DAM	87
6.4.4.	Schedule a 'DAM Vault User Access' report generation	87
7.	Additional Configurations	88
7.1.	Media Server Proxy Configuration	88
7.2.	Media streaming server configuration in case of External (DMZ) setup	88
7.3.	Replication Agent Configuration	88
7.3.1.	Replication Agent Configuration details	89
7.3.2.	Replication Server Details	90
7.3.3.	MediaRequestRouter	91
7.3.4.	InstallReplicationAgentServices.bat	92
7.3.5.	UninstallReplicationAgentServices.bat	92
7.4.	Fine Tuning Tips	92
7.4.1.	Running Services Selectively	92
7.4.2.	Improving the performance of the DAM Solution	93
7.4.3.	Improving the performance of the SAS Marketing Operations Management Solution	93
7.5.	IIS Performance Tuning	95
7.5.1.	Application Pool Settings	95
7.6.	Configure SAS Marketing Operations Management for full Text search	97
7.7.	Suppress Dialogs for Automatic Updates	98
7.8.	SAS Marketing Operations Management Service Monitor Configuration	98

8. Troubleshooting	100
8.1. User creation fails - Configure Windows User on the Server	100
8.2. Configure Environment Variables - Failed	101
8.2.1. For All Machines	101
8.3. Virtual Folder 'aspnet_client' creation failed	103
8.4. Security Permissions	103
8.4.1. On ASP.NET temporary files	104
8.4.2. Registry Access	104
8.4.3. Grant Folder Permissions.....	104
8.5. Adding DLL in GAC	105
8.6. Running a service under the 'ALUser' context	106
8.7. Next Steps	107
8.8. Create Shared Drive	108
8.9. Database Setup – If database creation fails	109
8.9.1. Create Database for Tenant	109
8.9.2. Run the Database scripts	111
8.10. Create ODS Database for Tenant	112
8.11. WebDAV Configuration for PDF Approvals	112
8.11.1. Creating a WebDAV folder.....	112
8.11.2. Creating a Virtual Directory for the WebDAV folder	112
8.11.3. Change the Web service extension in the IIS on Solutions machine	113
8.12. Configure a Virtual Folder for the Tenant	113
8.12.1. Virtual Folder Configuration.....	114
8.13. Creating Virtual Folder for Dashboard	116
8.14. Creating the Desktop folder	116
8.15. IIS Manager - Changing the application Pools setting	117
8.16. Complete access for 'ALUser'	117

1. System and Software Configuration

1.1. Supported System Configurations

SAS Marketing Operations Management is supported on the following system configurations that may consist of one to four server machines.

In a given configuration, one or more installer components need to be selected while installation on an individual server in the configuration. The installer components to be selected depend upon the tiers to be hosted on the server.

The installation consists of five tiers:

- Web Services Tier
- Solutions Tier
- Cataloger Tier
- Media Processing Tier
- Database Tier

The installer has components that relate to the first four tiers. It is not required to run the installer for the Database tier.

This document applies to following system configuration consisting of the following servers:

- **Web Server** – The web server hosts the Solutions Tier.
- **Application Server** – The application server hosts the Web Services Tier.
- **Cataloger Server** – The cataloger server hosts the Cataloger Tier.
- **Media Processor** – The media processor server hosts the Media Processor Tier.
- **Database Server** – The database server hosts the Database Tier.

1.2. Software Stacks

Before installing SAS Marketing Operations Management version 6.0 R14 on the server's, the following third party software's need to be installed on the specified servers. The installers of the following software are available in the 'Folder D Prerequisite Software' folder with the SAS Marketing Operations Management installer. The name of the exe's is mentioned in the table below:

Software	Application Server	Web Server	Cataloger Server	Media Server	Database Server	Media Processor for Illustrator	Media Processor for InDesign	MS Office server	Media Generator
Windows 2008 R2 Server (64 Bit) (Should have EN-US as its locale)	Y	Y	Y	Y	Y		Y	Y	Y
Windows 7 (64 Bit)						Y			
IIS 7.0 (version 7.5.7600.16385)	Y	Y	Y	Y		Y	Y	Y	Y

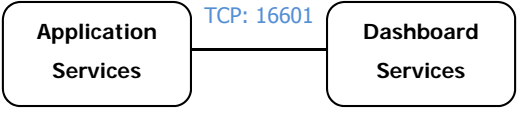
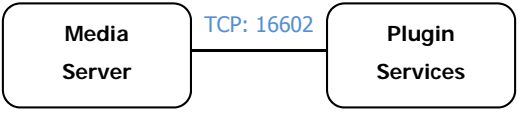

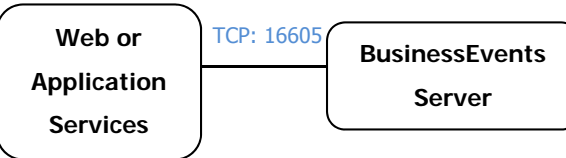
MSMQ	Y	Y	Y	Y		Y	Y	Y	Y
.NET Framework 3.5	Y	Y	Y	Y		Y	Y	Y	Y
MSXML 4.0	Y	Y	Y	Y					
Microsoft SQLXML 4.0 SP1 (sqlxml.msi)	Y								
Microsoft SQL Server System CLR Types (SQLSysClrTypes.msi)	Y	Y							
Shared Management Objects (SharedManagementObjects.msi)	Y	Y							
Access Database Engine x64 (AccessDatabaseEngine_x64.exe)	Y	Y	Y						
Microsoft WSE 3.0 (Microsoft WSE 3.0.msi)	Y	Y	Y	Y		Y	Y	Y	Y
Microsoft SQL Server 2008 R2					Y				
Media Streaming Server				Y					
Acrobat 8.0/9.0/X Professional Edition		Y (if WebDAV is being used)						Y	
Microsoft Visual C++ 2008 Redistributable Package (vc redistrib_x64.exe)	Y	Y	Y	Y		Y	Y	Y	Y
Crystal Reports Basic for Visual Studio 2008 x64 Redistributable Package (CRRedist2008_x64.msi)	Y	Y							
Microsoft Office 2010 x64 bit								Y	
Image Magick (ImageMagick-6.7.3-4-Q16-windows-x64-dll.exe)									Y
ASP.NET State Service		Y							
Adobe Illustrator CS3/CS4 (Only if Artwork Producer is being deployed for the customer)						Y			
Adobe InDesign CS5.5 server (Only if Artwork Producer is being deployed for the customer)							Y		

Notes:

- **MS Office can be installed on a separate server in the network or on any one of the other servers provided the servers are within the firewall**
- Ghostscript needs to be installed on the machine where Media Generator/Image Magick is installed. This is available in the 'Folder D Prerequisite Software' -
<http://ghostscript.com/releases/gs871w64.exe>
- Once all the above mentioned pre-requisites are installed, then add an additional search folder in the "Path" environment variable (system variable) on the machine where ImageMagick and GhostScript are installed. Add the following path: <Path of GhostScript>\bin. For example: C:\Program Files\gs\gs8.71\bin
- The dialogs for online updates and software registration for Adobe Acrobat needs to be disabled after installing it. Please refer to Suppress Dialogs for Automatic Updates section for further details.
- MSXML 4 is Microsoft provided XML parser
- Fulfill the registration requirements for Adobe Illustrator CS3 and CS4
- Install windows component 'Messaging Queuing Service' with HTTP support enabled
- A server certificate is required in case HTTPS protocol is to be used to access SAS Marketing Operations Management application
- QuickTime need to be installed on the Cataloger, Mediaserver and Webservice machines. (QuickTime setup needs to be downloaded online, it is a freeware). This needs to be installed only in case XMP information needs to be downloaded from video files.

1.3. Port Communication

Port 80 – This port needs to be opened on all SAS Marketing Operations Management related servers. The port information is as shown in the table below:

 <p>Application Services — TCP: 16601 — Dashboard Services</p>	<ul style="list-style-type: none"> • Application Services communicates with the Dashboard services using TCP on port number 16601. This port is configurable • Dashboard Services is used to generate Dashboard contents for a user • Dashboard Service is a windows service
 <p>Media Server — TCP: 16602 — Plugin Services</p>	<ul style="list-style-type: none"> • Media Server communicates with the Plugin Services using TCP on port number 16602. This port number is configurable • Plugin Services is used to generate various rendition of format and also for FTP, compression for DAM contents • Plugin Service is a windows service • This is used by Digital Library
 <p>Media Processor — HTTP: 16603 — InDesign CS5.5</p>	<ul style="list-style-type: none"> • Media Processor communicates with InDesign CS5.5 server using HTTP on port number 16603. This port number is configurable • InDesign CS5.5 Server is used to generate artworks • This is used by Artwork Producer
 <p>Web or Application Services — TCP: 16605 — BusinessEvents Server</p>	<ul style="list-style-type: none"> • Web Server or the application server communicates with the BusinessEvents server using TCP on port number 16605. This port number is configurable • BusinessEvents Server is used to track changes for Entities • BusinessEvents Service is a windows service

1.4. End-User Machine Requirements

The software required on the client/browser machine is:

Browser machines –

- Windows – Windows XP, Windows Vista, Win2K, Windows 2008, Windows 7
- MAC – Snow Leopard 10.6.8
- **Browsers** – Internet Explorer 8.0 and 9.0 (Compatibility mode) (Windows 32 bit), Firefox 12.0 (Windows) and Safari 5.1.5 (Mac)
- **Acrobat Professional 8.0/9.0/9.3.2/X** – For adding comments to PDF documents (in case WebDAV or Adobe Acrobat is used)
- **MS Office 2007/2010** – For opening office documents (Reports) and adding comments to Word and Excel documents during approval
- **Flash Player 10.3.183.11** – For viewing the dashboard analytical channels

2. Pre-requisites for System and Software Configuration

2.1. For MOM Desktop

MOMDesktop is an extended part of the SAS Marketing Operations Management solution, which is built on AIR platform from Adobe. The MOMDesktop helps to catalog digital data in bulk/batch into the Digital Library and easily associate metadata/business information to it (which is not possible through the web based solution).

File Sharing

Connects to the Cataloger Sever to transfer files selected by user to catalog into the SAS Marketing Operations Management system.

Connects to the Solution Server to validate user and retrieve Section hierarchy for the user.

System Requirements

Minimum 5MB free disk space.

MOMDesktop deployed on the end user desktop machine requires connecting to the Web Server and the Cataloger machine. Both the machine's IP Address/ DNS name should be publicly visible on the internet.

2.2. SQL Server Configuration

2.2.1. **Configure Memory Options**

The following are the steps to specify the 'Use of AWE' to allocate memory for SQL Server:

- Open Microsoft SQL Server Management Studio.
- Connect to the database server by supplying the appropriate credentials.
- Right click on the database server name and select Properties from the speed menu.
- On the popup click on the 'Memory' option on the left pane. Memory specific settings will be displayed.
- Select the 'Use AWE to allocate memory' option from the Server memory options group.
- Click on the 'Ok' button to save the details.

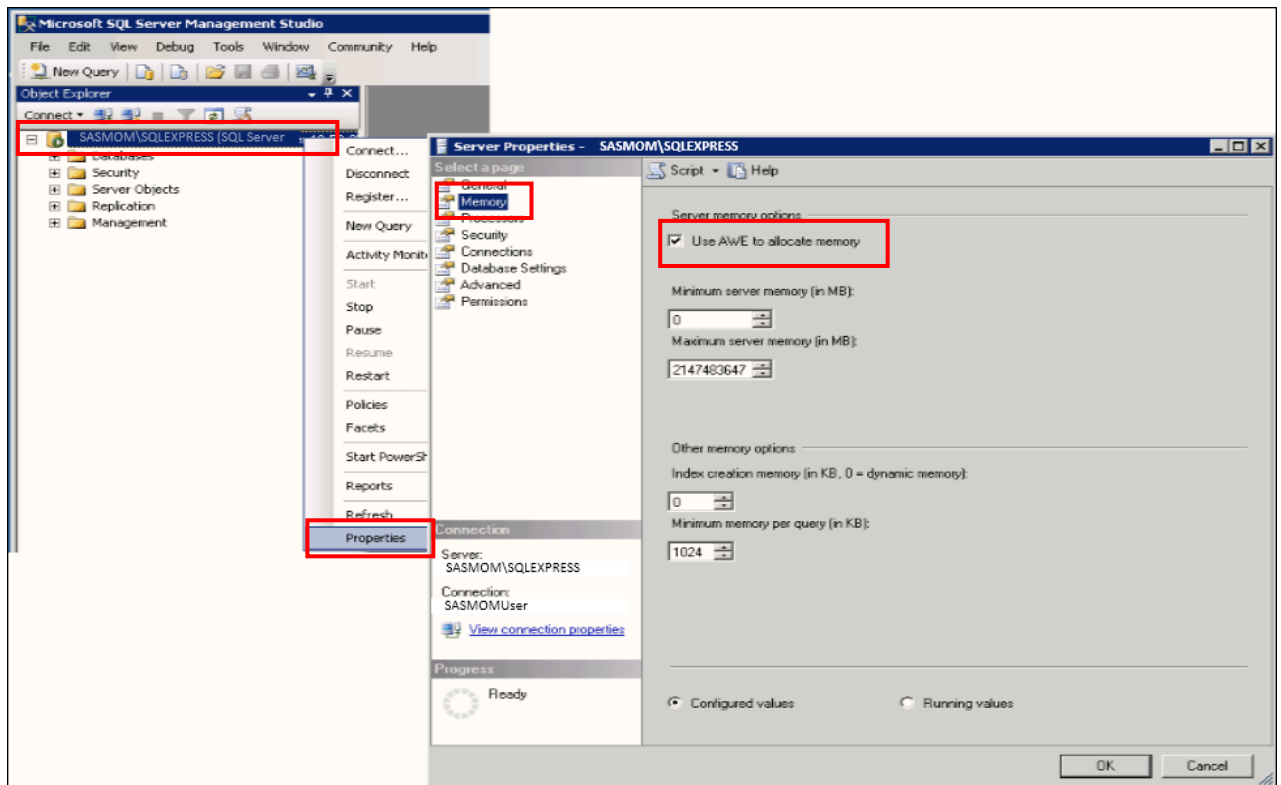


Figure No.1

2.2.2. Setting up communication protocol

Configure the following settings for SQL Server 2008 (reachable via Start | Programs | Microsoft SQL Server 2008 | Configuration Tools | SQL Server Configuration Manager):

Expand the SQL Native Client Configuration and select the Client Protocols option

Enable the following protocols:

TCP/IP

2.2.3. Set Query execution timeout

The following are the steps to set query execution timeout for SQL Server to 0 (i.e. infinite):

- Open Microsoft SQL Server Management Studio
- Connect to the database server by supplying credentials.
- Navigate to Tools Menu | Options. This will open a dialog.
- Expand Query Execution | SQL Server option from tree view.
- Clicking on the SQL Server option, settings will be displayed.
- These settings contain Execution time-out setting. Set the value for this setting to 0. Save the setting. Close instances of SQL Server Management Studio and restart SQL Server from Services panel.

2.3. For WebDAV

2.3.1. Installing and enabling WebDAV on Windows 2008 R2 and IIS 7

Install WebDAV:

Go to Start->Run and type: Server Manager.

Click on the Server Manager node, which is in the left pane at the top of the tree view.

On the right pane check if the WebDAV feature is installed in Web Server (IIS) Role.

If not installed, then click the Add Role Service link and select the WebDAV Publishing Service.

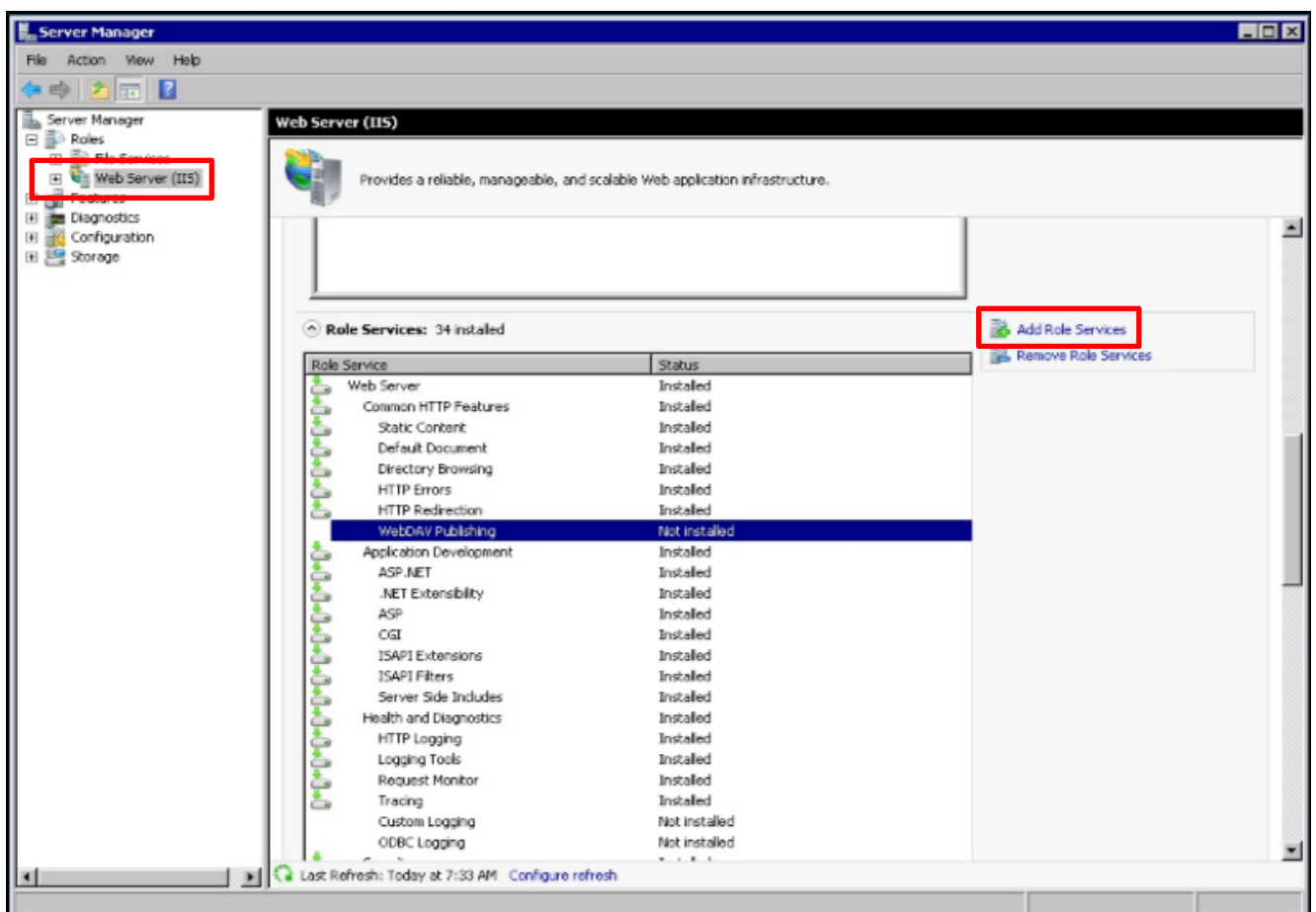


Figure No.2

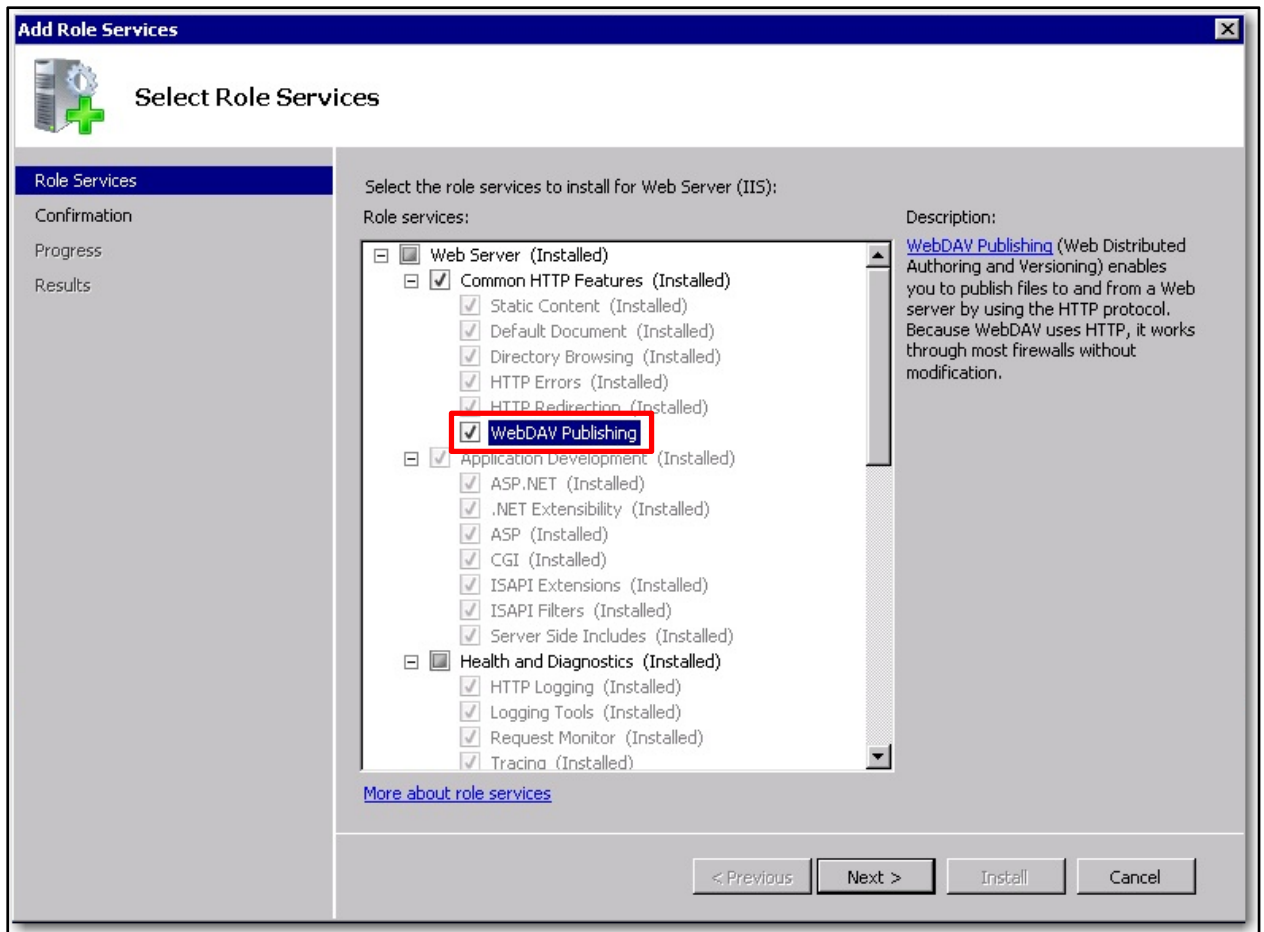


Figure No.3

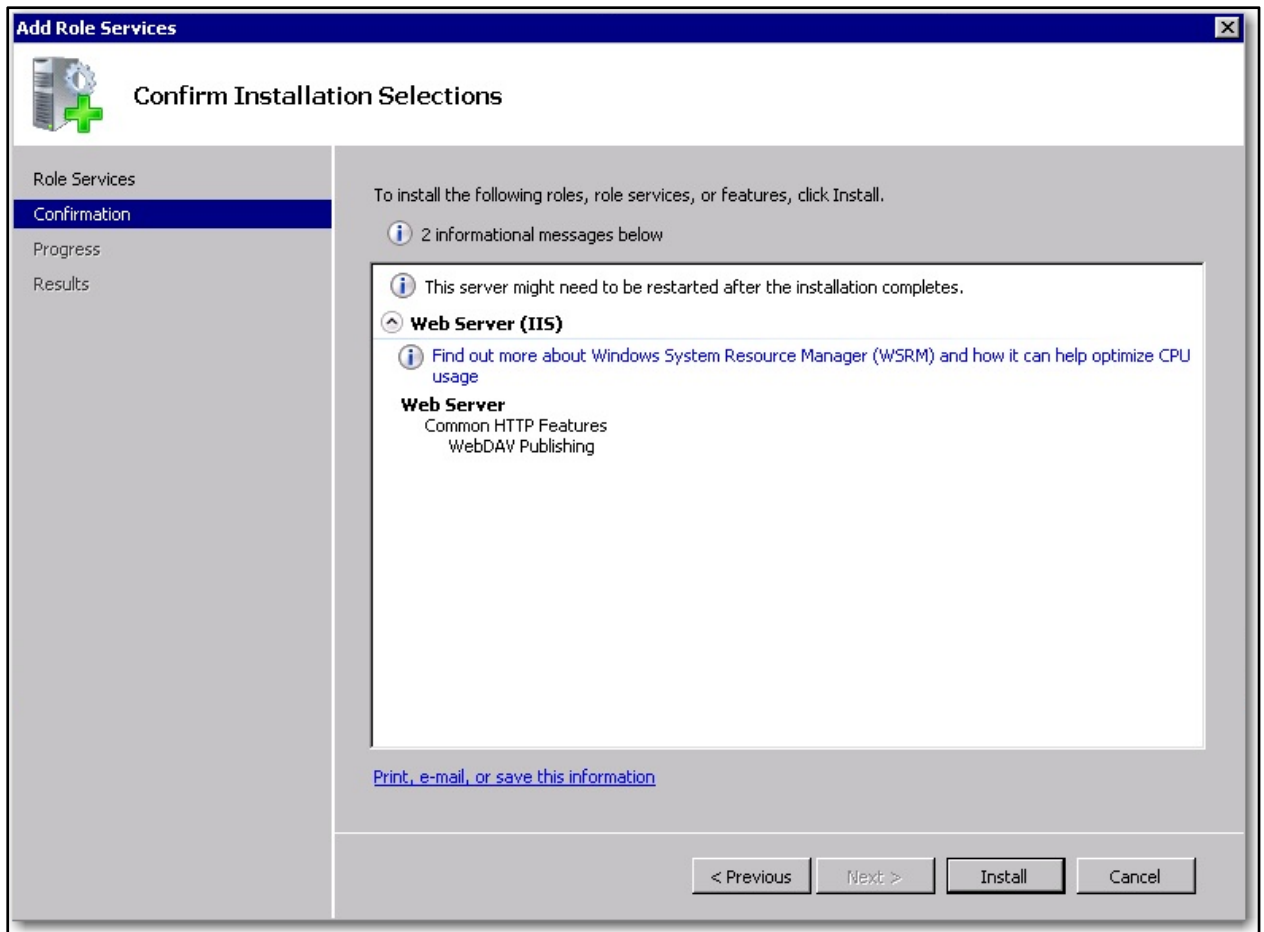


Figure No.4

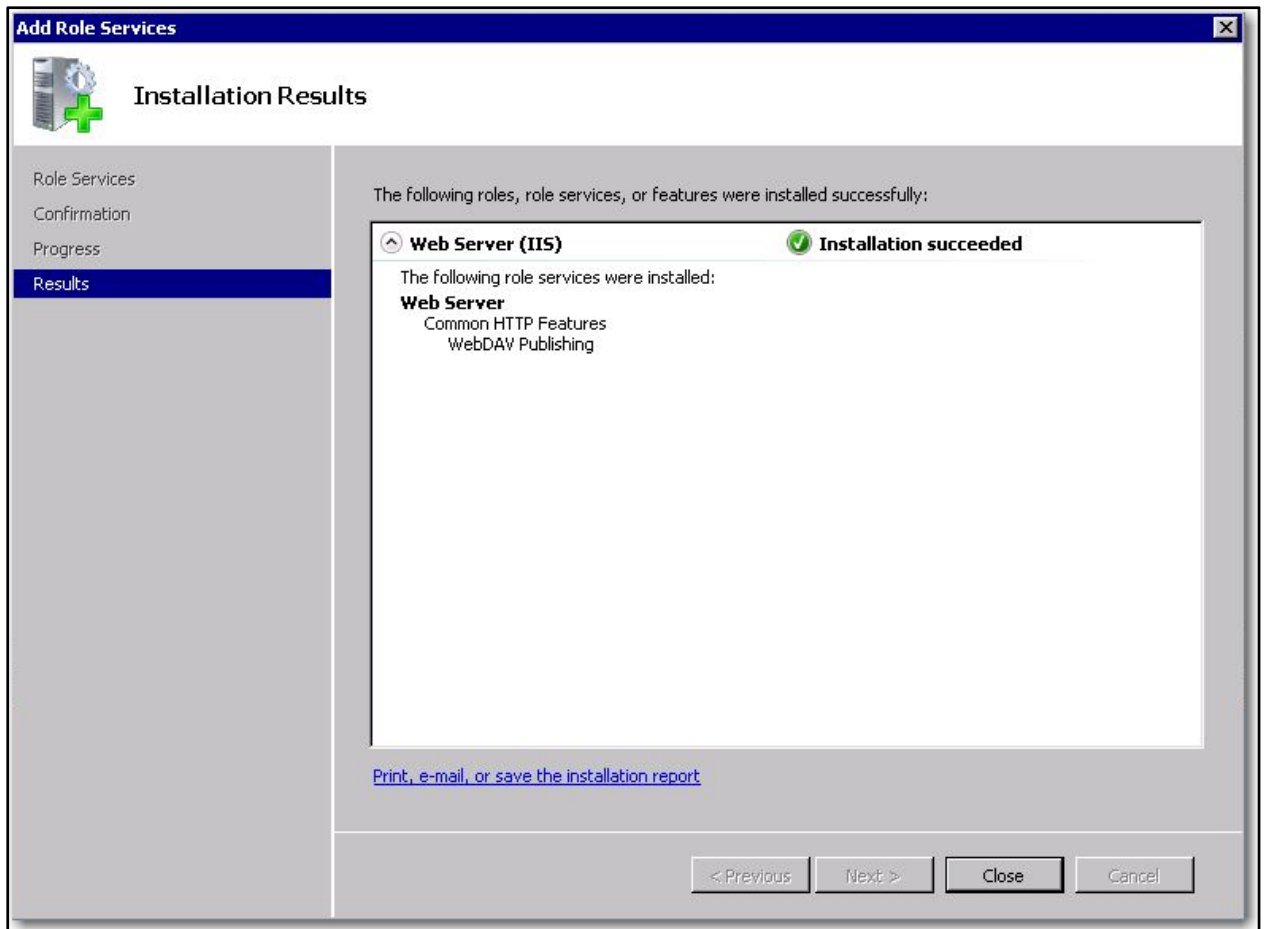


Figure No.5

2.3.2. Enable WebDAV

Configure the following settings in the IIS Manager:

- Go to Start->Run and type: IIS Manager.
- Select Default Web Site node in the tree view which is in the right pane.
- Double click on WebDAV Authoring Rules icon in the middle.

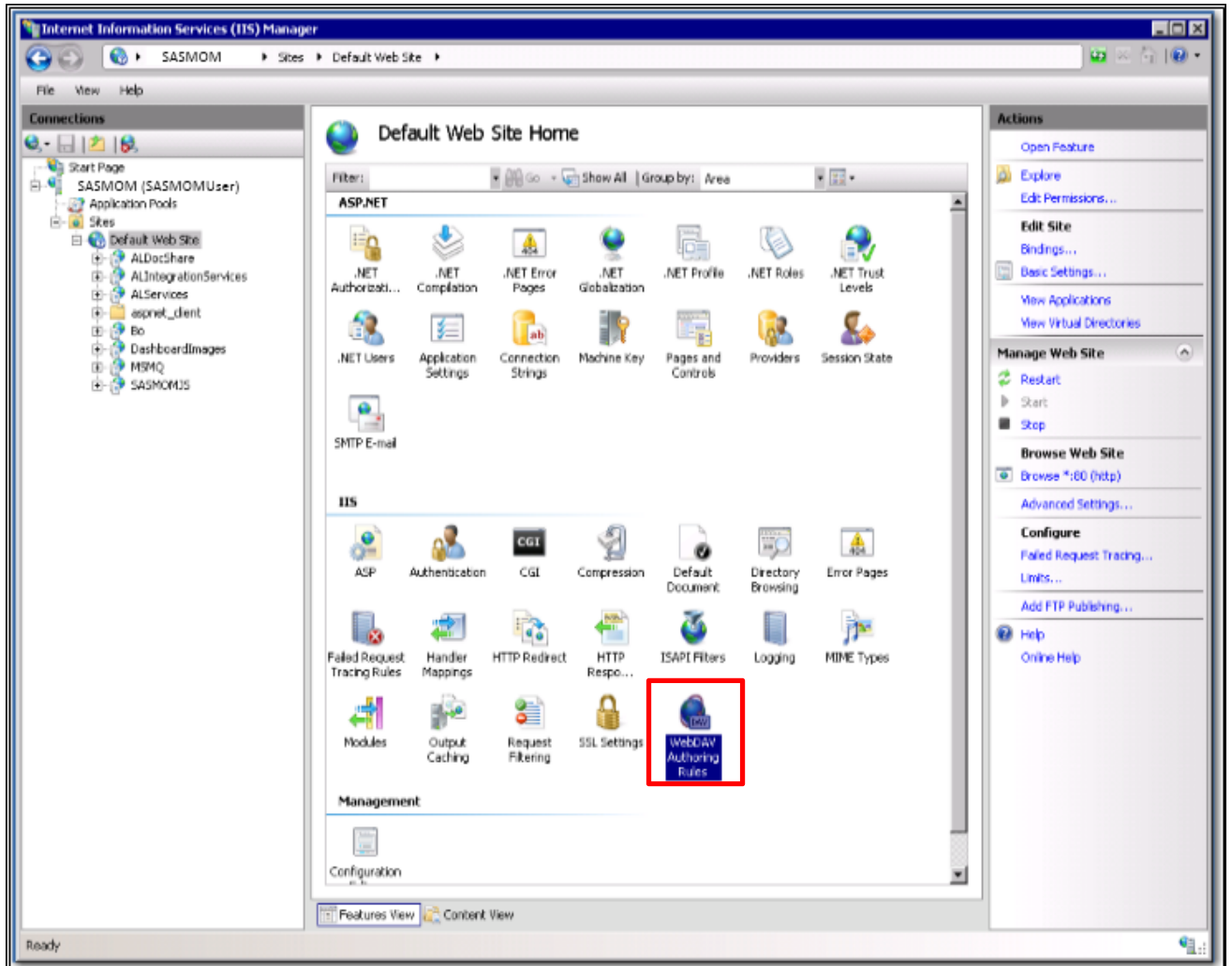


Figure No.6

- Click Enable WebDAV link in the Action Pane on the right.

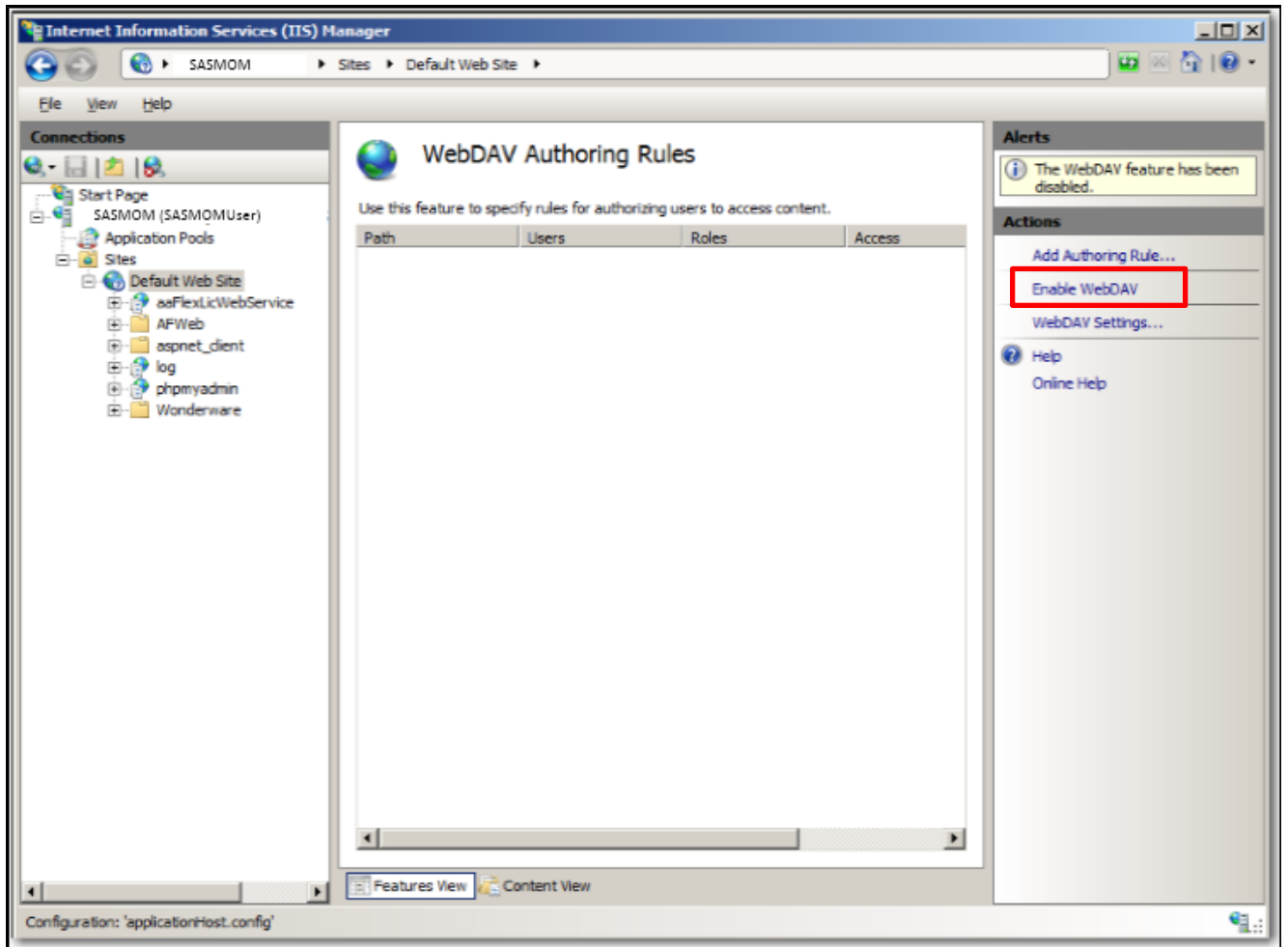


Figure No.7

- Add Authoring Rule for Default Web Site as shown in the figure below.

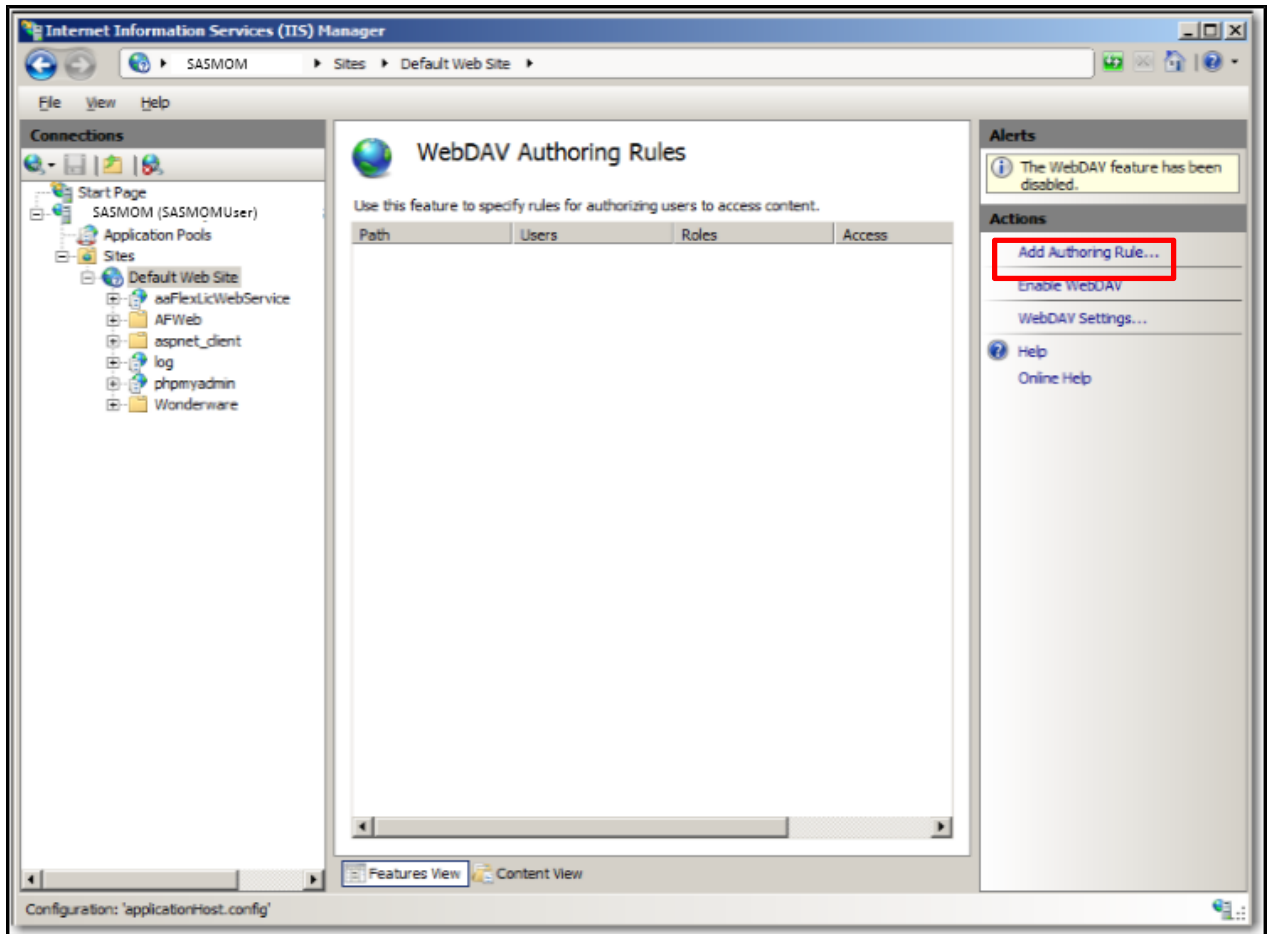


Figure No.8

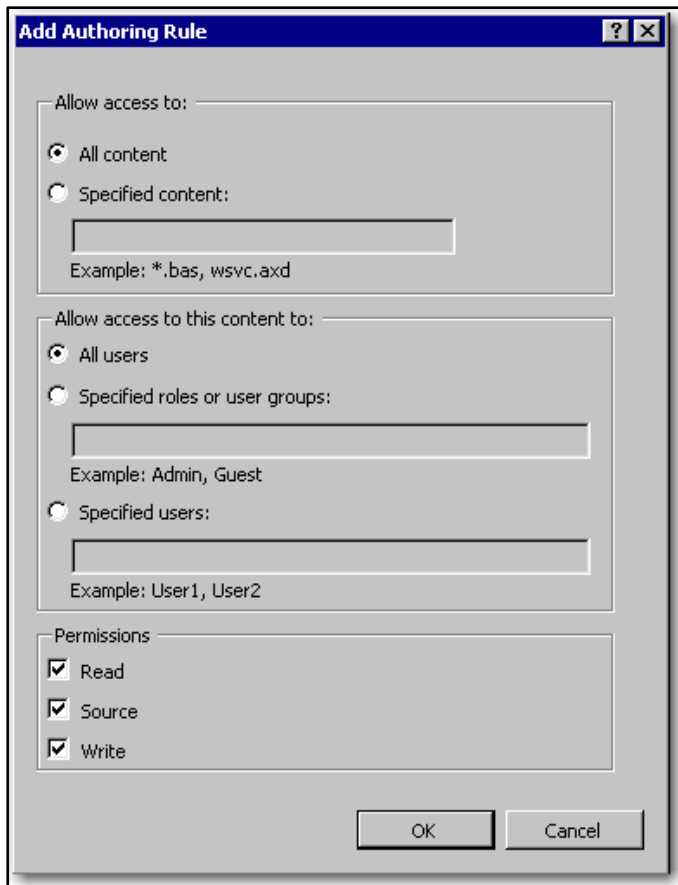


Figure No.9

2.3.3. Installing Windows Authentication on Windows 2008 R2 and IIS 7

Install Windows Authentication:

1. Go to Start->Run and type: Server Manager.
2. Click on the Server Manager node, which is in the left pane at the top of the tree view.
3. Now on the right pane check that the Windows Authentication feature is installed in Web Server (IIS) Role.
4. If is not already installed, then click the Add Role Service link and select the Windows Authentication Service.

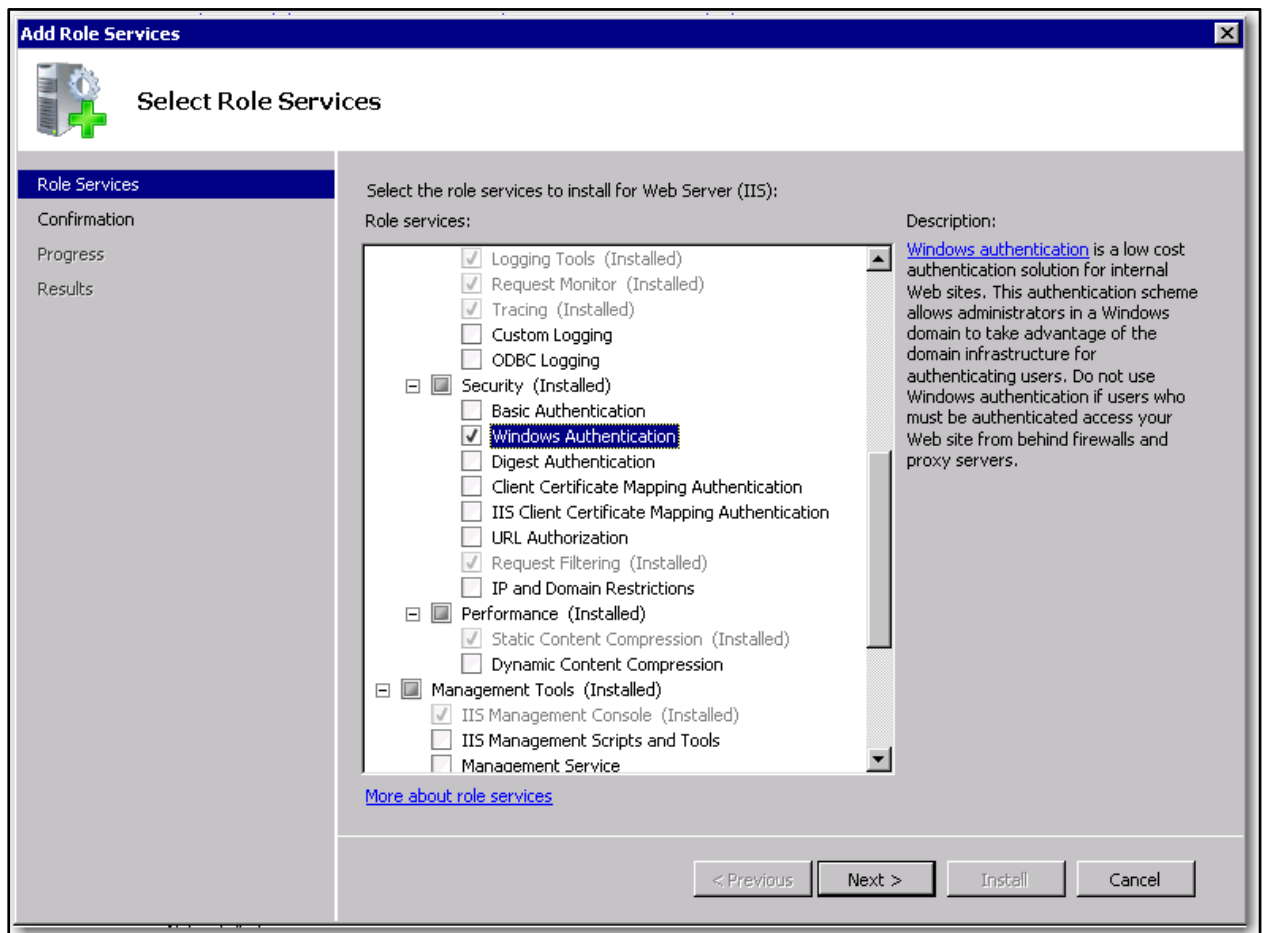


Figure No.10

2.3.4. Enabling Windows Authentication for ALDocShare Virtual Directory in IIS 7

Configure the following settings in the IISManager:

1. Go to Start->Run and type: IIS Manager.
2. Select ALDocShare virtual directory under Default Web Site node in the tree view which is in the right pane.
3. Double click on Authentication icon in the middle.

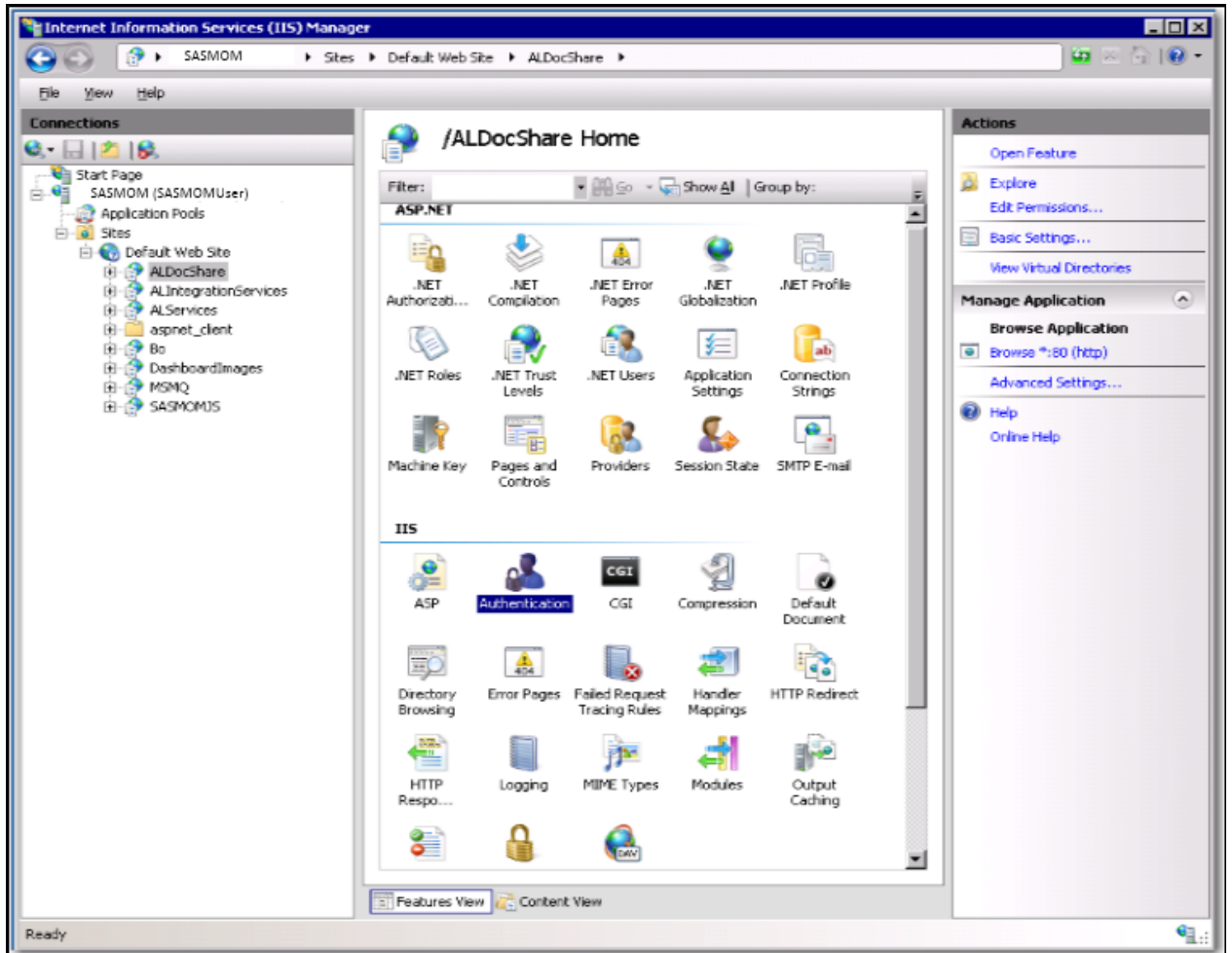


Figure No.11

4. Enable Windows Authentication for ALDocShare virtual directory.

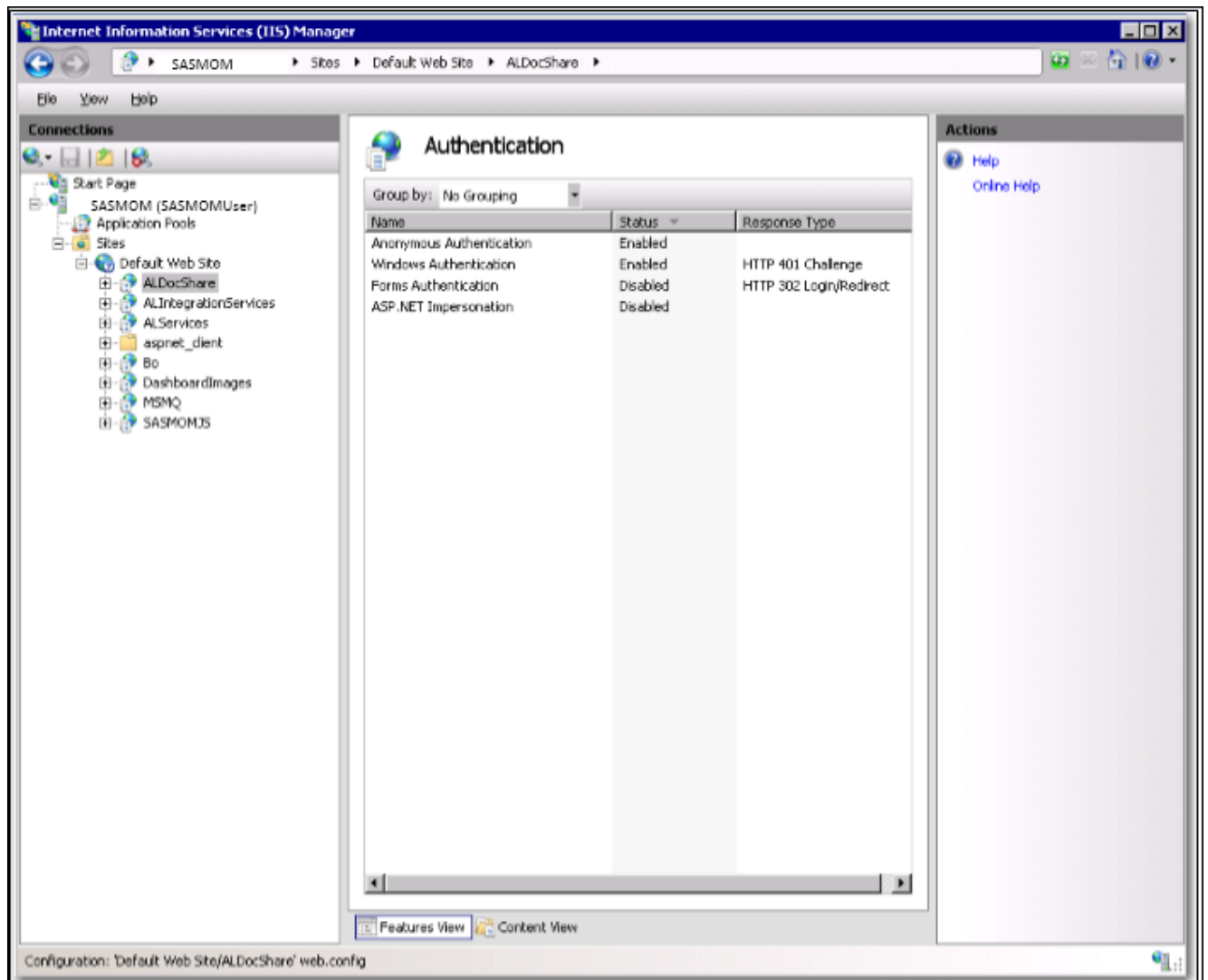


Figure No.12

2.4. IIS Settings

These settings need to be done before installation. Steps to be followed for Internet Information Service (IIS) Manager Configuration:

Navigate to the path Start | Administrative Tools | Internet Information Service (IIS) Manager.

Navigate to the Application Pools and click on the 'Set Application Pool Defaults' link in the Actions menu.

In Process Model section, edit the Identity setting. For Application Pool Identity select the Built-in account radio button.

Save the configuration.

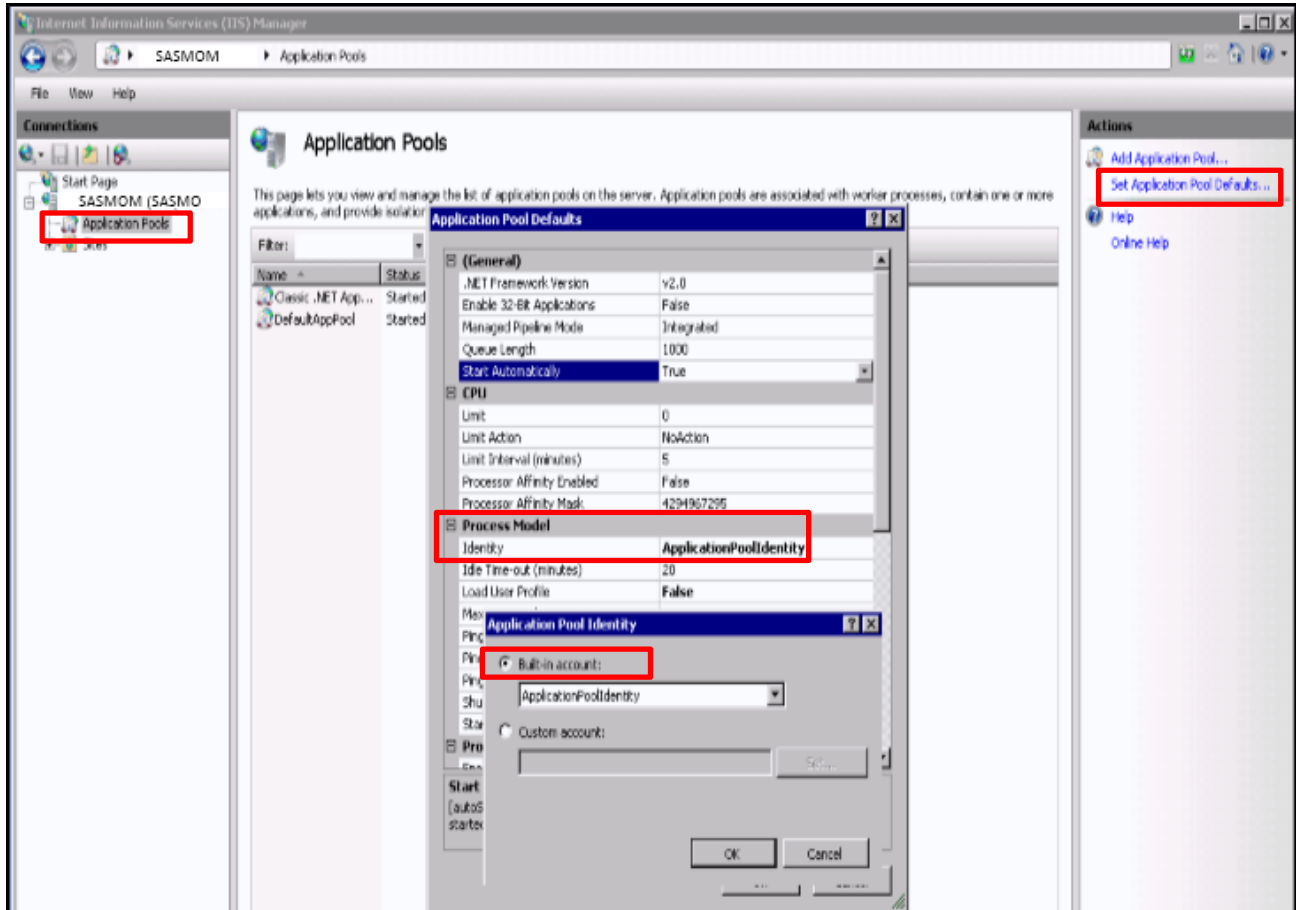


Figure No.13

Note: These settings need to be done only on the Web Services and Web Server machine in case of multi-machine installation. In case of one machine installation, it has to be done on the server where SAS Marketing Operations Management is installed.

Navigate to the path Start | Administrative Tools | Internet Information Service (IIS) Manager.

Navigate to the Application Pools and click on **DefaultAppPool** link. Click on **Advanced Settings** link in the actions menu. On the **Advanced Settings** popup, in the Process Model section, edit the Identity setting. Select **LocalSystem** from the drop down list. Save the configuration (**Figure 14**).

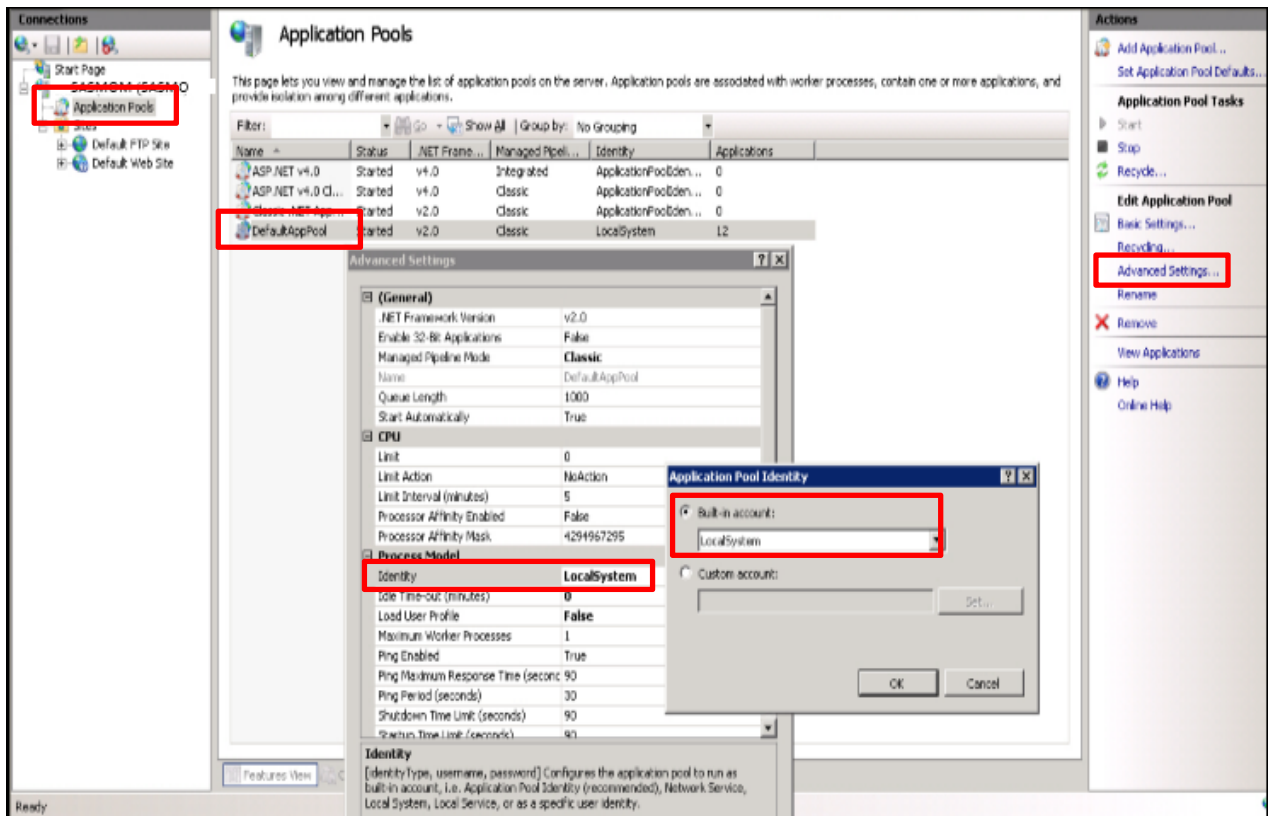


Figure No.14

Note: These settings need to be done only on the Web Services and Web Server machine in case of multi-machine installation. In case of one machine installation, it has to be done on the server where SAS Marketing Operations Management is installed.

Ensure that the Web Service Extensions section for the default web site allows ASP.NET for version v2.0.50727. Go to the Internet Information Service (IIS) Manager, click on the <Server Name> item in the Connections menu on the left pane. In the IIS section double click on the "ISAPI and CGI Restrictions" icon (Figure 15).

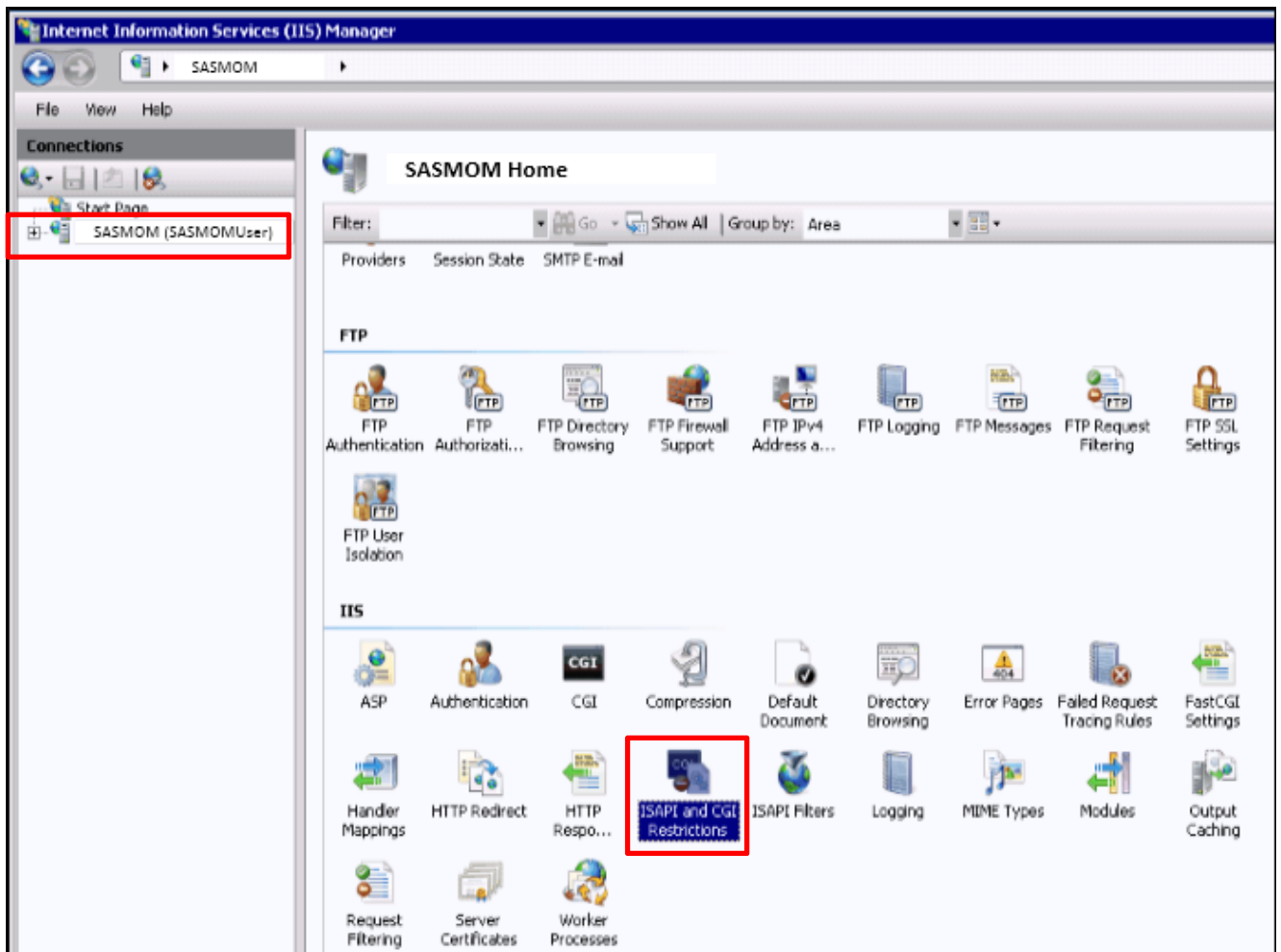


Figure No.15

Allowed should be set for ASP.NET v2.0.50727 for 64 bit (Figure 16).

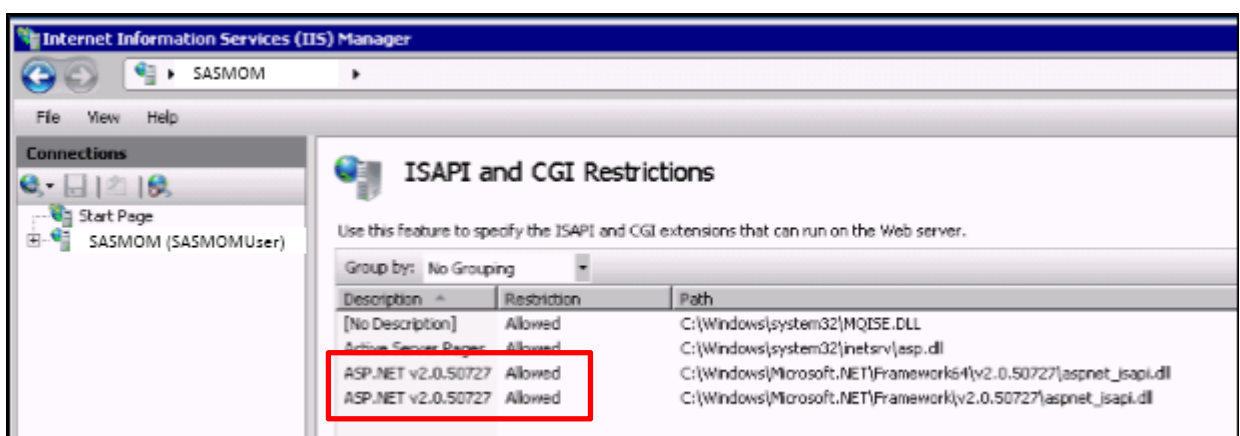


Figure No.16

2.5. Start ASP.Net State Service

Start the ASP.Net State Service if it is not already started and ensure that this service has startup type as automatic.

3. SAS Marketing Operations Management Software Installation

Installation on an individual server in the target configuration may require selection of multiple or one of the installer components depending on the tiers to be hosted on that server. Make sure to restart the machine after installation.

Note: All the machines in the set up should be on the same network.

3.1. Single Machine Installation

The SAS Marketing Operations Management application can be installed on a single server but for EPS processing a separate server with Windows 7 is required if the user wants to use Artwork producer with Illustrator CS3/CS4 module. This installation process described here assumes that a separate machine with Windows 7 with Adobe CS3/CS4 Illustrator installed is available in the hardware setup.

3.1.1. Install All the Components

Assuming that the IP address for all the solutions is 198.113.120.220 and for the Media Processor for Illustrator on a Windows 7 machine is 198.113.120.185.

Supply following inputs for the installer:

Select Solutions, Web Services, Cataloger, Media Streaming, Media Processor for Indesign, Media Processor for FLV Generator, Media Server, Media Generator, Microsoft Office Processor and BusinessEvents Server components in the SAS Marketing Operations Management 6.0 R14 setup dialog.

Note: Media Processor for FLV generator should preferably be on an independent machine if there is a constant usage of video files as it uses up considerable amount of memory and could choke up all the other requests.

Specify the installation path by clicking on the 'Browse' button and selecting the Destination Folder.

Click on the 'Next' button.

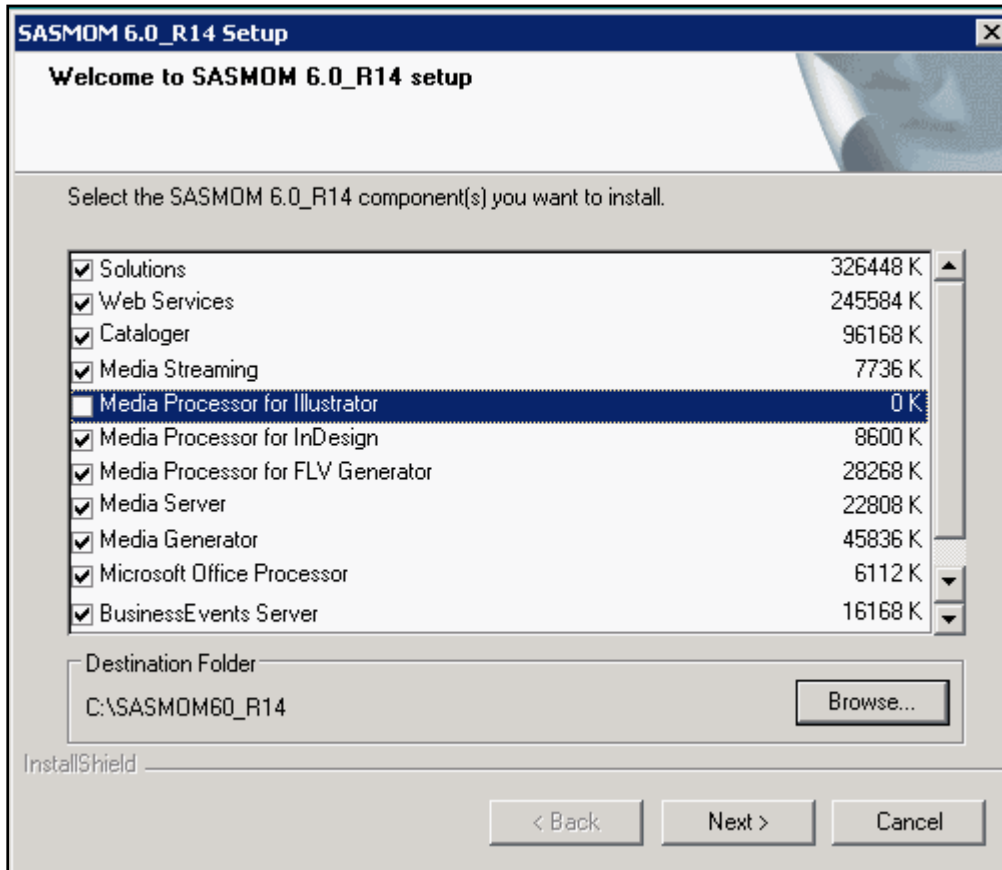


Figure No.17

Enter the password for 'AIUser' (Figure 18).

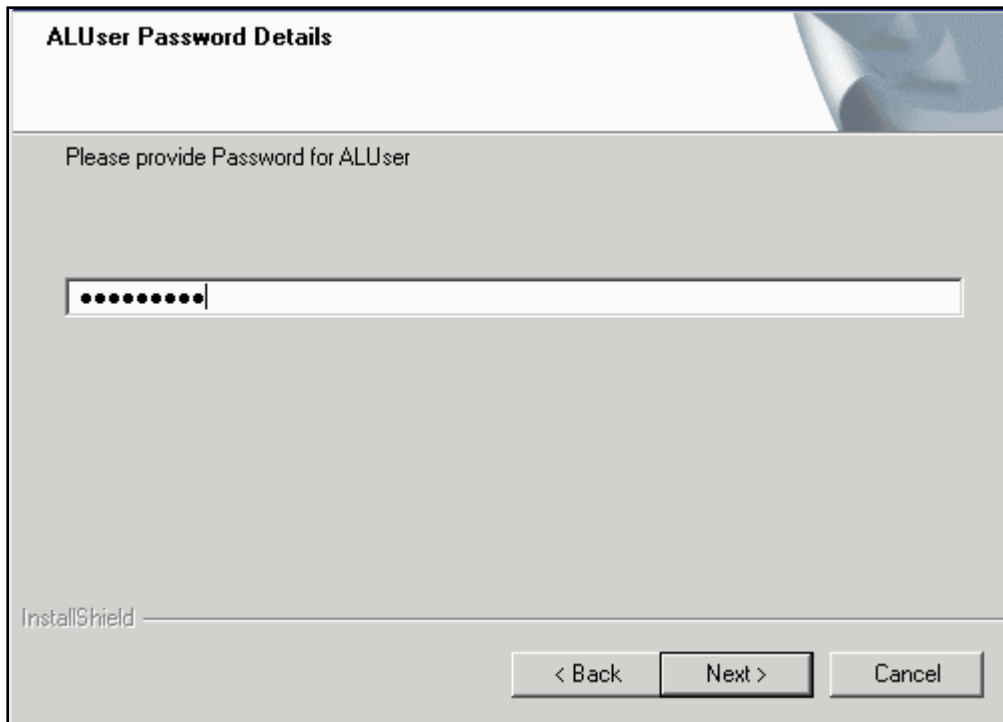


Figure No.18

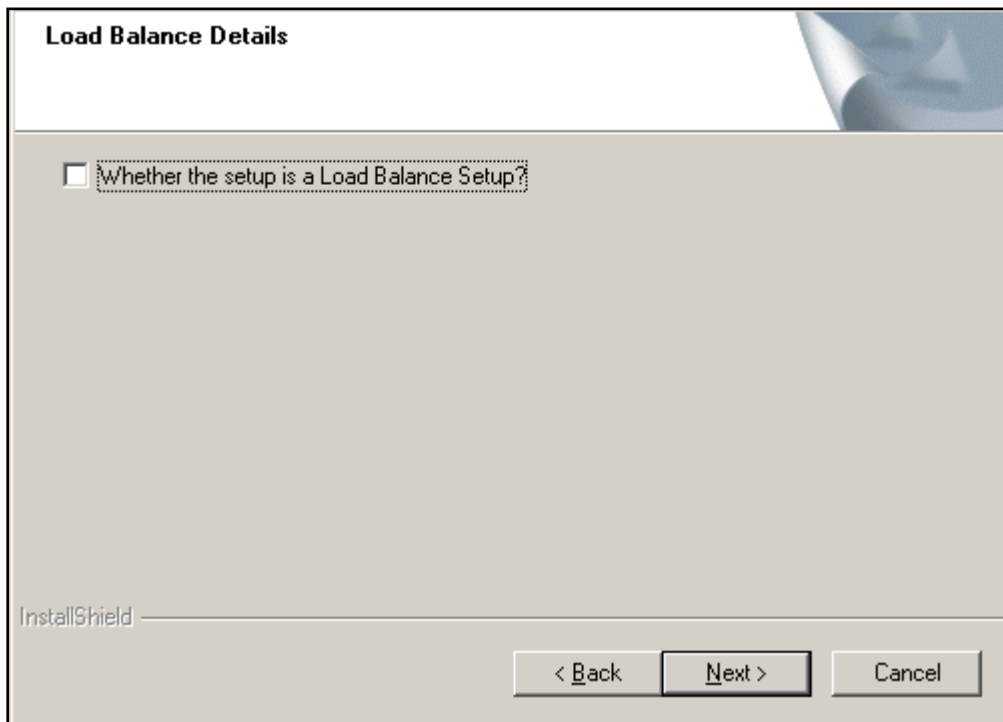


Figure No.19

Please refer to the Installation guide for load balanced setup. Click on the 'Next' button (Figure 19).

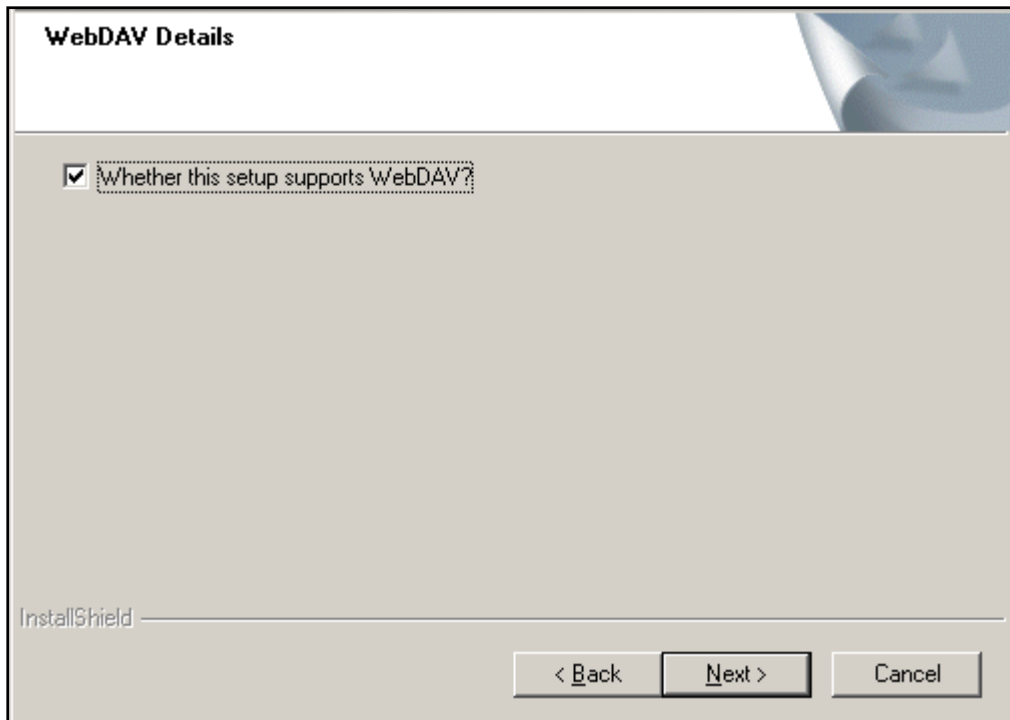


Figure No.20

Select whether this setup supports WebDAV (**Figure 20**). If yes then **Figure 21** is displayed enter the WebDAV path (<Installation folder>\WebDavDir) details which can be any folder that the user creates on the NTFS machine where the WebDAV files can be kept (not necessarily the Installation directory) and click on the 'Next' button. If WebDAV is not supported then **Figure 22** is displayed

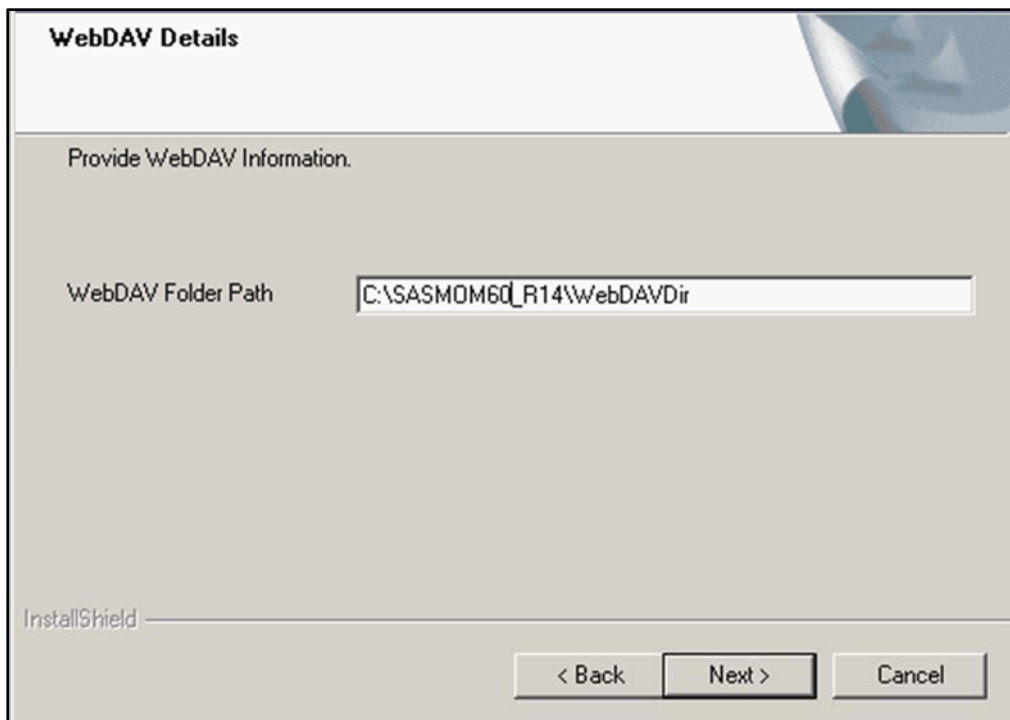


Figure No.21

Enter the IP Address on the network for the Windows 7 machine for the Media Processor for Illustrator and click on the 'Next' button.

Note: If Media Processor is not being used in an installation then give the IP address of the machine on which the installation is being done.

Server Identification

Enter IP Addresses of Media Processor Machine for Illustrator

Web Services Machine 198.113.120.220

Media Processor Machine for Illustrator 198.113.120.185

InstallShield

< Back Next > Cancel

Figure No.22

Select the protocol and click on the 'Next' button.

Choose Communication Protocol

HTTP

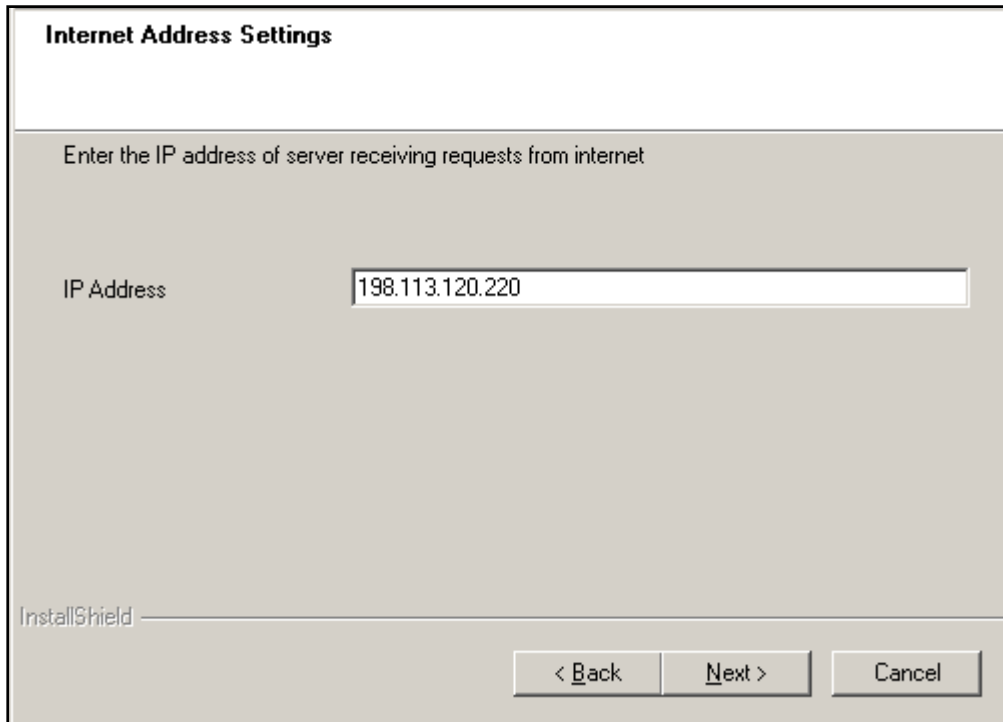
HTTPS

InstallShield

< Back Next > Cancel

Figure No.23

Enter the IP address (IP of the machine that you are installing SAS Marketing Operations Management on) for the server receiving the requests for the internet and click on the 'Next' button.



Internet Address Settings

Enter the IP address of server receiving requests from internet

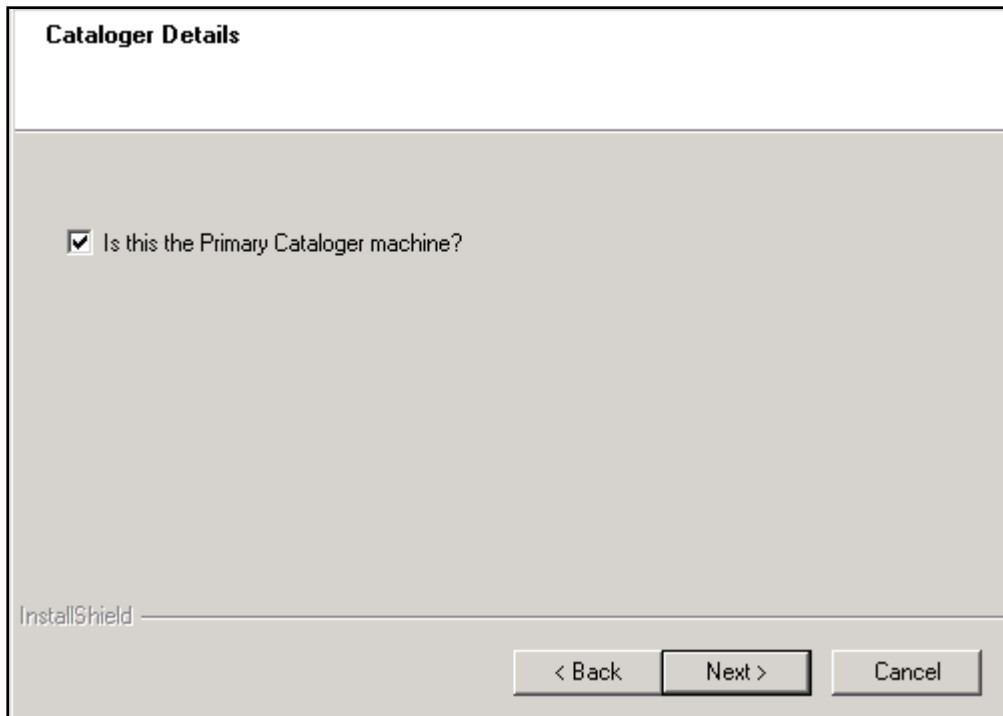
IP Address

InstallShield

< Back Next > Cancel

Figure No.24

As it is a single machine installation, only the Primary cataloger needs to be installed. Select and click on the 'Next' button.



Cataloger Details

Is this the Primary Cataloger machine?

InstallShield

< Back Next > Cancel

Figure No.25

The IP for the secondary cataloger is required to be left blank as on a single machine installation there cannot be two catalogers. Click on the 'Next' button.

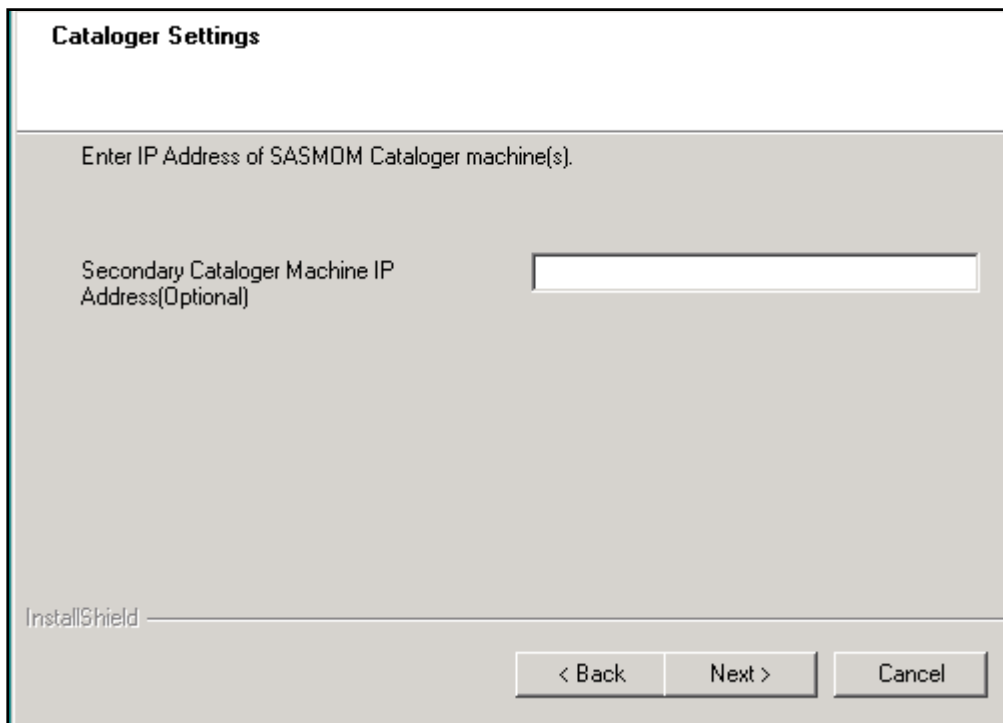


Figure No.26

Review the inputs supplied in the Start Copying Files dialog and click on the 'Next' button.

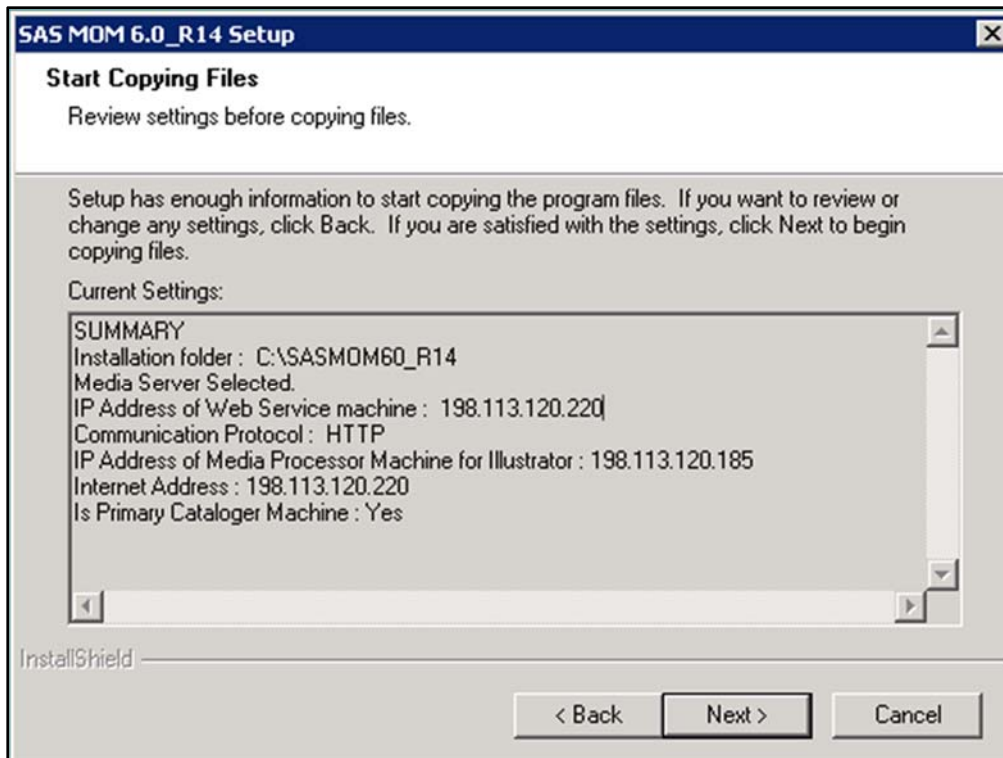


Figure No.27

Confirm Installation of Windows Services

Right click on each of the service and start the service. The installer will set the service to automatic and set the selected services to run under the 'AIUser' account.

Note: If any of the Services are not installed, launch the **InstallServices.bat** file located under <Installation Path>\Binaries.

The settings for the IIS on the Web Services machine are done by the installer. In case they are not done see [Section 8.4](#).

Confirm successful installation of all the following services by launching the Services applet from the Administrative Tools control panel:

Services	Exe file	User Account (Refer to section 8.5)	Component	Description
SAS MOM Back Office Service	ALBackOfficeService.exe	Local System	Web Services	This service manages all the back office tasks for all the tenants, it stamps delay reminders for Projects and tasks and stamps messages to execute stored procedures for Ad-hoc reports and dashboards
SAS MOM Dashboard Service	ALDashboardService.exe	Local System	Web Services	This service is used to generate data required for the channels created/configured in SAS Marketing Operations Management and visible on the Dashboard pages.
SAS MOM Notification Service	ALNotificationService.exe	Local System	Web Services	This service is responsible for sending out notifications from SAS Marketing Operations Management system.
SAS MOM Text Cataloger Service	ALTextCatalogerService.exe	Local System	Web Services	This service is used to extract words from the cataloged documents (For e.g.: PDFs, DOC, etc.) and add them in the database to enable search content within documents in SAS Marketing Operations Management.
SAS MOM Queue Manager Service	ALQueueManagerService.exe	AIUser	For all components except Media	This service is responsible for fetching the messages from the

			Streaming and Business Events Server	Queues and invoking appropriate handlers for each type of Queue.
SAS MOM Cataloger Service	ALCatalogerService.exe	AIUser	Cataloger	This service polls the database to check for the new catalog jobs and creates assets and also manages the creation of preview, thumbnails for the asset and also associate the metadata with the assets.
SAS MOM File Watcher Service	ALFileWatcherService.exe	AIUser	Cataloger	This service polls the Cataloger Mount Point for the tenants to check for new jobs and updates the information related to the job into the database.
SAS MOM Format Watcher Service	ALFormatWatcherService.exe	Local System	Solutions	This service is used to poll the Format Watcher Mount Point for creating InDesign formats in the system.
SAS MOM WebDav Service	ALWebDAVService.exe	Local System	Solutions	This service is required if WebDAV is installed. This service keeps polling on the WebDAV location for the creation of "folderinfo.txt" file and it also updates the database with the location of the FDF file in which the reviewer comments are present.
SAS MOM PluginService Service	ALPluginService.exe	AIUser	Web Services, Media Server	This service is used to invoke the Consolidation process for Acrobat files. It is also used to merge multiple PDF files into a single PDF file for approval in case of Components used in Workbench.
SAS MOM BusinessEvents Service	ALBusinessEventsService.exe	AIUser	BusinessEvents Server	This service identifies and processes the change for an entity or facet record and logs the change in the database.
SAS MOM Report Scheduler	ALReportScheduler.exe	Local System	Web Services	This service polls the database to check for the scheduled reports (Analytical / Ad hoc) and generates the report in PDF or

				Excel format and stamps a notification for the receivers of the report.
SAS MOM Service Monitor	ALServiceMonitor.exe	AIUser	All the Machines	This service monitors other SAS Marketing Operations Management services installed on the server. It is responsible for restarting the SAS Marketing Operations Management services if found stopped.
SAS MOM NTFS Monitoring Service	ALNTFSMonitoringService.exe	Local System	Web Services	This service monitors the specified NTFS Folder and will add Events in MSMQ on NTFS change event. This service functions across all tenants. Currently this is not being used by any of the modules in SAS Marketing Operations Management.

Note: The 'SAS MOM Service Monitor', monitors all the SAS Marketing Operations Management services on all the machines where SAS Marketing Operations Management is installed. If any of the services stop for some reason, this service will restart it. The interval of the polling can be adjusted in the xml. For more information on SAS MOM Service Monitor configuration refer to [section 7.9](#).

3.1.2. Install Media Processor for Illustrator on a Windows 7 machine

Select the Media Processor component for Illustrator in the SAS Marketing Operations Management 6.0 R14 setup dialog. Specify the installation path by selecting the Destination Folder after clicking on the 'Browse' button.

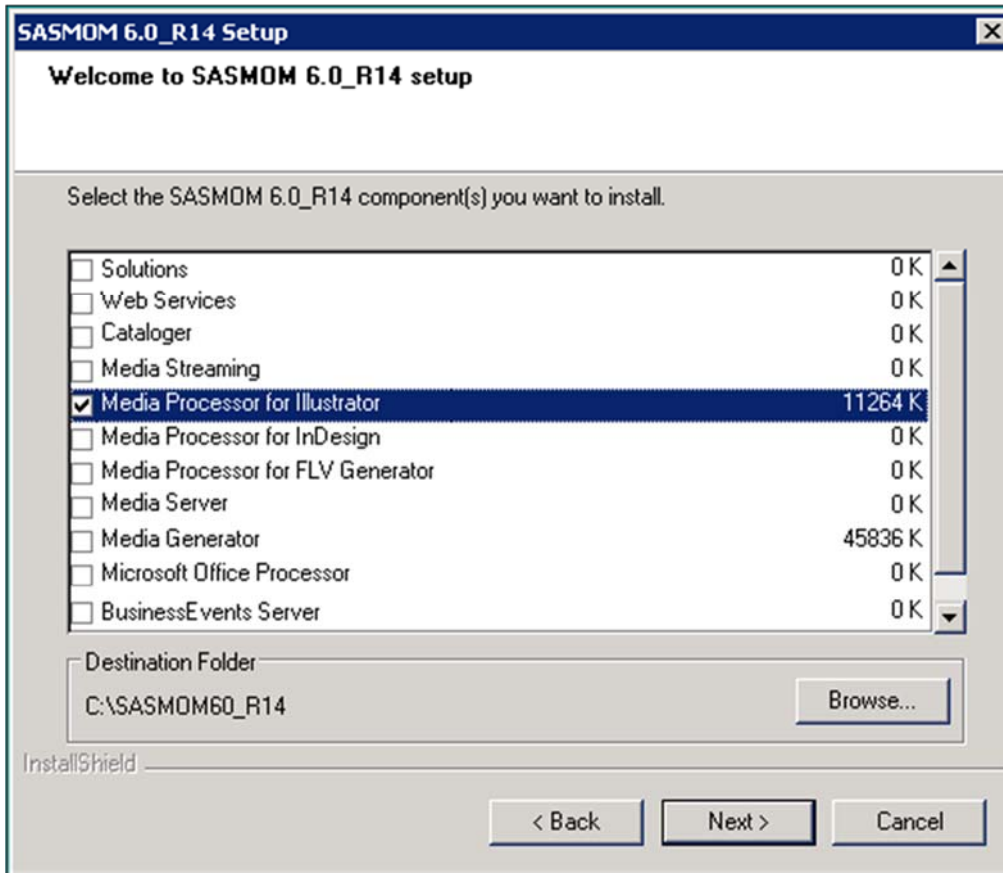


Figure No.28

Enter the password for 'ALUser' (Figure 29).

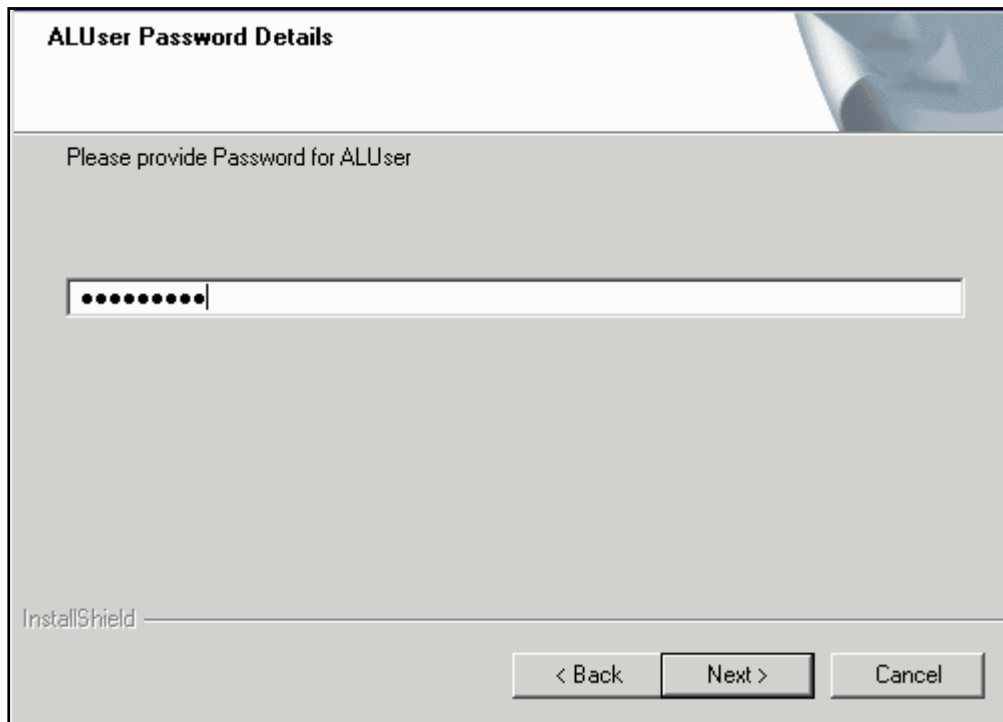


Figure No.29

In case Adobe Acrobat Illustrator CS3/CS4 software is not installed on the server (as mentioned in the software prerequisite) then the following dialog box will be prompted (**Figure 30**) where the version of Illustrator that will be used needs to be selected.

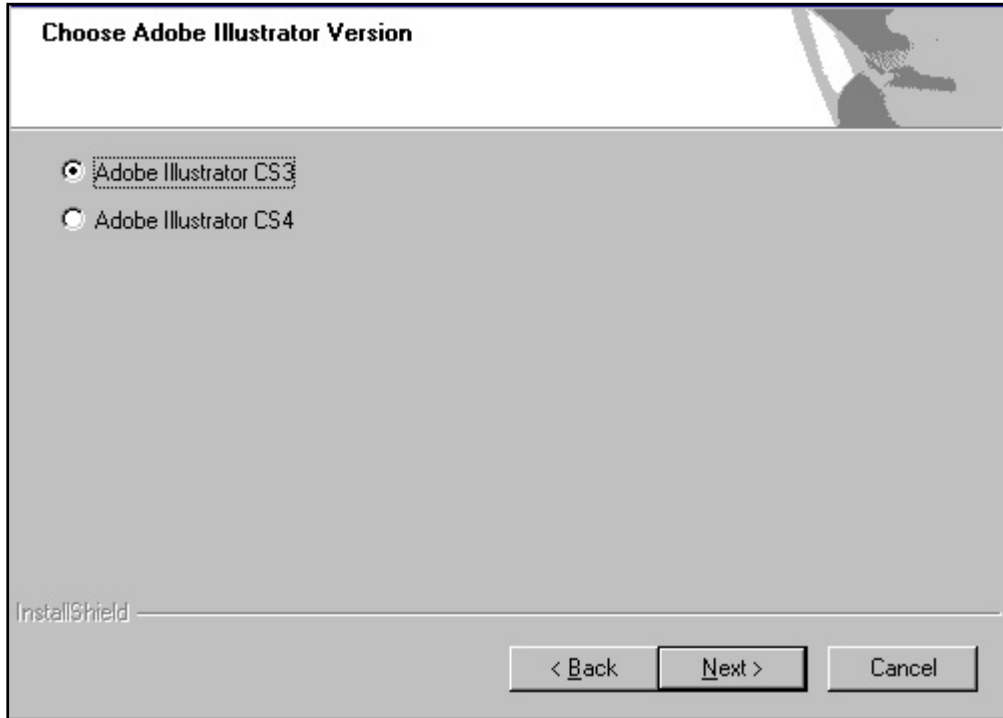


Figure No.30

Enter the IP Address of SAS Marketing Operations Management Web Services machine and click on the 'Next' button.

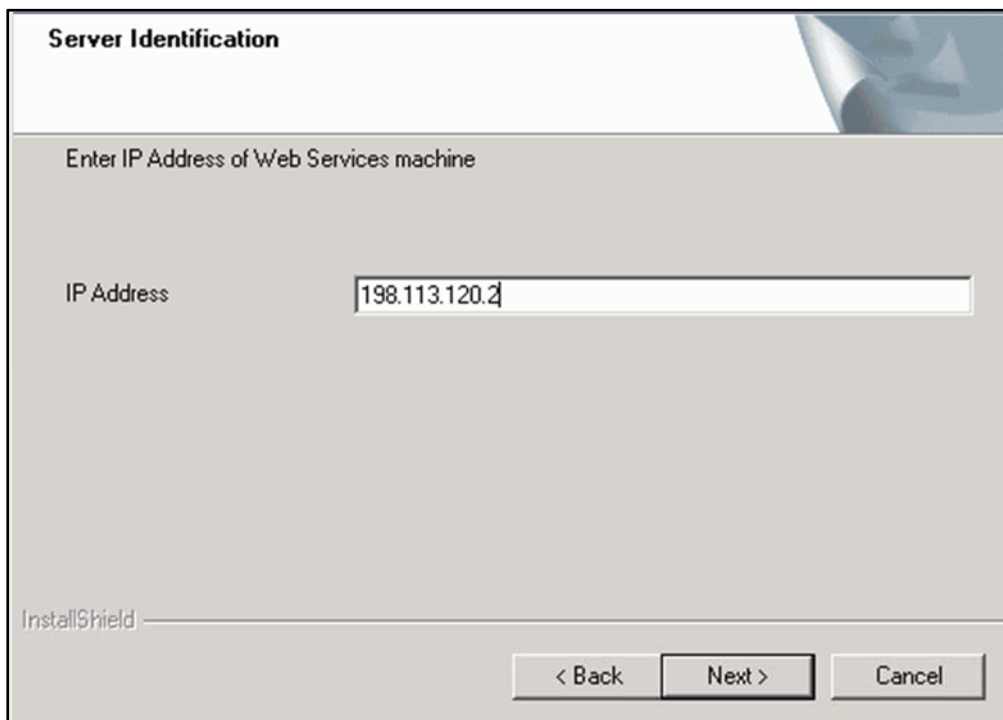


Figure No.31

Review all the inputs supplied in the Start Copying Files dialog before clicking on the 'Next' button.

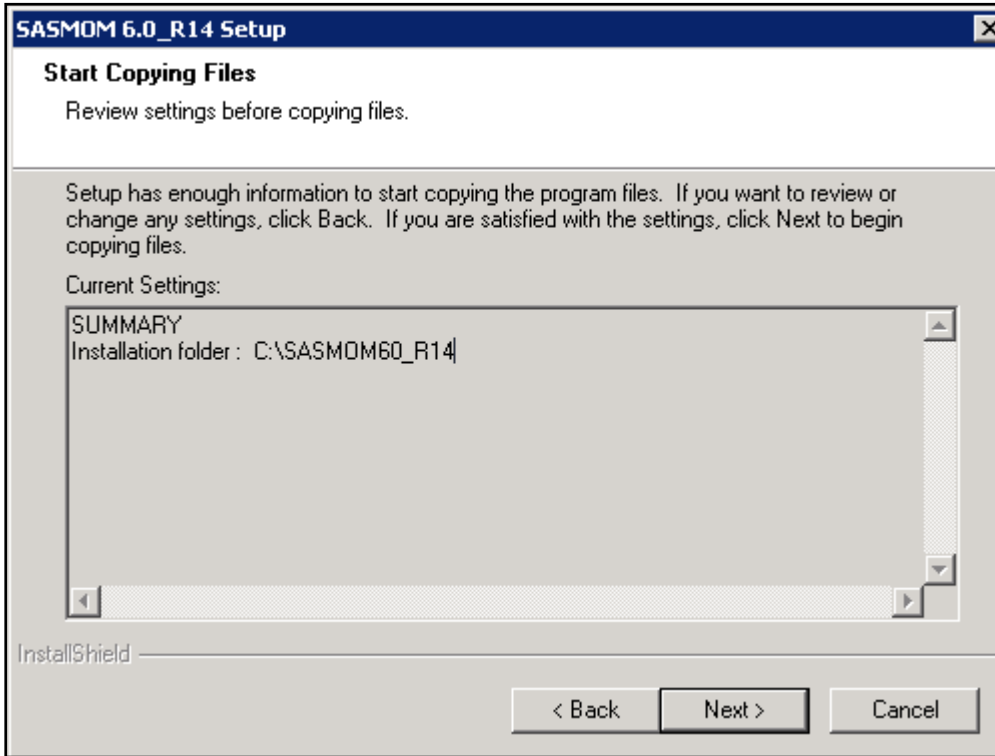


Figure No.32

Notes:

1. The installer creates a virtual directory named ALServices with physical path <Installation Path>\ALServices. Please refer to Virtual Folder Configuration to ensure required settings for this directory.
2. The installer creates a virtual directory named 'ADCataloger' on the cataloger machine with physical path <Installation Path>\ADCataloger.

Confirm successful installation of services ([Refer to section 3.1.1.1](#)).

Creating Queues Manually

Queues are created when the installation is done. If for some reason queues are not created the queues can be created manually. Run the batch files **Createqueues.bat** file located under <Installation Path>\Binaries.

The following queues are created on respective machines:

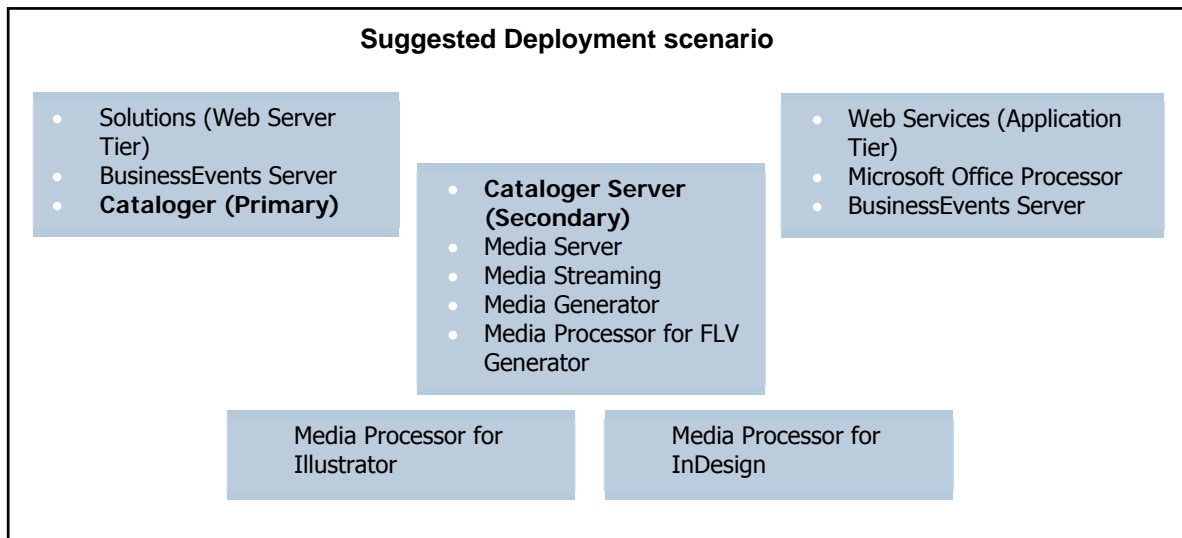
Solution/ Web Server Machine	Web Services Machine	Illustrator Machine	InDesign Machine	FLV Generator Machine	Cataloger Machine	Media Server	Media Generator Machine	Msoffice Processor Machine	Business Event Server Machine
MEDIAR ESPONS EQ	EMAILQ	ILLUST RATOR CS3Q	INDES IGNCS 3Q	FLVGEN ERATOR Q	MEDIAR ESPONS EQ	SEQUEN TIALCHE CKOUTQ	MEDIA GENER ATORQ	MSOFFICE PROCESS ORQ	ALCHANG EMANAGE MENTQ

UNDELIVEREDQ	MEDIARESPONSEQ	RESPONSEUNDELIVEREDQ	RESPONSEUNDELIVEREDQ	RESPONSEUNDELIVEREDQ	UNDELIVEREDQ	SIMULTANEOUSCHECKOUTQ	RESPONSEUNDELIVEREDQ	RESPONSEUNDELIVEREDQ	
REPLICATIONAGENTQ	UNDELIVEREDQ		pnq_in		UPDATEASSETPROCESSQ	MEDIARESPONSEQ			
AP_PREVIEWGENERATIONQ	ALPROCESSMESSAGEQ		pnq_output		CATALOGERJOBQ	UNDELIVEREDQ			
WB_SOLUTIONSQ	EVENTQ								
AP_BATCHWORKGENERATIONQ	ALINTERNALPROCESSQ								
EVENTQ	ALACTUALSQ								
	REPLICATIONSERVERQ								
	SIMULTANEOUSCHECKOUTQ								
	SEQUENTIALCHECKOUTQ								
	FILEMETADATAHANDLERQ								
	COPYMOVEREQUESTHANDLERQ								
	ALESTIMATEQ								
	IMPORTJOBQ								
	COPYPLANQ								

	SIMULTANE OUSEVENT Q								
--	----------------------------	--	--	--	--	--	--	--	--

3.2. Multi Machine Installation

Note: All the components need to be installed on the same drive and the same network.



Note: The above deployment is when you have two catalogers (Primary and Secondary). In case only one cataloger is being used then the 'Primary Cataloger' needs to be installed on the Cataloger Server.

Assume the following configuration:

Solutions Server + BusinessEvents Server + Primary Cataloger (if there are 2 catalogers) IP is: 198.113.120.1

Notes:

If the setup has SAS Marketing Operations Management Internal/External Solution Server deployment then SAS Marketing Operations Management replication agent needs to be installed and configured to synchronize data across two web solution servers, to configure a replication agent refer to [Section 7.3](#).

SAS Marketing Operations Management uses Media Server component to share the load of the IIS for downloading data from the system. So while downloading files, Media Server gets directly accessed by solution.

In case of a DMZ set up, if the media server is installed on the internal server then the Solution cannot access the Media server directly. To handle this situation a Media Server Proxy configuration needs to be done, refer to [Section 7.1](#).

Web Services + Microsoft Office Processor + BusinessEvents Server IP is: 198.113.120.2

Cataloger (Secondary Cataloger if there are 2 catalogers) + Media Server + Media Streaming + Media Generator + Media Processor for FLV Generator IP is: 198.113.120.3

Note: If the installation is in DMZ, where Media Streaming server is configured on the internal network, files don't

get streamed if accessed from an external system. To handle this situation, Media streaming server needs to be configured on the external setup refer to [Section 7.2](#).

Media Processor for InDesign Server: 198.113.120.4

Media Processor for Illustrator Server IP is: 198.113.120.5

3.2.1. **Install Solutions + BusinessEvents Server + Primary Cataloger on Web Server tier**

Select Solutions component in the SAS Marketing Operations Management 6.0 R14 setup dialog box.

Specify the installation path by clicking on the 'Browse' button and select the Destination Folder.

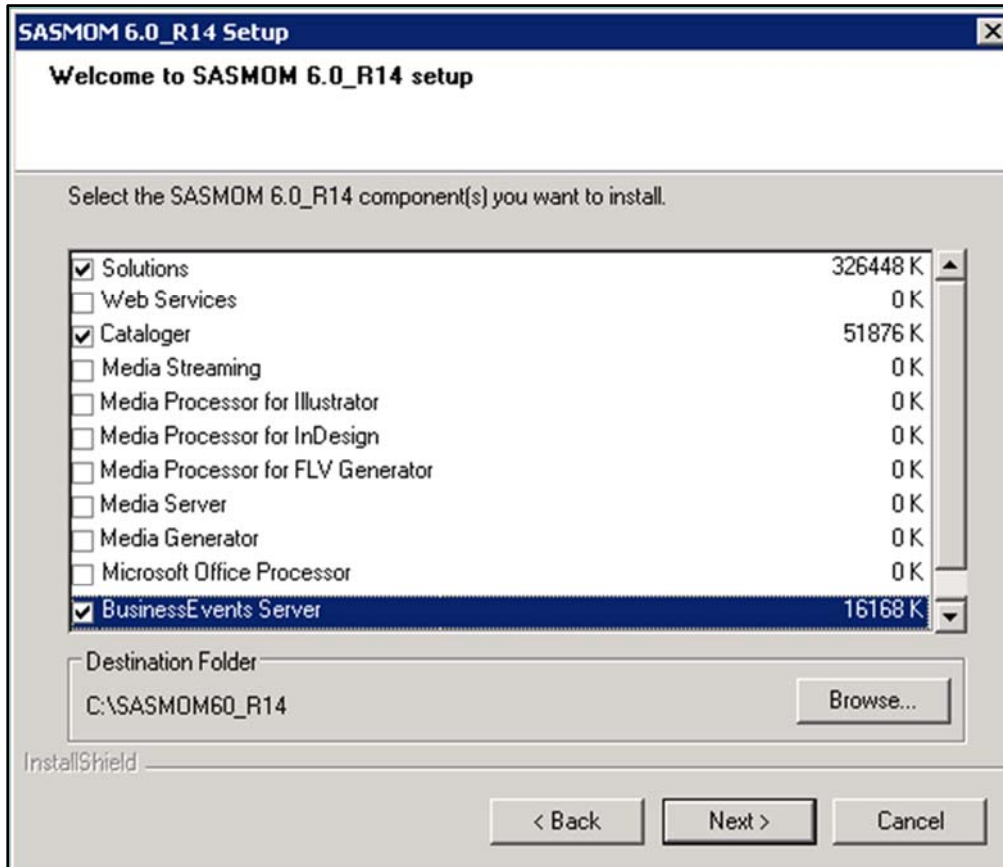


Figure No.33

Enter the password for 'AllUser' (**Figure 34**).

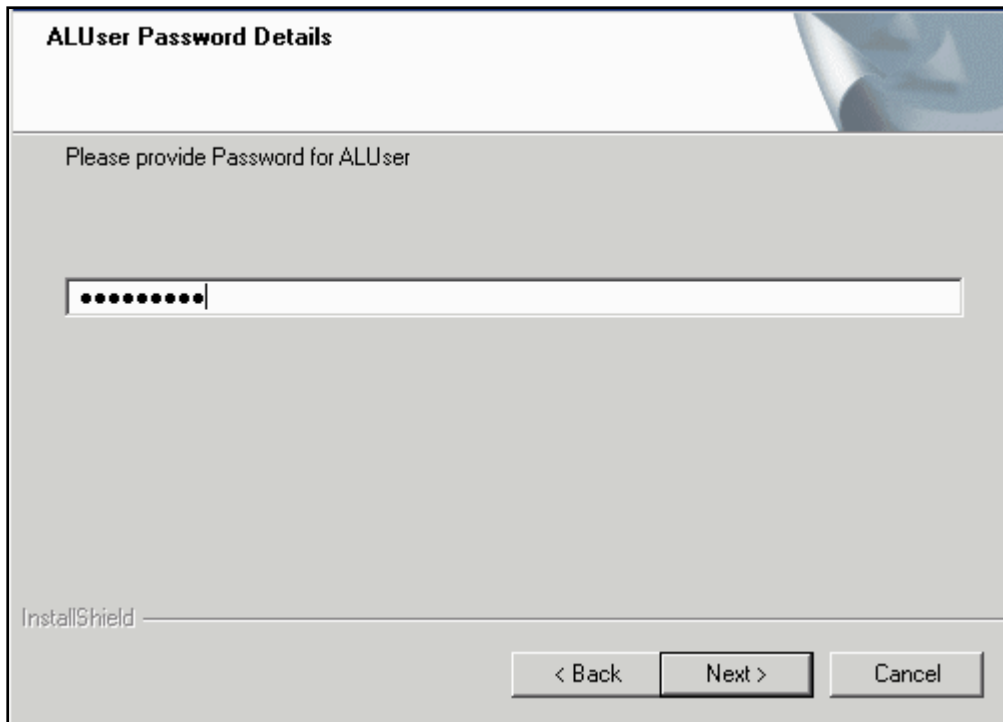


Figure No.34

Please refer to the Installation guide for load balanced setup. Click on the 'Next' button (**Figure 35**).

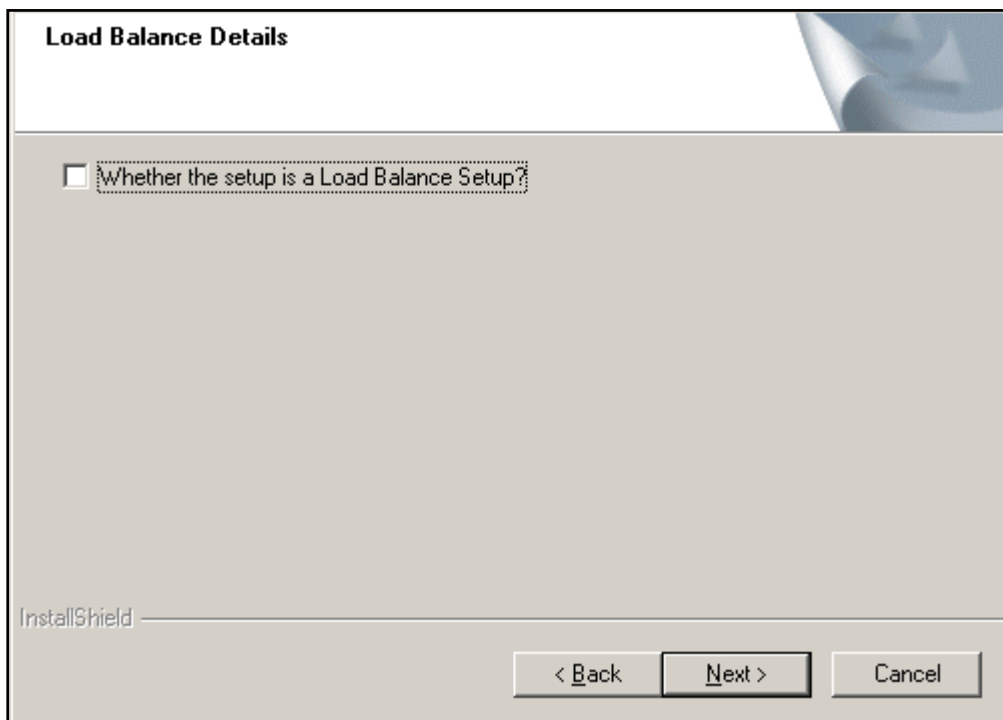


Figure No.35

Select whether this setup supports WebDAV (**Figure 36**). If yes then **Figure 37** is displayed, enter the WebDAV path (<Installation directory>\WebDavDir) details and click on the 'Next' button. If WebDAV is not supported then **Figure 38** is displayed.

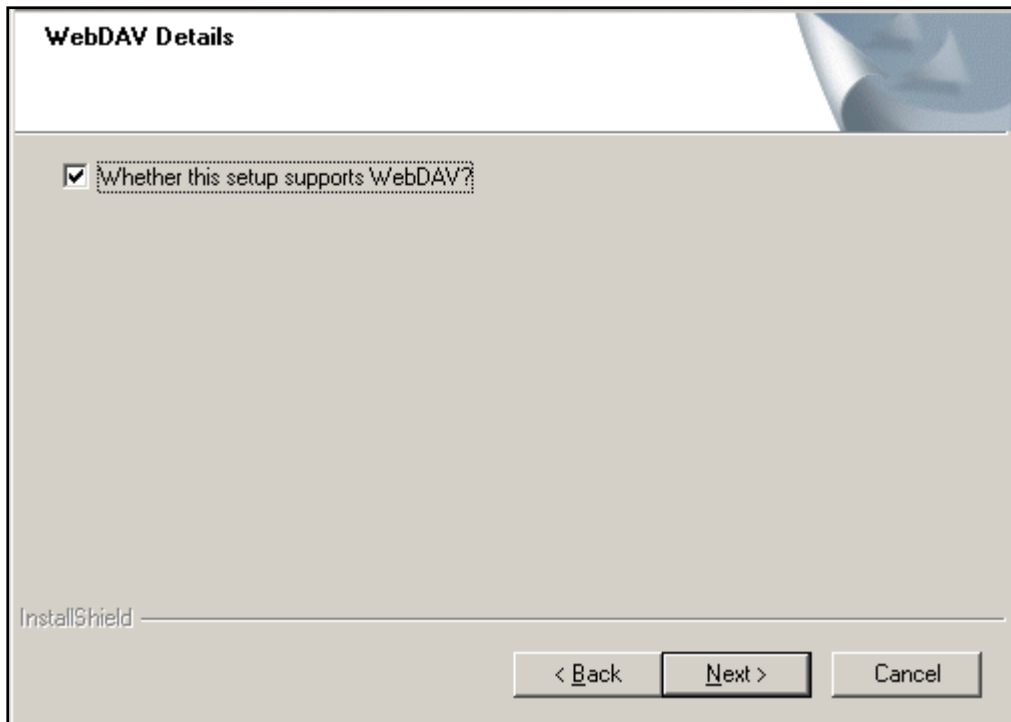


Figure No.36

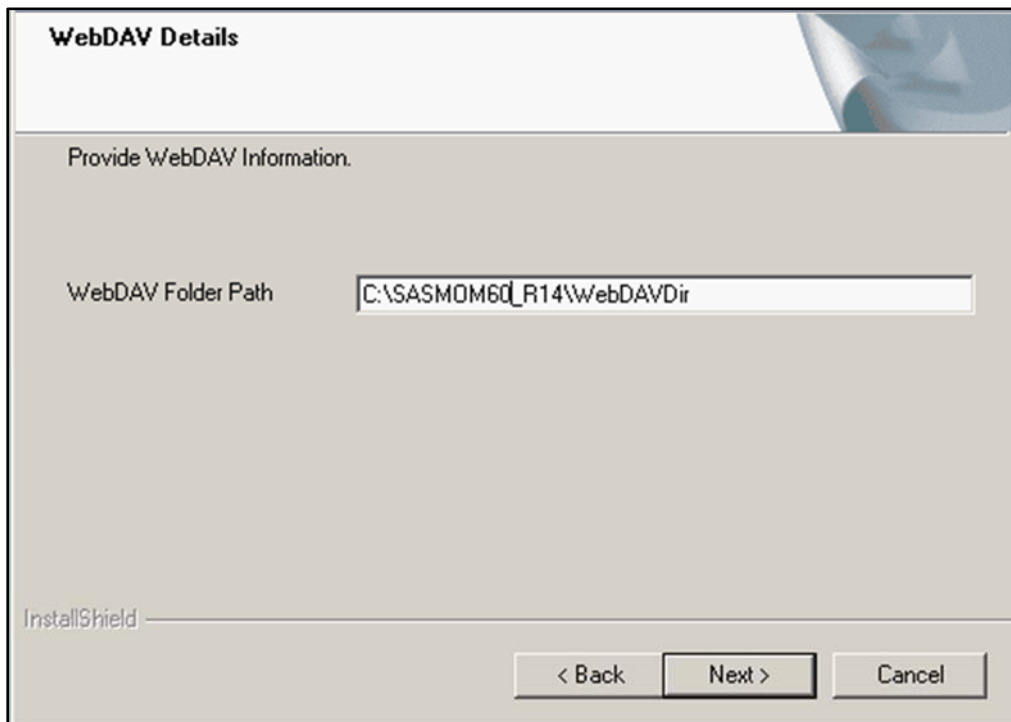


Figure No.37

Provide the IP address of the server hosting the web services.

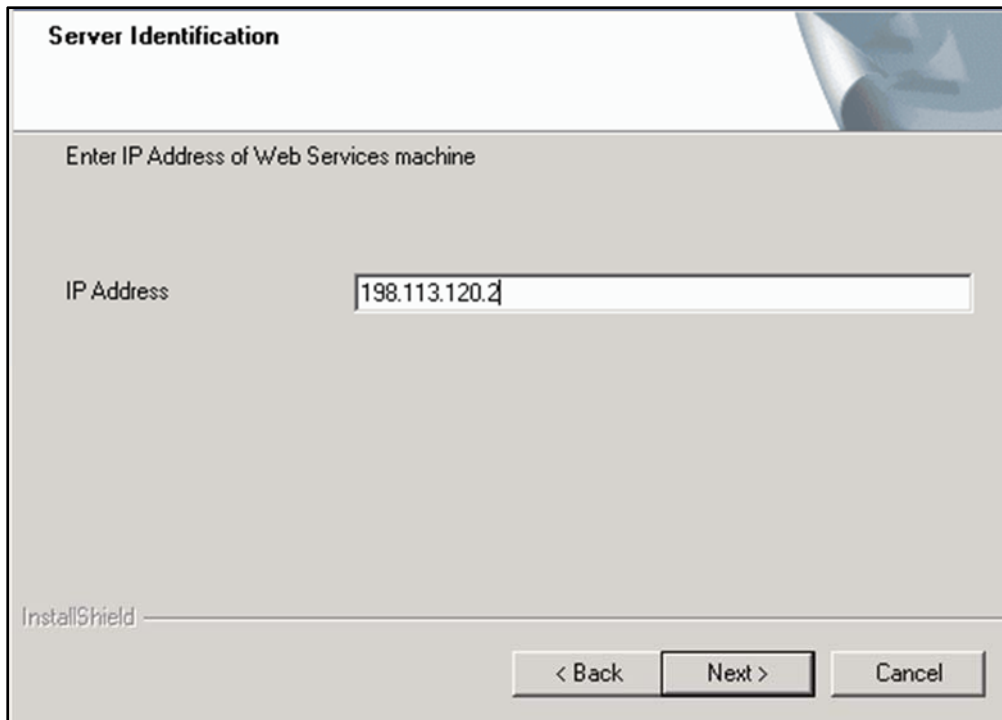


Figure No.38

Select the communication protocol to be used for accessing SAS Marketing Operations Management.

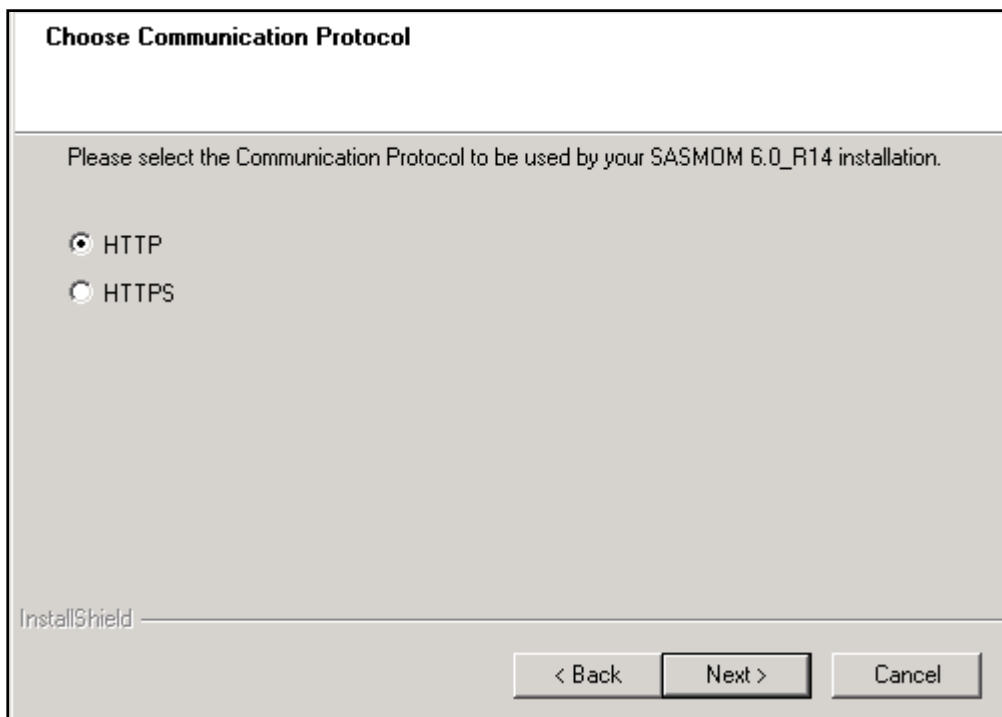


Figure No.39

Provide the IP address of the server receiving requests from the internet. This is the IP of the Solutions machine.

Internet Address Settings

Enter the IP address of server receiving requests from internet

IP Address

InstallShield

< Back Next > Cancel

Figure No.40

Provide the IP address of the Media server machine.

Media Server Settings

Enter IP Address of Media Server machine.

IP Address

InstallShield

< Back Next > Cancel

Figure No.41

Select whether this is a 'Primary Cataloger Machine'. If yes then **Figure 42** is displayed where the IP for the secondary cataloger needs to be entered.

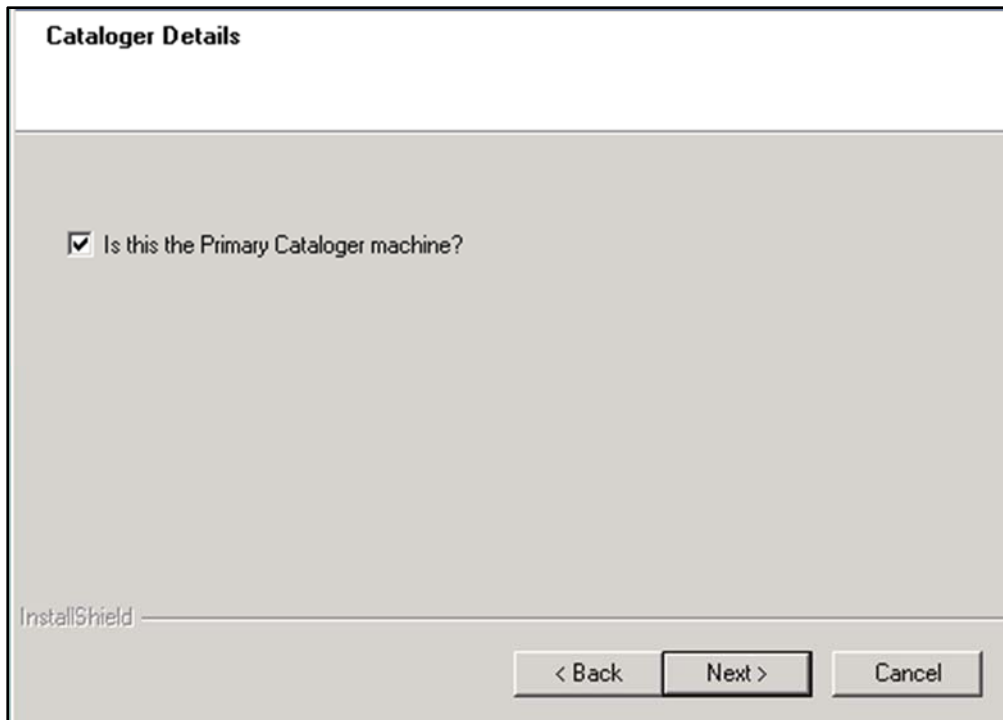


Figure No.42

Enter the IP Address of the Server hosting the Secondary Cataloger (optional).

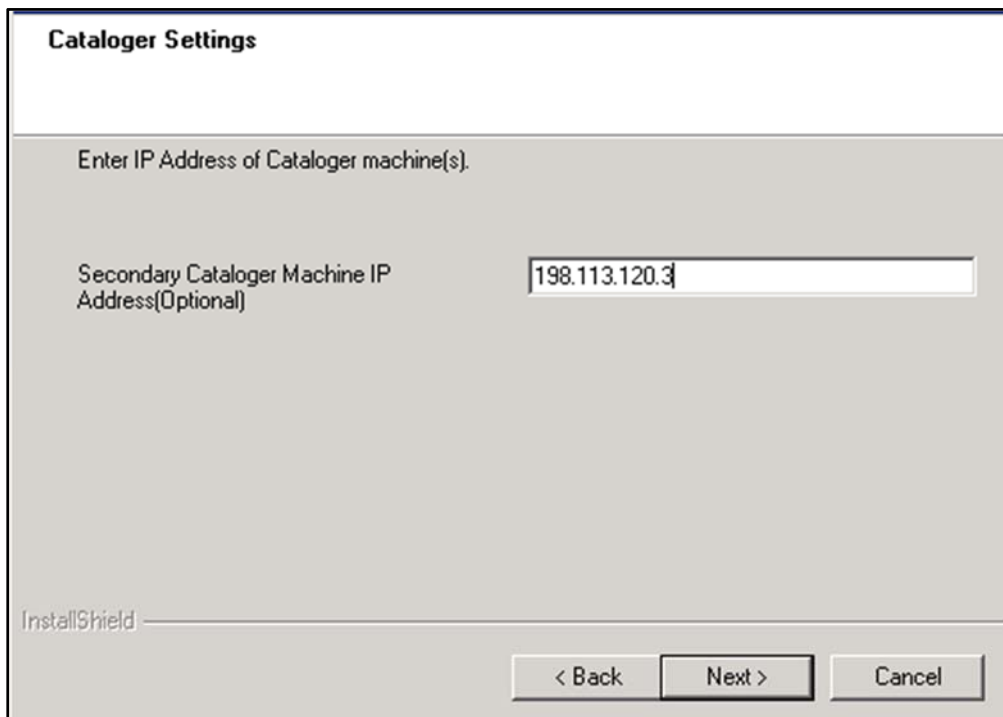


Figure No.43

Enter the IP of the Illustrator Media Processor machine.

Cataloger Illustrator Media Processor Configuration

Please provide Illustrator Media Processor configuration for Cataloger.

Illustrator Processor Machine IP address

Can Illustrator Media Processor access Cataloger Machine through UNC path?

InstallShield

< Back Next > Cancel

Figure No.44

Enter the IP of the Media Generator machine.

Cataloger Media Generator Configuration

Please provide Media Generator configuration for Cataloger.

Media Generator Machine IP address

Can Media Generator access Cataloger Machine through UNC path?

InstallShield

< Back Next > Cancel

Figure No.45

Enter the IP of the FLV Generator machine.

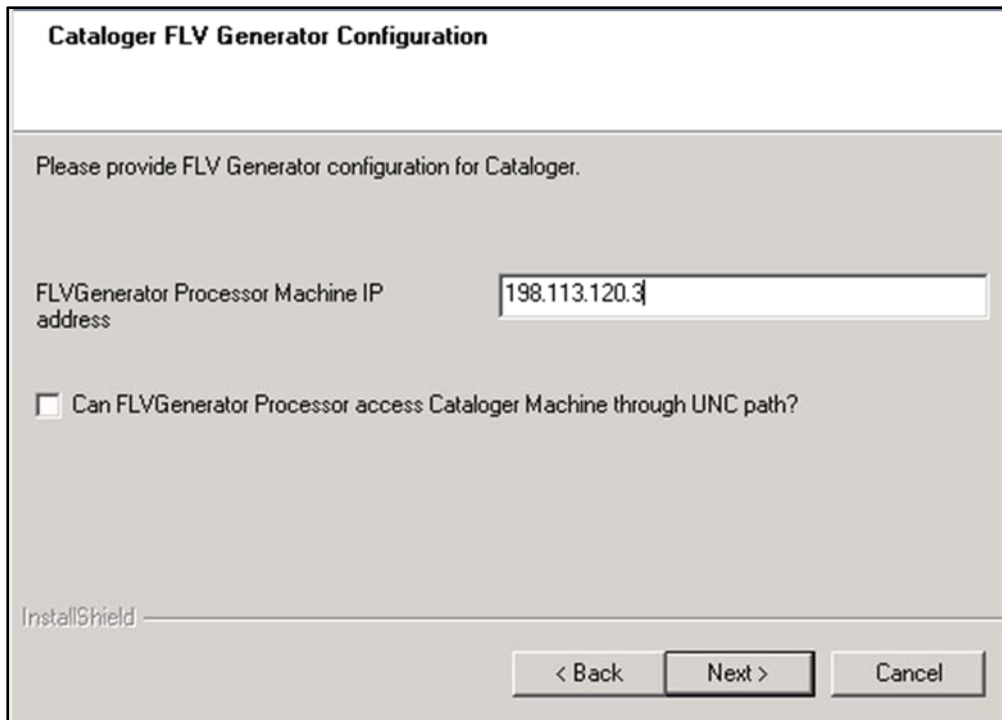


Figure No.46

Review all the inputs supplied in the Start Copying Files dialog before clicking the 'Next' button.

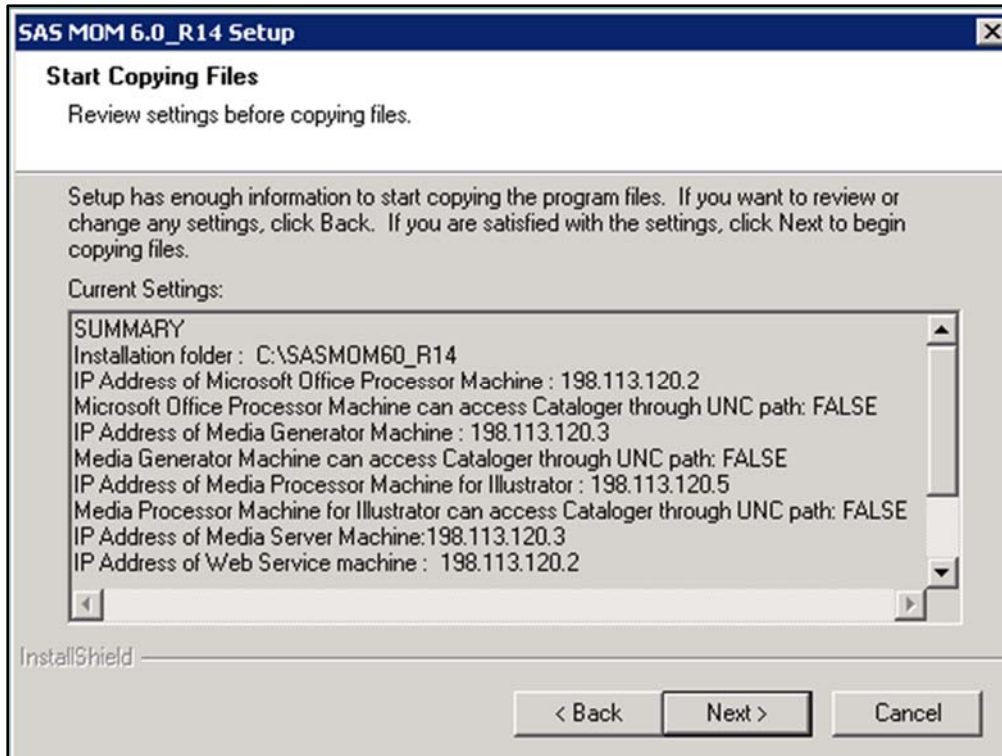


Figure No.47

Confirm successful installation of SAS Marketing Operations Management services (Refer to section 3.1.1.1).

In case if Internal / External solution deployment:

On External solution execute following batch files from the <Installation Directory>\Binaries folder:

1. InstallDAMJobCopyServices.bat
2. InstallReplicationAgentServices.bat

On Internal solutions execute the following batch files:

1. InstallReplicationAgentServices.bat

3.2.2. Install Web Services+ Microsoft Office Processor + BusinessEvents Server

Select Web Services, Microsoft Office Processor and BusinessEvents Server components in the SAS Marketing Operations Management 6.0 R14 setup dialog.

Specify the installation path by clicking on the 'Browse' button and selecting the Destination Folder.

Click on the 'Next' button.

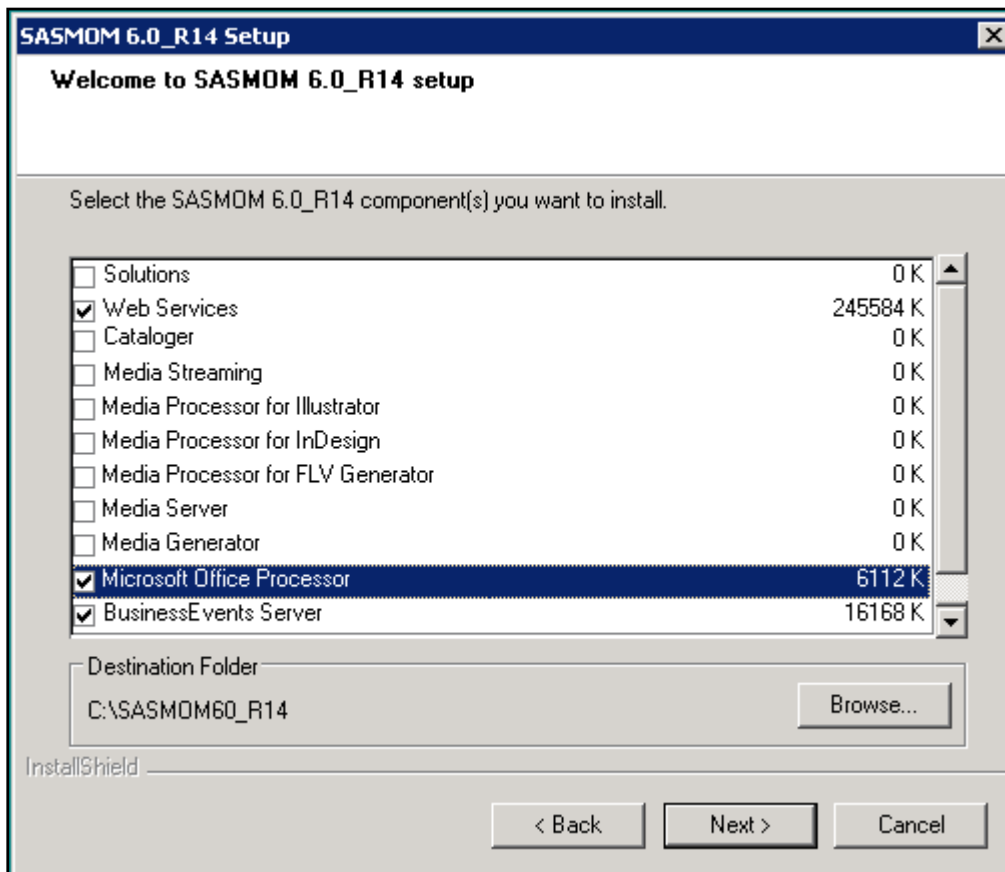


Figure No.48

Enter the password for 'AIUser' (Figure 49).

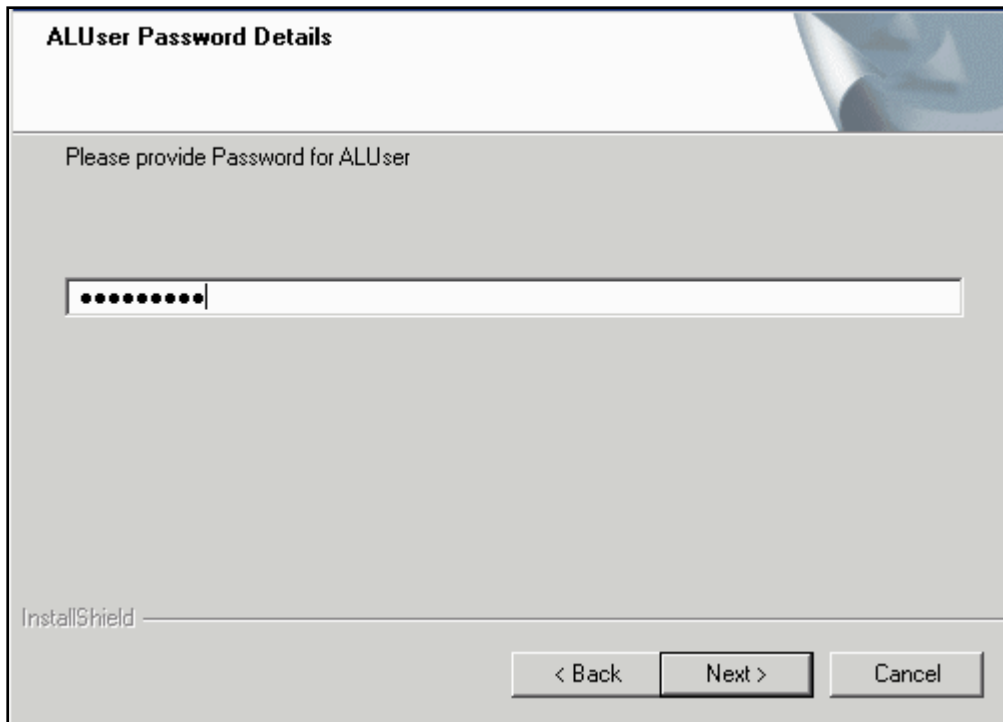


Figure No.49

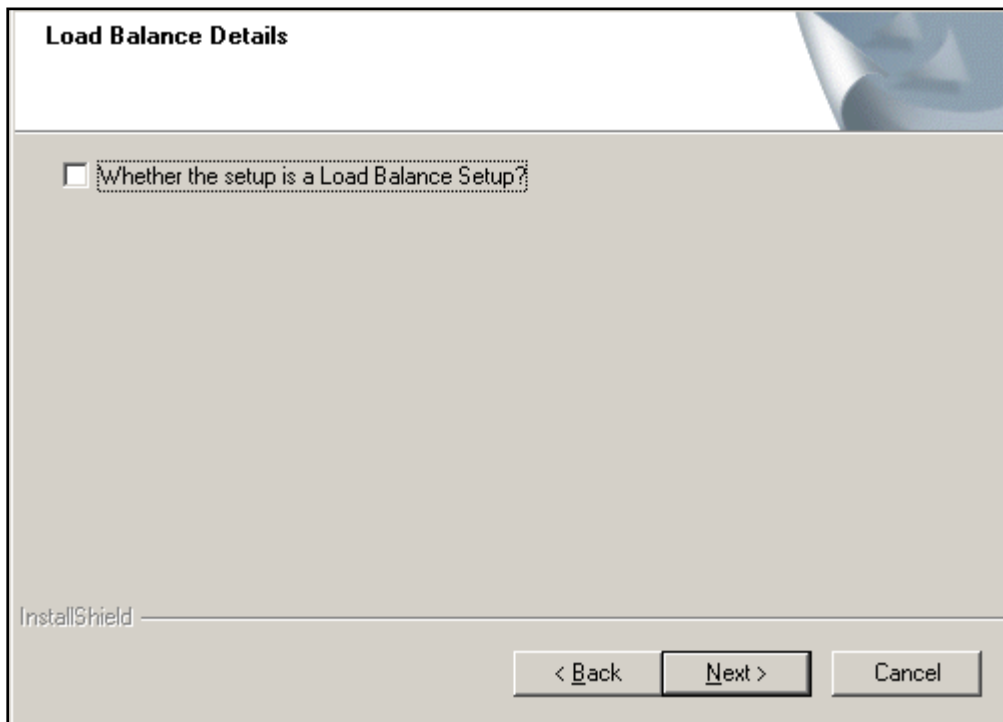


Figure No.50

Please refer to the Installation guide for load balanced setup. Click on the 'Next' button (**Figure 50**).

Enter the IP address for the Web services and the Media Processor machine for Illustrator, InDesign and the FLV Generator (**Figure 51**).

Note: If Media Processor is not being used in an installation then give the IP address of the machine on which the installation is being done.

Servers Identification

Enter IP Addresses of Web Services Machine and Media Processor Machines

Web Services Machine

Media Processor Machine for Illustrator

Media Processor Machine for InDesign

Media Processor Machine for FLVGenerator

InstallShield

< Back Next > Cancel

Figure No.51

Enter the Media Generator machine IP and click on the 'Next' button.

Server Identification

Enter IP Addresses of Media Generator Machine

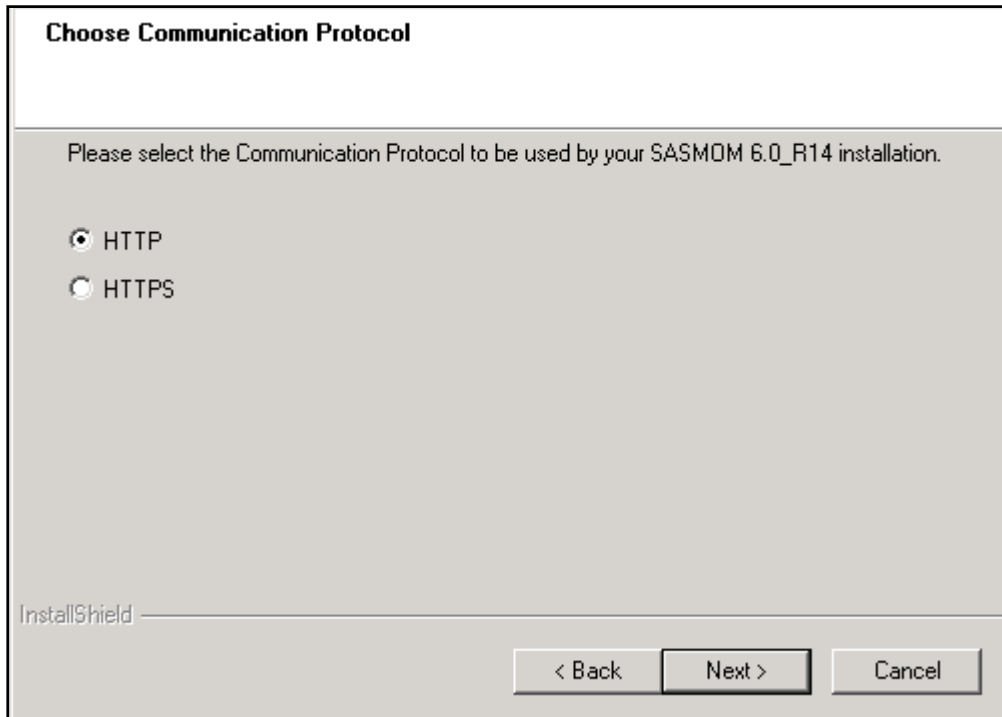
Media Generator Machine IP address

InstallShield

< Back Next > Cancel

Figure No.52

Select the communication protocol to be used for accessing the SAS Marketing Operations Management using the Internet browser.



Choose Communication Protocol

Please select the Communication Protocol to be used by your SASMODM 6.0_R14 installation.

HTTP

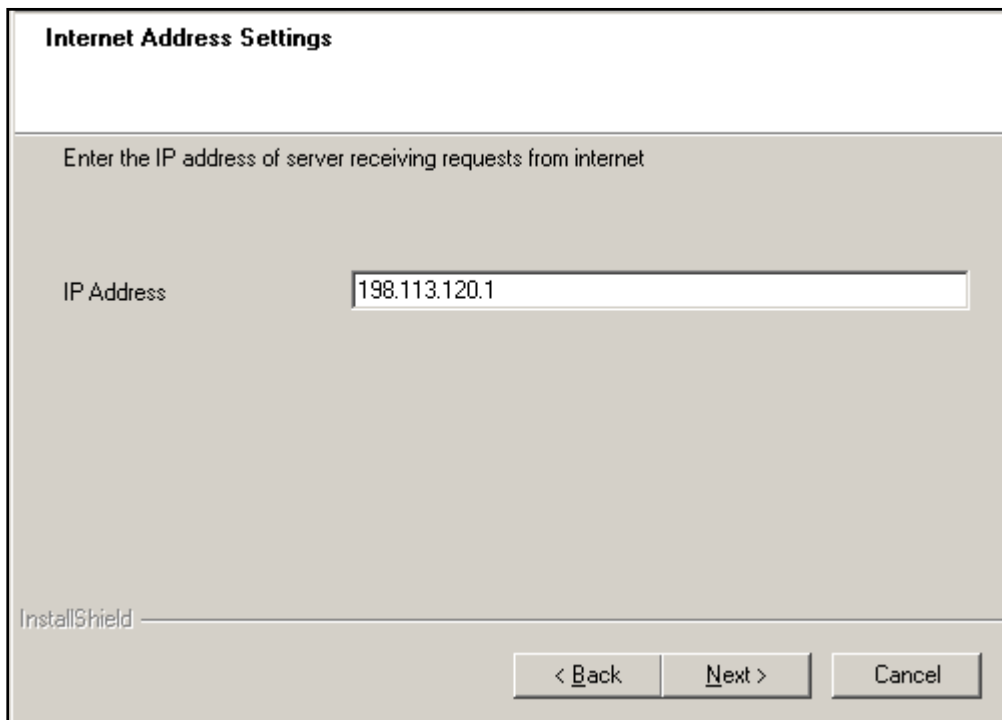
HTTPS

InstallShield

< Back Next > Cancel

Figure No.53

Provide the IP address of the server receiving requests from the internet. This is the IP of the Solutions machine.



Internet Address Settings

Enter the IP address of server receiving requests from internet

IP Address 198.113.120.1

InstallShield

< Back Next > Cancel

Figure No.54

DNS Name or IP Address of the Server hosting the Media server.

Media Server Settings

Enter IP Address of Media Server machine.

IP Address

InstallShield

< Back Next > Cancel

Figure No.55

DNS Name or IP Address of the Server hosting the Primary Cataloger and the Secondary Cataloger (optional).

Cataloger Settings

Enter IP Address of Cataloger machine(s).

1. Primary Cataloger Machine IP Address

2. Secondary Cataloger Machine IP Address(Optional)

InstallShield

< Back Next > Cancel

Figure No.56

Review all the inputs supplied in the Start Copying Files dialog before clicking on the 'Next' button.

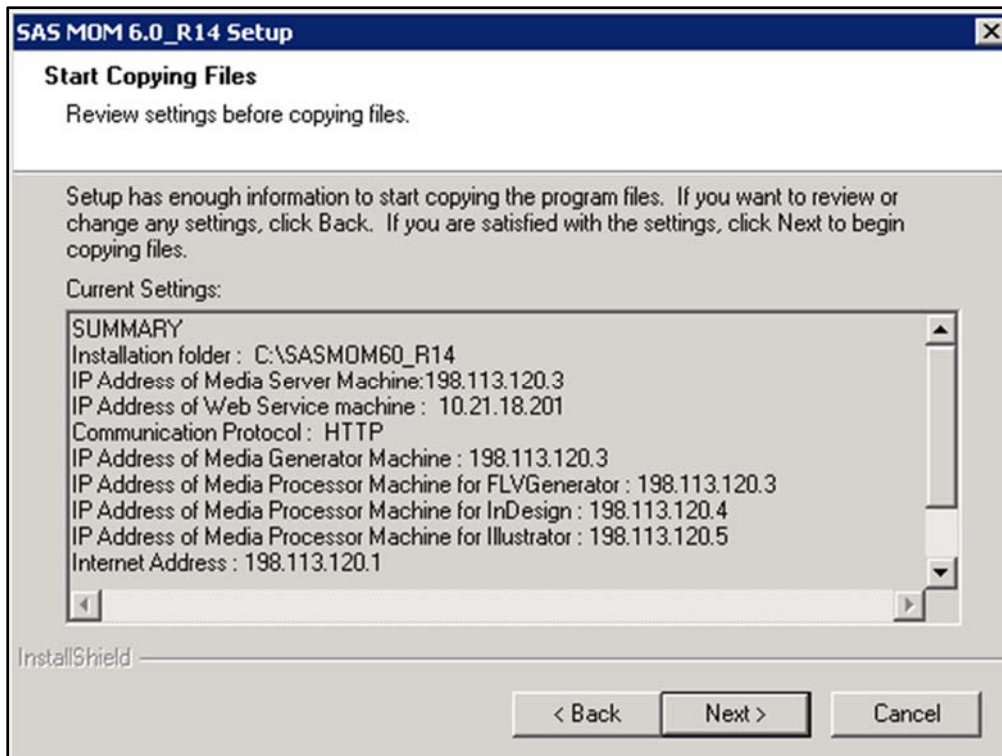


Figure No.57

Note: The installer creates a virtual directory named `ALServices` with physical path `<Installation Path>\ALServices`. Please refer to [Virtual Folder Configuration](#) to ensure required settings for this directory.

Confirm successful installation of SAS Marketing Operations Management services (Refer to section 3.1.1.1).

3.2.3. Install Cataloger + Media Streaming + Media Server + Media Generator

Select the Cataloger, Media Streaming, Media Server and Media Generator components in the SAS Marketing Operations Management 6.0 R14 setup dialog box.

Specify the installation path by clicking on the 'Browse' button and selecting the Destination Folder.

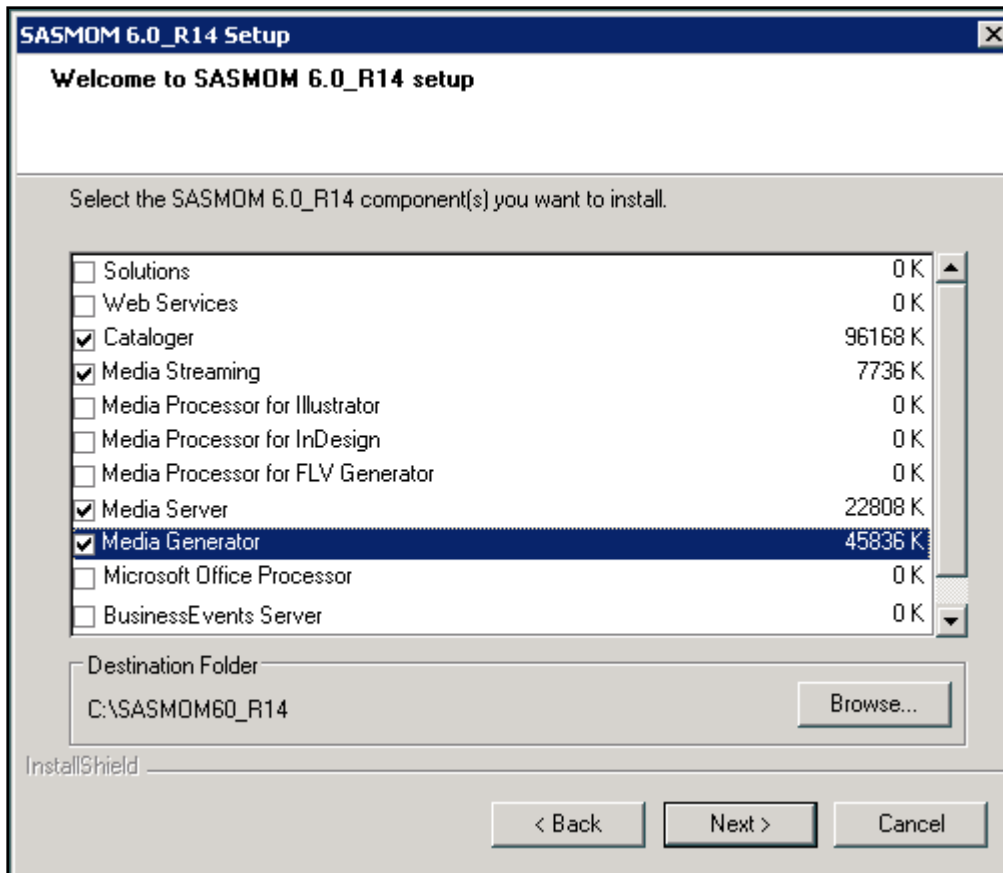


Figure No.58

Enter the password for 'ALUser' (Figure 59).

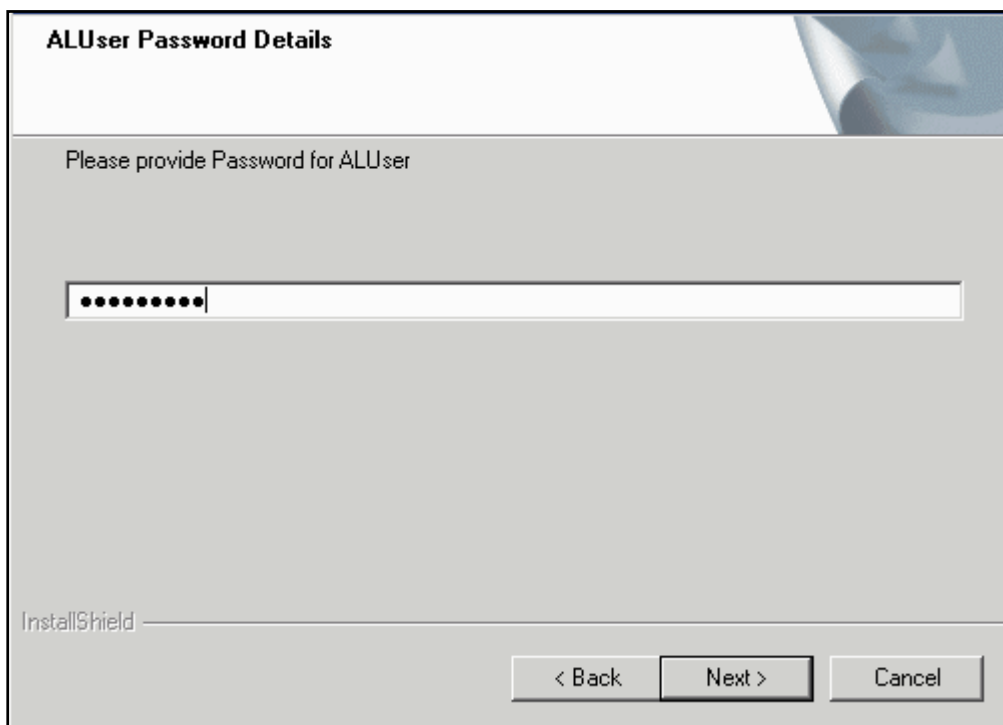


Figure No.59

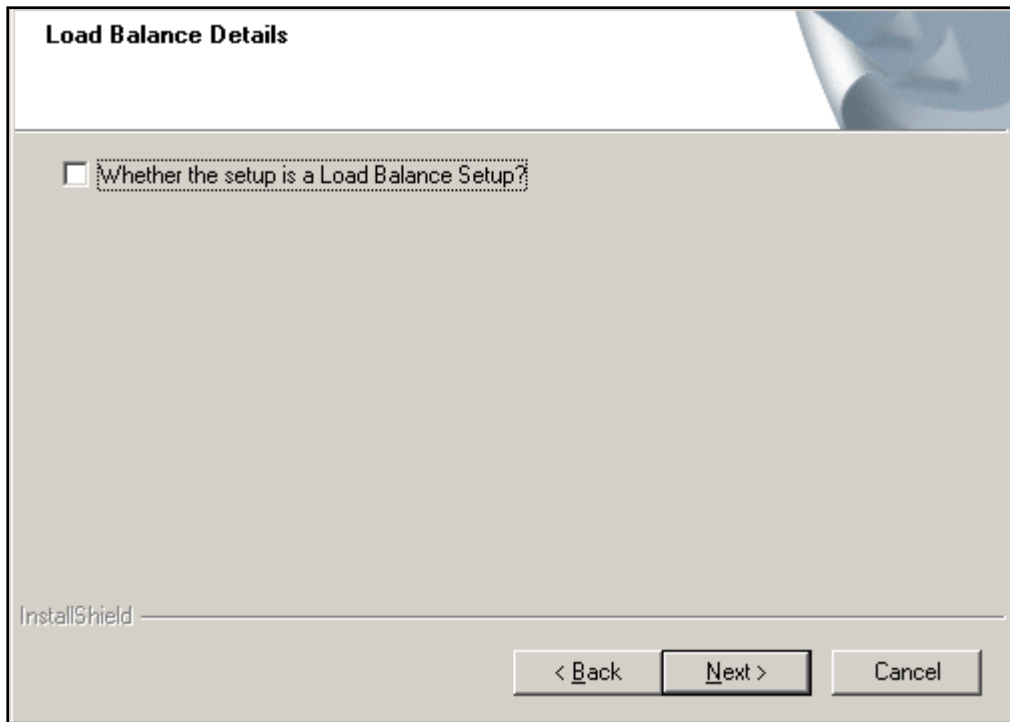


Figure No.60

Please refer to the Installation guide for load balanced setup. Click on the 'Next' button (Figure 60). Provide the IP Address of the machine where the Web Services have been installed (Figure 61).

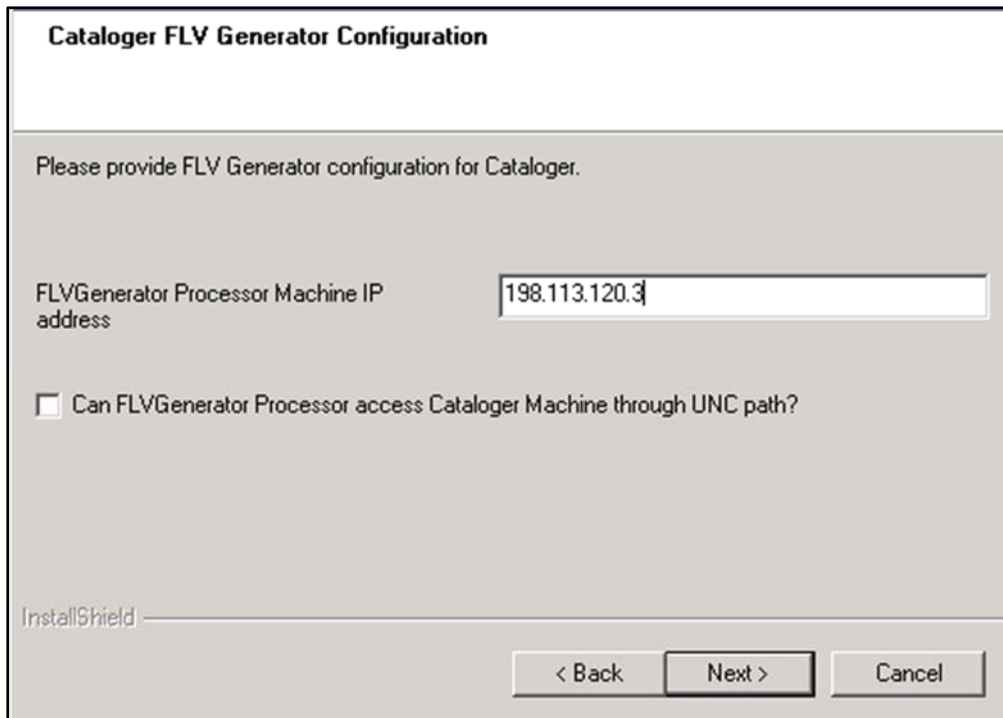


Figure No.61

Provide the IP address of the server receiving requests from the internet. This is the IP of the Solutions machine.

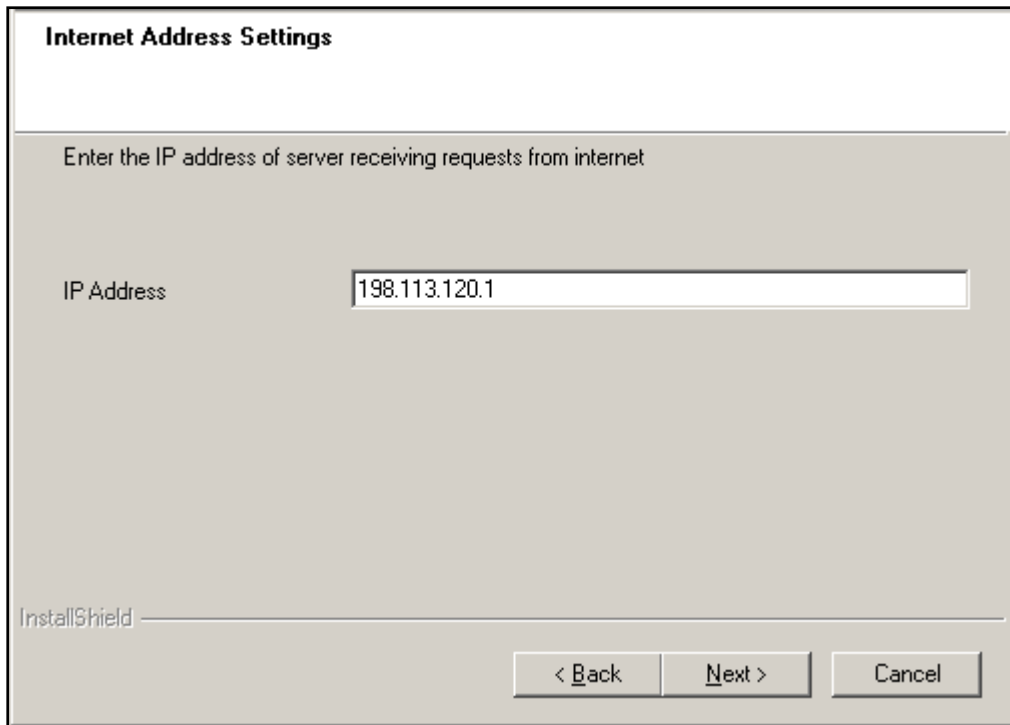


Figure No.62

Select whether this is this machine hosts the Primary Cataloger (**Figure 63**) and click on the 'Next' button.

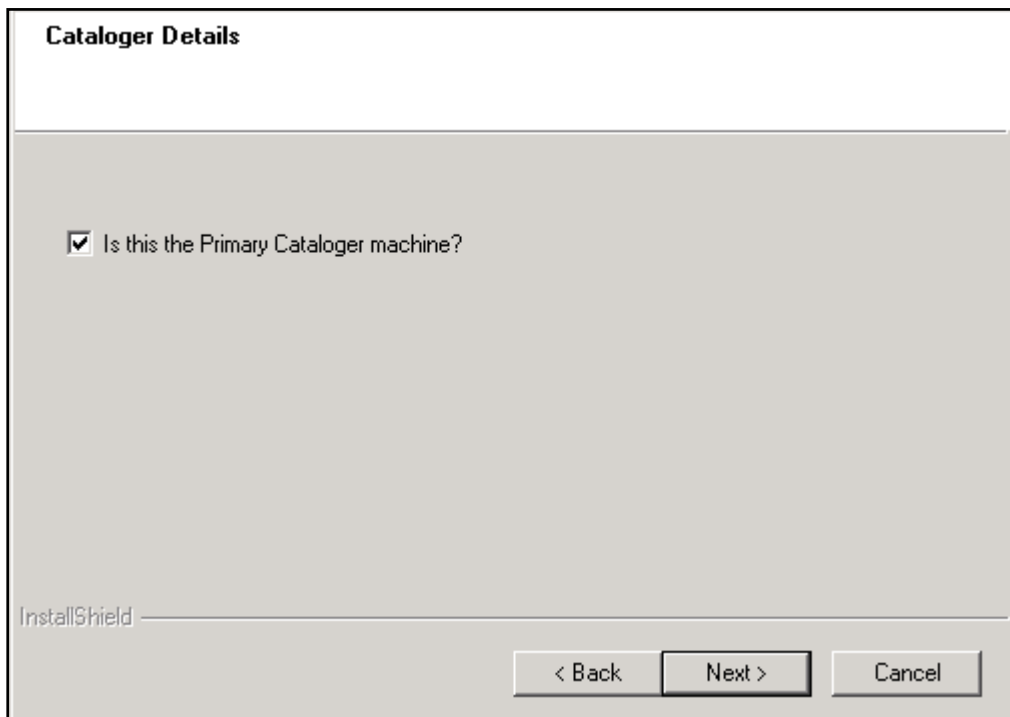


Figure No.63

Enter the IP address for Media Processor for Illustrator. If all the servers are in the same network then check 'Can Illustrator Media Processor access Cataloger through the UNC path' checkbox. If the servers are on a different network then it does not need to be checked but the HTTP port needs to be opened. Click on the 'Next' button.

Cataloger Illustrator Media Processor Configuration

Please provide Illustrator Media Processor configuration for Cataloger.

Illustrator Processor Machine IP address

Can Illustrator Media Processor access Cataloger Machine through UNC path?

InstallShield

< Back Next > Cancel

Figure No.64

Enter the IP address for Microsoft Office Processor which is on the Web Services machine. If all the servers are in the same network then check 'Can Illustrator Media Processor access Cataloger through the UNC path' checkbox. If the servers are on a different network then it does not need to be checked but the HTTP port needs to be opened. Click on the '**Next**' button.

Cataloger Microsoft Office Processor Configuration

Please provide Microsoft Office Processor configuration for Cataloger.

Media Processor Machine IP address

Media Processor Machine can access Cataloger through UNC path.

InstallShield

< Back Next > Cancel

Figure No.65

Enter the IP address for FLV Generator configuration for Cataloger, this is the machine on which the FLV generator is installed. If all the servers are in the same network then check 'Can FLVGenerator Processor access Cataloger through the UNC path' checkbox. If the servers are on a different network then it does not need to be checked but the HTTP port needs to be opened. Click on the 'Next' button.

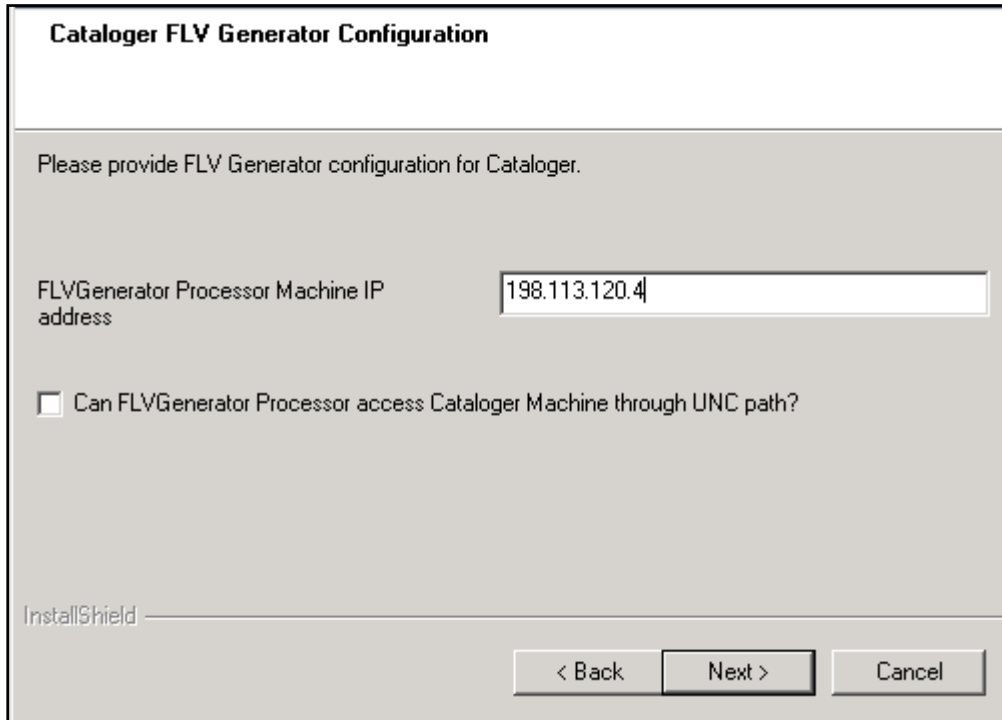


Figure No.66

Review all the inputs supplied in the Start Copying Files dialog box before clicking on the 'Next' button.

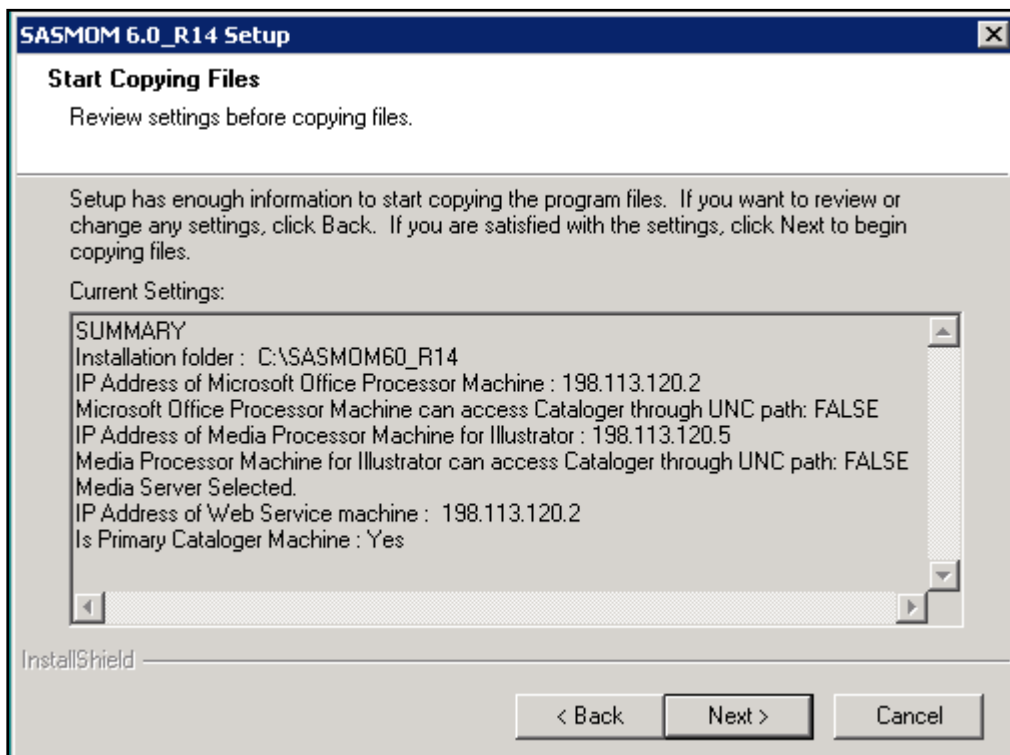


Figure No.67

For configuring a Publishing Point for Media streaming see [Section 4.2](#).

Note: The installer creates a virtual directory named 'ADCataloger' on the cataloger machine with physical path <Installation Path>\ADCataloger.

Setting display properties for thumbnail generation for PDF

If the user catalogs PDF's, the Cataloger generates a thumbnail for the PDF file. To generate the thumbnail properly, set the "display properties" on the cataloger machine as "True Color 32 bit".

3.2.4. Install Media Processor for Illustrator on Windows 7 machine

Refer to the [Section 3.1.2](#).

3.2.5. Install Media Processor for InDesign

Note: Media Processor for InDesign and FLV Generator should preferably be installed on separate machines and not with any other components as it clogs the other requests. Media Processor for FLV generator can be installed on an independent machine without the Media processor for InDesign.

Select the Media Processor for InDesign and FLV Generator components in the SAS Marketing Operations Management 6.0 R14 setup dialog.

Specify the installation path by clicking on the '**Browse**' button and selecting the Destination Folder.

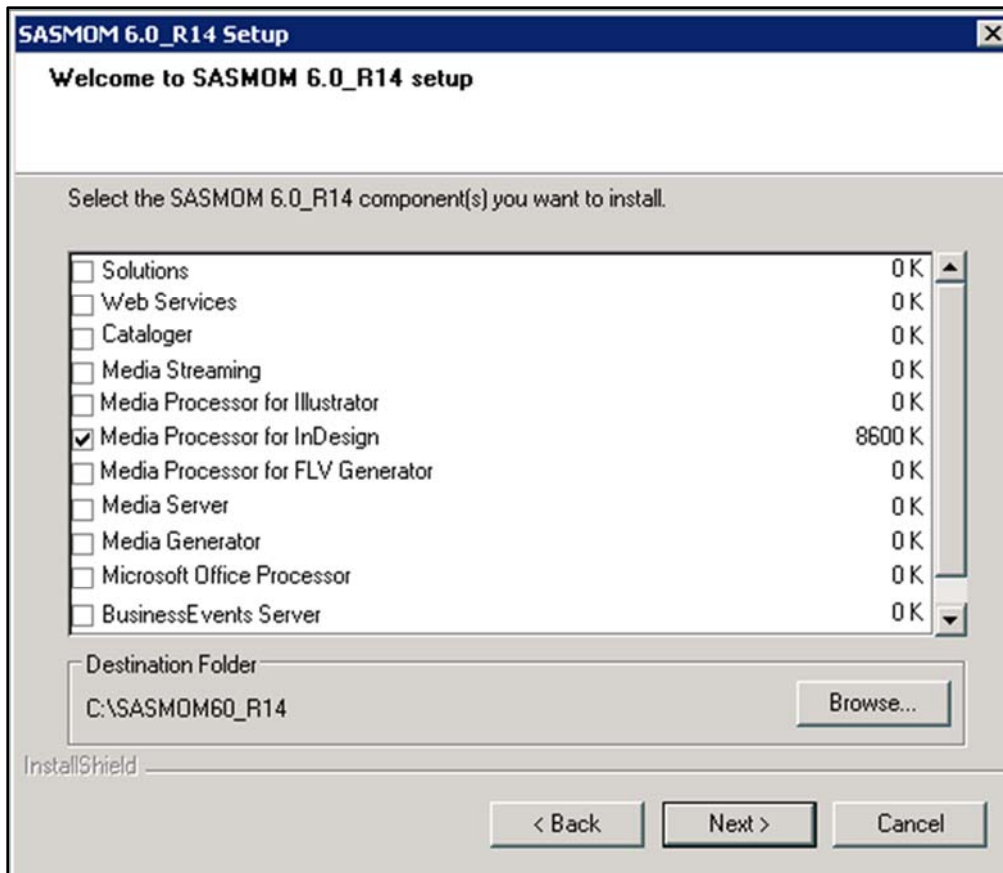


Figure No.68

Enter the password for 'ALUser' (Figure 69).

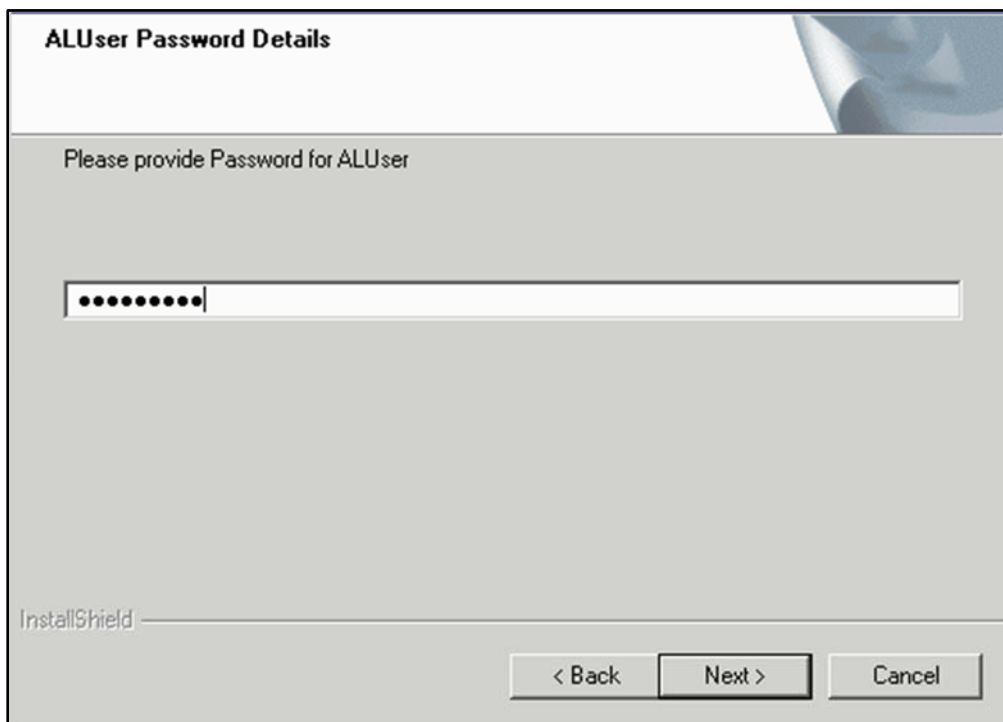


Figure No.69

Enter the IP Address of SAS Marketing Operations Management Web Services machine and click on the 'Next' button.

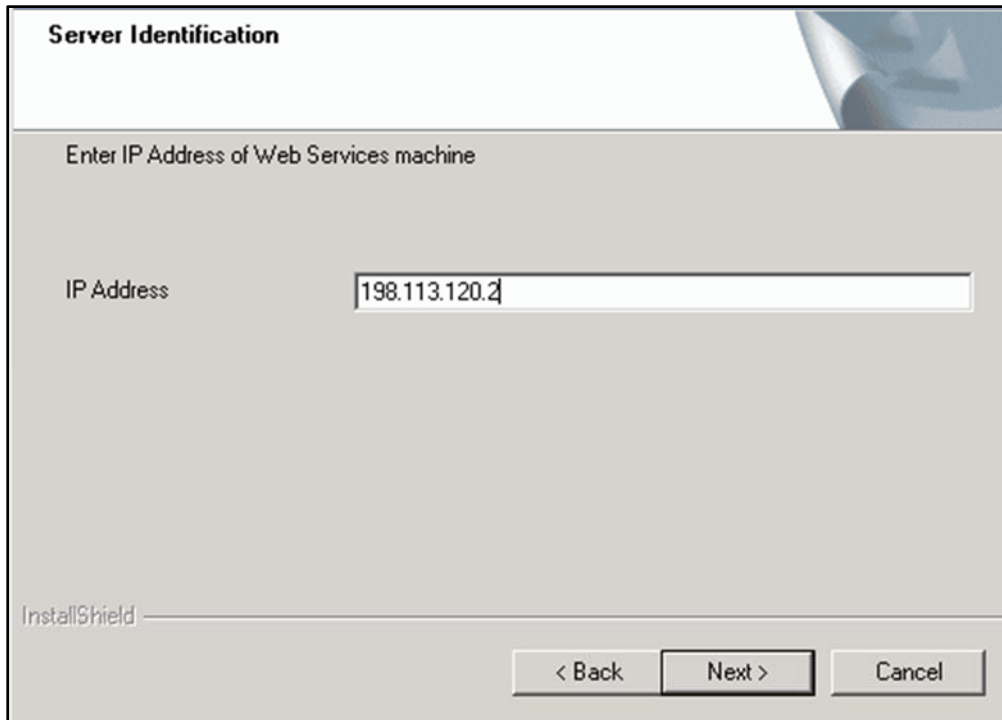


Figure No.70

Review all the inputs supplied in the Start Copying Files dialog before clicking on the 'Next' button.

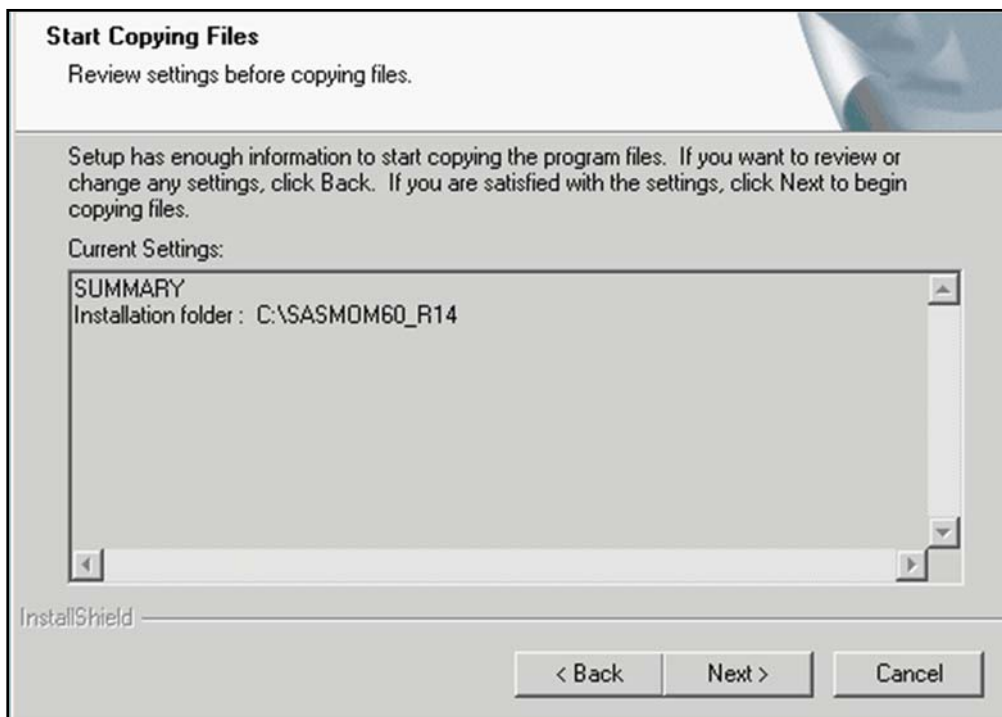


Figure No.71

Create Queues manually refer to [Section 3.1.2.1](#).

Confirm successful installation of SAS Marketing Operations Management services ([Refer to section 3.1.1.1](#)).

3.3. Next steps after Installation

On the machines where the Queue Manager Service is installed :

Open Queue Manager Config.xml from path <Install Folder>\Configuration\XML and replace the values in the nodes FIRSTNAME, LASTNAME & EMAILADDRESS in the RECIPIENTLIST nodes with System Administrator's details.

Note: This needs to be done before starting the Queue manager service.

3.3.1. Settings to be done on the Microsoft Office Processor machine

The user 'ALUser' gets created by the installer. These steps need to be executed after the creation of the user. Both the following settings need to be done on the Microsoft Office Processor machine.

For MS Word:

To launch the MS Word application on the Web services machine log in as 'ALUser' and follow the steps below: Launch the MS Word application. The user initials need to be entered (**Figure 72**) then click on the 'OK'.

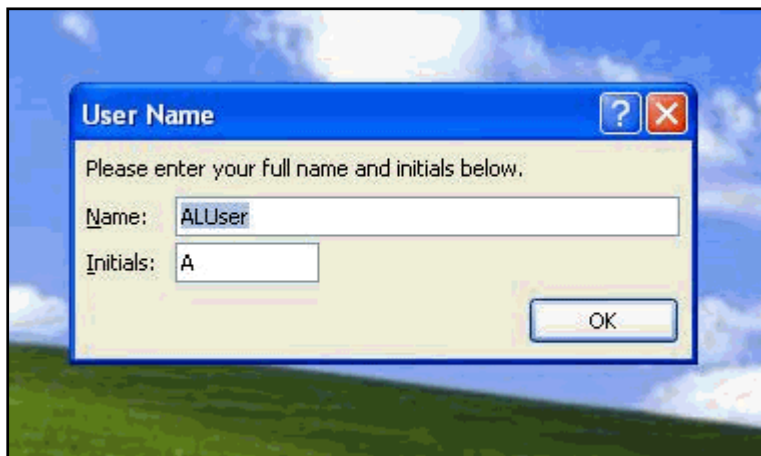


Figure No.72

When the MS Word application is launched the following dialog box is launched (**Figure 73**). Click on the 'OK' button.

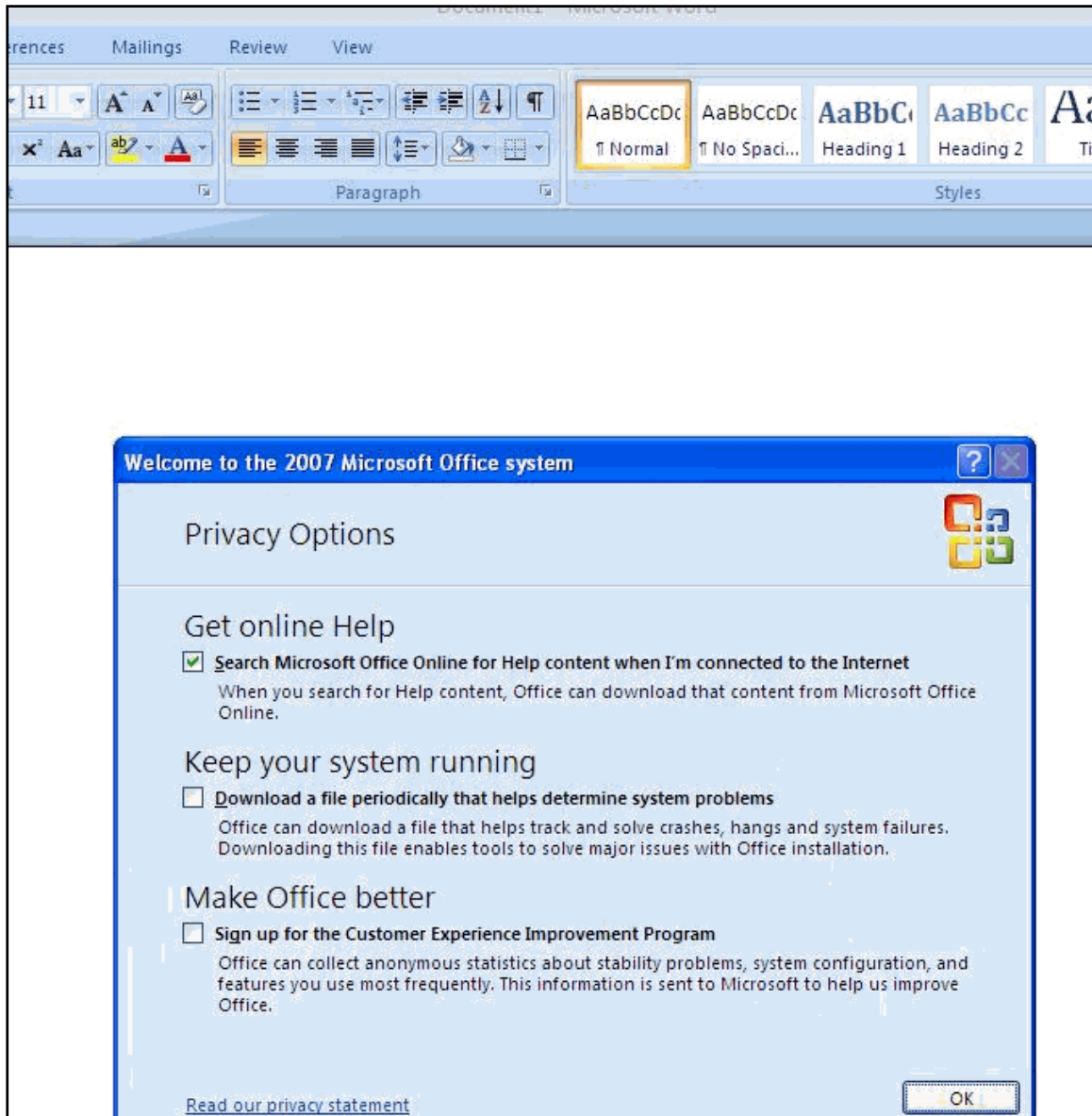


Figure No.73

The above setting is done so that the Word consolidation works for the Approvals job and task.

For Acrobat 8.0/9.0/X:

Launch the Acrobat 8.0/9.0/X Professional. When the Acrobat application is launched the following dialog box is launched (**Figure 70**). Check the 'Do not show at startup' checkbox and close the popup.

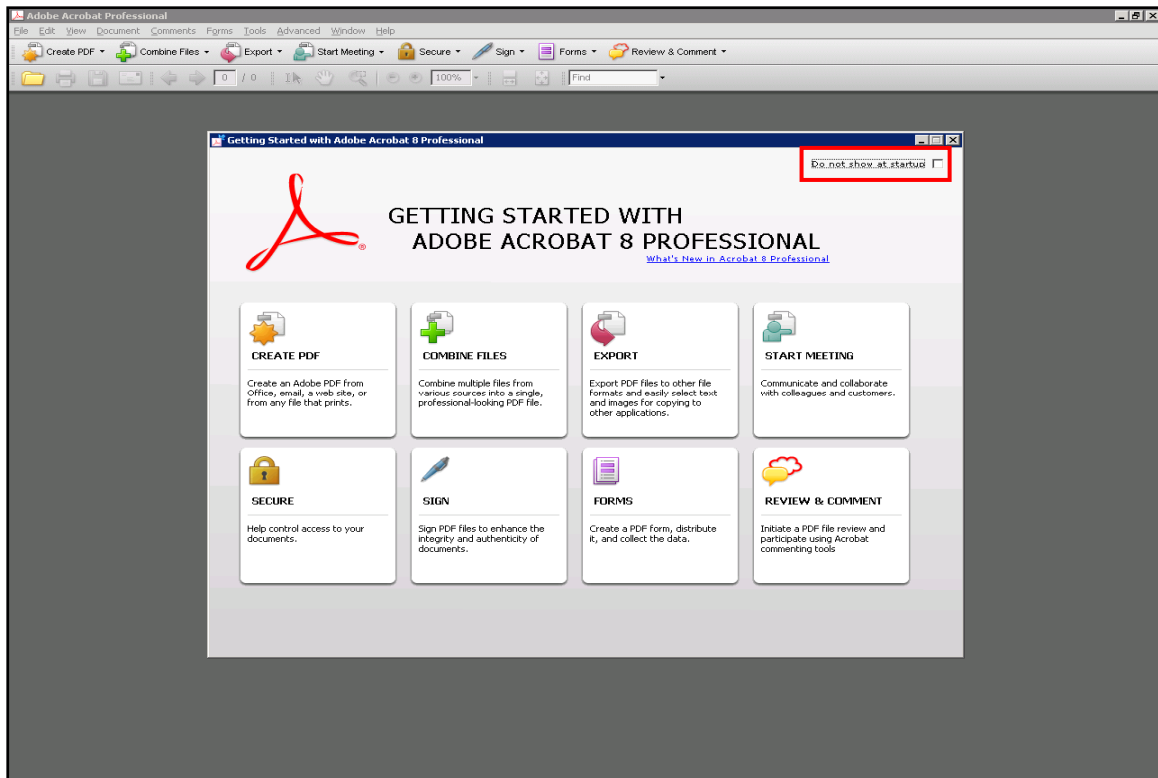


Figure No.74

Logout as 'ALUser' from this machine.

3.3.2. Settings to be done on the Illustrator machine

After the Illustrator installation is completed do the following:

Log in as 'ALUser' and launch the Illustrator application.

When the Illustrator application is launched the following dialog box is displayed (**Figure 75**). Click on the '**No, Thank You**' button and close the popup.

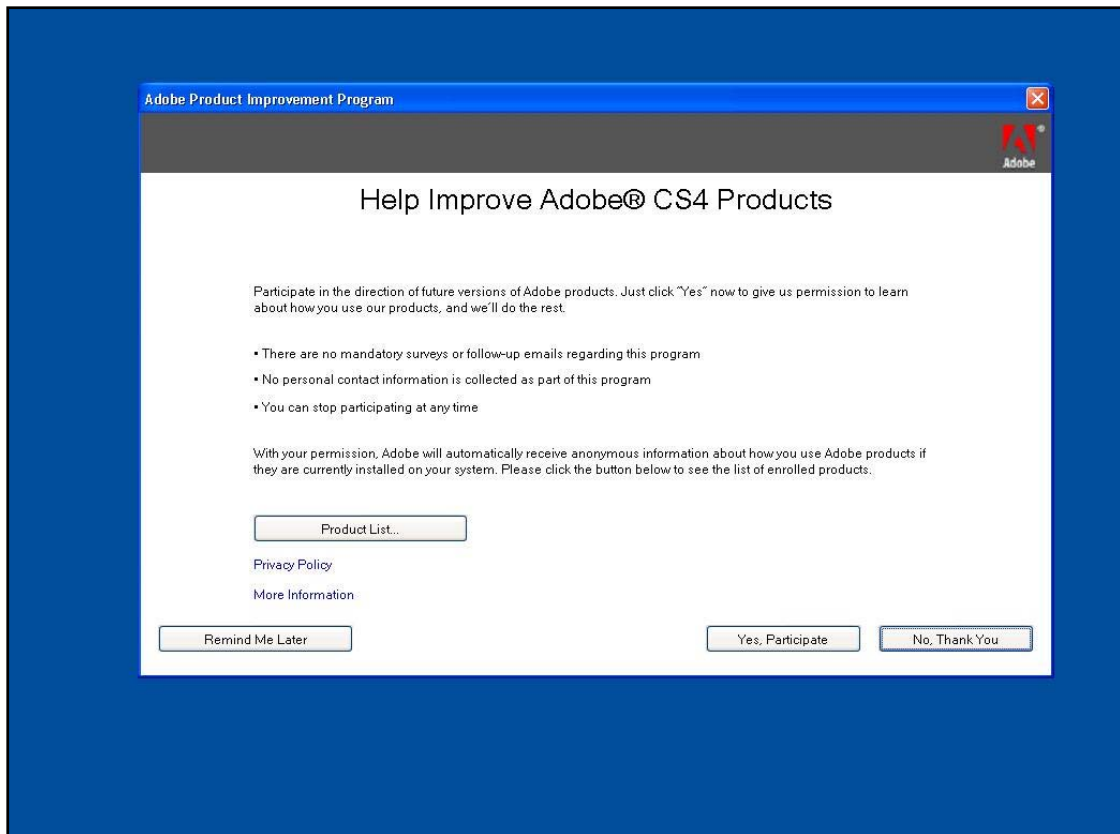


Figure No.75

3.3.3. **Security Permissions for Application Launch (DCOM Configuration)**

Launch DCOMcng from start | run. Navigate to the path Component Services | Computers | My Computer | DCOM Config.

Follow the steps listed below for the applications mentioned in the tables for different tiers:

Right click on the application and select '**Properties**' from the speed menu. The settings need to be changed in the '**Security**' and the '**Identity**' tabs.

In the Security tab the following settings need to be done:

Launch and Activation Permissions – If the user selects the 'Customize' radio button then click on the 'Edit' button. Add the users in the Group or user names box. Allow Local Launch, Remote Launch, Local Activation and Remote Activation permissions.

Access Permissions – If the 'Customize' option is selected then click on the 'Edit' button. Add the users in the Group or user names box. Allow Local access and Remote access permissions.

Configuration Permissions - If the user selects the 'Customize' radio button then click on the 'Edit' button. Add the users in the Group or user names box. Allow 'Full Control' to the user.

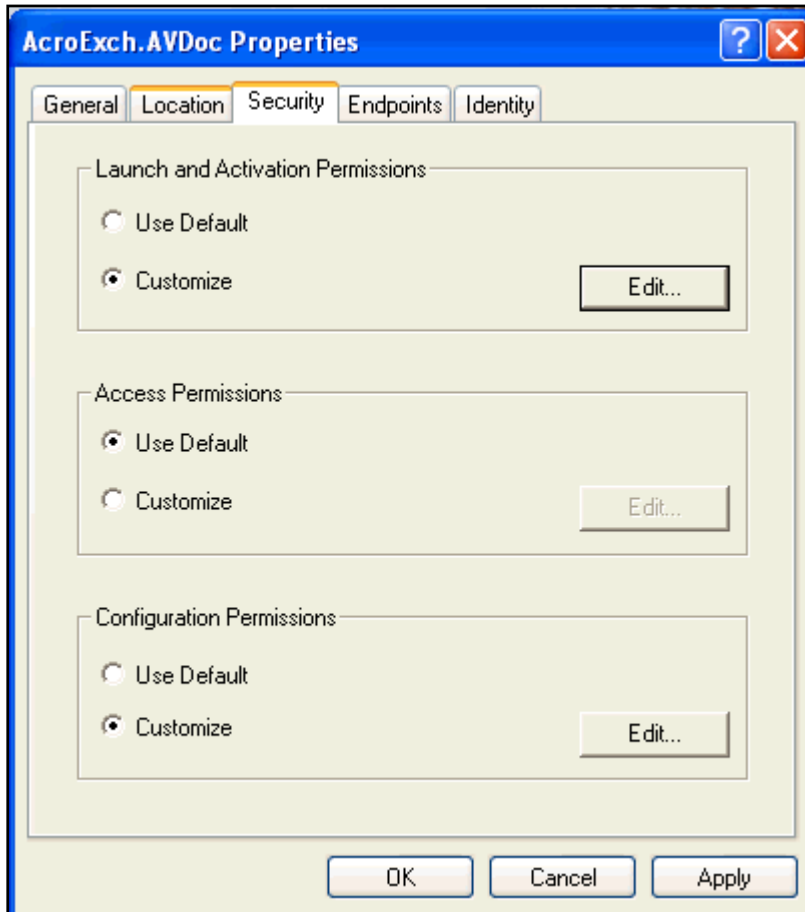


Figure No.76

Note: When DAM supports Shared Network folder then the DCOM settings for ALUser need to be done on the Application Services, Media Services and the Cataloger tiers.

DCOM Setting for MS Office Processor Server

User: Network Service, ALUser (IIS 7.0)	Applications				
Permissions	Microsoft Excel Application	Microsoft Word 97 – 2003 Document	Microsoft PowerPoint Slide	AcroExch.AVDoc	AcroExch.PDBookmark
Launch and Activation	Customize	Customize	Customize	Customize	Customize
Access	Use Default	Use Default	Use Default	Customize	Customize

Configuration	Customize	Customize	Customize	Customize	Customize
----------------------	-----------	-----------	-----------	-----------	-----------

DCOM Setting for Web Server Tier (In case of WebDAV)

User: Network Service, ALUser IIS 7.0)	Applications	
Permissions	AcroExch.PDBookmark	AcroExch.AVDoc
Launch and Activation	Customize	Customize
Access	Customize	Customize
Configuration	Customize	Customize

DCOM Setting for Media Processor for Illustrator CS3/CS4 (Windows 7 Machine)

User: ALUser	Applications
Permissions	'Illustrator Labcolor' for CS3 and 'Illustrator EPS' for CS4
Launch and Activation	Customize
Access	Use Default
Configuration	Customize

The following additional setting needs to be done in the Identity tab for all applications mentioned in the DCOM Configuration:

Select the **'This User'** radio button. Click on the **'Browse'** button to select the **'ALUser'**. Add the user to the Group or user names box. Provide the appropriate password for Password and Confirm Password field. Click on the **'Apply'** button to apply the configuration and then click on the **'OK'** button to save and close the configuration.

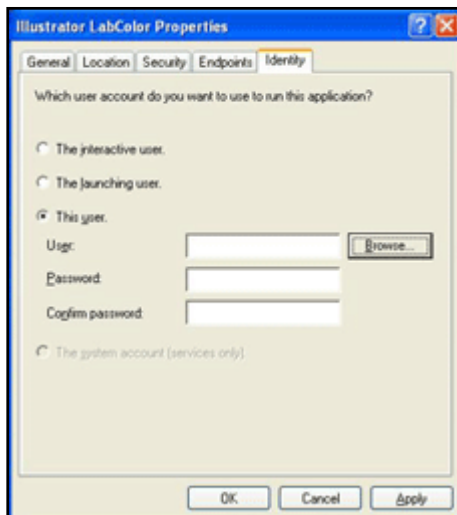


Figure No.77

Note: If the Queue Manager Service fails to launch the Illustrator Application then the DCOM configuration settings for Illustrator need to be changed.

Go to Computer Management > System tools > Local Users and Groups

Add the 'ALUser' to Administrators group

Go to the DCOM Config settings:

Right click on the item and select 'Properties' from the speed menu

Click on the 'Identity' tab

Select 'The Launching User' option

Click on the 'Apply' and 'OK' buttons to save the settings

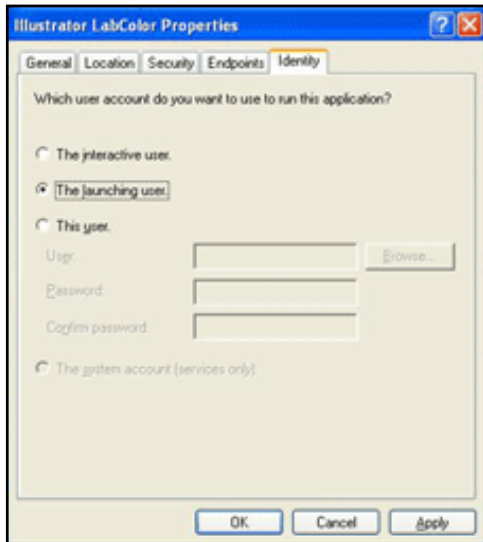


Figure No.78

3.3.4. Settings for DAM supporting Shared Network Folder

The following steps need to be done for setting up the configuration:

1. Create a shared drive folder on any machine on the same network as the installation machines.
2. 'ALUser' should have complete access on the shared drive folder.
Note: Please specify access for 'ALUser' on both 'Security permission' and 'Sharing permission'.
3. Allow 'Full Control' to 'ALUser' using the steps given in section 4.1 on the following locations:
 - a. Installation folder.
 - b. Windows Temp folder.
 - c. "Temporary ASP.NET Files" folder .Net framework (**Figure 79**).
 - d. C:\Temp (Temp folder set in environment variable)
 - e. Network folder created.

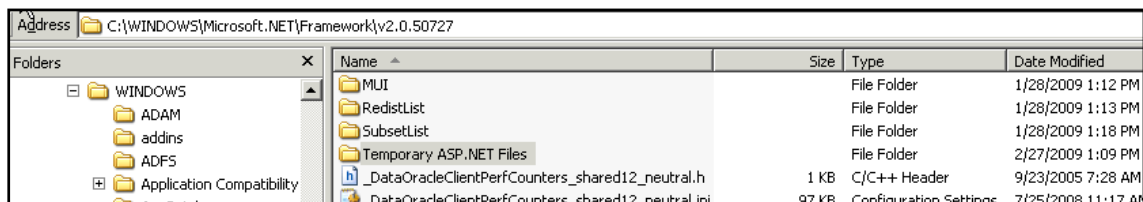


Figure No.79

Note: If the installation is in the DMZ i.e. solution is installed on the external machine, then following key needs to be added in the <tenant>\web.config (on the external machine) - <add key="CURRENTNETWORK"

`value="EXTERNAL" />`. Adding this key, will take care of not showing "Network folder usage" specific functionality on the external machine as this machine cannot access network folder.

4. Pre-Tenant Configuration

4.1. Configure a Publishing Point for Media Streaming

Download and then run the MSU file for the Streaming Media Services role from the Microsoft Web site.

The following steps are to be followed while creating a Publishing Point which is created for each tenant:

1. Make sure to install 'Streaming Media Services'. If not, install the component by following the steps given below:
 - a. Go to Start and right click on 'Computer', select 'Manage' from the menu.

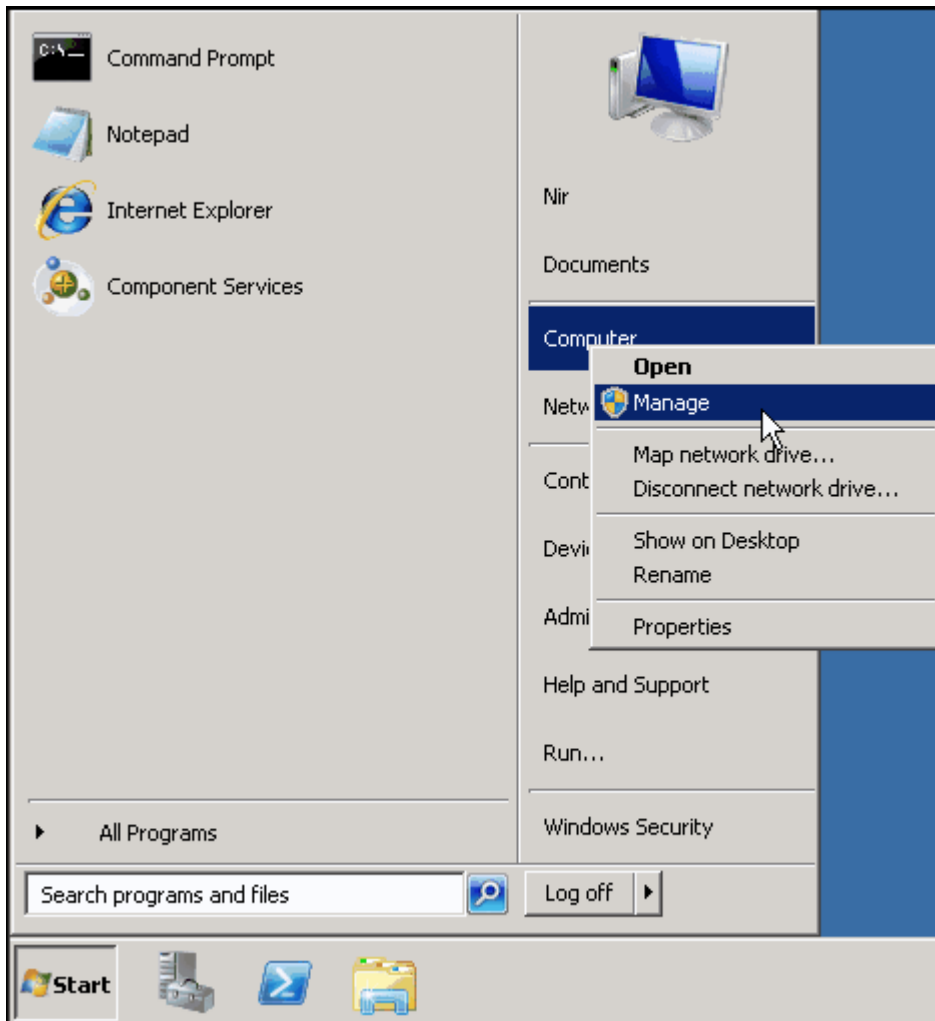
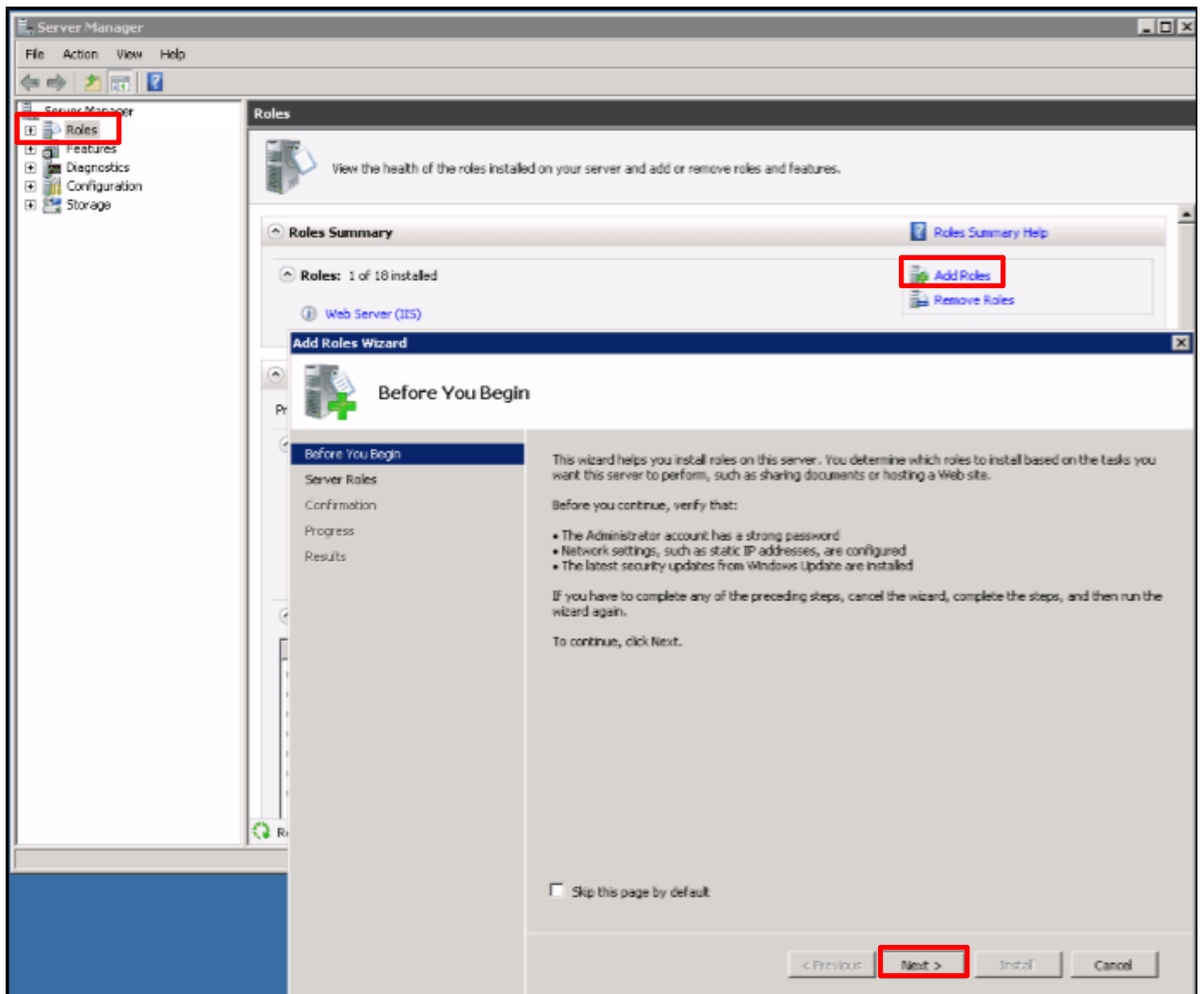


Figure No.80

- b. On the 'Server Manager' screen select 'Roles' on the left pane and click on the 'Add Roles' link on the right. On the 'Add Roles wizard' popup click on the '**Next**' button.



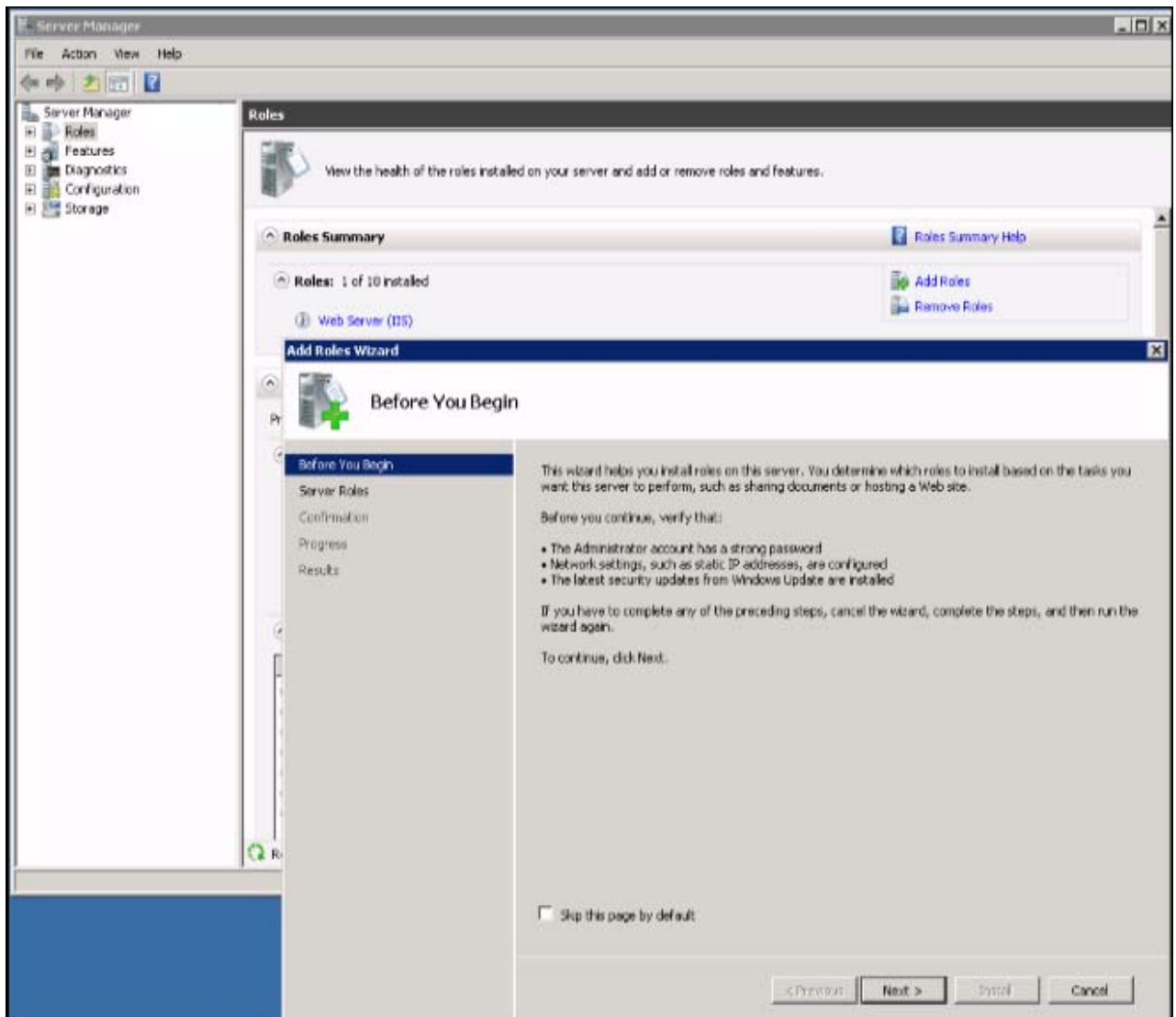


Figure No.81

- c. Install the 'Streaming Media Services' by following the instructions.
2. After the 'Windows Media Service' is installed, now the publishing point can be configured. Launch the Windows Media Services (reachable via Start | All Programs | Administrative tools| Windows Media Services).
 3. Right click on the 'Publishing Points' and select 'Add Publishing Point (Advanced)' (Figure 82). An 'Add Publishing Point' popup is launched (Figure 83).

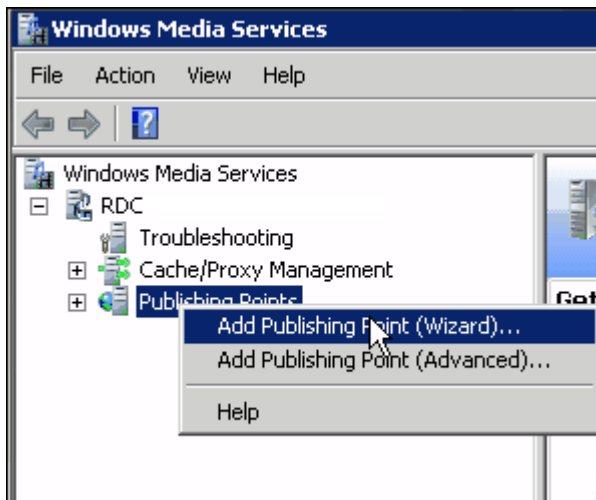


Figure No.82

In the 'Add Publishing Point' popup (**Figure 83**) select the Publishing point type as 'On-Demand', enter the Publishing Point name and select the location of the content by clicking on the '**Browse**' button. A Windows Media browse is opened, click on the '**Select Directory**' button.

Note: This path should correspond to the Mount Point path mentioned in the Settings for Media Streaming (Refer to Administration guide – The settings section).

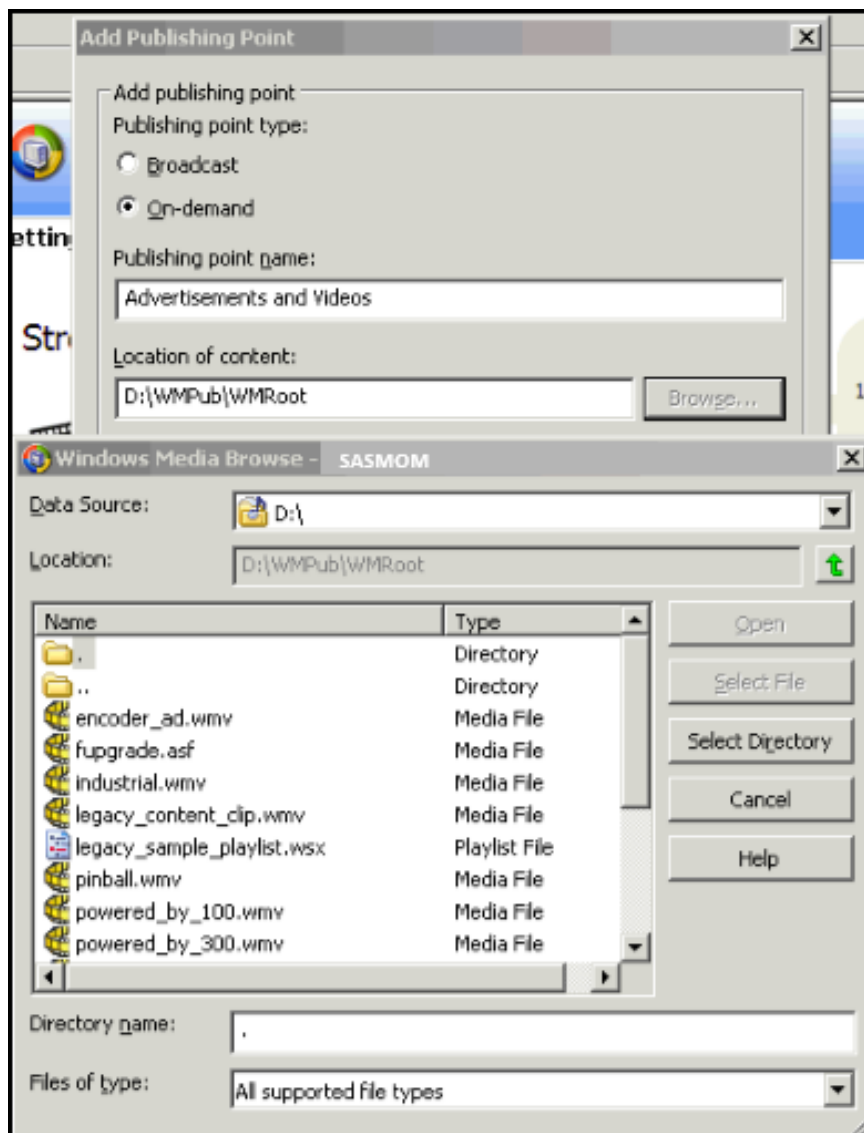


Figure No.83

Click on the 'OK' button on the 'Add Publishing Point' popup.

4.2. Create Database user in SQL Server

Follow the steps described below to create an account in SQL Server 2008 R2:

1. Launch SQL Server Management Studio from Start | Programs | Microsoft SQL Server 2008 R2.
2. Expand the Security folder on the left pane.
3. Right click on Logins and select 'New Login'.
4. In the 'Login-New' popup (**Figure 84**) enter the login name.
5. Select 'SQL Server authentication' radio button and enter the password for this login.
6. Uncheck Enforce password expiration checkbox.
7. Select 'Master' as the Default database and save the user.

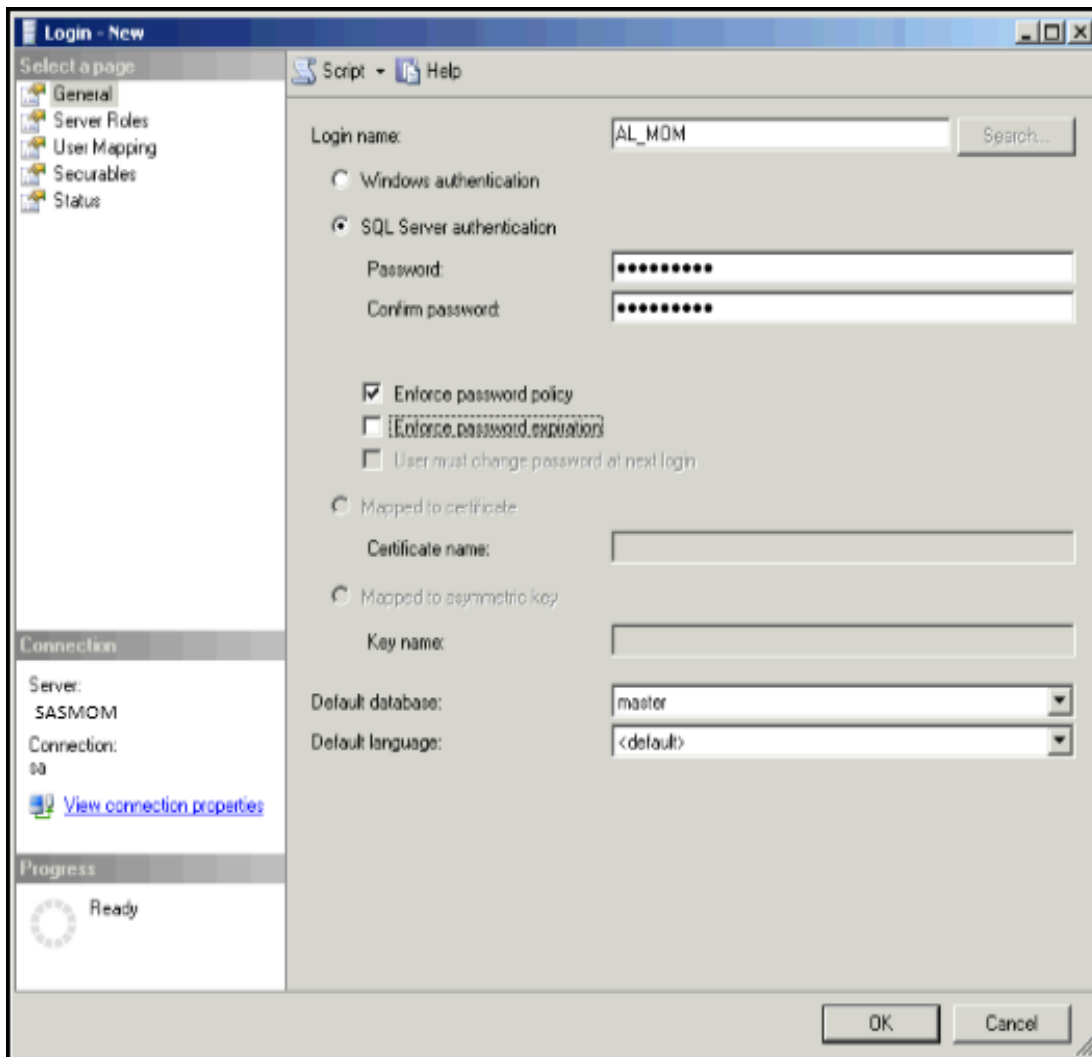


Figure No.84

8. Select 'User Mapping' from the left pane (Figure 85).
9. Select the 'msdb' database and select 'db_owner' and 'SQLAgentOperatorRole' role membership to the new login.

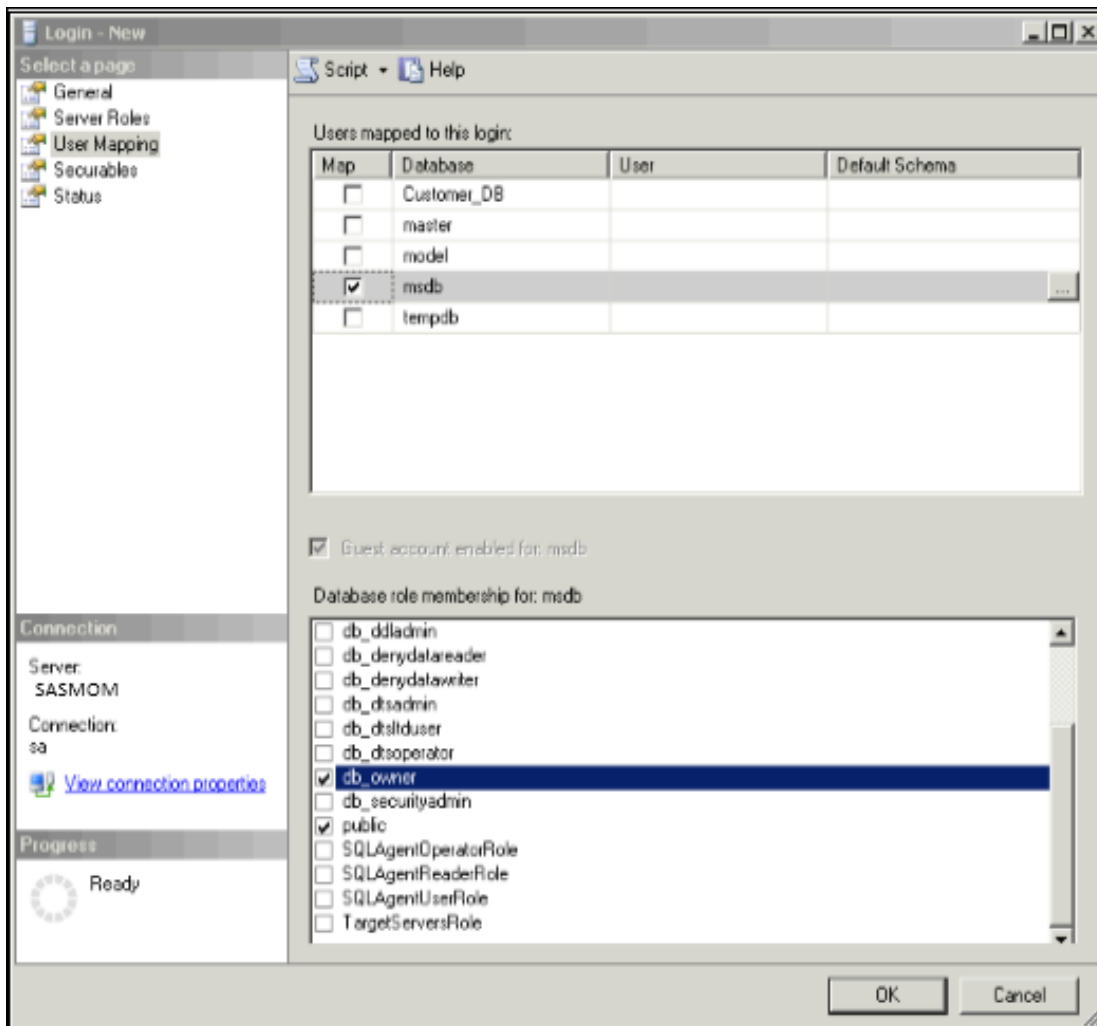


Figure No.85

5. Tenant Configuration

5.1. Create Tenant

Note: The installation folder (created on all the machines in the setup) must have write access. Remove the read only setting for this folder.

Create tenant by double clicking on the TenantCreation application located under the folder <Installation Folder>\Tenant Creation.

The following screenshot shows typical inputs supplied for the tenant creation utility.

The screenshot shows the 'Tenant Creation' application window with the following fields and values:

Tenant Name	MOM	Use Media Server	No
Database Type	SQL Server	Auditing	True
Database Machine Name	198.113.120.104	File System	WINDOWS
Database Server Instance Name	DEFAULT	Mount Point (for Files)	C:\SASMOM_R14\MountPoint
Database Name	MOM_DB	Out Box (for Files)	C:\SASMOM_R14\OutBox
ODS Database Name	MOM_DB_ODS	Max File Count (for Files)	1000
Database User Name	Aluser	XML Mount Point	C:\SASMOM_R14\XML\MountPoir
Database Password	*****	Server Installation Path	C:\SASMOM60_R14\
Create Database Automatically	Yes		

Note : 1. If this is a Load Balanced Setup, please provide the UNC Path for Mount Point, Out Box and XML Mount Point paths.
For e.g: \\<Machine Name>\< >

2. Out Box for all tenants must be the same

Save

Figure No.86

Notes:

- The tenant name should not have a dot or space.
- Select the database type as SQL Server.
- Enter Database Machine name/IP.
- The database server instance is populated as soon as the database type is selected. It should not be changed unless required. For SQL Server it is 'Default'.
- Enter the database name for creating the database (tenant creation utility takes care of creating the database). The Database User Name and Password are the credentials of the SQL login created in section 4.3.
- The ODS Database Name will be <Database name>_ODS by default. This should not be changed by the user.
- The Server Installation Path refers to the installation path selected at installation.
- The setting for Auditing is set to 'True' by default.
- On the Web Server machine the Mount point (for Files) and XML Mount Point have to be located in a folder other than the tenant folder i.e. it can reside within the Installation Directory but not under the

tenant folder. E.g. Mount Point can be in a folder called Catalog Folder under D:/SAS MOM 60 but if there is a tenant called 'MOM' then the mount point should not be under this as there is a performance issue associated with this. Each tenant should have individual mount points and XML mount points.

- The virtual directory '**DashboardImages**' points to the outbox folder of the tenant. But on a single machine installation and there are more than one tenant and each has a different Outbox location (on the Web Server machine), then the virtual directory cannot point to all. This is an issue with the Dashboard. In case, the installation is done in this manner, please move all the outbox locations to one and also make the changes to the path of outbox in the <TenantName>.xml.

Note: The Outbox path specified for the Tenant during Tenant creation should be such that the same drive should be present on Media Server Machine.

- In case of a multi machine setup the '**DashboardImages**' points to the '**DashboardImages**' folder on the Solutions machine.
- While creating a tenant if there are any errors then the error details can be viewed in a log file created in the path <Installation Folder>\CreateTenant_<TenantName>.txt. This log file is created only on the solutions machine, in case of multi machine setup the log file will be created on the web services machine.

5.1.1. Folder Permissions

After the tenant creation, give permissions for the following folders (if these folders are not in the installation folder) using the instructions given in section [8.3.3](#):

1. MountPoint
2. XMLMountPoint
3. OutBox

5.2. Create Cataloger Mount Point

Type the following URL in the Internet browser to view the Login screen for the tenant

http://<IP Address>/<Tenant Name>.

Provide the username and password (admin, sa respectively).

Navigate to the Tenant Settings page via the Settings link on the left pane under Administration. Provide the input for Mount Point field in the Cataloger Settings section for the Primary and the secondary cataloger (optional). The expected input for this field is the path in the file system under which the batch cataloger jobs will be submitted. (The Mount point should be outside the Installation folder)

Note: This folder is created if it does not exist. The File Watcher Service polls this folder to detect arrival of batch cataloging jobs.

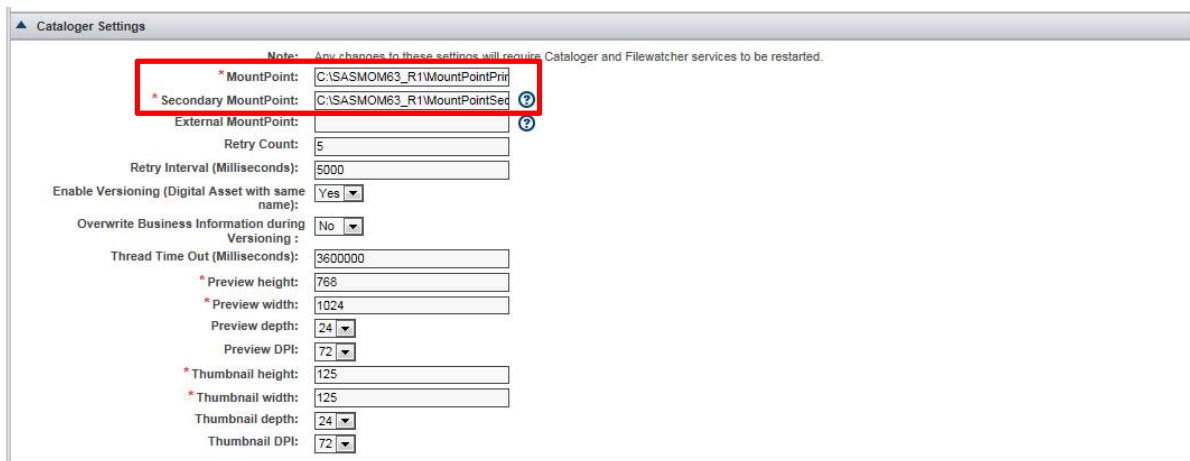


Figure No.87

The following additional settings need to be done:

1. If the Cataloger Mount Point folder is outside the installation directory then:

The IUSR_<Machine Name>, NETWORK SERVICE and SYSTEM user accounts need to be given full control on the <Cataloger Mount Point> folder.

2. The Cataloger mount point should be made a shared folder and 'ALUser' should have complete access on the cataloger mount point.

Note: Please specify access for 'ALUser' on both 'Security permission' and 'Sharing permission'.

If the Cataloger and the Media Server are on different machines then the Cataloger Mount Point will be a shared folder then:

1. Both Cataloger and Media server machine should have ALUser configured with the same password e.g 'sa'.
2. Create a shared folder on the cataloger machine.
3. Shared folder should have complete access for the following users in both 'Sharing Permissions' and 'Security Permissions' tabs:
 - a. ALUser
 - b. IUSR_<Machine Name>
 - c. NETWORK SERVICE
 - d. SYSTEM
4. In the tenant settings the Cataloger Mount Point path should be specified as UNC path e.g. \\<Machine name>\<Shared Folder Name>\Cataloger Mount point
5. On the Media server machine, ALMediaServices – Web.config should have the following tag under System.web: <identity userName = "ALUser" password = "<PWD>" impersonate = "true"/>
6. Run the File Watcher and Cataloger Services under ALUser account.

Note: Ideally the Cataloger and Media Server should be installed on the same machine.

6. Post Tenant creation

6.1. Configure FTP Sites for Artwork Producer

FTP Site Name	Folder Path	Description
ExportedFormats or <TenantName>_ExportedFormats	<Installation Dir>\<TenantName>\Exported Formats	Formats exported from the system will be copied in this folder. The user can use this FTP site to download the exported format.
DownloadedFormats or <TenantName>_DownloadedFor mats	<Installation Dir>\<TenantName>\Downloa ded Formats	Formats downloaded from the system will be copied in this folder. The user can use this FTP site to download the format.
<Any Name>	<Installation Dir>\<TenantName>\Import Formats	System will use this folder to pick up formats to be exported into the system. The user can upload exported formats (to be imported into the system) to the folder using this FTP site.

After creating the above FTP Sites the System Admin needs to modify the "<TenantName>.xml" from the location "<InstallationDir>\Configuration\XML" on the Solutions machine.

After opening "<TenantName>.XML", do the following changes:

1. Go to "CONFIGURATION\ARTWORKPRODUCER\EXPORTFORMAT\FTPNAME" node and modify the FTP Name as given while creation of the ExportedFormats.
2. Go to "CONFIGURATION\ARTWORKPRODUCER\DOWNLOADFORMAT\FTPNAME" node and modify the FTP Name as given while creation of the DownloadedFormats.

```

<ARTWORKPRODUCER>
  <DOWNLOADFORMAT>
    <FTPNAME>DownloadedFormats</FTPNAME>
    <FTPROOTPATH>C:\Assetlink60\ALMOM\Downloaded Formats</FTPROOTPATH>
  </DOWNLOADFORMAT>
  <EXPORTFORMAT>
    <FTPNAME>ExportedFormats</FTPNAME>
    <FTPROOTPATH>C:\Assetlink60\ALMOM\Exported Formats</FTPROOTPATH>
  </EXPORTFORMAT>
  <IMPORTFORMAT>
    <IMPORTPATH>C:\Assetlink60\ALMOM\Import Formats</IMPORTPATH>
  </IMPORTFORMAT>
</ARTWORKPRODUCER>

```

6.2. Settings for Distributed Transaction Coordinator

This setting is done for ODS feature. These settings must be done in a multi machine environment, when the Database and the Application Server are on different machines.

Note: These settings must be done on the Solutions machine, Applications Server and the Database server..

Following are the steps required to be followed.

1. Traverse to Control Panel → Administrative Tools → Component Services
2. Double Click on 'Computers' → My Computer → Distributed Transaction Coordinator
3. Right Click on 'Local DTC' and select Properties.
4. Select the 'Security' Tab.
5. Enable the settings as shown in the image below.
6. Click on Apply/OK.

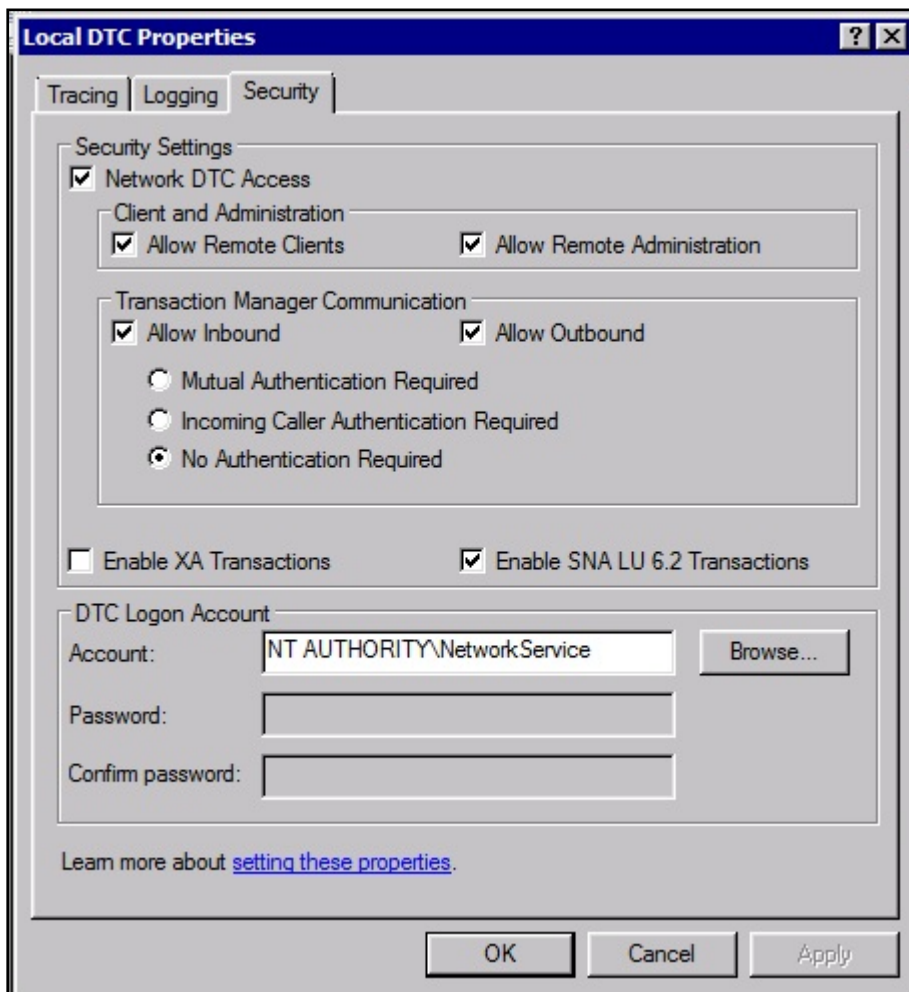


Figure No.88

Note: After the settings are done, the machine needs to be restarted.

6.3. Start Pre-Requisite Windows Services

Start the Distributed Transaction Coordinator service if it is not already started and ensure that this service has startup type as automatic.

Service Name	Description	Status	Startup Type	Log On As
Distributed Transaction Coordinator	Coordinates...	Stopped	Manual	Network S...
DNS Client	The DNS Cli...	Started	Automatic	Network S...
SAS MOM Back Office Service	Sends remi...	Stopped	Automatic	Local Syste...
SAS MOM BusinessEvents Service	This service ...	Started	Automatic	.\ALUser
SAS MOM Cataloger Service	This service ...	Started	Automatic	.\ALUser
SAS MOM Dashboard Service	This service ...	Started	Automatic	Local Syste...
SAS MOM File Watcher Service	This service ...	Started	Automatic	.\ALUser
SAS MOM Format Watcher	SAS MOM F...	Started	Automatic	Local Syste...
SAS MOM Notification Service	This service ...	Started	Automatic	Local Syste...
SAS MOM NTFS Monitoring Service	This service ...	Started	Automatic	Local Syste...
SAS MOM PluginService Service	This service ...	Started	Automatic	.\ALUser
SAS MOM Queue Manager Service	This service ...	Started	Automatic	.\ALUser
SAS MOM Report Scheduler	This service ...	Started	Automatic	Local Syste...
SAS MOM Service Monitor	This service ...	Started	Automatic	.\ALUser
SAS MOM Text Cataloger Service	This service ...	Started	Automatic	Local Syste...
ScriptLogic Service	ScriptLogic ...	Started	Automatic	Local Syste...

Figure No.89

Start the following Windows services and set them as automatic:

- SAS MOM Back Office Service.
- SAS MOM BusinessEvents Service
- SAS MOM Cataloger Service
- SAS MOM DAM Job Copy Service
- SAS MOM Dashboard Service
- SAS MOM File Watcher Service
- SAS MOM Format Watcher
- SAS MOM Notification Service
- SAS MOM PluginService Service
- SAS MOM Queue Manager Service
- SAS MOM Replication Agent Service
- SAS MOM Report Scheduler
- SAS MOM Service Monitor
- SAS MOM Text Cataloger Service
- SAS MOM WebDAV Service (Only if WebDAV is installed)
- SAS MOM NTFS Monitoring Service

6.4. Configure Schedule Tasks

Note: Verify the Schedule tasks.

Follow the following steps to schedule the utility.

1. Go to Start Menu -> Programs -> Accessories -> System Tools -> Task Scheduler.
2. Right click on 'Task Scheduler (Local)' and select 'Create Task'.
3. On the Create Task popup in the 'General' tab enter and name for the task and select the option 'Run whether user is logged on or not'.

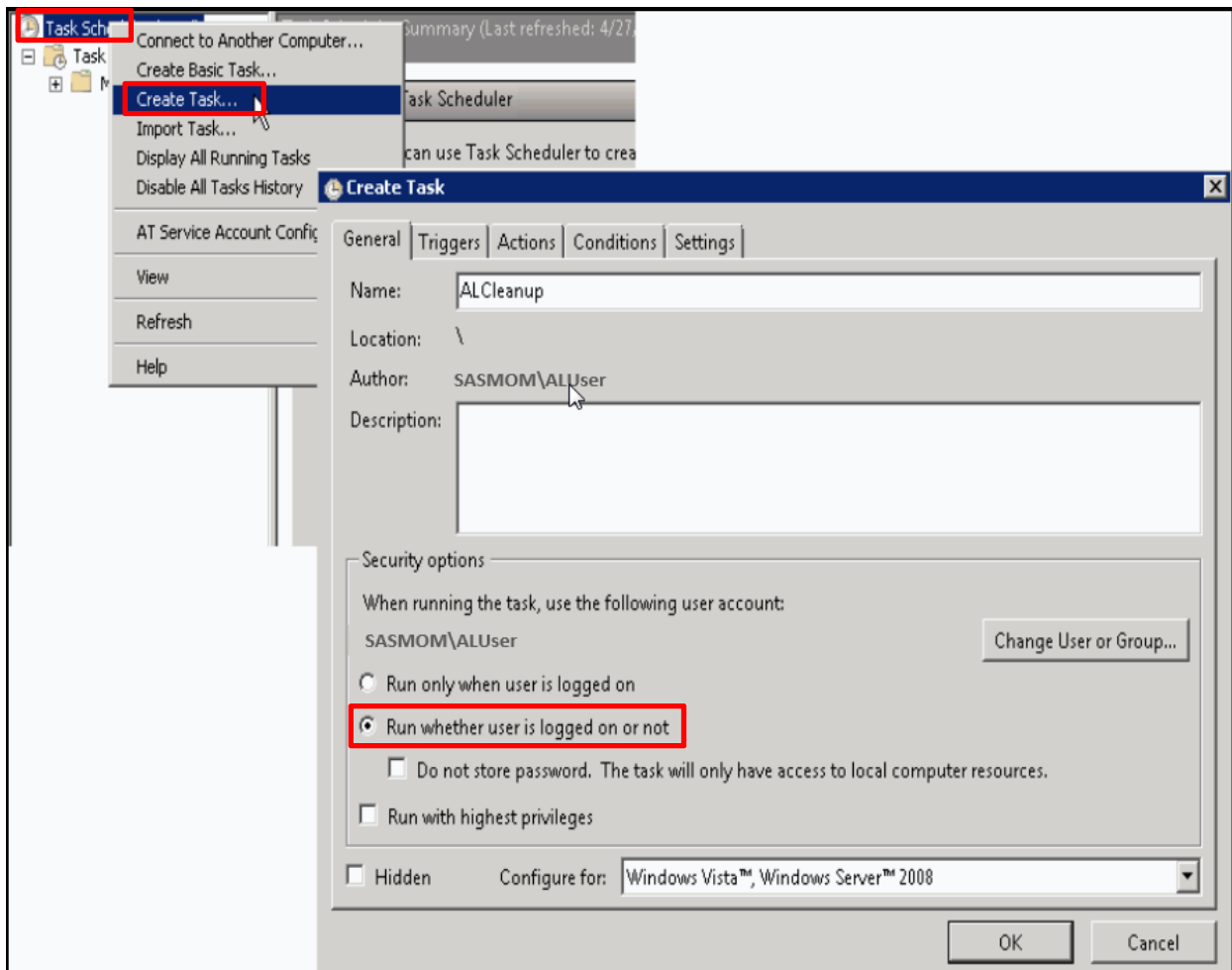


Figure No.90

4. On the 'Triggers' tab schedule the task by setting the time the task needs to run.

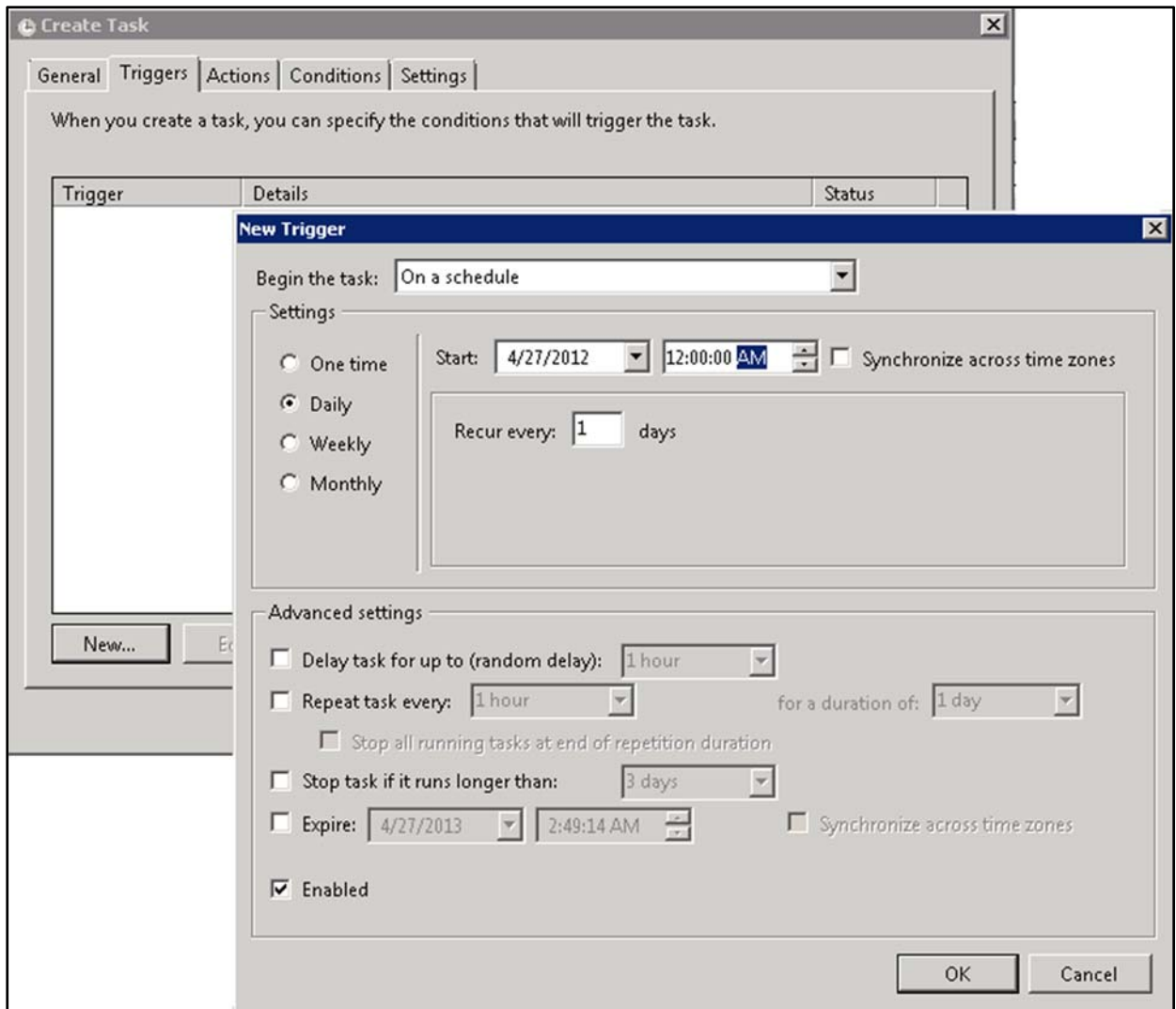


Figure No.91

5. On the 'Actions' tab browse and select the .exe file located in the <Installation folder>\Binaries.

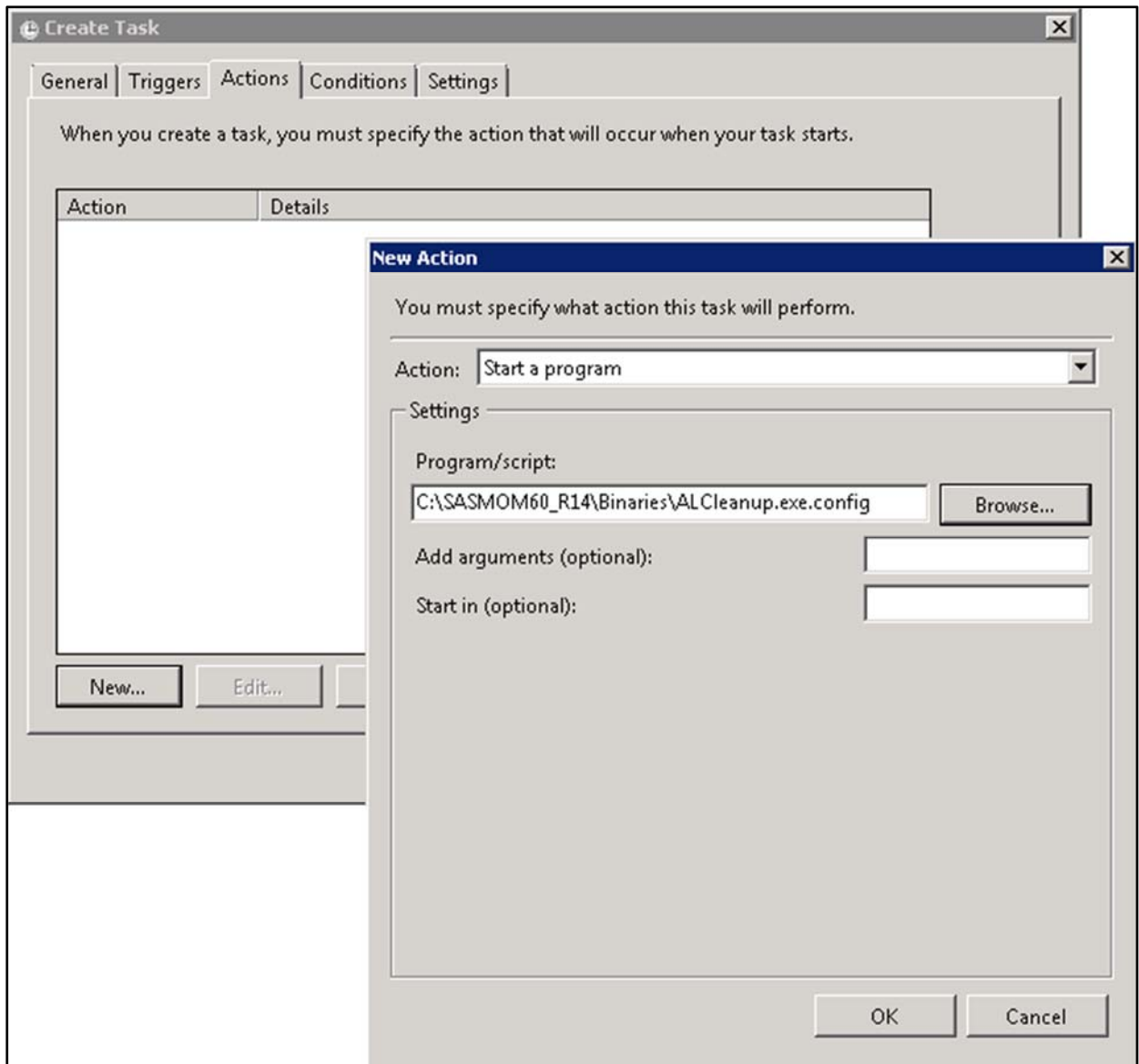


Figure No.92

6. The default settings need to be used in the 'Settings' and the 'History' tab.

The utility is now scheduled and will automatically run every day at 12 AM.

The following utilities are scheduled using the above process:

6.4.1. **Configure and Schedule SAS Marketing Operations Management Cleanup Utility**

This task needs to run on all the machines in the setup.

ALCleanup utility is used to clean the temporary folders and files used by the SAS Marketing Operations Management system periodically. A copy of this utility is present on all the machines in the installation except the Media Processor. It needs to be scheduled to run on each of the machines.

It works on a configuration XML which specifies which folder and the files to be deleted and which folders to exclude while cleanup.

Configure the ALCleanup settings XML

```
<ALCleanup>
  <AssetLinkFolders>
    <TempFolder Location="C:\Temp" DeleteOlderThan="2" FileExtList="*.jpg;*.bmp" Comments="">
    </TempFolder>
  </AssetLinkFolders>
</ALCleanup>
```

Figure No.93

This configuration xml is present along with the Tenant XML in the path *<Installation Folder>/Configuration/XML/ALCleanup.xml*

The **TempFolder** node specifies which folders contents need to be deleted. The attribute **Location** of **TempFolder** specifies the path of the folder. E.g. *C:\Temp* is the folder whose contents will be deleted.

The **DeleteOlderThan** attribute specifies the how old files one wishes to delete. The value 2 specifies that files older than 2 days needs to be deleted.

The **FileExtList** specifies the type of files one wants to delete. You can specify the extension list separated by semicolon (;) if you wish to delete only specific type of files. If you want to delete all the files please specify .

You can specify multiple folders to be deleted by using **TempFolder** node multiple times.

```
<ALCleanup>
  <AssetLinkFolders>
    <TempFolder Location="C:\Temp" DeleteOlderThan="2" FileExtList="*.jpg;*.bmp" Comments="">
    </TempFolder>
    <TempFolder Location="C:\ SASMOM \Temp" DeleteOlderThan="2" FileExtList="*.*" Comments="">
    </TempFolder>
  </AssetLinkFolders>
</ALCleanup>
```

Figure No.94

You can also specify the folders inside *C:\Temp* you do not wish to delete. This can be done by adding **AVOIDFOLDERLIST** inside the **TempFolder** node.

```
<ALCleanup>
  <AssetLinkFolders>
    <TempFolder Location="C:\Temp" DeleteOlderThan="2" FileExtList="*.jpg;*.bmp" Comments="">
    </TempFolder>
    <TempFolder Location="C:\ SASMOM \Temp" DeleteOlderThan="2" FileExtList="*.*" Comments="">
      <AVIODFOLDERLIST>
        <AVOIDFOLDER>C:\Asset link510\Temp\FileConverter</AVOIDFOLDER>
      </AVIODFOLDERLIST>
    </TempFolder>
  </AssetLinkFolders>
</ALCleanup>
```

Figure No.95

The above configuration specifies not to delete the **FileConverter** folder inside *C:\<Installation Folder>\Temp* and its contents. Multiple **AVOIDFOLDER** nodes can be added to specify multiple folders, which should not be deleted.

The following folders need to be cleaned on the respective machines:

Solutions Server	
Sr.	Folder Name and Path:
1	<InstallationDir>\<Tenant name>\DownloadFiles (Used as a cache hence should not be cleaned up very frequently. After 10-12 days would be fine)
2	<InstallationDir>\Temp (This cleanup is done by the installer) Note: The folder to be avoided for deletion is Windows Service Status.
3	<InstallationDir>\<tenantname>\UploadedFiles

Web Services/ Cataloger Machine	
Sr.	Folder Name and Path:
1	C:\Temp (This cleanup is done by the installer)
2	Outbox folder specified in tenant creation process. Note: This is valid only for the Services Machine and not the Cataloger machine.
3	<InstallationDir>\Temp (This cleanup is done by the installer) Note: The folder to be avoided for deletion is FileConverter.
4	<InstallationDir>\Media Processor Note: All files and folders under this directory should be deleted.

FYI: Potential areas for cleanup are also: Downloaded Formats, Imported Formats and Exported Formats if the Artwork Producer module is being used. This is just for the sake of maintenance information. Check for the correctness of the cleanup.xml by opening it in a browser to make sure the path mentioned for cleanup is correct.

6.4.2. Schedule Task for DAM

Schedule 'AL_DAMBackgroundRequestHandler.exe' to run at a time when there is less or no activity on the server. This exe is located in the '<installation Directory>/binaries' folder. It has to be added as a scheduled task on the Web services machine.

This task should be scheduled to run at a time when there are hardly any users logged into the system. It needs to be run at a time when the system is not due for restart. This operation takes a while to execute so there should be sufficient time between start of the task and the restart of the system.

For the above task the following three operations can be performed:

1. **Recycle Bin cleanup** - To empty recycle bin of content which are marked for permanent deletion.
2. **For marking the assets as expired** - To mark assets which are having expired date less than the current date.
Note: This task should be scheduled to be run after 12.00 a.m. This operation takes a while to execute.
3. **To calculate the total disk space usage by the Vaults** - To calculate the total space used by the Vaults in DAM.

Notes: To change the application behavior certain parameters need to be set in the '**AL_DAMBackgroundRequestHandler.exe.config**' file. The changes are mentioned below:

SENDEMAILFORVAULTDISKSPACE: true/false

If the vaults total used disk space percentage is greater than the configured number then notification specifying vaults disk space details will be sent to System Administrator and the configured user(s) depending on the vaule specified for this configuration. By default the vaule is "true".

NOTIFYIFUSEDISKSPACEPERCENTAGEGREATERTHAN

Number specifying the percentage allowed for total used disk space. By default the vaule is 80.

EMAILIDSFORVAULTDISKSPACENOTIFICATION

Comma seperated email id's of user who should get notified.

```
<appSettings>
  <add key="DAMWSURL" value="http://198.113.120.114/ALServices/ALDAMWS.asmx"/>
  <add key="ALInfrastructureWS" value="http://198.113.120.114/ALServices/ALInfrastructureWS.asmx"/>
  <add key="ALSearchWS" value="http://198.113.120.114/ALServices/ALSearchWS.asmx"/>
  <add key="ALNotificationWS" value="http://198.113.120.114/ALServices/ALNotificationWS.asmx"/>
  <add key="REASONFORASSETEXPIRY" value="Reason for Asset Expiry is: System expires asset."/>
  <add key="EMAILIDSFORVAULTDISKSPACENOTIFICATION" value="admin@assetlink.com"/>
  <add key="SENDEMAILFORVAULTDISKSPACE" value="true"/>
  <add key="NOTIFYIFUSEDISKSPACEPERCENTAGEGREATERTHAN" value="80"/>
</appSettings>
```

6.4.3. Schedule 'Security Policy' report generation for DAM

To generate data for Security Policy report, '**SecurityPolicyService.exe**' application needs to be scheduled to run periodically. The default interval is three hours. Create a schedule task for this application. This exe is located in the '<installation Directory>/binaries' folder. It has to be added as a scheduled task on the Web services machine.

6.4.4. Schedule a 'DAM Vault User Access' report generation

This report is used to get information related to user's access to vaults in the system. It's an off line report which is used to populate temporary table in the database, which will be used by the report to display data. To generate data for a DAM Vault User Access report, '**DAMVaultUserAccess.exe**' application needs to be scheduled to run periodically. The default interval is three hours. Create a schedule task for this application. This exe is located in the '<installation Directory>/binaries' folder. It has to be added as a scheduled task on the Web services machine.

7. Additional Configurations

7.1. Media Server Proxy Configuration

SAS Marketing Operations Management uses media server component to share the load of the IIS for downloading data from the system. So while downloading files, Media Server gets directly accessed by the Solution.

In case of a DMZ set up, if the media server gets installed on an internal server then the solution can not access the Media server directly. To handle this situation a workaround is given as follows:

While installing solutions in DMZ, select Media Server along with the other components. This Media Server will be treated as a proxy of the internal Media server.

The following configuration needs to be changed after the installation.

Tenant Web.config from the External solution machine

- `<add key="DeploymentMode" value="MULTI" />`
- `<add key="ALMEDIASERVERFILEDOWNLOADURL" value="http://<External solution machineIP>/ALMediaServices/Aspx/FileDownload.aspx" />`

Media services web.config from External solution machine

Add following keys

- `<add key="ALMEDIASERVERMTOMWS" value="http://<Media ServerIP>/ALMediaServices/ALMTOMWS.asmx"/>`
- `<add key="ISMEDIASERVERPROXYINSTALLED" value="true"/>`
- `<add key="UploadAssemblyName" value="<Installation Dir>\SAS MOM\<Tenant`

Folder>\Bin\ALCommonExtension.dll" />

Dashboard service exe configuration from the internal server

InstallationMode = MULTI

After doing these changes, the external solution will be able to download the Original and Preview files from the system as well as display the Digital asset channels on the external server.

7.2. Media streaming server configuration in case of External (DMZ) setup

If the installation is in DMZ, where Media Streaming server is configured on the internal network, the files don't get streamed if accessed from an external system.

To handle this situation, Media streaming server needs to be configured on the external setup. Make sure the entire configuration remains same as the configuration done on internal set up.

Access the tenant settings screen from the external network and specify the values for the "Virtual Directory Name", "Mount Point Path", "Publishing Point" which are similar to internal set up.

To configure Replication Agent for External Media Streaming server, refer to the section below.

Note: Make sure the Streaming Server IP is of "External Media Streaming server".

7.3. Replication Agent Configuration

Following are the guidelines for installing 'Replication Agent', which is used to replicate files across machines.

Before starting the agent the following configuration need to be done:

7.3.1. Replication Agent Configuration details

Replication Agent will always get installed on the Solutions (Web Server) machine.

Replication Configuration XML is present in <Installation Dir>\(Configuration)\ReplicationAgentConfig.xml.

```
<CONFIGURATION>
  <AGENTDETAILS>
    <EVENTSTOMONITOR>CREATE,DELETE,MODIFY,RENAME</EVENTSTOMONITOR>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$DAM\Configuration\VML" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$DAM\Configuration\VML\FrmBuilder" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$MediaLibrary\Configuration\VML" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$MediaLibrary\Configuration\VML\FrmBuilder" FileExtList="*.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$StrategicPlanner\Configuration\VML" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$StrategicPlanner\Configuration\VML\FrmBuilder" FileExtList="*.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$MarketingWorkbench\Configuration\VML" FileExtList="SolutionConfiguration.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$MarketingWorkbench\Configuration\VML" FileExtList="*_DataTransferConfig.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$MarketingWorkbench\Configuration\VML\FrmBuilder" FileExtList="*.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$Approvals\Configuration\VML" FileExtList="SolutionConfiguration.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$Approvals\Configuration\VML\FrmBuilder" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$Administration\Configuration\VML" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$ResourceManagement\Configuration\VML" FileExtList="*.xml" IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$AL$TENANTNAME$AL$ResourceManagement\Configuration\VML\FrmBuilder" FileExtList="*.xml"
  IncludeSubdirectories="FALSE"/>
    <MONITORFOLDERDETAILS LOCATION="$AL$INSTALLDIR$AL$Configuration\VML" FileExtList="$AL$TENANTNAME$AL$.xml">
      <FILESTOPRESERVE>
        <FILE PATH="$AL$INSTALLDIR$AL$Configuration\VML$AL$TENANTNAME$AL$.xml">
          <CLAUSELIST>
            <CLAUSE>
              <XPATH>CONFIGURATION/APPROVALSETTINGS/WEBDAVREQUIRED</XPATH>
              <VALUE>NO</VALUE>
            </CLAUSE>
            <!--<CLAUSE>
              <XPATH>CONFIGURATION/MEDIASTREAMING/MEDIASTREAMING_SERVER_IP</XPATH>
              <VALUE><External Machine IP></VALUE>
            </CLAUSE-->
          </CLAUSELIST>
        </FILE>
      </FILESTOPRESERVE>
    </MONITORFOLDERDETAILS>
  </AGENTDETAILS>
</CONFIGURATION>
```

Figure No.96

Manual Steps:

1. Replace \$AL\$INSTALLDIR\$AL\$ with Installation Directory Path E.g. Replace \$AL\$INSTALLDIR\$AL\$ with D:\SASMOM60_R14.
Note: Do not replace with "D:\SAS MOM 60_R14\" it has to be "D:\SAS MOM 60_R14"
2. Replace \$AL\$TENANTNAME\$AL\$ with the created Tenant. E.g. Replace \$AL\$TENANTNAME\$AL\$ with AEO.
3. FILESTOPRESERVE: This has to be configured only in case where certain attributes from the file to be retained after replication. E.g. In case of AEO, Internal machine, setting for WEBDAVREQUIRED is always set to "YES" and in case of External machine setting for WEBDAVREQUIRED is always set to "NO".

If Enable Media Streaming is configured for a given tenant, then uncomment the clause from "ReplicationAgentConfiguration.xml" from both internal and external machine.

On the external machine set the <External Machine IP> to the IP address of External Media Streaming server.

On the Internal machine set the <External Machine IP> to the IP address of Internal Media Streaming server.

<CLAUSE>

<XPATH>CONFIGURATION/MEDIASTREAMING/MEDIASTREAMING_SERVER_IP</XPATH>

<VALUE><External Machine IP></VALUE>

</CLAUSE>

Note: If there is no need of retaining certain attributes, please remove 'FILESTOPRESERVE' node.

Following is the list of folders and files, which the Replication Agent Service monitors for replicating:

\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\DAM\Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\DAM\Configuration\XML\FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MediaLibrary\Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MediaLibrary\Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\StrategicPlanner\Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\StrategicPlanner\Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MarketingWorkbench\Configuration\XML	SolutionConfigura tion.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MarketingWorkbench\Configuration\XML	*_DataTransferC onfig.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\MarketingWorkbench\Configuration\XML \FormBuilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\Approvals\Configuration\XML\	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\Approvals\Configuration\XML\FormBuilde r	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\Administration\Configuration\XML	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\Administration\Configuration\XML\FormB uilder	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\ResourceManagement\Configuration\XM L	*.xml
\$AL\$INSTALLDIR\$AL\$\\$AL\$TENANTNAME\$AL\$\ResourceManagement\Configuration\XM L\FormBuilder	*.xml

Note: Replication doesn't take responsibility of replicating sites across machines. So sites created in the system through internal or external set up have to be manually replicated on the other machines. That means sites created on the internal setup have to be manually copied on the external machine. This holds true for External to Internal also. Whenever any changes are made to respective sites should follow this process.

7.3.2. Replication Server Details

Replication Server will always get installed on the SAS Marketing Operations Management Services machine.

```
<CONFIGURATION>
  <AGENTLIST>
    <INTERNALAGENT/>
    <EXTERNALAGENT/>
  </AGENTLIST>
</CONFIGURATION>
```

On that machine, configure the "ReplicationServerConfig.xml" from the <Installation Dir>\Configuration\XML.

The above configuration needs to change, to indicate which all agents are present and the details about that agent. After the configuration the XML will look like:

```
<CONFIGURATION>
  <AGENTLIST>
    <INTERNALAGENT>
      <AGENT IP="198.113.120.127" >c:\SAS MOM 60</AGENT>
    </INTERNALAGENT>
    <EXTERNALAGENT>
      <AGENT IP="198.113.120.172">E:\SAS MOM 60</AGENT>
    </EXTERNALAGENT>
  </AGENTLIST>
</CONFIGURATION>
```

If the 'CommunicationProtocol' for INTERNALAGENT is always TCP and for EXTERNAL Agents 'CommunicationProtocol' can be specified by default it is <http://>.

7.3.3. MediaRequestRouter

This setting is required only in case of External machine [not in network].

Open the file from "<Installation Dir>\Configuration\XML\MediaRequestRouter.xml". The node specific to ReplicationServer in MEDIAPROCESSQ needs to change pointing to the internal machine ReplicationServerQ. Change the highlighted portion to "FormatName:DIRECT=http://<Internal machine IP address>/msmq/Private\$/ReplicationServerQ".

```
<MEDIAPROCESSOR SOLUTIONNAME="ReplicationManager">
  <ROUTEMESSEAGETIMEOUT>720</ROUTEMESSEAGETIMEOUT>
  <APPLICATION TYPE="ReplicationServer">
    <MEDIAPROCESSORQPATH>FormatName:DIRECT=TCP:198.113.120.127\Private$\ReplicationServerQ</MEDIAPROCESSORQPATH>
    <FILEPATH>
      <REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
      <NETWORKPATH/>
    </FILEPATH>
  </APPLICATION>
  <APPLICATION TYPE="ReplicationAgent">
    <MEDIAPROCESSORQPATH>FormatName:DIRECT=TCP:198.113.120.172\Private$\ReplicationAgentQ</MEDIAPROCESSORQPATH>
    <FILEPATH>
      <REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
      <NETWORKPATH/>
    </FILEPATH>
  </APPLICATION>
</MEDIAPROCESSOR>
```

After the changes the XML should look like:

```
<MEDIAPROCESSOR SOLUTIONNAME="ReplicationManager">
  <ROUTEMESSEAGETIMEOUT>720</ROUTEMESSEAGETIMEOUT>
  <APPLICATION TYPE="ReplicationServer">
    <MEDIAPROCESSORQPATH>FormatName:DIRECT=http://198.113.120.127/msmq/Private$/ReplicationServerQ</MEDIAPROCESSORQPATH>
    <FILEPATH>
      <REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
      <NETWORKPATH/>
    </FILEPATH>
  </APPLICATION>
  <APPLICATION TYPE="ReplicationAgent">
    <MEDIAPROCESSORQPATH>FormatName:DIRECT=TCP:198.113.120.172\Private$\ReplicationAgentQ</MEDIAPROCESSORQPATH>
    <FILEPATH>
      <REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
      <NETWORKPATH/>
    </FILEPATH>
  </APPLICATION>
</MEDIAPROCESSOR>
```

```

        </FILEPATH>
    </APPLICATION>
    <APPLICATION TYPE="ReplicationAgent">
    <MEDIAPROCESSORQPATH>FormatName:DIRECT=TCP:198.113.120.172\Private$\ReplicationAgentQ</MEDIAPROCESSORQPATH>
        <FILEPATH>
        <REPLACEABLEPATH>D:\SAS MOM\Replication</REPLACEABLEPATH>
            <NETWORKPATH/>
        </FILEPATH>
    </APPLICATION>
</MEDIAPROCESSOR>

```

7.3.4. InstallReplicationAgentServices.bat

After the configuration, the services can be started. For installing the Replication Agent on the installation, Run the "InstallReplicationAgentServices.bat" from the <Installation Directory>\Binaries. This will install the service and make it visible in to the Services Panel.

SAS MOM PluginService Service	This service ...	Automatic	Local System
SAS MOM Queue Manager Service	This service ...	Automatic	Local System
SAS MOM Replication Agent Service		Manual	Local System

Replication needs SAS MOM Queue Manager Service to be running also. Start both the services from Service Panel.

7.3.5. UninstallReplicationAgentServices.bat

For uninstalling the replication service run the "UninstallReplicationAgentServices.bat" from <Installation Dir>\Binaries. This will remove SAS MOM Replication Agent Service from Service Panel.

7.4. Fine Tuning Tips

7.4.1. Running Services Selectively

When the SAS Marketing Operations Management software is installed there are several Windows services installed. These services run in the background to facilitate certain functionality provided by the different solutions. As these processes run in the background they consume resources in terms of database access and memory. Based on the solution usage these services can be selectively started:

Sr.	Name of Service	Application which requires this service
1	SAS MOM Back Office Service	Marketing Workbench, Approvals, Timesheets, Campaign Manager, Strategic Planner
2	SAS MOM BusinessEvents Service	Strategic Planner (This can be for Marketing Workbench, Claims Management, Offer Management and all other solutions where change management – Audit History on forms is tracked)
3	SAS MOM Cataloger Service	DAM (Mainly DAM, but could be used by other modules if cataloging is getting used. Such as Artwork Producer)

4	SAS MOM DAM Job Copy Service	DAM
5	SAS MOM Dashboard Service	Dashboard & Calendars
6	SAS MOM File Watcher Service	DAM (Mainly DAM, but could be used by other modules if cataloging is getting used. Such as Artwork Producer)
7	SAS MOM Format Watcher	Artwork
8	SAS MOM Notification Service	All Modules
9	SAS MOM NTFS Monitoring Service	Campaign Manager
10	SAS MOM PluginService Service	Marketing Workbench, Approvals, Strategic Planner
11	SAS MOM Queue Manager Service	Marketing Workbench, Approvals, Ad hoc Reports, Timesheets, Strategic Planner, DAM
12	SAS MOM Replication Agent Service	All modules (used only in case of AEO type of deployment)
13	SAS MOM Report Scheduler	Ad hoc Reports, Standard Reports
14	SAS MOM Service Monitor	All modules (as this monitors all the services used by various modules)
15	SAS MOM Text Cataloger Service	DAM (Text Search)
16	SAS MOM WebDAV Service (Only if WebDAV is installed)	Marketing Workbench, Approvals, Strategic Planner

7.4.2. Improving the performance of the DAM Solution

Following are the keys and its values that need to be added in "Web.config" file located under path "<Installation Dir>\<Tenant Name>\", on the server where the solutions are installed.

E.g.:

```
<add key="MULTIDOMAINSUPPORT" value="true" />
```

```
<add key="MAXDOMAINCOUNT" value="5" />
```

```
<add key="PREFIXDOMAINNAME" value="Sun" />
```

```
<add key="SUFFIXDOMAINNAME" value="india.sas.com" />
```

Multidomain support is done to improve the performance while fetching the thumbnails in DAM. Browser will serialize the request to download a particular file. If there are 100 Assets to be shown on the screen, then to download these many files requires more time as only 2 files can be downloaded at a time. If multiple domains are configured then these requests get divided into number of domains, increasing the performance.

Note: Configure the domain before setting the multidomain key to "True".

7.4.3. Improving the performance of the SAS Marketing Operations Management Solution

SQL Services

For improving the performance of SAS Marketing Operations Management solution the following SQL Services need to be kept started/not started and kept automatic/manual/disabled:

SQL Services	Started/Not Started	Automatic/Manual/Disabled
--------------	---------------------	---------------------------

SQL Server (MSSQLSERVER)	Started	Automatic
SQL Server Active Directory Helper	Not Started	Disabled
SQL Server Agent (MSSQLSERVER)	Started	Automatic
SQL Server Analysis Services (MSSQLSERVER)	Not Started	Manual
SQL Server Browser	Not Started	Disabled
SQL Server FullText Search (MSSQLSERVER)	Started	Automatic
SQL Server Integration Services	Not Started	Manual
SQL Server Reporting Services (MSSQLSERVER)	Off	Manual
SQL Server VSS Writer	Off	Manual

Cache Management

1. **Application Service Cache:** Application Services caches the metadata such as Entity Type, Facet Type and Relationship Type as an in-memory cache. This reduces queries to the database. The cache is configurable and can be turned on using the key in Web.config of the ALServices virtual directory.
`<add key="OMCacheEnabled" value="true"/>` - The value true represents the cache is enabled and false otherwise.

Note: The cache is refreshed if the metadata is changed from the Schema Designer. If the metadata is modified apart from Schema Designer then a restart of the web server is required on the Application Server machine.

2. **Named Hierarchy Cache:** SAS Marketing Operations Management solution caches the Named Hierarchy information as a persistent data on the file system. This improves the performance as data is fetched from the cache instead of the web service calls. The cache is stored at the following location:

```
<Installation Directory>
|
|----- Temp
|
|----- <Tenant Name>_Cache
```

All the named hierarchy is stored as XML.

The cache is configurable and can be turned on using the key in the Web.config of <TenantName> virtual directory on the SAS Marketing Operations Management Solution machine.

`<add key="PersistentCacheEnabled" value="true"/>` - The value true represents the cache is enabled and false otherwise.

Notes:

1. If possible keep this folder out of the cleanup process.

2. The cache is refreshed if the named hierarchy is changed from Schema Designer. If the named hierarchy is modified apart from Schema Designer then the XML file(s) have to be deleted from the persistent cache.

7.5. IIS Performance Tuning

SAS Marketing Operations Management is based on Microsoft .NET technology. It uses various Microsoft Technologies in its own solution. It is assumed that the SAS Marketing Operations Management product is being installed on Windows 2008 Server and IIS 7.0 as the base platform.

For the smooth working of the product the configuration that is required on Internet Information Services (IIS) is as follows:

7.5.1. Application Pool Settings

Enable ASP.NET - ASP.NET is disabled by default in IIS 7.0. If the ASP.NET is not enabled then you may see the following error:

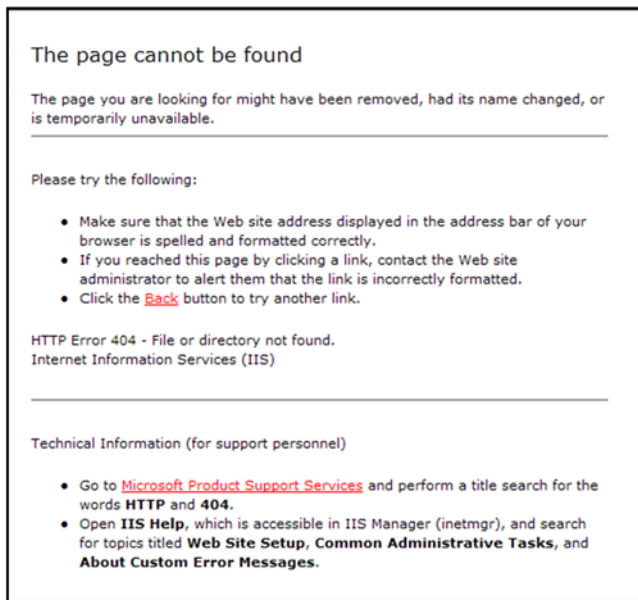


Figure No.97

Follow the steps below to enable ASP.NET:

1. Open the Internet Information Services Manager.
2. Traverse to "Web Services Extension" section.
3. Select ASP.NET v2.0.50727 and click on 'Allow'.

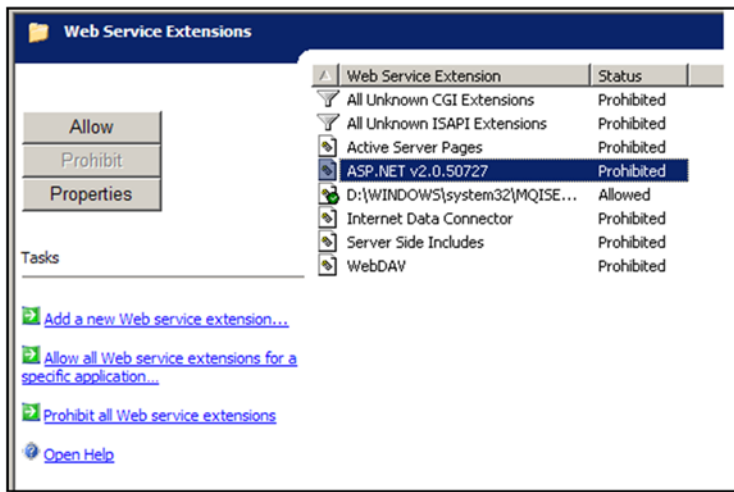


Figure No.98

The following steps describe the configuration which is recommended for DefaultAppPool application pool. (If SAS Marketing Operations Management is configured on any other Application Pool then these are applied for the configured Application Pool):

1. Recycling - The DefaultAppPool have the "Recycle Worker Process" setting enabled, which restarts the ASP.NET worker process after 1740 minutes i.e. 29 hours. It is recommended to disable the settings by following the steps below:
2. Open the Internet Information Services Manager.
3. Traverse to Application Pools | DefaultAppPool properties.
4. Traverse to Recycle tab and uncheck the 'Recycle Worker Process'.

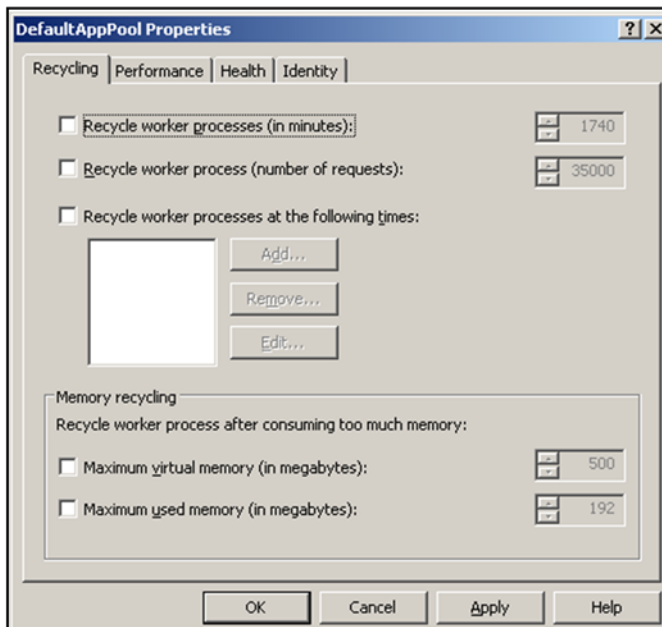


Figure No.99

5. Performance - The DefaultAppPool has the "Idle Timeout Shutdown Worker Process" setting enabled, which shuts down the ASP.NET worker process if the worker process is being idle for 20 minutes. It is recommended to follow the steps below:
 - a. Open the Internet Information Services Manager.
 - b. Traverse to Application Pools | DefaultAppPool properties.
 - c. Traverse to Performance tab and uncheck the '**Shutdown Worker Process after being idle for**'.

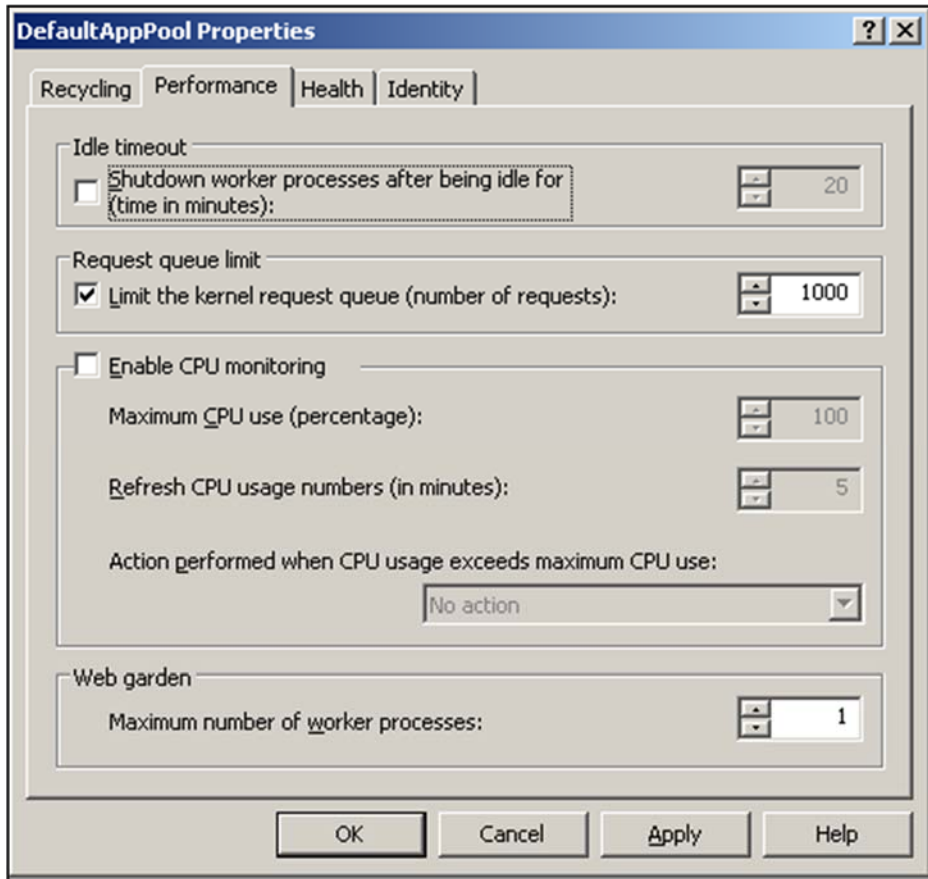


Figure No.100

7.6. Configure SAS Marketing Operations Management for full Text search

The default logical operator that is used for multiple words based simple search is 'AND'. It has been kept configurable so that if it needs to be changed for deployment then the steps below need to be followed to change the logical operator to OR:

Step 1: Open the <TenantName>.xml from the <Installed Directory>\Configuration\XML or \\<Machine Name>\Shared Drive\Configuration\XML in case of load balance setup.

Step 2: Look for the following XML node

```
<FULLTEXTSEARCH>
  <LOGICALOPERATOR>AND</LOGICALOPERATOR>
</FULLTEXTSEARCH>
```

Change the AND to OR (vice-versa).

<FULLTEXTSEARCH>
<LOGICALOPERATOR>OR</LOGICALOPERATOR>
</FULLTEXTSEARCH>

7.7. Suppress Dialogs for Automatic Updates

Perform the following steps to uncheck the automatic updates in Adobe Acrobat 8.0/9.0:

1. Click on the Help > Check for Updates option.
2. This checks for the Updates and then it displays the link for 'Preferences' on this screen.
3. Click on the 'Preferences' link and the check box for 'Automatically check for updates' is displayed.
4. Uncheck this and click on the 'OK' button.

7.8. SAS Marketing Operations Management Service Monitor Configuration

The SAS Marketing Operations Management services are installed on all the machines where the software is installed. Depending on which components are installed, the services will get installed. For some reason if a specific service should not be watched then its respective node should be removed from the list and the monitoring service should be restarted. The xml for the 'SAS MOM Service Monitor' service is found in the <Installation Directory>\Configuration\XML\ALServiceMonitorConfiguration.xml. The following screenshot specifies the services on the respective machines.

```

<COMPONENTLIST>
  <COMPONENT Name="SOLUTION">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Format Watcher Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
      <WINDOWS_SERVICE Name="SAS MOM WebDAV Service" StampErrorIfNotFound="False"/>
      <WINDOWS_SERVICE Name="SAS MOM NTFS Monitoring Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="WEBSERVICE">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Back Office Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Notification Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Dashboard Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Text Cataloger Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Report Scheduler"/>
      <WINDOWS_SERVICE Name="SAS MOM PluginService Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="BUSINESSEVENTSSERVER">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM BusinessEvents Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="CATALOGER">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Cataloger Service"/>
      <WINDOWS_SERVICE Name="SAS MOM File Watcher Service"/>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="FLVGENERATOR">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="ILLUSTRATOR MEDIAPROCESSOR">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>
  <COMPONENT Name="IMAGEPROCESSOR">
    <WINDOWS_SERVICELIST>
      <WINDOWS_SERVICE Name="SAS MOM Queue Manager Service"/>
    </WINDOWS_SERVICELIST>
  </COMPONENT>

```

8. Troubleshooting

Note: After the installation is completed check the log files for any exceptions. The log files (InstallationSettingsLog.txt and CreateTenant_MOM.txt) are stored in the 'Installation folder' of that machine.

8.1. User creation fails - Configure Windows User on the Server

Note: If 'ALUser' already exists on the machine then the password will get reset to what was accepted from the user while installing SAS Marketing Operations Management.

'ALUser' (this user should be a member of the Administrators group) needs to be created on all the machines where SAS Marketing Operations Management is installed and on the machine on which the shared network folder is created (For supporting shared Network Folder).

To create the 'ALUser' follow the steps below:

Go to Start > Administrative Tools > Server Manager > Configuration > Local Users and Groups > Users. The following steps are required to create the new user:

1. Right click on the 'Users' link and select 'New User' from the speed menu
2. Enter all the necessary values such as name (ALUser) and password
3. Select 'User cannot change password'
4. Select 'Password never expires'
5. Click on the 'Create' button

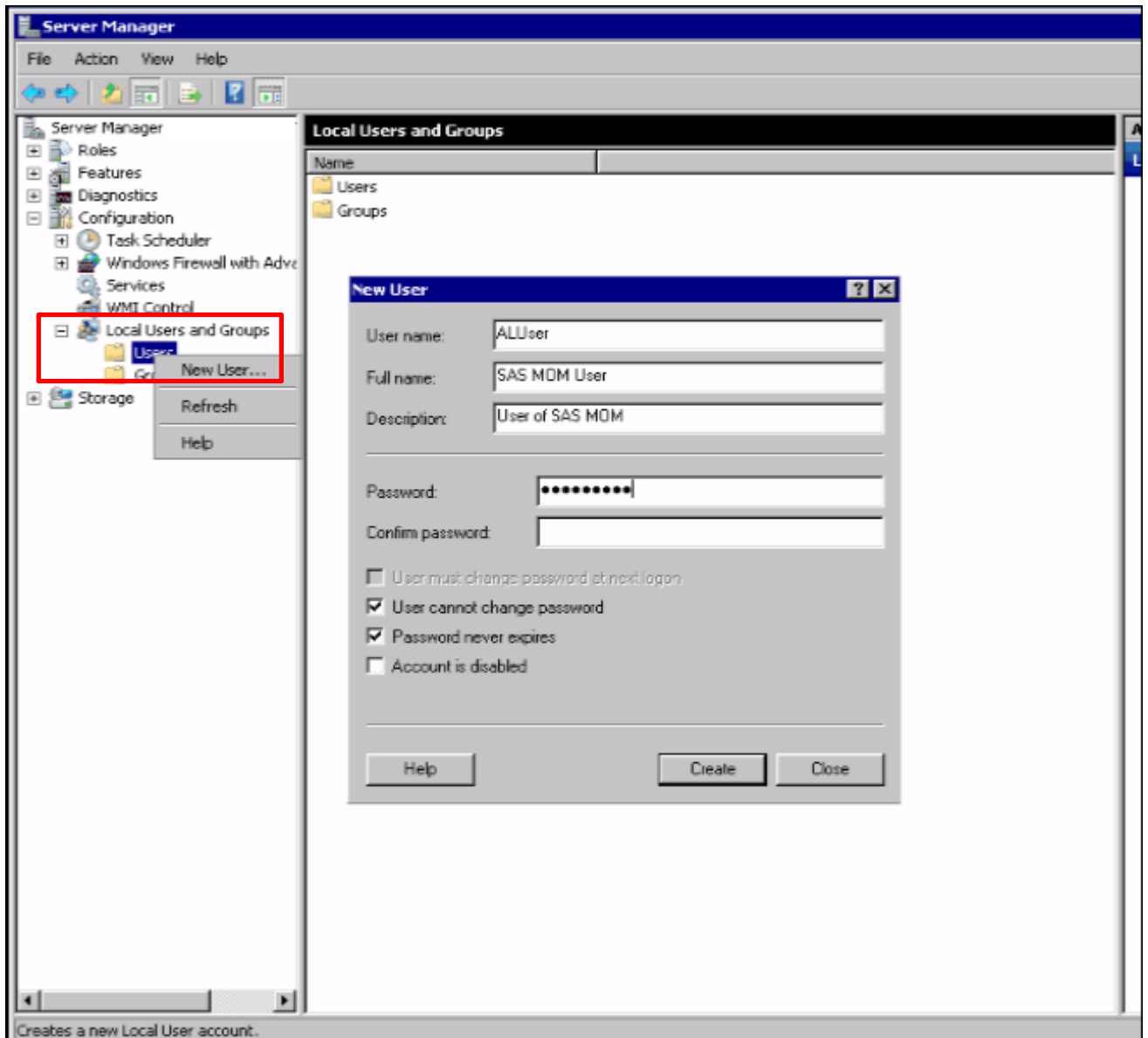


Figure No.101

Note: Make sure that the user name and password is the same on all the machines in the configuration.

8.2. Configure Environment Variables - Failed

If the installer fails to configure the environment variables then follow the steps given below:

8.2.1. For All Machines

The same settings need to be done on all the machines involved in the setup.

Right click on the 'Computer' icon, click on Properties and then click on the 'Advanced System Settings' link. Select the 'Advanced' tab. Set the system environment variables TEMP and TMP to point to folder C:\Temp. Create the folder C:\Temp if it does not exist. Allow 'Everyone' and 'ALUser' full control on this folder.

Note: The System Environment Variables can be edited from the advanced tab of the dialog box shown below.

Right click on the My Computer icon and select Properties option.

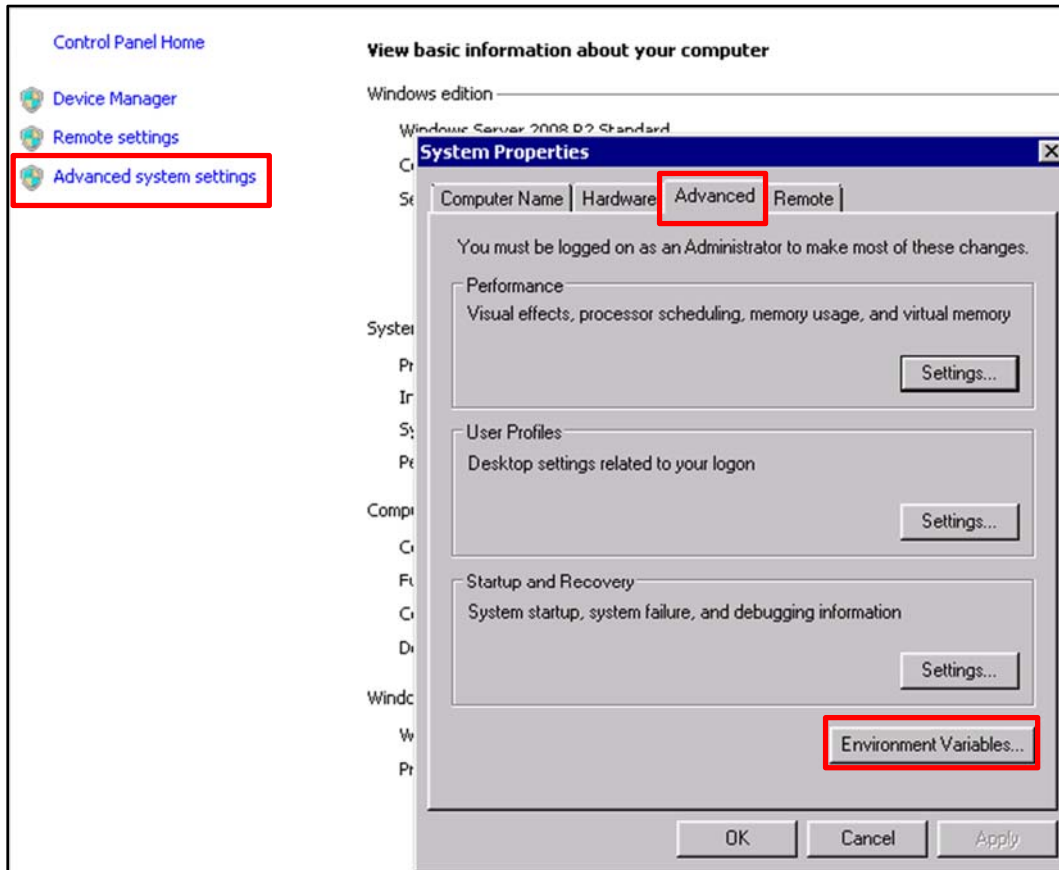


Figure No.102

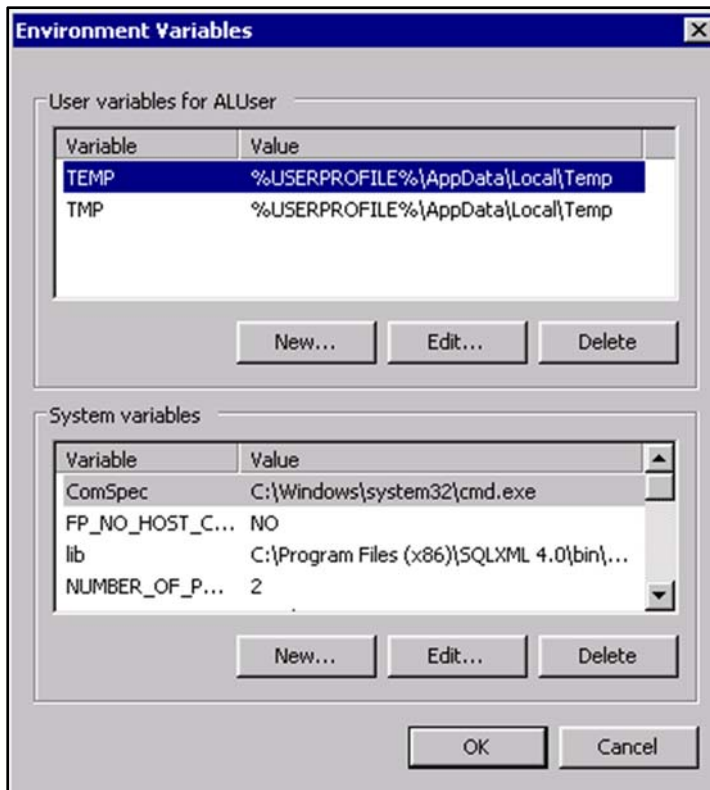


Figure No.103

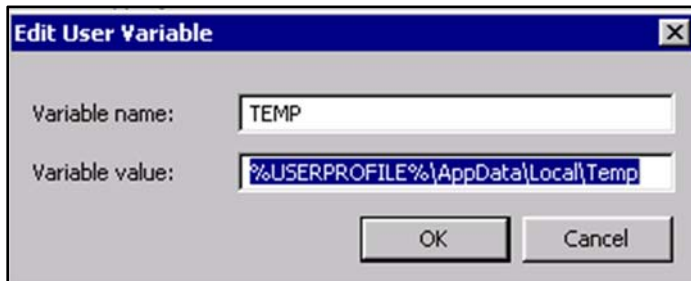


Figure No.104

TEMP and TMP are present in User Environment Variables and are accessible from the dialog box described above. However these are to be left unchanged.

8.3. Virtual Folder 'aspnet_client' creation failed

Create a virtual folder named "aspnet_client" and pointing to aspnet_client folder under www root.(e.g. C:\Inetpub\wwwroot\aspnet_client).

8.4. Security Permissions

If the installer fails to provide the security permissions do the following:

8.4.1. On ASP.NET temporary files

The '<OS Dir>\Microsoft.NET\Framework\v2.0.50727\Temporary ASP.NET' file needs to be given 'Full Control' to the 'Users' groups (Right-click and open up the Security tabs for this folder).

8.4.2. Registry Access

For ALUser: The setting needs to be done on all the machines on which SAS Marketing Operations Management is installed.

Give registry access to the newly created user (ALUser) using the following steps:

Open registry by "regedit" on run window.

Traverse to the path "HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Services\Eventlog"

Right click and click on the permissions, and add the newly created user (ALUser) and give full control.

For NETWORK SERVICE users: The setting needs to be done on all the machines on which SAS Marketing Operations Management is installed.

Give registry access to NETWORK SERVICE users using the following steps:

Open registry by "regedit" on run window.

Traverse to the path "HKEY_LOCAL_MACHINE\SYSTEM\ControlSet001\Services\Eventlog"

Right click and click on the permissions, and add the NETWORK SERVICE users and give full control.

8.4.3. Grant Folder Permissions

Allow the IUSR_<Machine Name>, NETWORK SERVICE and ALUser user accounts full control on the <Installation Path> folder on all the machines the installation has been done. Follow the steps below in Windows Explorer:

1. Right click on the installation folder and select 'Properties'.
2. Select the 'Security' tab.
3. Select the user and give 'Full control'.

For example if the server on which installation is being done is called Metis, the accounts IUSR_ Metis, NETWORK SERVICE user needs to be granted full control on <Installation Path> folder.

Note: Give full control to 'ALUser' on all the machines where the ALUser is created.

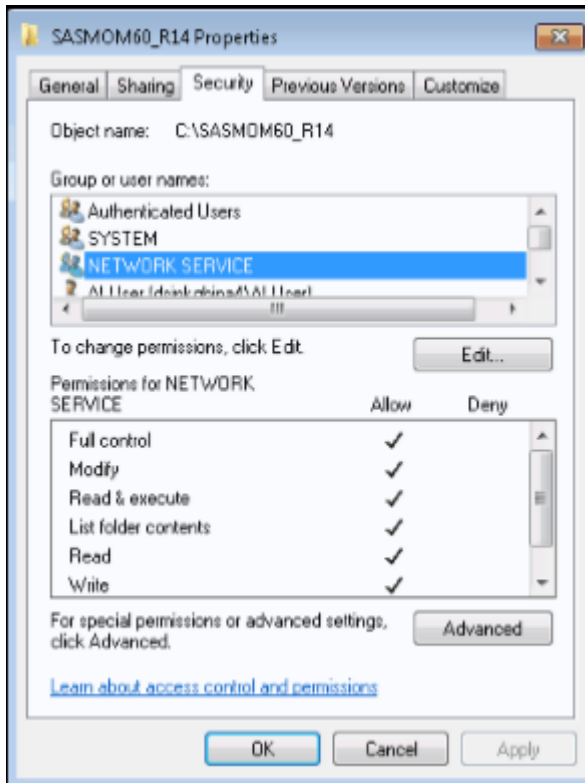


Figure No.105

8.5. Adding DLL in GAC

In a multi machine installation both the dll's (FluorineFx.dll and itextsharp.dll) are not required for every component, but the installer tries to install both. As only the dll required on a particular machine will be available, the installer writes a fatal error to the log file if one of the dll is not found.

Please note the scenario when we can ignore the error message:

1. For FluorineFx.dll: It is **required** if the following components are installed on a machine:
 - a. Cataloger
 - b. Solutions

Ignore the following Message in logs if any other component is installed: Severe Error. Installer is probably corrupt and Installation will be unusable.

Unable to find DLL fluorinefx.dll at the following location: C:\SASMOM60_R14\..\SASMOMTools\fluorinefx.dll

1. For itextsharp.dll: It is **required** if the following components are installed on a machine:
 - a. Cataloger
 - b. WebServices
 - c. MediaProcessor for Illustrator
 - d. MediaProcessor for InDesign
 - e. Solutions
 - f. MediaServer
 - g. MediaProcessor for FLV Generator

Ignore the following Message in logs if any other component is installed: Severe Error. Installer is probably corrupt and Installation will be unusable.

Unable to find DLL itextsharp.dll at the following location: C:\SASMOM60_R14\..\SASMOMTools\itextsharp.dll

Note: If it is a single machine installation then both the dll's will be present.

In case a DLL is actually required and not installed to GAC, follow the steps below to put the files into the assembly:

1. If Microsoft Visual studio is installed on the machine.
 - a) Install the DLL in GAC
 - b) Type the following command in VS command prompt of visual studio
Sn -Vr <Dll Path>
For example: Sn -Vr C:\GACDemo\fluorinefx.dll
Gacutil -i <Dll Path>
For example: Gacutil -i C:\GACDemo\fluorinefx.dll
2. If working on Windows 7 or Windows Server 2008 R2 (64 bit SP1)
 - a) Directly drag and drop the DLL's to the assembly folder (Path -> C:\Windows\assembly).

8.6. Running a service under the 'ALUser' context

Some selected services need to run under 'ALUser', if the installer fails to do this then the following needs to be done:

Apply the following settings for SAS MOM Queue Manager, Cataloger, BusinessEvents , PluginService, File Watcher and Service Monitor services in the Services applet:

1. Go to the services panel by clicking on Start > Administrative Tools > Server Manager and then click on the Services item.
2. Right click on the '<Service>' and select properties from the speed menu.
3. Click on the 'Log On' tab.
4. Select the 'This account' option in the 'Log on as' section.
5. Click on the 'Browse' button and select the 'ALUser' account.

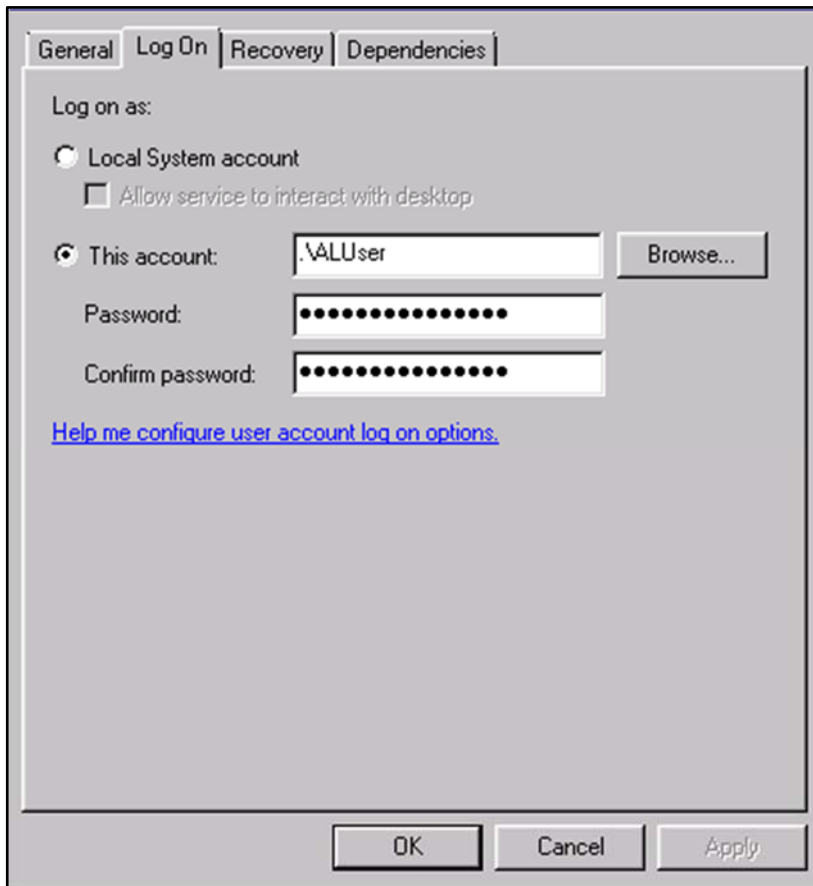


Figure No.106

6. Click on the 'General' tab.
7. Select the startup type as 'Automatic'.
8. Click on the 'OK' button to apply the settings.

Note: On both the machines 'ALUser' needs to be given full control on the installation folder.

8.7. Next Steps

When the 'SAS MOM Queue Manager Service' windows service is started on any machine, it creates 'SAS MOM' event log in the event viewer, a property of this event log needs to be set, so that the event log will never be full.

After starting all the services on all machines, a setting needs to be changed in the Event Viewer. Follow the steps below:

1. Go to Start > Administrative Tools > Server Manager>Diagnostics and click on Event Viewer.
2. On the left pane, go to the SAS MOM Log and right click on it. Select the 'Properties' link.

3. Select the radio button saying 'Overwrite events as needed'.

Ignore if the SAS MOM Log is not present.

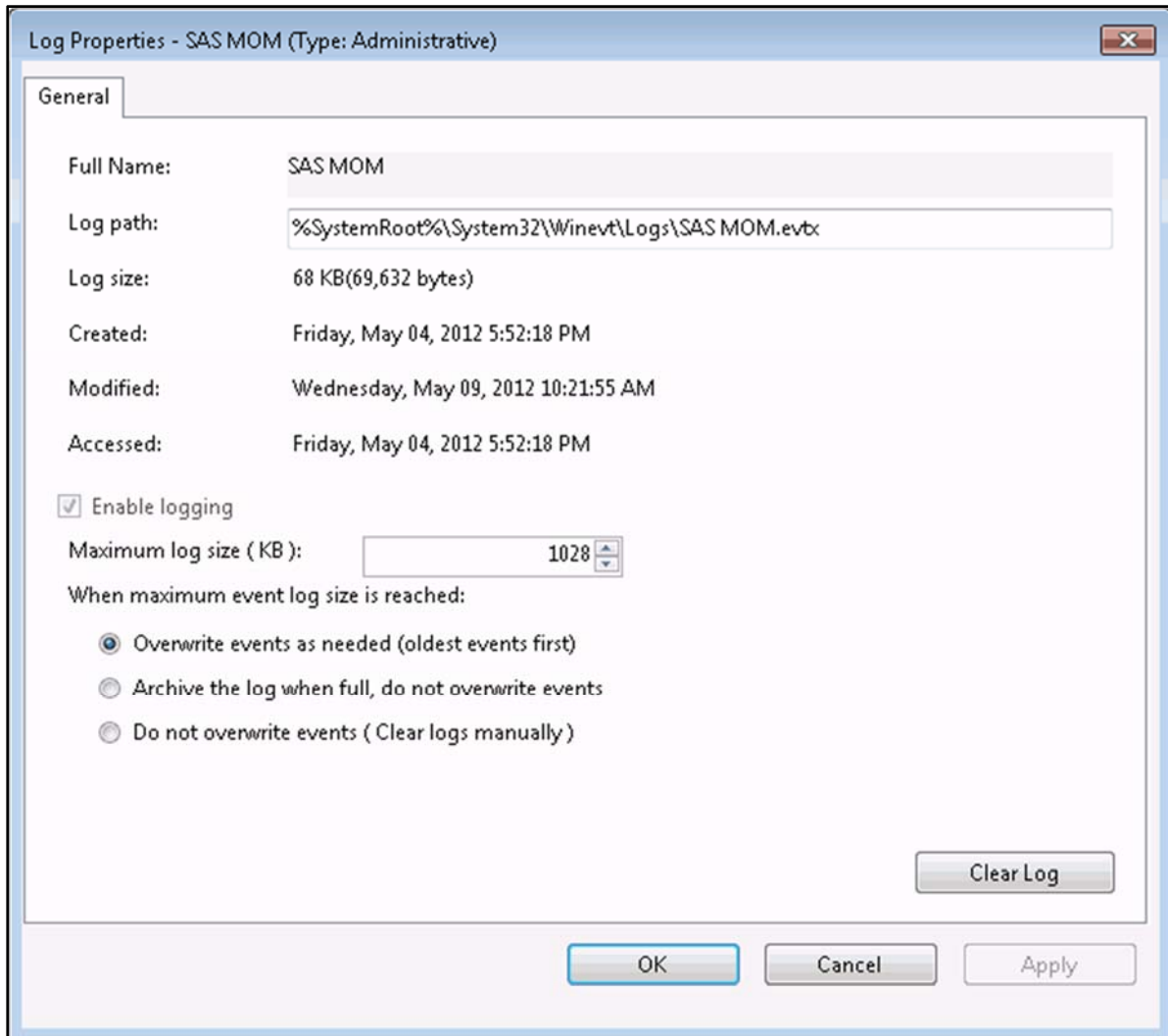


Figure No.107

8.8. Create Shared Drive

A 'MediaProcessor' folder is created on the **Web Services** and **Media Server** Machines after installation of SAS Marketing Operations Management. It is created under the installation folder.

On both the machines share the folder and add the 'ALUser' in the security and sharing tab and specify Full Control to the user.

Note: Make sure the shared folder has the name 'MediaProcessor' on both the machines. The name should not be changed.

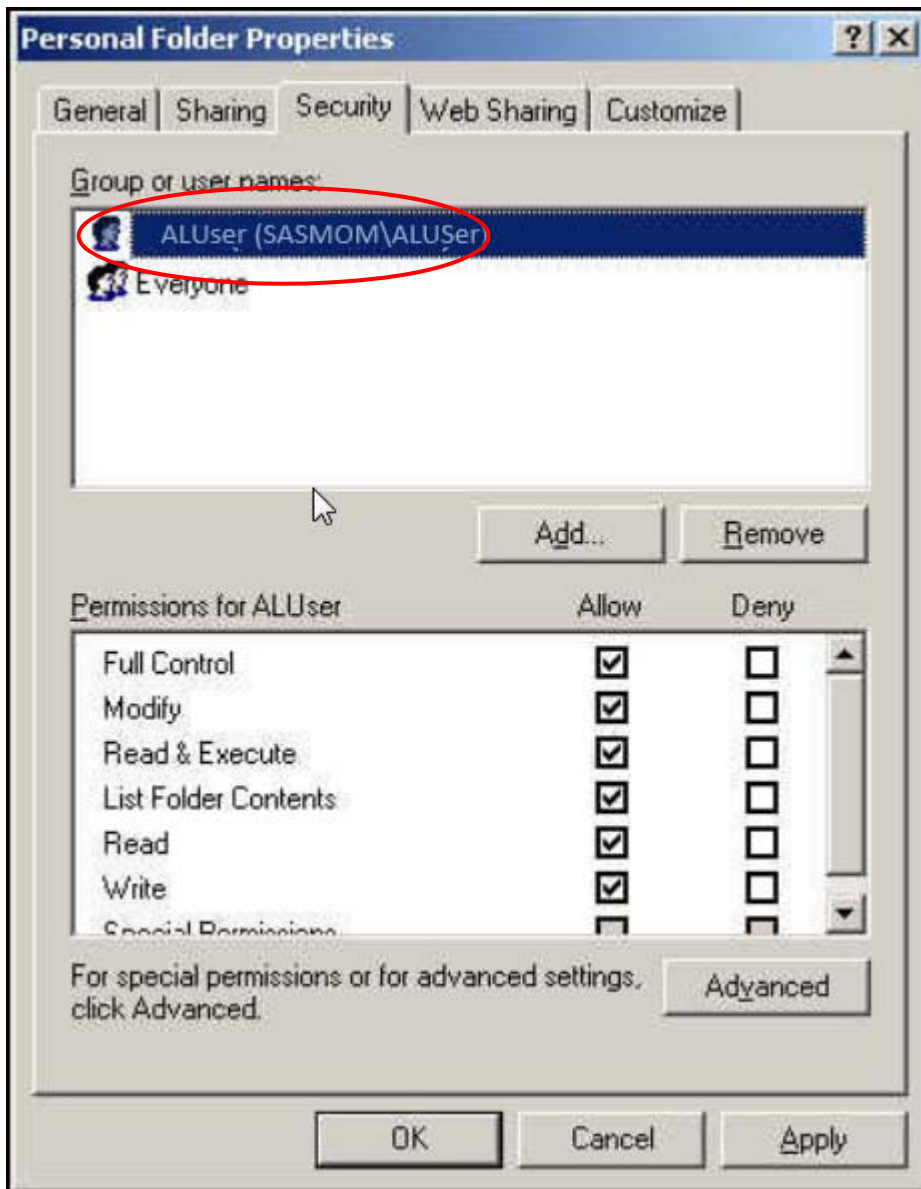


Figure No.108

8.9. Database Setup – If database creation fails

A separate database needs to be created for each tenant.

8.9.1. Create Database for Tenant

Create database to be used for the tenant using SQL Server Management Studio (reachable via Start | Programs | Microsoft SQL Server 2008 R2). Follow the steps described below:

- Connect to the server by entering the database user credentials.
- On the left pane right click on Databases and click on 'New Database'.
- In the 'New Database' popup (**Figure 108**) type the new database name and click on the 'OK' button. The new database is now created.

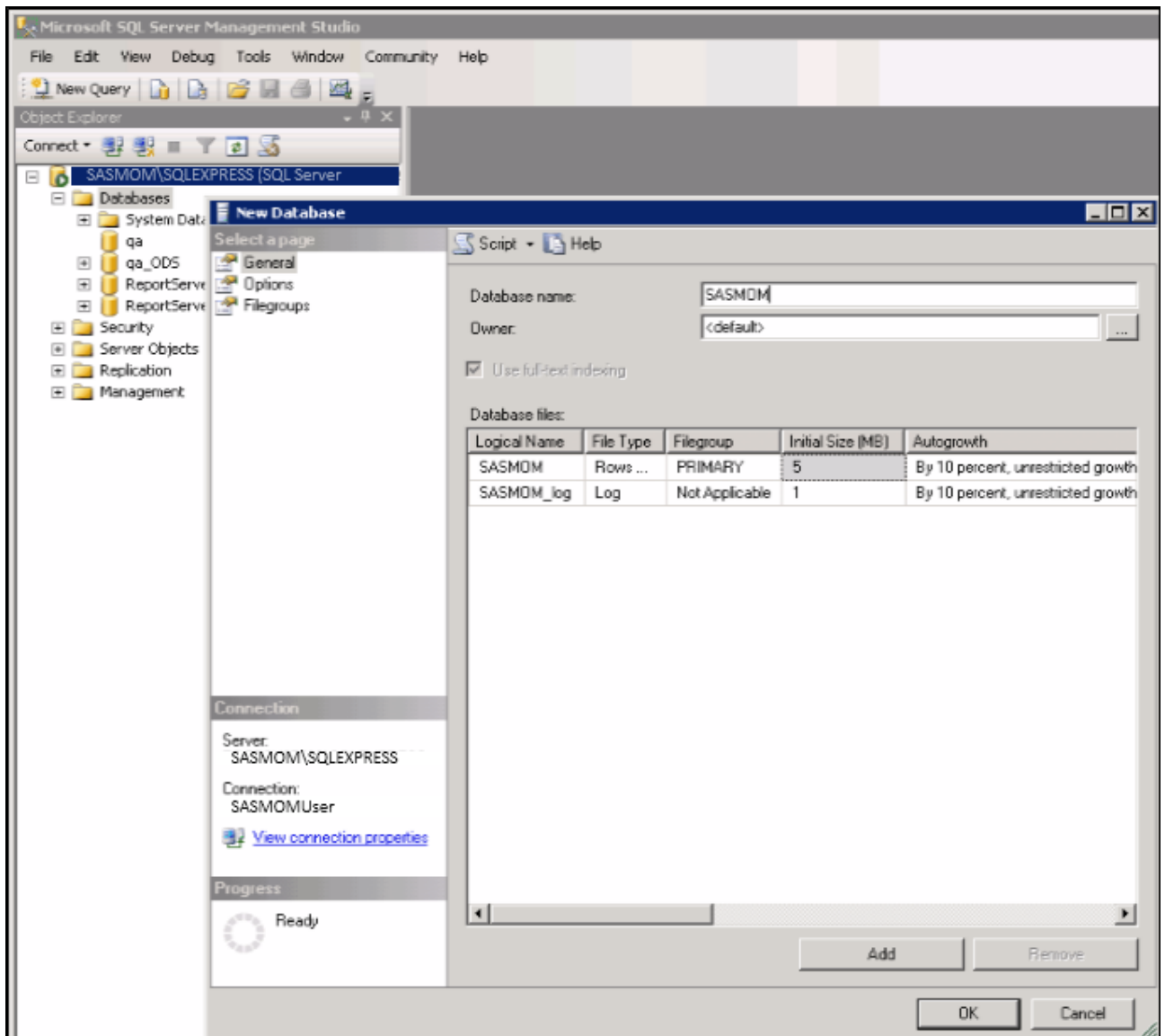


Figure No.109

8.9.2. Run the Database scripts

Run the database scripts against the tenant database by connecting to the SQL Server by using the new login created above. The database scripts are under the installation folder>Database>SQL Server (**Figure 110**).

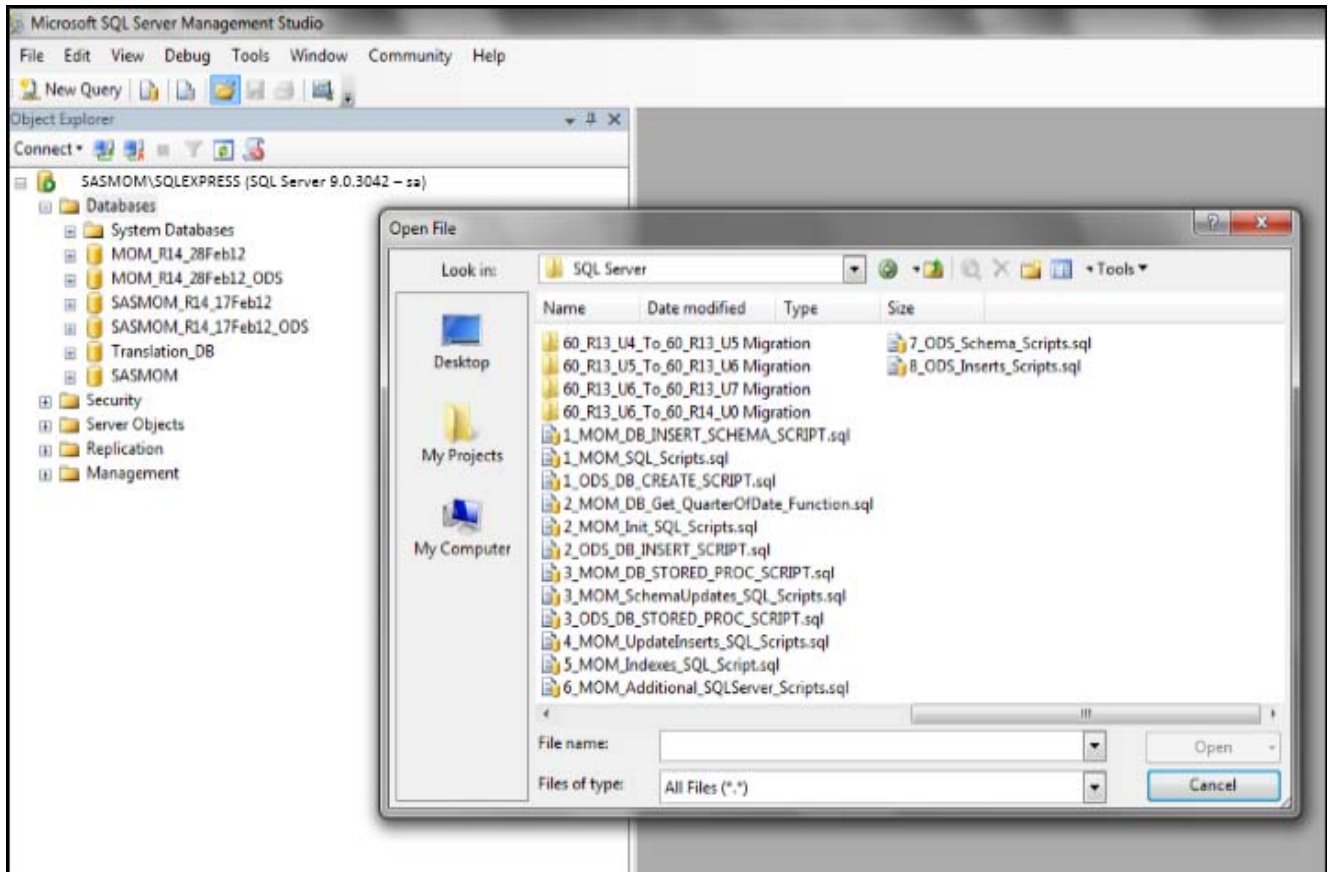


Figure No.110

Select the database created in the above sections and click on File>Open>File and select the scripts from the installation folder>Database>SQL Server. Click on the 'Open' button. Click on the 'Execute' button and connect to the SQL Server using the login created for the database.

Note: Keep checking the database name to make sure the scripts are run on the selected database.

The database scripts are to be run in the following sequence:

1. 1_MOM_SQL_Scripts.sql
2. 2_MOM_Init_SQL_Scripts.sql
3. 3_MOM_SchemaUpdates_SQL_Scripts.sql
4. 4_MOM_UpdateInserts_SQL_Scripts.sql
5. 5_MOM_Indexes_SQL_Scripts.sql
6. 1_MOM_DB_INSERT_SCHEMA_SCRIPT.sql
7. 2_MOM_DB_Get_QuarterOfDate_Function.sql
8. 3_MOM_DB_STORED_PROC_SCRIPT.sql

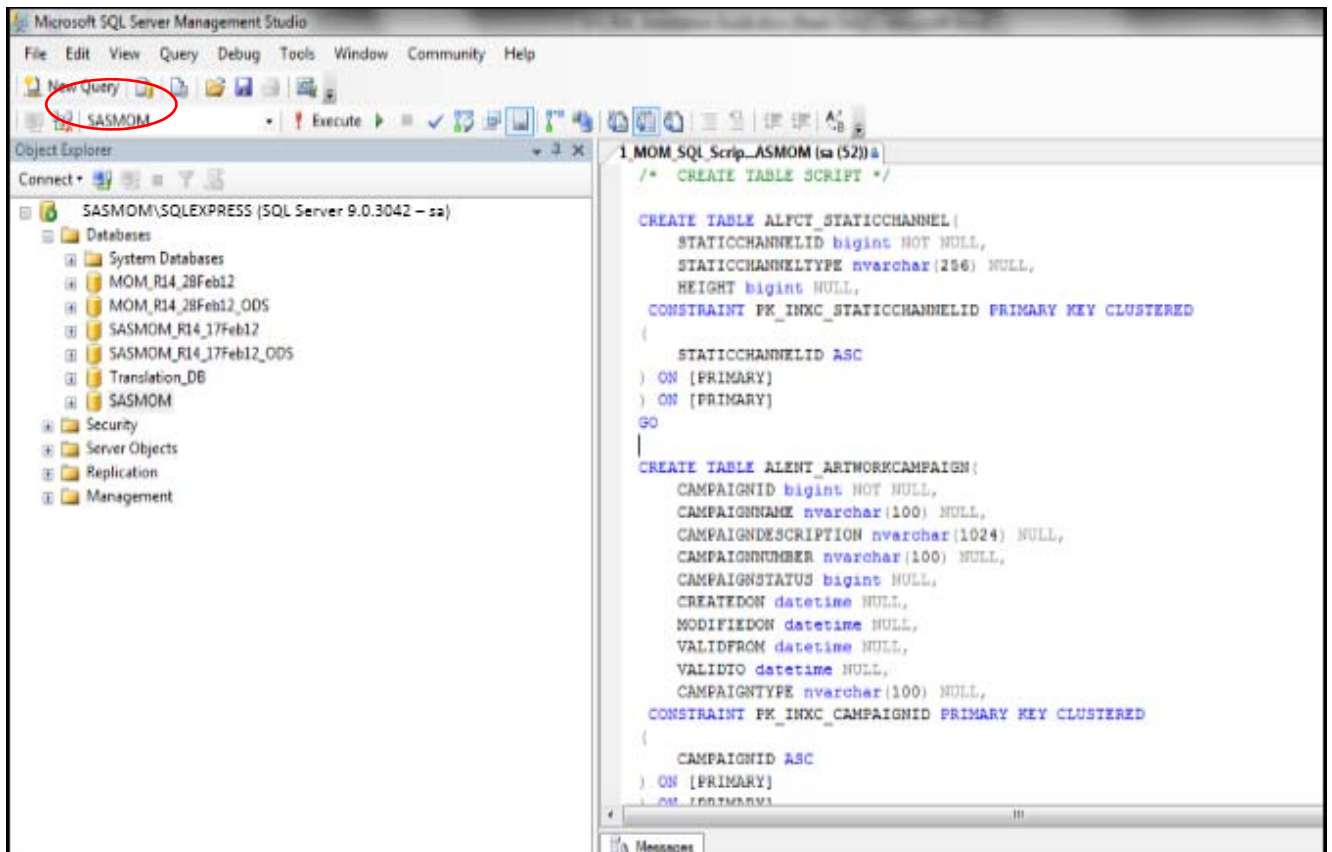


Figure No.111

8.10. Create ODS Database for Tenant

Following the steps in the above section another Database needs to be created. The convention that needs to be followed for name of the ODS Database is <DB Name for the Tenant>_ODS. The following scripts need to be executed for the ODS database:

1. 1_ODS_DB_CREATE_SCRIPT.sql
2. 2_ODS_DB_INSERT_SCRIPT.sql
3. 3_ODS_DB_STORED_PROC_SCRIPT.sql

8.11. WebDAV Configuration for PDF Approvals

8.11.1. Creating a WebDAV folder

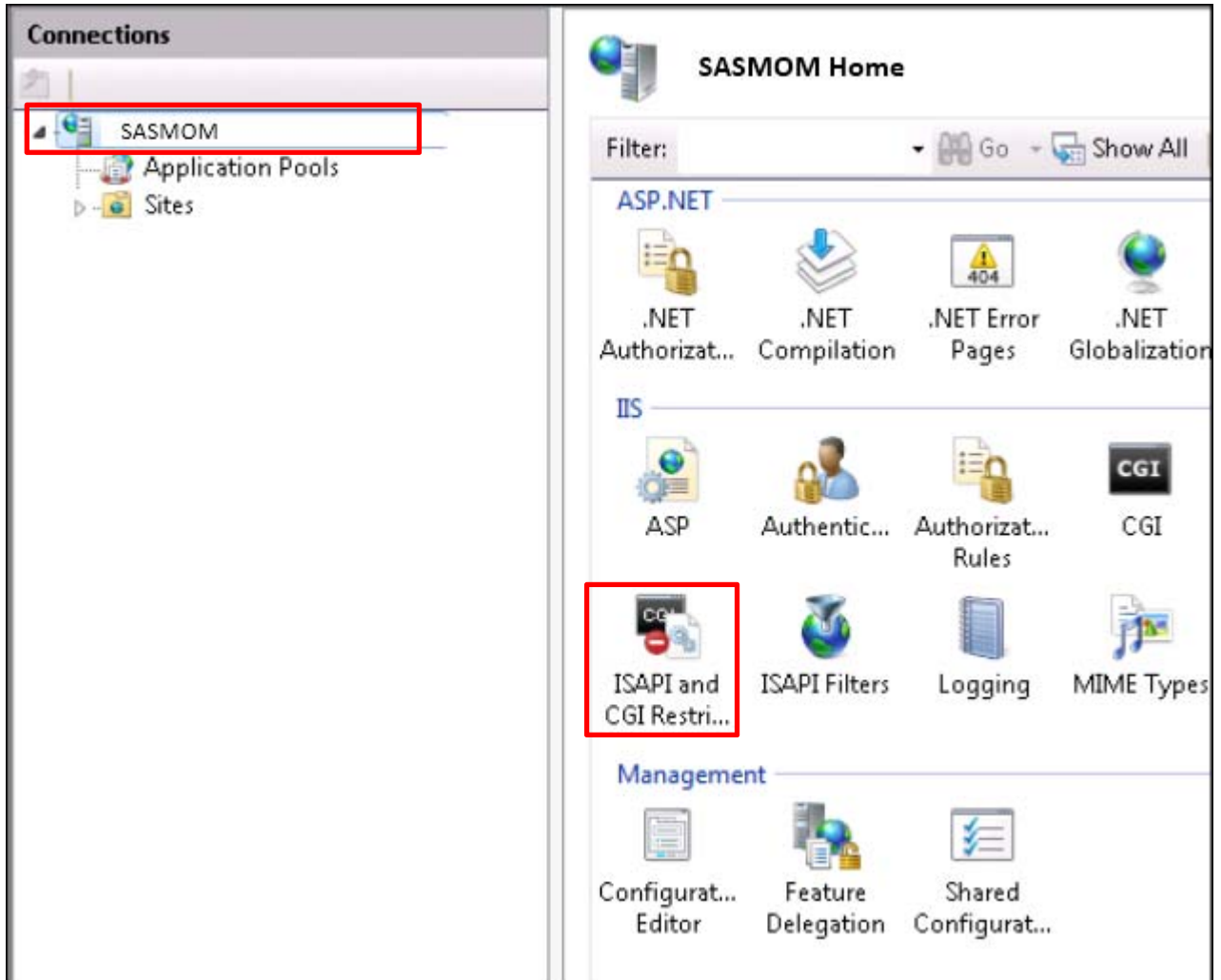
A WebDAV folder needs to be created on the Web server machine and the path should correspond to the path given while installation with the WebDAV setup.

8.11.2. Creating a Virtual Directory for the WebDAV folder

Create a virtual directory with name 'ALDocShare' and refer to the WebDAV folder path accepted above. See [Section 8.11.1](#) for creating the Virtual directory. Give READ, WRITE and DIRECTORY BROWSING access to the ALDocShare virtual directory.

Note: This virtual directory has to be created on the Solutions machine.

8.11.3. Change the Web service extension in the IIS on Solutions machine



ISAPI and CGI Restrictions

Use this feature to specify the ISAPI and CGI extensions that can run on the Web server.

Group by: No Grouping

Description	Restriction	Path
[No Description]	Allowed	C:\Windows\system32\MQISE.DLL
Active Server Pages	Allowed	C:\Windows\system32\inetnr\asp.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework64\v2.0.50727\aspnet_isapi.dll
ASP.NET v2.0.50727	Allowed	C:\Windows\Microsoft.NET\Framework\v2.0.50727\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	c:\Windows\Microsoft.NET\Framework\v4.0.30319\aspnet_isapi.dll
ASP.NET v4.0.30319	Allowed	c:\Windows\Microsoft.NET\Framework64\v4.0.30319\aspnet_isapi.dll
WebDAV	Allowed	C:\Windows\system32\inetnr\webdav.dll

Figure No.112

In the IIS Manager on the solutions machine, click on the <Machine Name>. double click on the 'ISAPI and CGI Restrictions' icon. Right click on the WebDAV item and select the 'Allow' option, by default it is prohibited.

8.12. Configure a Virtual Folder for the Tenant

Create a virtual folder named <Tenant Name> and pointing to <Installation Folder>\<Tenant Name> folder as its physical path. The Virtual Folder can be configured as follows:

8.12.1. Virtual Folder Configuration

Go to the IIS Manager (reachable via Start>Administrative Tools>Internet Information Services (IIS) Manager. To create virtual directories follow the steps below:

1. Right click on the 'Default Web Site' and select 'Add Application'. Add a new Application by entering the 'Alias' which is the tenant name and enter the path as the 'Installation folder\tenant name'. Click on 'OK' to save.

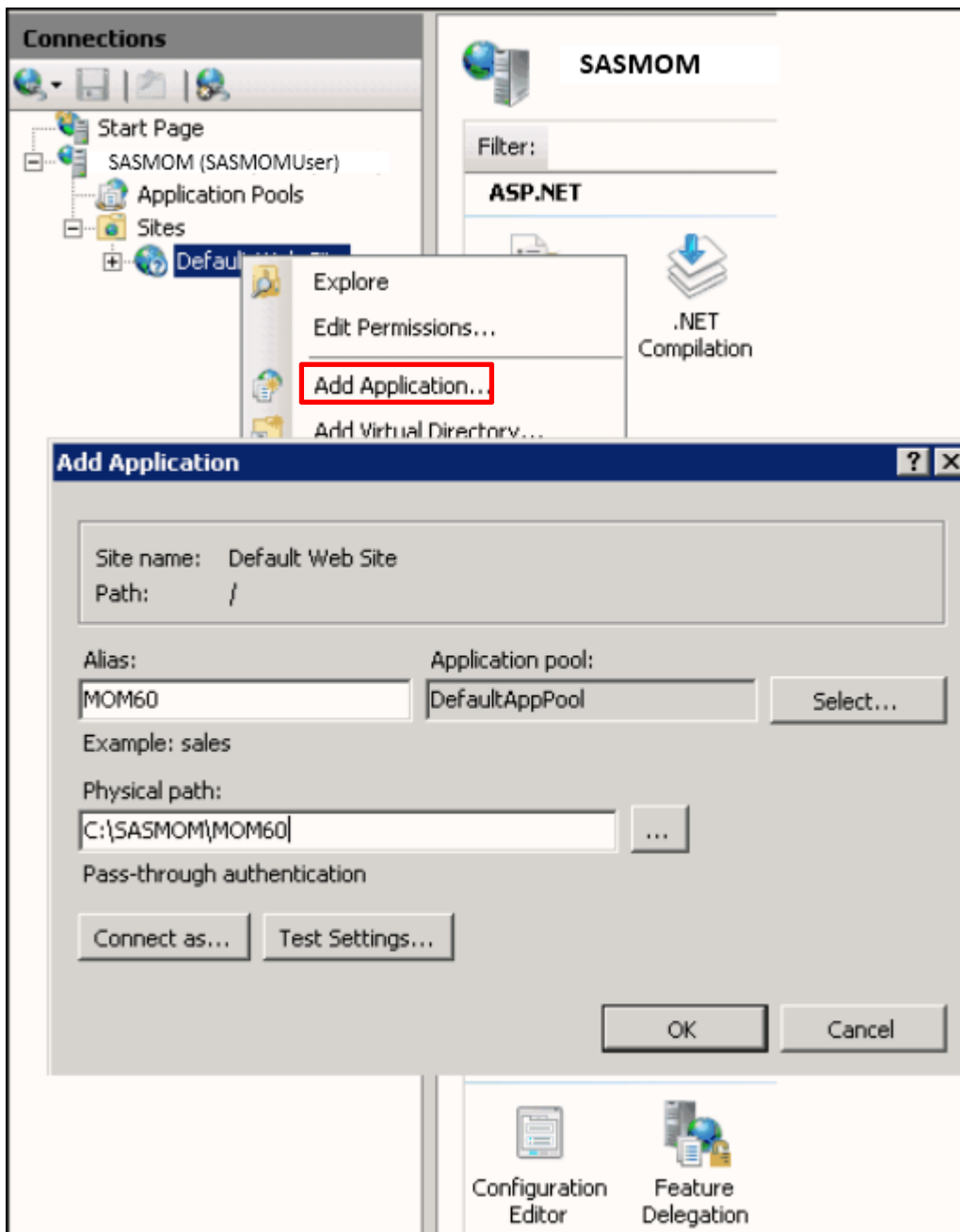


Figure No.113

Follow these steps for virtual directory configured for each Tenant:

1. Ensure that in the 'Default Document', default.aspx document is present and is at the top.
2. Double click on the 'HTTP Response Headers' icon. The 'HTTP Response Headers' screen is displayed. Right click and select 'Set Common Headers'. Select 'Expire Web content' and 'After' enter the number of days.

Note: In case of 'HTTPS' setup for an installation, the web content expiration **has to be set to 1 or more days** in the IIS for the tenants.

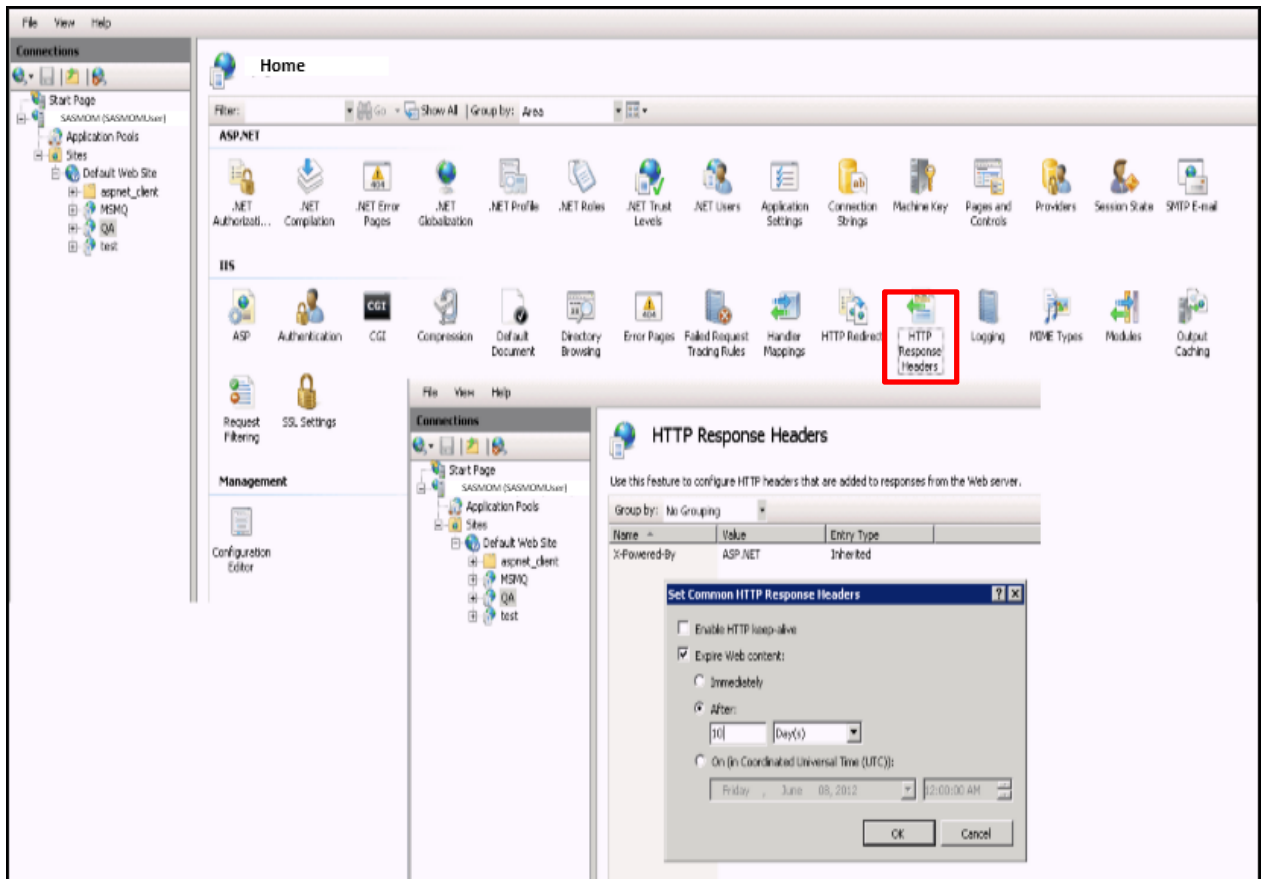


Figure No.114

3. To configure new MIME Types double click on the 'MIME Types' icon. Right click and select 'Add'. In the popup add the following new MIME Types having Extension as:

Associated Extension	Content Type (MIME)
.axd	webresource
.css	text/css
.gif	image/gif
.js	application/x-javascript
.xpdl	text/plain
.flv	video/x-flv
.swz	application/x-swz

.air	application/vnd.adobe.air- application-installer-package+zip
------	---

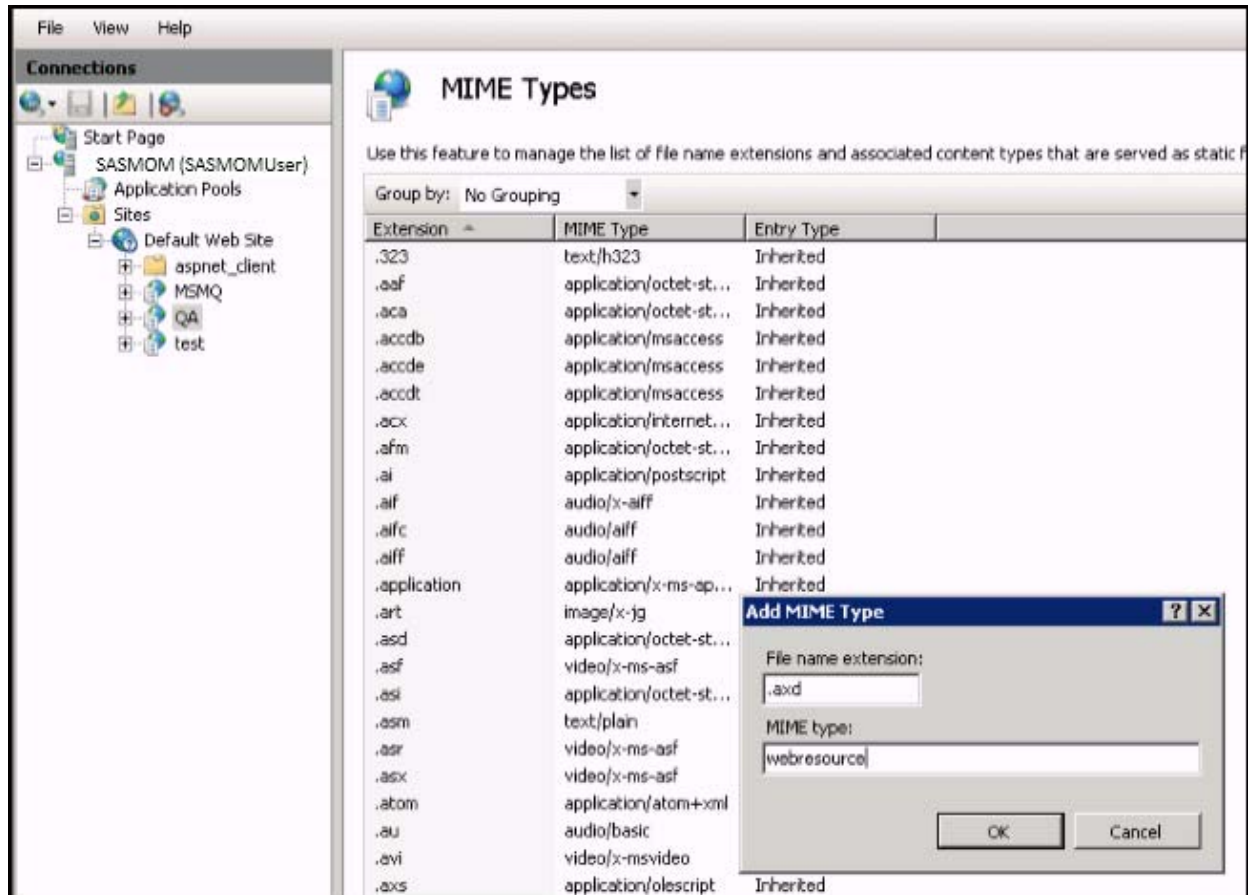


Figure No.115

Note: It is recommended to clear the browser cache after any new installation.

8.13. Creating Virtual Folder for Dashboard

Create a virtual directory with name '**DashboardImages**', see [Section 8.11.1](#) for creating the Virtual directory. Give READ access to the virtual directory. The Virtual directory should be created on the Solutions machine (Web Server).

This has to be created on the Web Server machine where SAS Marketing Operations Management solutions are installed. On a single machine setup the DashboardImages virtual directory should point to the 'Outbox'. On a multi machine setup, 'OutBox' is created on Service Machine. So on the Solutions Machine, manually create a DashboardImages folder and point this to the virtual directory of DashboardImages.

8.14. Creating the Desktop folder

Create a '**Desktop**' folder (if not created) under following location:

<WindowsInstallationDir>\System32\config\systemprofile\

8.15. IIS Manager - Changing the application Pools setting

Go to IIS Manager via Start/Administrative Tools>Server Manager. Expand <Machine Name> and click on Application Pools. Double click on 'DefaultAppPool'. Check if the 'Managed pipeline mode' is set to Classic if not set it.

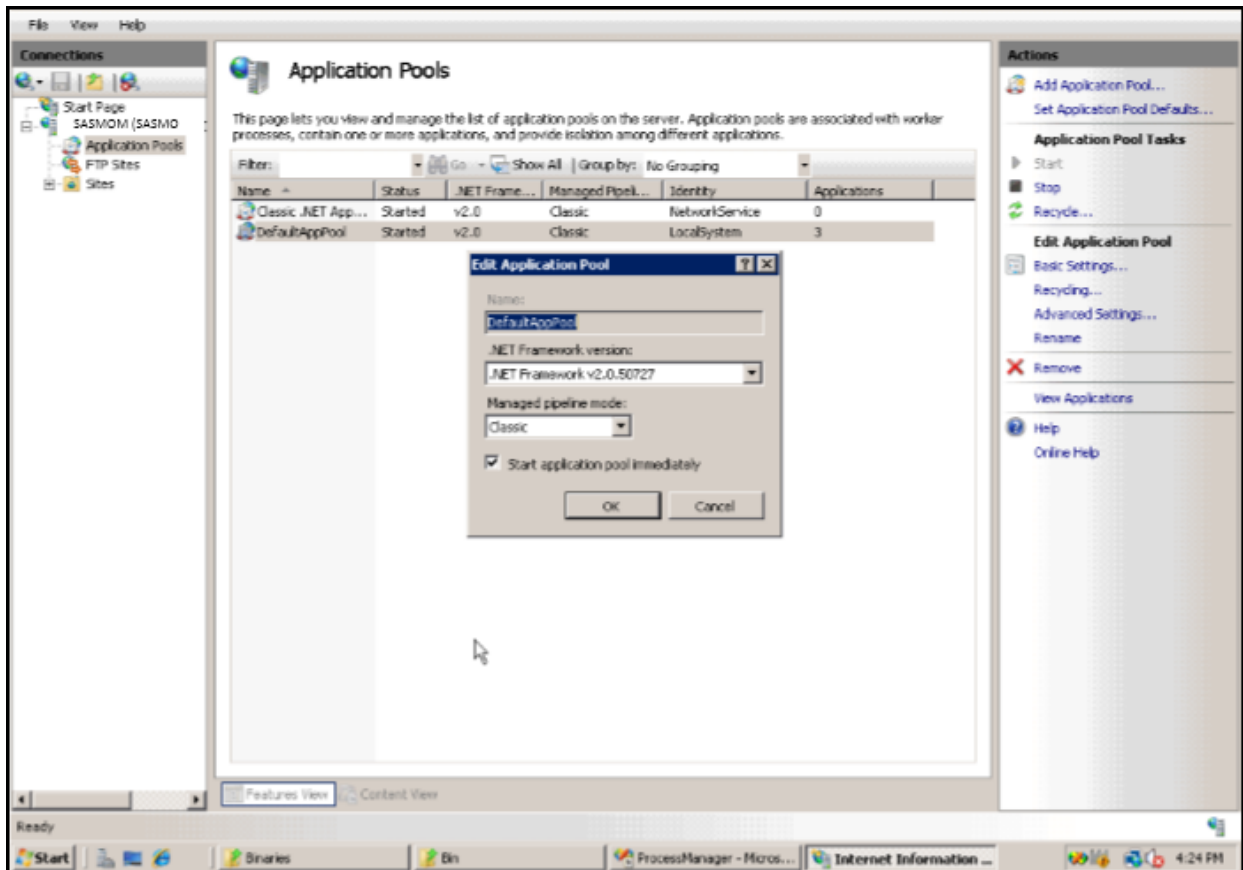


Figure No.116

8.16. Complete access for 'ALUser'

Verify that 'ALUser' has complete access on all private MSMQ's. Go to Programs and right click on 'Computer'. Expand 'Features' and 'Messaging Queues' and then 'Private Queues'. For all the SAS Marketing Operations Management queues verify that the 'ALUser' has complete access by right clicking on each of the queues and going to the 'Security' tab.

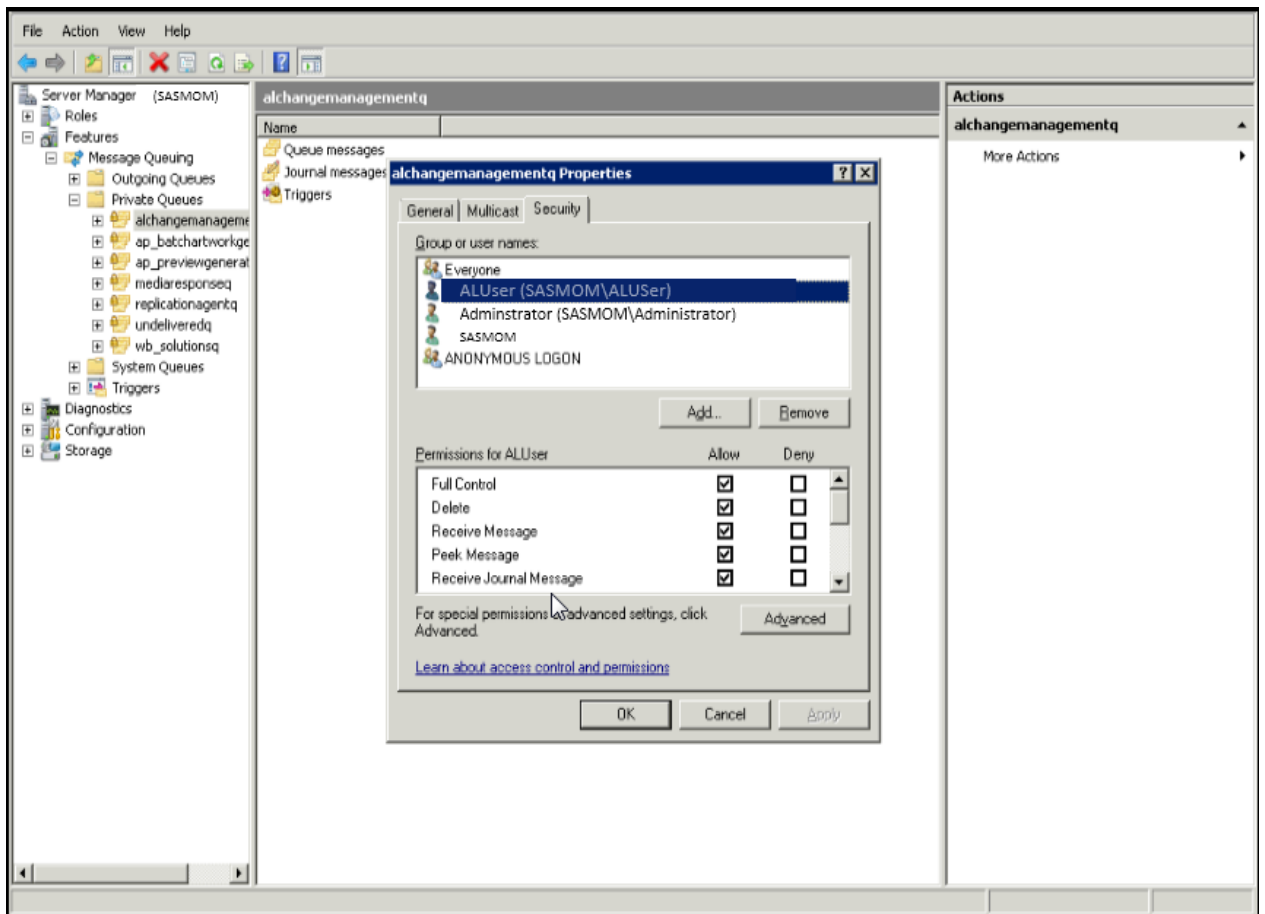


Figure No.117

Note: Verify that all request to web server machine run under **ALUser** account i.e. The web.config file present in "<InstallationDir><Tenant>" folder has following Identity tag: <identity impersonate="true" userName="ALUser" password="<PWD>" />