

**Print Agent for Exchange  
Administrator's Guide**  
document version 1.3

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# Intro

This manual has been produced by MAPILab Company and contains necessary information for successfully installation of Print Agent for Exchange. We ask that you read the entire contents of all the sections of this manual carefully before installing the product.

## The manual contains the following chapters:

- **Chapter 1.** Provides brief description of product architecture and enables to select the appropriate type of deployment for your organization.
- **Chapter 2.** Describes system requirements of the product and allows preparing environment for product installation by installing necessary applications and components of the system.
- **Chapter 3.** Contains information you may need during the product installation and helps to deploy the product.
- **Chapter 4.** Contains the necessary information for initial configuration of the product.
- **Chapter 5.** This chapter contains descriptions of the product settings to fine tune it to the environment of your organization.
- **Chapter 6.** Describes the principles of product licensing.
- **Chapter 7.** Contains basic information for the diagnosis of malfunctions of the product.

# 1. Product Overview

Print Agent for Exchange is software enabling to print out email messages and attachments in automatic mode in compliance with the rules set.

The main product features:

Print Agent for Exchange keeps track of the organization's mail traffic and sends documents (messages, attached files) to a printer in compliance with the rules set.

Print Agent for Exchange operates as service and doesn't require an open user session.

The product allows using several printers to complete print jobs in accordance with the rules set.

Print Agent for Exchange gets integrated into the transport service of the Exchange servers and doesn't reduce the Exchange performance.

A flexible setup wizard of the Print Agent for Exchange allows you to select only necessary servers and workstations for installation of product components.

Print Agent for Exchange is a mass-market solution that doesn't require sophisticated installation and specialists with advanced skills. Product deployment is easy and safe. It takes only several minutes.

## 2. Product Architecture and Basic Concepts

The product consists of the three main components:

**Print Agent for Exchange Agent.** This program component integrates into the Microsoft Exchange Transport Service and keeps track of the organization's mail traffic for compliance with set message processing rules.

**Mail Printing Service.** This component is a service which generates print tasks from the elements selected by Print Agent for Exchange Agent.

**Administrator's console** is a Microsoft Management Console 3.0 snap-in. It is designed to product deployment, performance control and message processing rules setting.

The product architecture allows you to install it in various configurations. All three program components can be either deployed on one server or separately, on various workstations.

## 3. System Requirements

### 3.1. Minimum System Requirements

Since the Print Agent for Exchange Agent component integrates into the Microsoft Exchange Transport Service, system and hardware requirements for this component are determined by the used version of Microsoft Exchange Server.

The systems requirements for Administrator's console are determined by Microsoft Management Console 3.0.

The minimum system requirements of the Mail Printing Service component correspond to physical or virtual computers with the following configurations:

CPU: 600 MHz

RAM: 128 MB

HDD free space: 100 MB

Operating system

- Microsoft Windows Server 2003 with SP1 and higher;
- Windows Server 2003 R2;
- Windows Server 2008;
- Windows Server 2008 R2;
- Windows XP with SP2 and higher;
- Windows Vista;
- Windows 7.

The product may also be deployed on the following systems:

- Windows Small Business Server 2003 with SP1 and higher;
- Windows Small Business Server 2003 R2;
- Windows Small Business Server 2008;
- Windows Essential Business Server 2008.

Both 32- and 64-bit versions of the systems are supported.

The following applications and components of the operating system must be installed before beginning the installation of the Administrator's console:

- **Microsoft .NET Framework v2.0.** Included in the Microsoft Windows Server 2008, Windows Server 2008R2, Windows 7 and Windows Vista. For other operating systems the platform can be downloaded from the Microsoft Download Center ([32-bit version](#) and [64-bit version](#)).
- **Microsoft Management Console v3.0.** Included in the Microsoft Windows Server 2003 R2, Windows Server 2008, Windows Server 2008 R2, Windows XP SP3, Windows Vista and Windows 7. For other operating systems the component can be downloaded from the [Microsoft knowledge base](#) .

- **Activated DCOM service** (Distributed Component Object Model). This service is activated by default in all versions of Microsoft Windows. Activation and deactivation procedure of this service can be found in [this](#) article.
- **Microsoft Internet Explorer v7.0 and higher.** Included in Microsoft Windows Server 2008, Windows Server 2008 R2, Windows Vista, Windows 7, Windows Small Business Server 2008 and Windows Essential Business Server 2008. For earlier versions it is available as part of update packages, and from the Microsoft [download center](#).

Installation guide for these components can be found at the Microsoft Web site.

### 3.2. Supported Types of Messages and Attachments

Print Agent for Exchange supports all types of messages that are supported by your version of the Microsoft Exchange Server. The printable attachments should have one of the following formats: html, htm, txt, pdf, eml, mht, bmp, dib, jpg, jpe, jpeg, jfif, jif, jiff, png, gif, tif, tiff, pic, img, rgb, rgba, pcd, pcx, rle, wmf, emf.

### 3.3. Supported Versions of the Microsoft Exchange Server

Print Agent for Exchange is completely operable on the following versions of the Microsoft Exchange Server:

- Microsoft Exchange Server 2003;
- Microsoft Exchange Server 2007;
- Microsoft Exchange Server 2010.

## 4. Product Installation and Deployment

To install the product you will need local administration privileges at the installation computer. Run the PrintAgent.exe and follow the Wizard instructions. Please note that the installation file should be run only on those computers where the Administrator's console component is required. Other components of the product will be installed remotely to the servers specified during the deployment process.

### 4.1. Environment Preparation

For the successful software operation you need to prepare a user profile the Mail Printing Service will be running as.

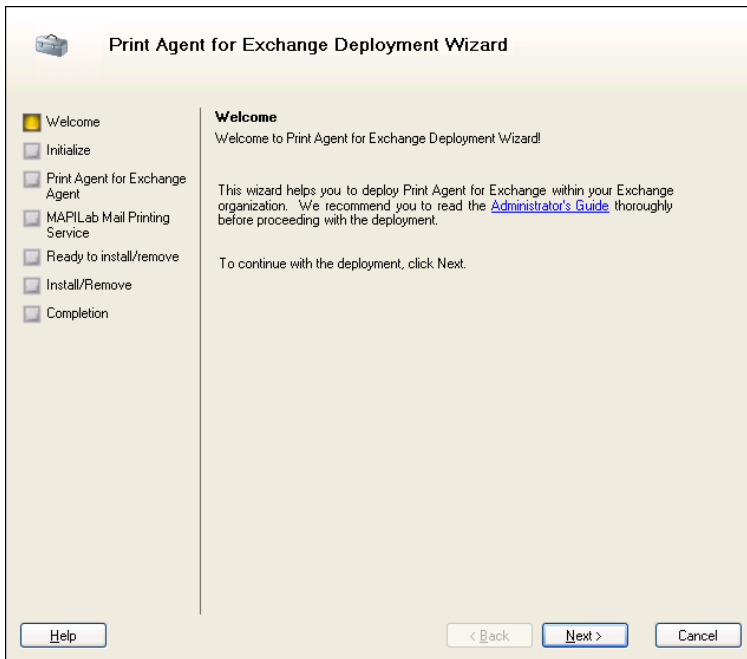
1. Create a domain user that will be a local administrator of a computer where the Mail Printing Service will be deployed.
2. Login to the system using this account on the computer intended for deployment of the Mail Printing Service.
3. Install and set up one or several printers (local or network) you plan to use for message printing. Note that these printers should be published in the Active Directory.

### 4.2. Print Agent for Exchange Deployment

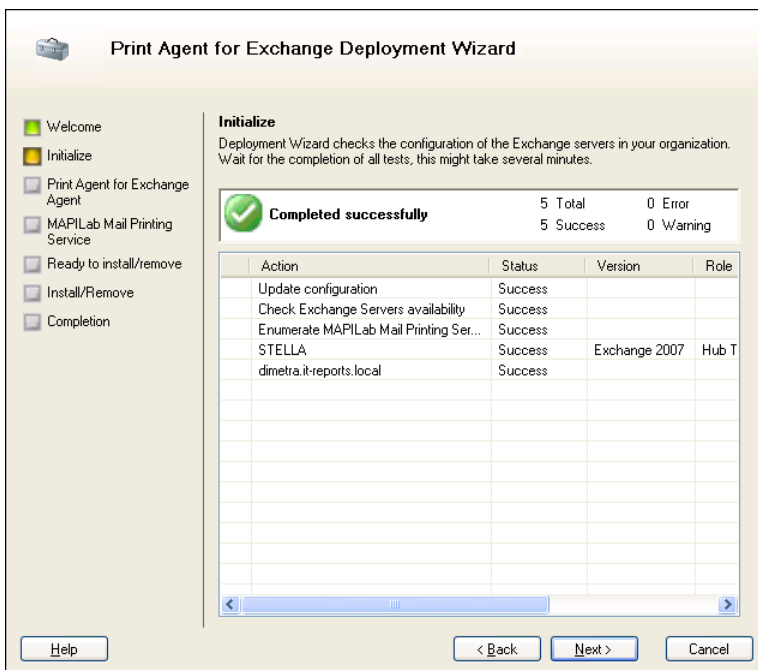
To deploy the product, the user launching Print Agent for Exchange console should have the domain/enterprise administrator rights or Exchange Organization Administrator role (for Microsoft Exchange 2007, Exchange 2010) and be a local administrator for computers the product components will be installed on.

Upon the product installation please launch the Print Agent for Exchange console. Select 'Print Agent for Exchange' in the console tree and press 'Deployment' in the context menu or in the Actions pane.

The Deployment Wizard will be started to help you set up the Product in your organization's environment.



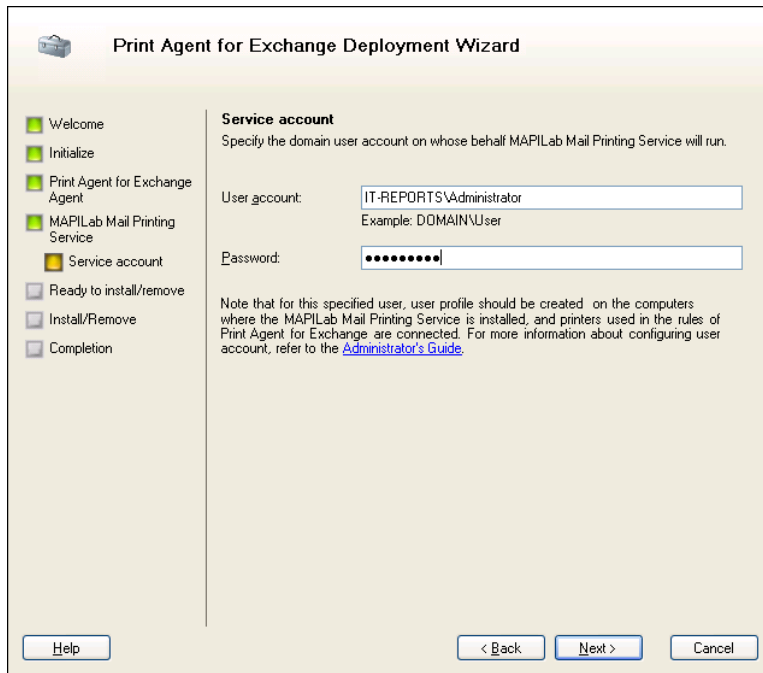
At step 2 the Deployment Wizard will look for the Exchange servers and check possibility of installing Print Agent for Exchange Agent on them. This agent is installed on the Back-end or Hub Transport servers only, other servers will not be shown in the list.



At Step 3 of the Deployment Wizard you will be prompted to select the servers where Print Agent for Exchange Agent should be deployed. Also here you may delete the previously installed copies of the Print Agent for Exchange Agent or reinstall them.

Note! In some cases, remote installation of the agent may not be possible. For example, blocking the operation by a firewall. In this case, you can install the agent manually (see p 4.4).





On the next step of the Deployment Wizard check the deployment parameters of Print Agent for Exchange, press 'Next' and wait for the completion of installation.

Now the deployment of Print Agent for Exchange is completed. You may change the parameters of the Print Agent for Exchange components by launching the Deployment Wizard.

### 4.3. Upgrade from the Previous Version

When upgrading from the previous version of the product, it is necessary to read the installation instructions you received with this update.

Generally, it is required to launch the product's installation program on all computers where Administrator's console is installed and wait for the upgrade of components. After that the Deployment Wizard should be started. Select 'Reinstall' for all servers where Print Agent for Exchange Agent and Mail Printing Service are installed. All previously created rules and settings will be saved.

### 4.4. Installation of the Agent on an Exchange 2003 failover cluster

The Product supports installation of the Agent on the failover cluster of Exchange 2003 servers. Installation of the Agent on the failover cluster is being performed with the help of Deployment Wizard. The Agent will be installed to the active cluster node only. To install the Agent to other nodes, please stop Cluster Service on the active node. This way, you will activate another node, where the Agent has not been installed yet. Then, perform deployment with the help of Deployment Wizard again.

## 4.5. Manual Agent installation

If you deploy the product using the deployment wizard, you do not need to use the manual installation of the agent. This mode is used only in case of inability to automatically install this agent.

To install agent manually, copy the file AgentSetup.msi from the archive "%ProgramFiles (x86)% \ MAPI Lab Ltd \ Print Agent for Exchange \ DeploymentPackage.zip" on Transport server and run the command in command line: "AgentSetup.msi / Log agentSetup.log MANUALINSTALL = 1 SERVICETIMEOUT=15, where "agentSetup.log" - path to the installation log, SERVICETIMEOUT - delay for restart transport service (optional, default 4 min).

## 4.6. Mail Printing Service manual installation

Manual Mode installation of Mail Printing Service may be used **only for purposes of fault diagnosis**. If you deploy the product successful using the deployment wizard, you do not need to use the manual installation of the agent.

To install agent manually, copy the file MailPrintingServiceSetup.msi from the archive "%ProgramFiles(x86)%\MAPI Lab Ltd\Printing Tool for Exchange\MailPrintingServiceSetup.zip" on computer that generates the print jobs and run the command in command line: "msiexec /i MailPrintingServiceSetup.msi SERVICEUSER=user SERVICEPASSWORD=password /L ServiceSetup.log", where "ServiceSetup.log" - path to the installation log.

After completing manual installation of Mail Printing Service, you will need to look through the Installer Log File, troubleshoot and find out the cause of the failure occurring while installing the Service by using Deployment Wizard.

Please note: after troubleshooting, you will need to run installation of Mail Printing Service by using Deployment Wizard.

## 4.7. Product Uninstall

Since the Product components may be installed on various computers, the product can be uninstalled in two ways:

1. Removing of Print Agent for Exchange Agent and Mail Printing Service components are performed through the Deployment Wizard. After that the remaining components of the product can be removed by through the Add or Remove Programs (Programs and Features) applet.
2. All components can be removed through the standard 'Add or Remove Programs' (Programs and Features) applet of the Control Panel separately on those computers where such components were installed.

After the product removal there are some components are remained:

- Active Directory container "CN=MAPILabPrintAgent,CN=Global Settings,CN=[your Exchange organization name],CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=[your domain name]";
- log files of the Print Agent for Exchange Agent in the "%ProgramFiles(x86)%\MAPILab Ltd\Print Agent for Exchange Agent\Log" folder on the Exchange server;
- log files of the Mail Printing Service in the "%ProgramFiles(x86)%\MAPILab Ltd\MAPILab Mail Printing Service\Log" folder on a computer where Mail Printing Service were installed;
- Log files of the Administrator's console in the "%ProgramFiles(x86)%\MAPILab Ltd\Print Agent for Exchange\" folder on a computer where Administrator's console were installed;

Saving of these files allows updating the product with saving all of the settings through removal and further installation of a new version in the same folder. Remove these items manually if you don't want to keep them.

## 5. Initial Product Setup

After completion of the deployment as described in chapter 4 of this guide the message processing rules should be created. For this, select "New Rule..." in the "Rules" area in the Administrative Console. After that Rule Wizard will be started to help you to create necessary message processing conditions.

### 5.1. Creation of Rules

Please note that the rules can be created only by those users who have domain/enterprise administrator privileges or Exchange Organization Administrator role (for Microsoft Exchange 2007, Exchange 2010).

This is because the product configuration is stored in the AD container "CN=MAPIlabPrintAgent,CN=Global Settings,CN=[your Exchange organization name],CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=[your domain name during the deployment. Message processing rules are also saved in this container, for which read and write permissions by default have members of "Domain Admins", "Enterprise Admins" and "Exchange Organization Administrators" groups only (if Microsoft Exchange Server 2007 or 2010 is installed in the organization). If the users without such rights need to be granted the rule creation rights, you must manually grant the "Read, Write, Create All Child Objects" and "Delete All Child Objects" permissions for these users. This can be done by means of various editors of Active Directory such as ADSI Edit.

Please note, only printers set up in accordance with Chapter 'Environment Preparation' of this Guide may be used in the rules for print messages and attachments.

### 5.2. Priority of Rules

Print Agent for Exchange enables to adjust the priority of created rules. Rule priority is determined by procedure of rule creation and specified in the Priority column of the Administrator's console. The lesser number means a higher rule priority. The rule priority can always be changed by moving the rule up and down in the list with the help of the Move up and the Move down buttons in the context menu or in the Actions pane.

Please note that in case of installation of other agents from the MAPIlab Disclaimers for Exchange or Attachment Save for Exchange on one transport server, the rules of different agents may be applied to the same message. The order of application will be defined by the time of the agent installation. For example if the Print Agent for Exchange Agent is installed first and then the MAPIlab Disclaimers for Exchange Agent of MAPIlab Disclaimers for Exchange product is installed, the rules for Print Agent for Exchange will be applied first as the priority of this agent will be higher. This may be useful for example to reduce the volumes of graphics sent for printing by means of Print Agent for Exchange. At the same time the situation may be negative

when the rules of Print Agent for Exchange are applied prior to the spam filter (if such filter is installed on the same transport server as Print Agent for Exchange Agent) which probably may lead to printing of unnecessary messages. The order of agents can be established in the following manner:

### In Microsoft Exchange Server 2007 and Exchange Server 2010

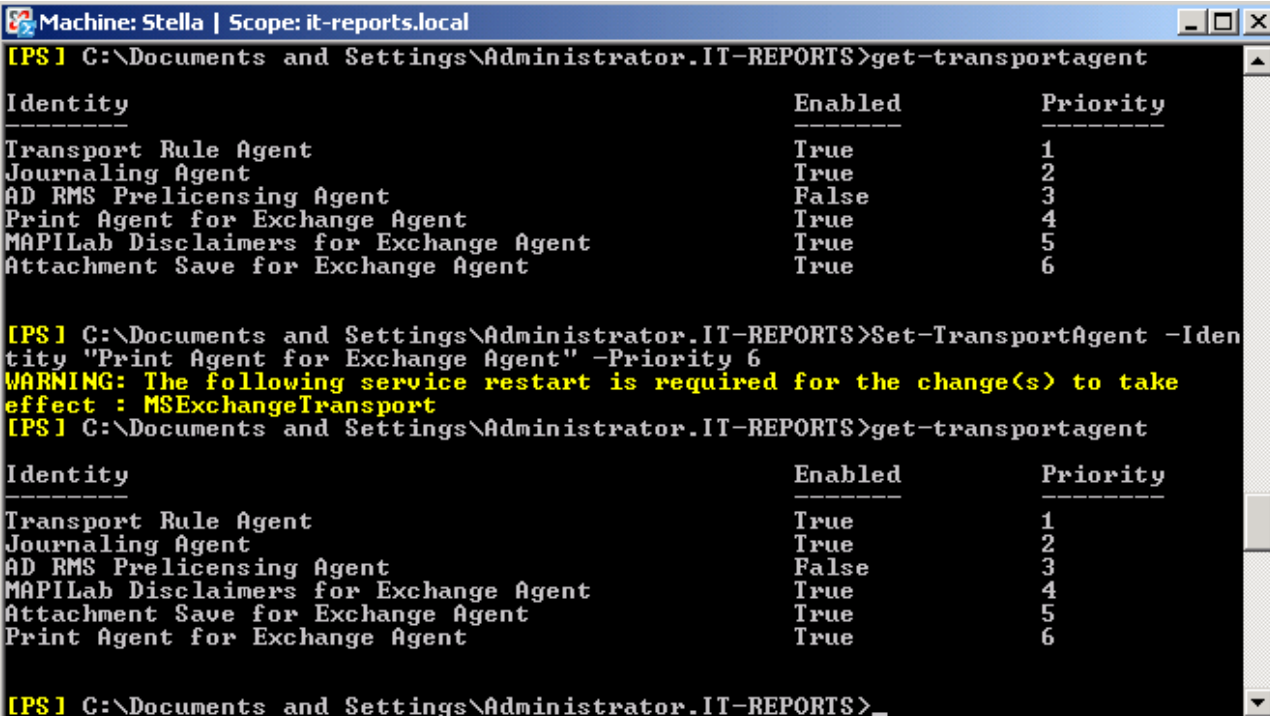
Run Exchange Management Shell on the transport server and execute the command "Get-TransportAgent". The list of installed agents will be displayed in the execution results (see figure).

The priority of agents can be changed with the command:

```
"Set-TransportAgent -Identity "Print Agent for Exchange Agent" -Priority 4"
```

where "Print Agent for Exchange Agent" is the agent name, "4" – priority. The "1" has the highest priority.

After changing the priority of agents the transport service needs to be restarted, e.g. with the "Restart-Service MExchangeTransport" command.



```
Machine: Stella | Scope: it-reports.local
[PS] C:\Documents and Settings\Administrator.IT-REPORTS>get-transportagent

Identity                                     Enabled      Priority
-----
Transport Rule Agent                       True         1
Journaling Agent                           True         2
AD RMS Prelicensing Agent                  False        3
Print Agent for Exchange Agent             True         4
MAPILab Disclaimers for Exchange Agent     True         5
Attachment Save for Exchange Agent         True         6

[PS] C:\Documents and Settings\Administrator.IT-REPORTS>Set-TransportAgent -Identity "Print Agent for Exchange Agent" -Priority 6
WARNING: The following service restart is required for the change(s) to take effect : MExchangeTransport
[PS] C:\Documents and Settings\Administrator.IT-REPORTS>get-transportagent

Identity                                     Enabled      Priority
-----
Transport Rule Agent                       True         1
Journaling Agent                           True         2
AD RMS Prelicensing Agent                  False        3
MAPILab Disclaimers for Exchange Agent     True         4
Attachment Save for Exchange Agent         True         5
Print Agent for Exchange Agent             True         6

[PS] C:\Documents and Settings\Administrator.IT-REPORTS>
```

### In Microsoft Exchange Server 2003

To change the priority of agents (sinks) in Microsoft Exchange Server 2003 you need to download the script SMTPReg.Vbs <http://msdn.microsoft.com/en-us/library/ms528023%28EXCHG.10%29.aspx> .

Copy the script to the transport server, open a command prompt and run:

```
cscript "C:\SMTPReg.vbs" /enum > "C:\sinks.txt"
```

where,

"C:\SMTPReg.vbs" – name of script file;

"C:\sinks.txt" - name of output file which will displays information about available sinks.

Open the file sink.txt and find the options you're interested agent.

```
-----  
| Binding |  
-----  
Event: SMTP Transport OnPostCategorize  
ID: {D0D4DE8E-5FAA-4442-96DB-63D8909AC118}  
Name: MAPILab Disclaimers for Exchange Agent  
sinkClass: MAPILab.ExchangeUtils.DisclaimerTool.Smtpsink.smtpsink  
Enabled: True  
SourceProperties: {  
    priority = 400  
}  
sinkProperties {  
    VSI = 1|  
}
```

To change the priority of the agent used as an example the following command:

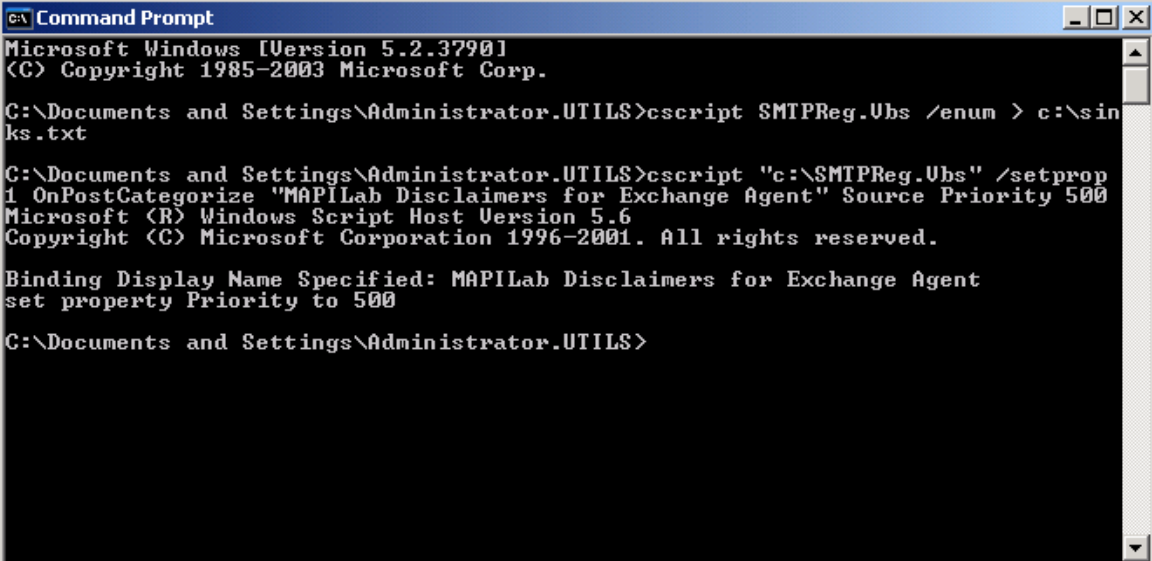
```
cscript "C:\SMTPReg.vbs" /setprop 1 OnPostCategorize "MAPILab Disclaimers for Exchange Agent" Source Priority 500
```

where,

1 – number of virtual SMTP server (if you have several virtual servers, the agent will be installed on each of them);

"MAPILab Disclaimers for Exchange Agent" – name of the agent (sink);

500 – priority to be given (the value can range from 0 to 32767, with 0 being the highest priority and 32767 the lowest priority.)



```
Microsoft Windows [Version 5.2.3790]
(C) Copyright 1985-2003 Microsoft Corp.

C:\Documents and Settings\Administrator\UTILS>cscript SMTPReg.Ubs /enum > c:\sin
ks.txt

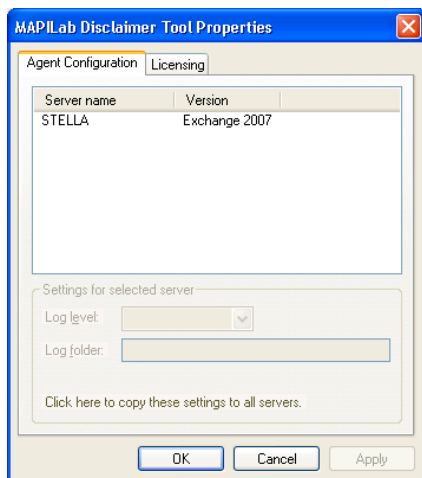
C:\Documents and Settings\Administrator\UTILS>cscript "c:\SMTPReg.Ubs" /setprop
1 OnPostCategorize "MAPILab Disclaimers for Exchange Agent" Source Priority 500
Microsoft (R) Windows Script Host Version 5.6
Copyright (C) Microsoft Corporation 1996-2001. All rights reserved.

Binding Display Name Specified: MAPILab Disclaimers for Exchange Agent
set property Priority to 500

C:\Documents and Settings\Administrator\UTILS>
```

## 6. General Product Settings

The product settings are adjusted in the Properties dialog that is opened from the Actions pane or context menu in the Administrator's Console.



The product log files settings are made in the Agent Configuration tab. These settings are made separately for each server the Print Agent for Exchange Agent is installed on:

- Log level – level of record details in the log. The default setting– Errors – allows to record only message processing errors. Change this setting to Full if the most detailed message processing information needs to be saved in the log (can be used for error diagnostics), or None, if the log is not

required.

- Log folder – folder to save Print Agent for Exchange Agent logs. Default setting: "%ProgramFiles(x86)%\MAPILab Ltd\Print Agent for Exchange Agent\Logs\"

Product licensing keys are specified in the Licensing tab. For more details see [chapter 7](#).

Section "Monitoring". Agent performance is displayed in this Section. Here you may view the information about the number of messages processed by agent and processing time in the form of diagrams.

Section "Rules". Message processing rules can be viewed, edited and created in this Section. When creating a new rule or editing the existing one the Rule Setting Wizard will be started to help you create or edit the message processing rule.

## **7. Licensing**

Licensing the product is made by purchase of license keys, appropriate amount of Exchange servers, on which product Agent is installed. These license keys are entered on the Licensing tab in the Properties dialog that is opened from the Actions pane or context menu in the Administrator's Console. Please note, after expiring trial period, the Agent will stop the processing of messages until you enter the license keys.

## **8. Diagnostics of malfunctions**

After completing the product deployment and creating the initial message processing rules, it is recommended to check it. For this purpose send a text message that complies with the rules set.

## **Conclusion**

More details about the Product and its features as well as latest updates can be found at the MAPILab Web site <http://www.mapilab.com>.