

# SIEMENS

## SIMATIC

### Process Control System PCS 7 Configuring McAfee Application Control

Commissioning Manual

|  |          |
|--|----------|
| <u>Preface</u>   | <b>1</b> |
| <u>Whitelisting</u>  | <b>2</b> |
| <u>Administration</u>  | <b>3</b> |
| <u>Using McAfee Application Control with PCS 7 and WinCC</u> | <b>4</b> |
| <u>Update installation</u>                                   | <b>5</b> |

## Legal information

### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

|   |
|---|
| <b>⚠ DANGER</b>   |
| indicates that death or severe personal injury <b>will</b> result if proper precautions are not taken.            |
| <b>⚠ WARNING</b>  |
| indicates that death or severe personal injury <b>may</b> result if proper precautions are not taken.             |
| <b>⚠ CAUTION</b>  |
| with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.  |
| <b>CAUTION</b>  |
| without a safety alert symbol, indicates that property damage can result if proper precautions are not taken.     |
| <b>NOTICE</b>   |
| indicates that an unintended result or situation can occur if the relevant information is not taken into account. |

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of Siemens products

Note the following:

|  |
|--|
| <b>⚠ WARNING</b>   |
| Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed. |

### Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

# Table of contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Preface</b> .....  | <b>7</b>  |
| <b>2</b> | <b>Whitelisting</b> .....   | <b>9</b>  |
| 2.1      | Introduction .....  | 9         |
| 2.2      | McAfee Application Control.....   | 10        |
| <b>3</b> | <b>Administration</b> .....   | <b>11</b> |
| 3.1      | Administration .....  | 11        |
| 3.2      | Local administration of McAfee Application Control .....                  | 11        |
| 3.3      | Central administration by means of McAfee ePO.....                        | 12        |
| <b>4</b> | <b>Using McAfee Application Control with PCS 7 and WinCC</b> .....        | <b>15</b> |
| 4.1      | Preparing for installation .....  | 16        |
| 4.2      | Local administration .....  | 17        |
| 4.2.1    | AC Administrator .....  | 17        |
| 4.2.2    | Installation and configuration .....                                      | 18        |
| 4.3      | Central administration using McAfee ePolicy Orchestrator .....            | 22        |
| 4.3.1    | Installing and configuring McAfee ePO Server.....                         | 22        |
| 4.3.2    | Installing the Solidcore Extension Package.....                           | 32        |
| 4.3.3    | Installing the license for Solidcore, or McAfee Application Control ..... | 38        |
| 4.3.4    | Installing the McAfee Solidcore clients .....                             | 40        |
| 4.3.5    | Adding the Solidcore Agent Deployment Package to the ePO Repository ..... | 41        |
| 4.3.6    | Integrating the client systems into the ePO Console.....                  | 46        |
| 4.3.7    | Installing the Solidcore Agent on the clients .....                       | 53        |
| 4.3.8    | Activating the Solidcore Agent on the clients.....                        | 56        |
| 4.3.9    | Additional client tasks .....   | 59        |
| <b>5</b> | <b>Update installation</b> .....  | <b>61</b> |
| 5.1      | Update installation .....   | 61        |
| 5.2      | Local administration .....  | 62        |



## Warning concept

This manual contains information that you must observe for the sake of your own safety and to avoid damage to assets. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol. Notices referring only to equipment damage have no safety alert symbol. Warnings are shown in descending order according to the degree of danger as follows.

|  |
|--|
|  <b>DANGER</b>                        |
| Indicates that death or severe personal injury will result if proper precautions are not taken.                        |
|  <b>WARNING</b>                       |
| Indicates that death or severe personal injury may result if proper precautions are not taken.                         |
|  <b>CAUTION</b>                       |
| With a safety alert symbol indicates that minor personal injury can result if proper precautions are not taken.        |
| <b>CAUTION</b>   |
| Without a safety alert symbol indicates that damage to property may result if proper precautions are not taken.        |
| <b>NOTICE</b>  |
| Indicates that an unintended result or situation can occur if the corresponding information is not taken into account. |

In the event of a number of levels of danger prevailing simultaneously, the warning corresponding to the highest level of danger is always used. A warning with a warning triangle indicating possible injury to personnel may also include a warning relating to property damage.

## Qualified personnel

The product/system described in this documentation may only be operated only by personnel qualified for the specific task in accordance with the relevant documentation for the specific task, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

## Proper use of Siemens products

Note the following:

|  |
|--|
|  <b>WARNING</b> |
|--|

|  |
|--|
| <p>Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be adhered to. The information in the relevant documentation must be observed.</p> |
|--|

## Trademarks

All names shown with the trademark symbol ® are registered trademarks of Siemens AG. Third parties using for their own purposes any other names in this document which refer to trademarks might infringe upon the rights of the trademark owners.

## Disclaimer of liability

We have reviewed the content of this manual for agreement with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

# Preface

## Purpose of the documentation

This documentation describes the use of McAfee Application Control in the SIMATIC PCS 7 and WinCC environment, including its installation and recommended adjustments after installation.

## Knowledge required

This documentation is aimed at persons involved in the engineering, commissioning, and operation of automated systems based on SIMATIC PCS 7 or WinCC. Knowledge of administration and IT techniques for Microsoft Windows operating systems is assumed.

## Scope of the documentation

The documentation applies to process control systems equipped with the respective product version of SIMATIC PCS 7, or WinCC.

| NOTICE   |
|--|
| <p>Note that McAfee Integrity Control has released Whitelisting functionality (McAfee Application Control) only for specific product versions.</p> <p>Additional information is available in the Internet at the following address:</p> <p><a href="http://support.automation.siemens.com/WW/view/en/10154608">http://support.automation.siemens.com/WW/view/en/10154608</a></p> |



# Whitelisting

## 2.1 Introduction

Effective use of Whitelisting technologies in a process control system is only given as part of a comprehensive security concept. Whitelisting technologies alone cannot protect a process control system against hostile attacks.

It is therefore always advisable to take the Security concept PCS 7 / WinCC into consideration, which is available on the Internet at:

<http://support.automation.siemens.com>

In conjunction with the security concept mentioned above, Whitelisting is to be considered an additional layer of defense as an appropriate further means of counteracting the rising risk of malicious attacks.

Whitelisting takes the approach that all applications are not trusted, except for those which have been rated trustworthy after verification, which means that a positive list (Whitelist) is being maintained. This positive list contains all applications that have been rated trustworthy for execution on the computer system.

This renders the principle of Whitelisting the exact opposite of Blacklisting that is based on a list or definition of "non-trustworthy" applications (negative list, i.e. blacklist). An example of blacklisting is a standard virus scanner that operates based on a blacklist, namely the virus pattern. This blacklist must be updated continuously under the aspect of a continuously rising number of "non-trustworthy" applications. This means that an updated black (virus pattern) always has to be made available for the virus scanner. The virus scanner is only able to detect "malware" if corresponding "applications" and attack patterns have been entered in this blacklist.

Whitelisting by contrast is based on a positive list and does not require continuous updates to combat new malware threats.

## 2.2 McAfee Application Control

McAfee Application Control can be used to block execution of unauthorized applications on servers and workstations.

This means that once it has been installed and activated on a computer system, McAfee Application Control protects all executable files against manipulation and prevents execution of unknown files (that are not in the Whitelist).

By contrast to simple Whitelisting concepts, McAfee Application Control employs a dynamic trustworthiness model. This approach dispenses of time-consuming manual updates of the list of approved applications. Updates can be installed in different ways:

- By trusted users
- By trustworthy manufacturers (certificate)
- From a trusted directory
- By means of binary file
- By means of Updater (update programs such as WSUS, or virus scanners)

Moreover, McAfee Application Control provides a function that monitors memory, protects against buffer overflow, and protects the files that run in memory.

|                |
|----------------|
| <b>CAUTION</b> |
|----------------|

|  |
|--|
| McAfee Application Control part of McAfee Integrity Control. |
|--|

|  |
|--|
| McAfee Integrity Control currently includes the McAfee Application Control and McAfee Change Control components. |
|--|

|   |
|---|
| Only the Whitelisting functionality, i.e. McAfee Application Control, is approved for use in the SIMATIC PCS 7 and WinCC environment. |
|---|

|  |
|--|
| For this reason, coverage in this documentation is restricted exclusively to this functionality. |
|--|

|   |
|---|
| SIEMENS customers may order McAfee Application Control as usual as separate software from McAfee or their distributors. |
|---|

## Administration

### 3.1 Administration

McAfee Application Control can be administered in different ways:

- Locally on a computer system (standalone)
- Centrally using McAfee ePolicy Orchestrator (ePO)

Decisions in favor of central or local administration should be made based on the number of systems to be maintained.

You have to use the following procedure that is independent on the type of administration:

Once McAfee Application Control has been installed on the computer, you first need to run the "solidify" function that scans all connected drives for the presence of executable files. The duration of this procedure depends on the data volume and computer performance and may take several hours. With current hardware, WinCC 7.0.2 Server installation and normal projects, this operation takes approx. 20 to 30 minutes.

You need to restart the computer after McAfee Application Control has been activated. All executables (exe, com, dll, bat, etc.) found during the scan are now protected against manipulation (renaming, deletion, etc.). New files cannot be executed.

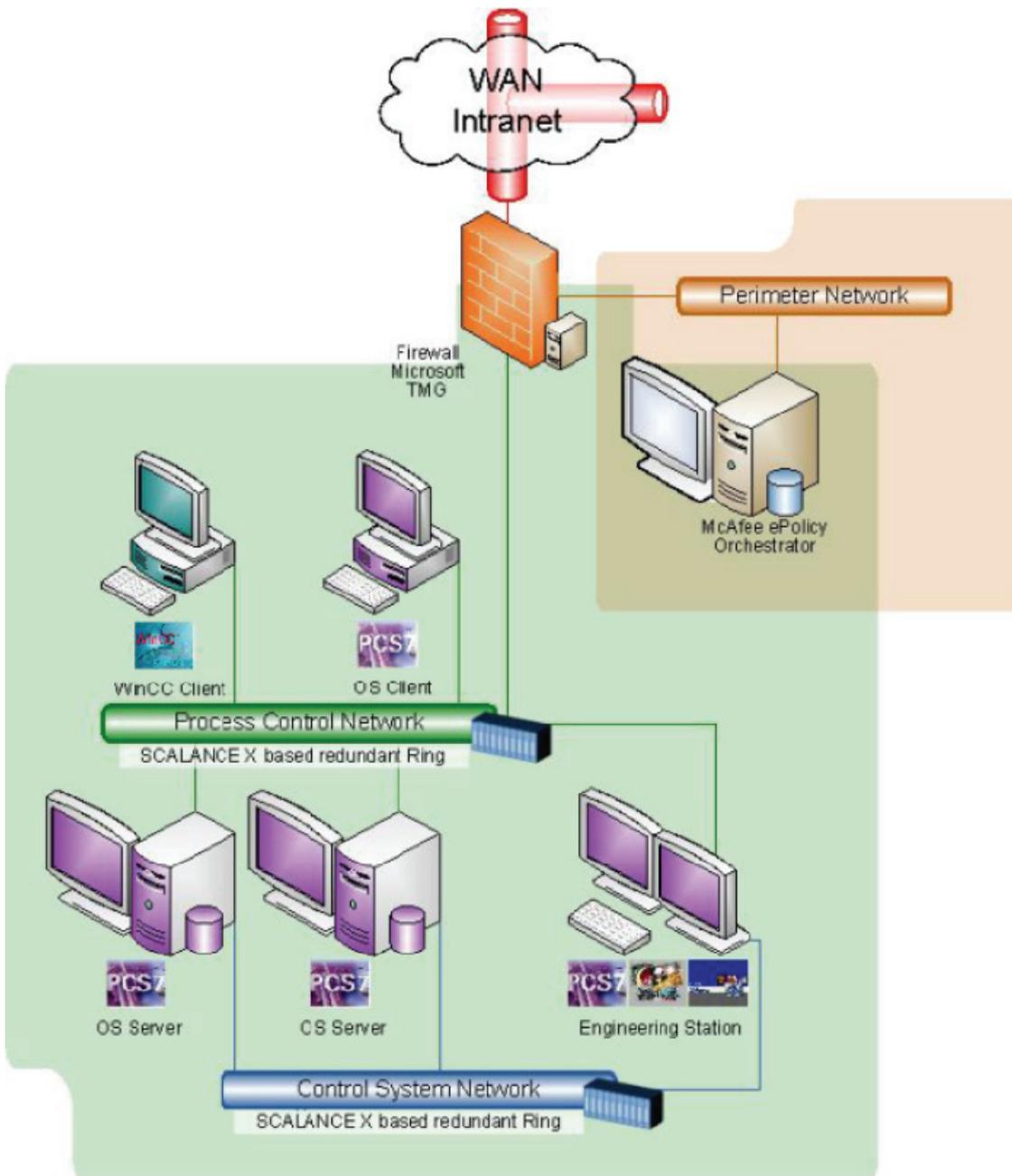
### 3.2 Local administration of McAfee Application Control

Local administration is handled exclusively by means of command line input. The commands are intelligible and self-explanatory and McAfee provides excellent reference material. McAfee Application Control can be handled conveniently using batch files or scripts.

### 3.3 Central administration by means of McAfee ePO

#### Architecture

McAfee ePO should be installed on a separate computer that contains the latest hardware. McAfee ePO may also be installed on an infrastructure computer (e.g. WSUS, virus scan server) that is already available in the system. McAfee ePO may not be installed on an automation device or Domain Controller.



---

*3.3 Central administration by means of McAfee ePO*

Central administration, meaning installation, configuration, and monitoring is handled by means of McAfee ePO (McAfee ePolicy Orchestrator), which is a management tool that is not only capable of managing all McAfee products, but also offers an extensive portfolio of network management and monitoring functionalities that are partially free of charge.

Similar to an Active Directory Domain, a central administration should be used in domains consisting of approx 10 or more managed systems.

All local commands and options of McAfee Application Control are also available remotely via ePO. This is partially based on predefined tasks, while remaining functions are being handled by means of remote command line options. By comparison to local administration, ePO offers superior monitoring functions and a clearly arranged event management.



# Using McAfee Application Control with PCS 7 and WinCC

# 4

The following sections explain the notices and special features associated with the use of McAfee Application Control in the SIMATIC PCS 7 & WinCC environment.

This information has been based on McAfee ePolicy Orchestrator (ePO) 4.5 (ePO Agent 4.0), and McAfee Application Control 5.1.

## 4.1 Preparing for installation

Once McAfee Application Control has been installed and activated on a device, it is not possible to execute new programs or manipulate (update) existing programs. You should follow the instructions below during integration of McAfee Application Control, or prior to its installation:

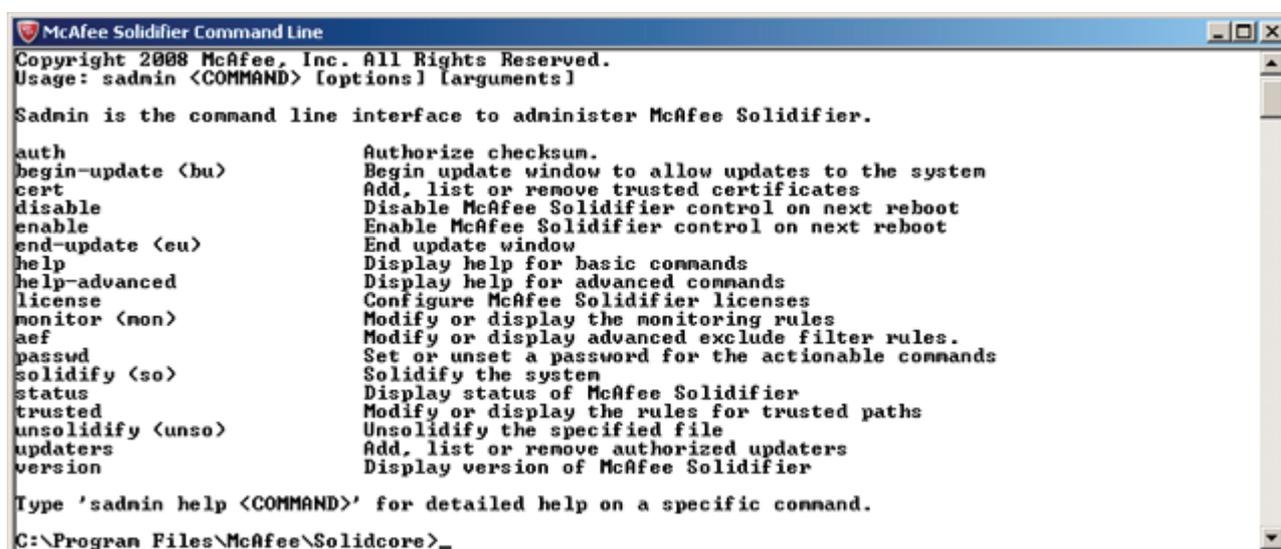
1. The system architecture should be set up in accordance with recommendations based on the Security Concept PCS 7 & WinCC in order to keep malware risks to the possible minimum prior and during integration of McAfee Application Control.
2. Install and configure the operating system.
3. Install all necessary programs and components.
4. Install all security updates that are available for the operating system and programs.
5. Install a virus scanner and update it with the latest virus signature files.
6. You should disconnect the device from external / third-party networks (e.g. at the front-end Firewall).
7. Run a complete virus scan on the device.
8. Install McAfee Application Control locally, or by means of ePO (see the following description).
9. "Solidify" all local hard disks and partitions, i.e. the computer system is scanned for executable programs; only the programs found can be executed in the future. (See the following description).
10. Activate McAfee Application Control and restart the device.

## 4.2 Local administration

### 4.2.1 AC Administrator

#### AC Administrator

McAfee Application Control can be protected by means of password so that even a local administrator is prevented from shutting down McAfee Application Control. This means that the "AC Administrator" can be set up independently from the local Windows Administrator.



```
McAfee Solidifier Command Line
Copyright 2008 McAfee, Inc. All Rights Reserved.
Usage: sadmin <COMMAND> [options] [arguments]

Sadmin is the command line interface to administer McAfee Solidifier.

auth                Authorize checksum.
begin-update <bu>   Begin update window to allow updates to the system
cert               Add, list or remove trusted certificates
disable           Disable McAfee Solidifier control on next reboot
enable            Enable McAfee Solidifier control on next reboot
end-update <eu>    End update window
help              Display help for basic commands
help-advanced     Display help for advanced commands
license           Configure McAfee Solidifier licenses
monitor <mon>     Modify or display the monitoring rules
aef              Modify or display advanced exclude filter rules.
passwd           Set or unset a password for the actionable commands
solidify <so>    Solidify the system
status           Display status of McAfee Solidifier
trusted          Modify or display the rules for trusted paths
unsolidify <unso> Unsolidify the specified file
updaters         Add, list or remove authorized updaters
version          Display version of McAfee Solidifier

Type 'sadmin help <COMMAND>' for detailed help on a specific command.
C:\Program Files\McAfee\Solidcore>_
```

## 4.2.2 Installation and configuration

### Installation and configuration

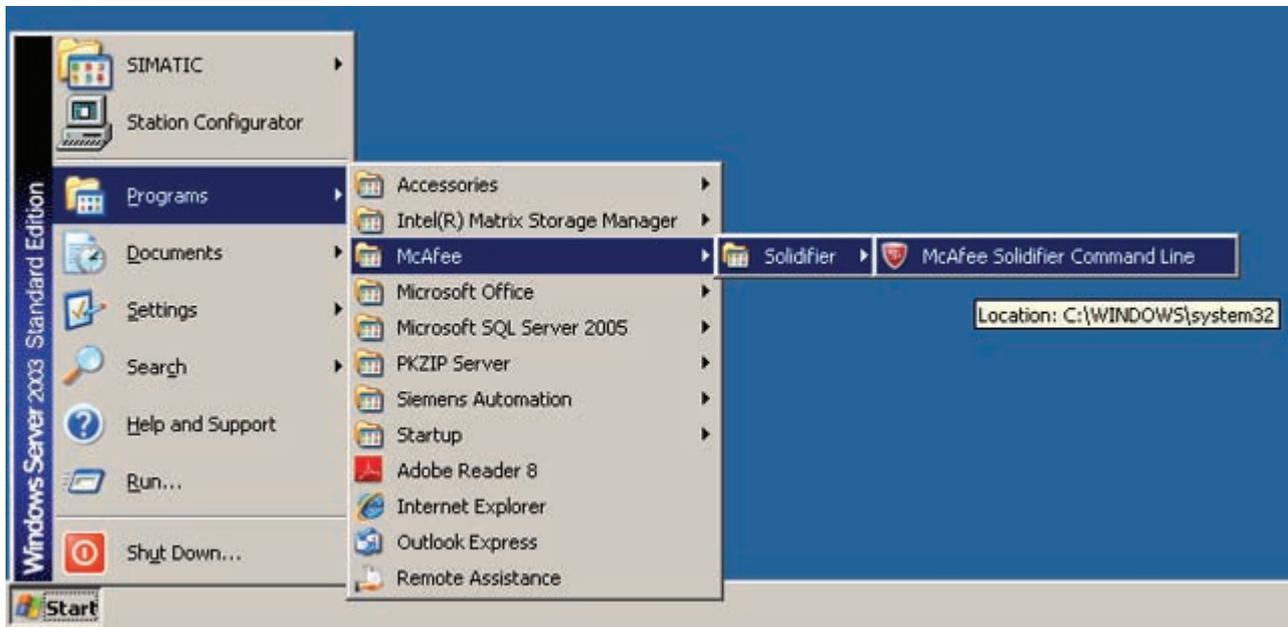
Follow these steps to install McAfee Application Control locally on a computer system:

- Run the Setup for McAfee Application Control and follow the instructions in the dialogs. You can accept all default settings without modifications.

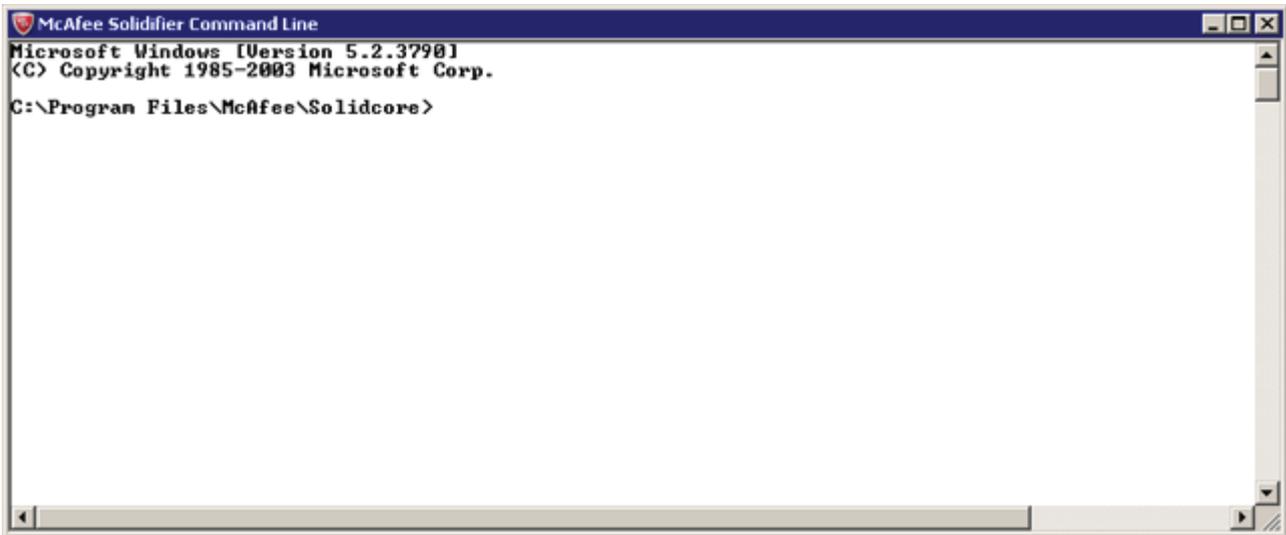
You should then run the "solidify" function for all hard disks and partitions.

Follow these steps:

- After completing the installation, open the McAfee Application Control command line with Start > Programs > McAfee > Solidifier > McAfee Solidifier Command Line



This opens Solidifier command line input:

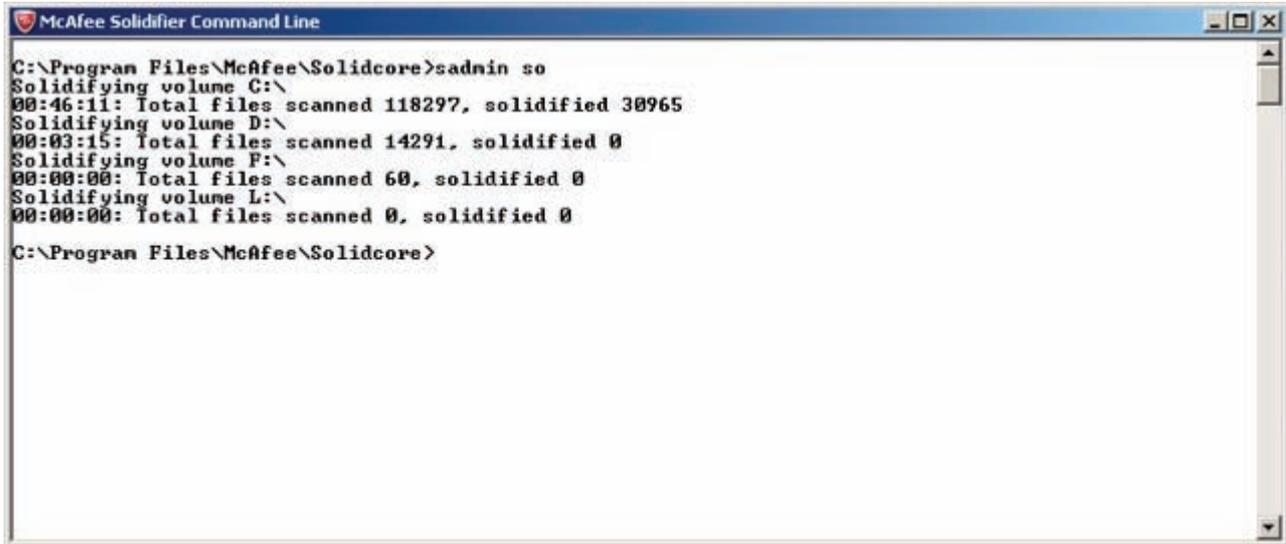


- Start solidification by entering the "sadmin solidify" or "sadmin so" command



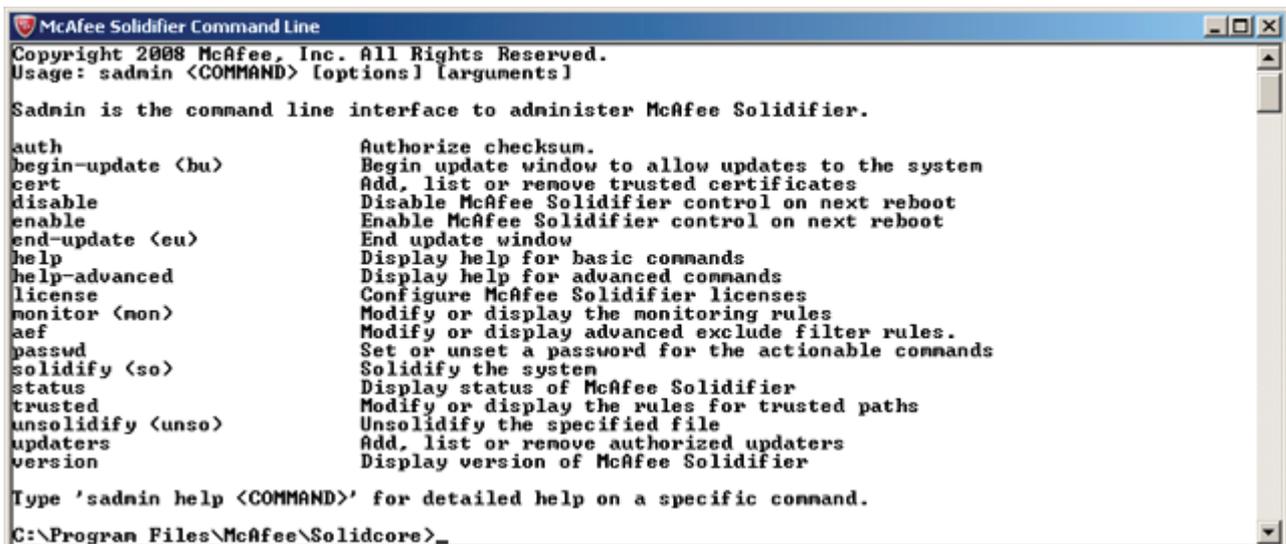
4.2 Local administration

All partitions and local hard disks of the computer system are now scanned for the presence of executable files (applications), e.g. exe, com, bat, dll, as well as Java, Active-X control elements, and scripts. McAfee Application Control then signs and authorizes all files found during the scan for future use. It also protects the files against manipulation such as deletion, or renaming.

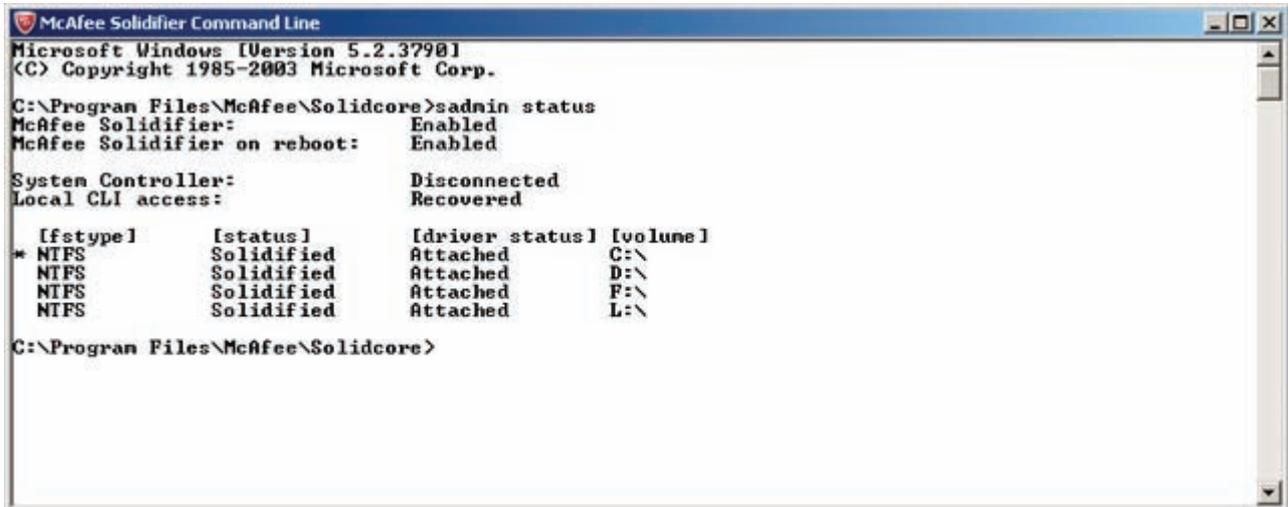


On successful completion of "solidification", the Solidifier command line reports the number of files scanned per partition or hard disk, including the number of files that have been authorized.

You need to activate McAfee Application Control on completion of "solidification". Enter the corresponding "sadmin enable" command at the Solidifier command line. The McAfee Solidifier Control will be activated at the next restart.



Restart the computer. After the restart has been completed, you can query the status of McAfee Solidifier by entering the "sadmin status" command at the Solidifier command line.



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

C:\Program Files\McAfee\Solidcore>sadmin status
McAfee Solidifier:      Enabled
McAfee Solidifier on reboot:  Enabled

System Controller:      Disconnected
Local CLI access:      Recovered

  [fstype]      [status]      [driver status] [volume]
* NTFS         Solidified   Attached        C:\
  NTFS         Solidified   Attached        D:\
  NTFS         Solidified   Attached        F:\
  NTFS         Solidified   Attached        L:\

C:\Program Files\McAfee\Solidcore>
```

The computer system is now protected, which means that all applications it contains are protected against manipulation such as deletion, or renaming.

For information on how to enable explicit modifications, refer to the section "Update installation (Page 61)".

## 4.3 Central administration using McAfee ePolicy Orchestrator

### 4.3.1 Installing and configuring McAfee ePO Server

#### Installing and configuring McAfee ePO Server

McAfee ePolicy Orchestrator is an extensive software package that you can use to manage a multitude of different programs (including McAfee VirusScan). Moreover, it also provides the functionality of a network management tool. To be able to work with McAfee ePolicy Orchestrator, you actually need in-depth knowledge of the software. If you do not yet have any experience with McAfee ePolicy Orchestrator, you are strongly advised to carefully study the documentation and tutorials offered by McAfee.

The following paragraphs describe procedures for installing and configuring McAfee ePolicy Orchestrator, based on the following order:

- Installation of McAfee ePolicy Orchestrator 4.6
- Installation of the Solidcore Extension Package
- Installation of the license for Solidcore, or McAfee Application Control

#### Installation of McAfee ePolicy Orchestrator (ePO)

Install McAfee ePO on a separate computer that contains the latest hardware. System requirements are specified in the following listing:

Platform supported

- Server operating system: 32-bit
  - Windows Server 2008 + Service Pack 2 (SP2) Standard, Enterprise, or Datacenter
  - Windows Server 2003 + SP2 Standard, Enterprise, or Datacenter
- Server operating system: 64-bit
  - Windows Server 2008 + SP2 Standard, Enterprise, or Datacenter
  - Windows Server 2008 R2 Standard, Enterprise, or Datacenter
  - Windows Server 2008 for Small Business Premium
  - Windows Server 2003 + SP2 Standard, Enterprise, or Datacenter
- Browser
  - Firefox 3.5
  - Firefox 3.6
  - Internet Explorer 7.0
  - Internet Explorer 8.0

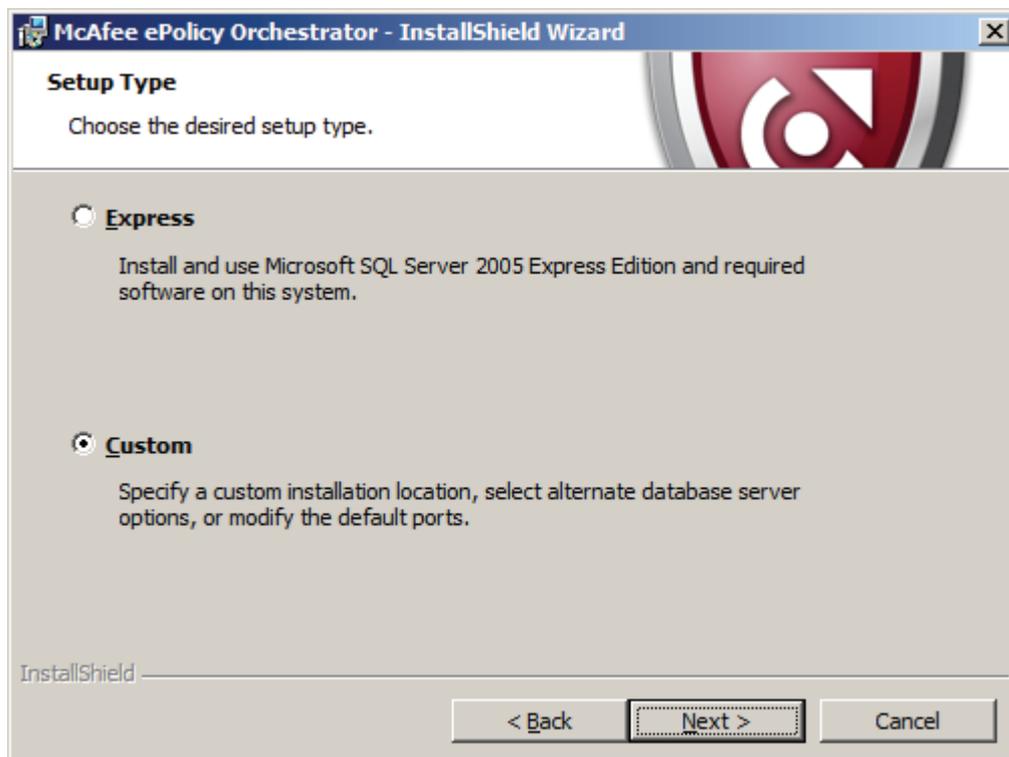
- Network support
  - IPv4
  - IPv6
- Virtual servers
  - VMware ESX 3.5.x update 4
  - VMware ESX 4.0 update 1
  - Citrix Deserver 5.5 update 2
  - Windows Server 2008 R2 Hyper-V
- Database (32-bit and 64-bit)
  - SQL Server 2008 + SP1/SP2/R2 Standard, Enterprise, Workgroup, Express
  - SQL Server 2005 + SP3 Standard, Enterprise, Workgroup, Express
- Additional requirements
  - 1.5 GB of free hard disk space (2 GB is recommended)
  - 1 GB RAM (2 GB to 4 GB is recommended)
  - At least Intel Premium 4 processor, 1.3 GHz or faster
  - Monitor: 1024 x 768 pixels, 256 colors, VGA
  - NIC: 100 Mbps or faster
  - File system: NTFS is recommended
  - It is recommended to set up a separate server for domains containing of more than 250 systems.
  - IP address: McAfee recommends the use of a static IP address

1. Run "setup.exe" to initiate installation of McAfee ePO.
2. Setup requirements are displayed. Follow the instructions in this dialog.

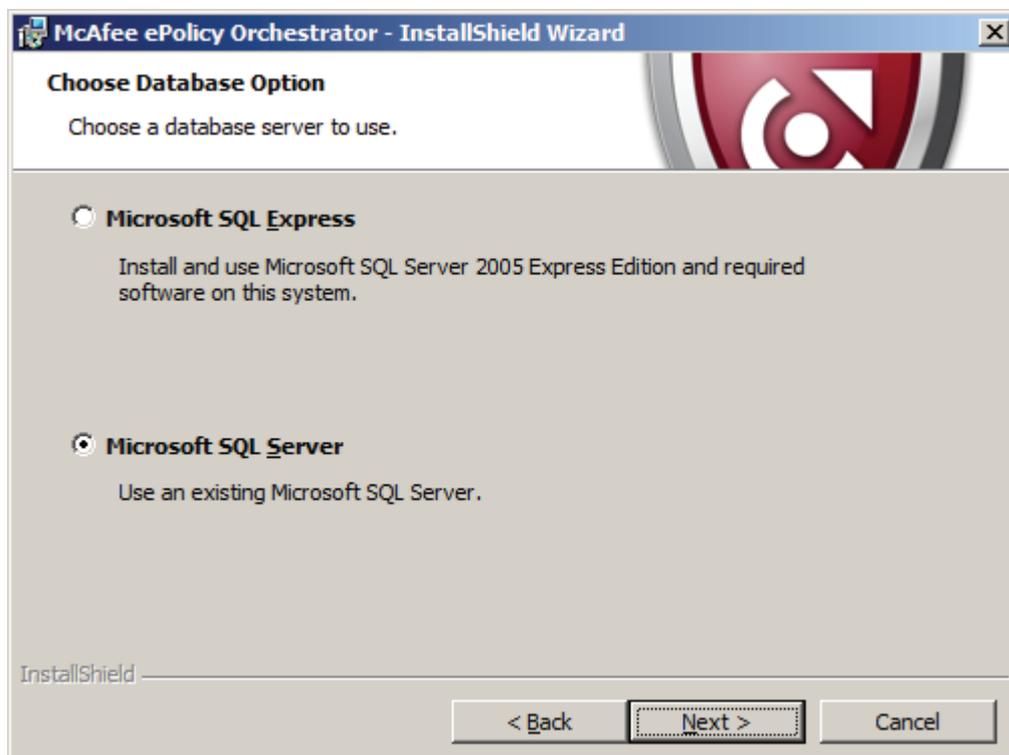


3. Click "Next" to launch the InstallShield Wizard for McAfee ePO.

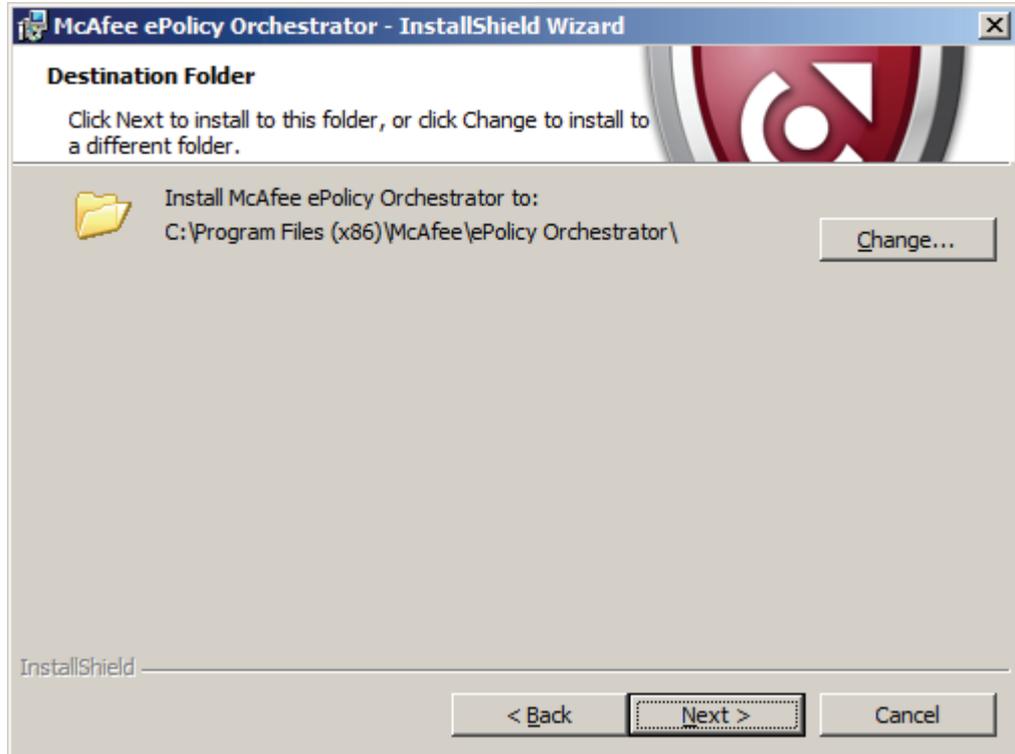
4. Select the required setup type for the SQL Server.



5. Select which database server is to be used.



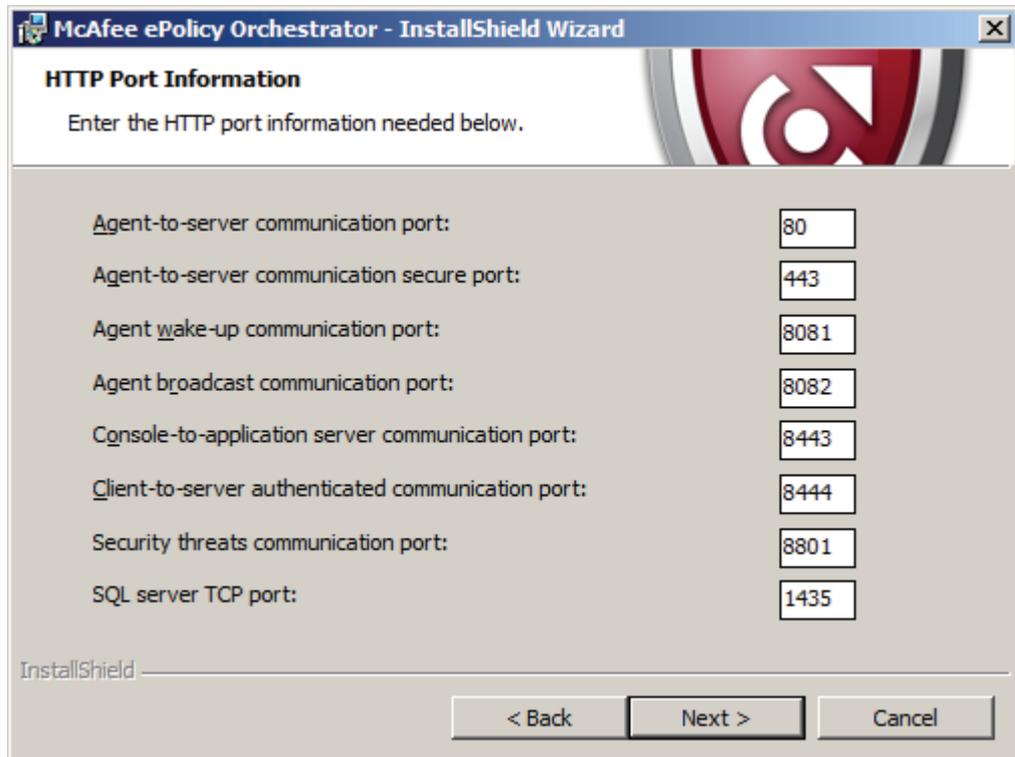
6. The next dialog "Target folder" proposes a target folder for installation. To change this folder, click on "Change...".



7. In the "Database information" dialog, specify the data that ePO uses to access the database, e.g. the database server and authentication details. In the "Domain" field, enter the domain name, or the computer name if the computer is not a domain member.

The screenshot shows the 'Database Information' dialog box from the McAfee ePolicy Orchestrator - InstallShield Wizard. The dialog has a title bar with the McAfee logo and the text 'McAfee ePolicy Orchestrator - InstallShield Wizard'. Below the title bar, the text 'Database Information' is displayed, followed by the instruction 'Enter the Database information needed below.' The dialog contains several input fields: a 'Database Server' dropdown menu, a 'Database Server credentials' section with radio buttons for 'Windows authentication' (selected) and 'SQL authentication', a 'Domain' dropdown menu, 'Username' and 'Password' text boxes, and an 'SQL server TCP port' text box. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a dashed border.

8. In the "HTTP port information" dialog, specify the port numbers that the ePO server uses to communicate with the agents.



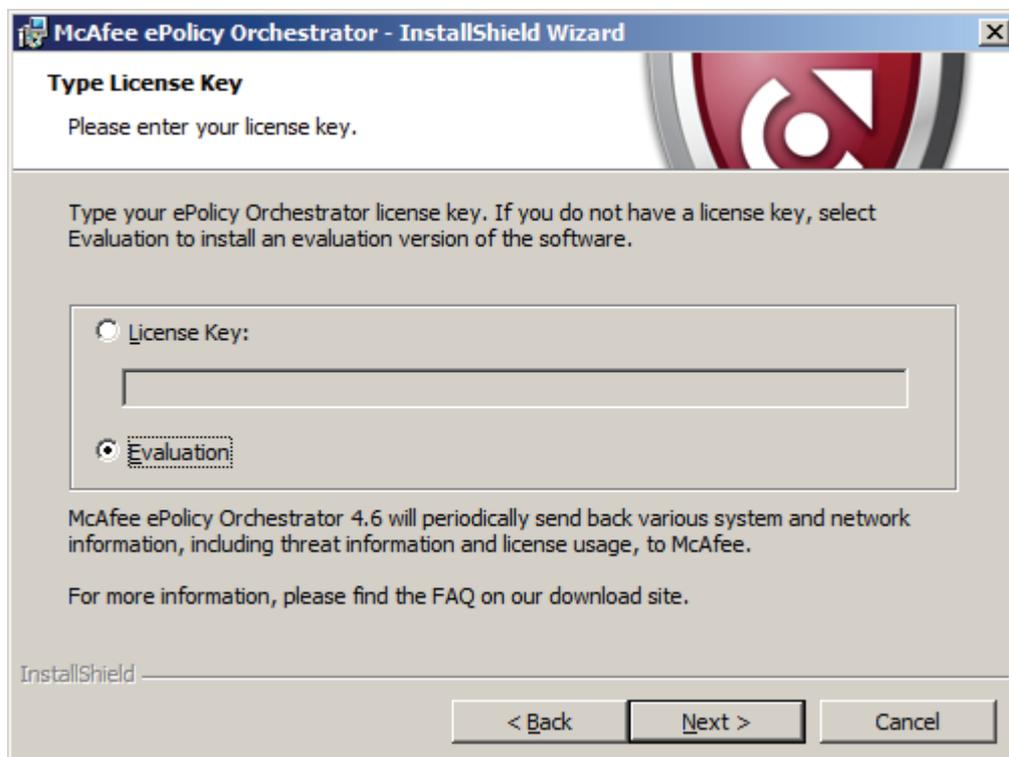
9. Click "Next" to open a dialog that once again shows you a summary of installation settings you made.

10. Specify the Administrator's user name and password for ePO in the next dialog "Global Administrator information".



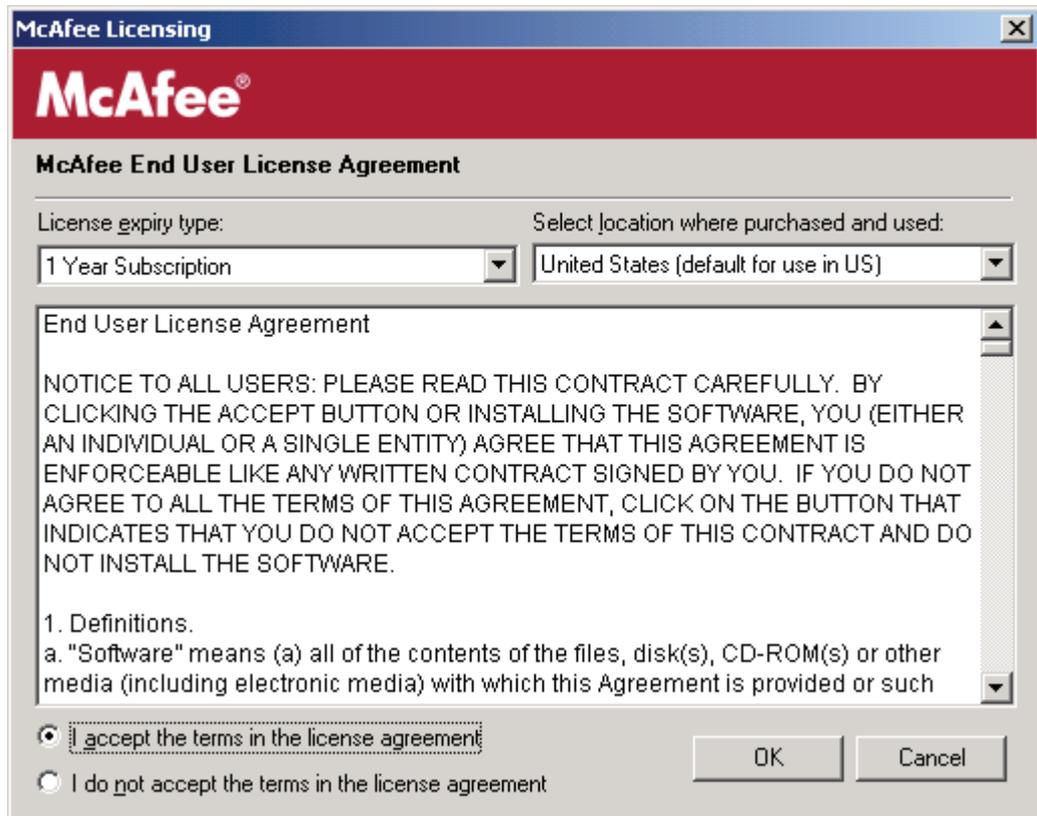
The screenshot shows a dialog box titled "McAfee ePolicy Orchestrator - InstallShield Wizard" with a sub-header "Global Administrator Information". Below the sub-header, it says "Enter the Global Administrator information below." There are three input fields: "Username:" with the text "admin" entered, "Password:", and "Verify Password:". At the bottom, there are three buttons: "< Back", "Next >" (which is highlighted with a dotted border), and "Cancel". The McAfee logo is visible in the top right corner.

11. Enter your ePO license key in the "Enter license key" dialog.

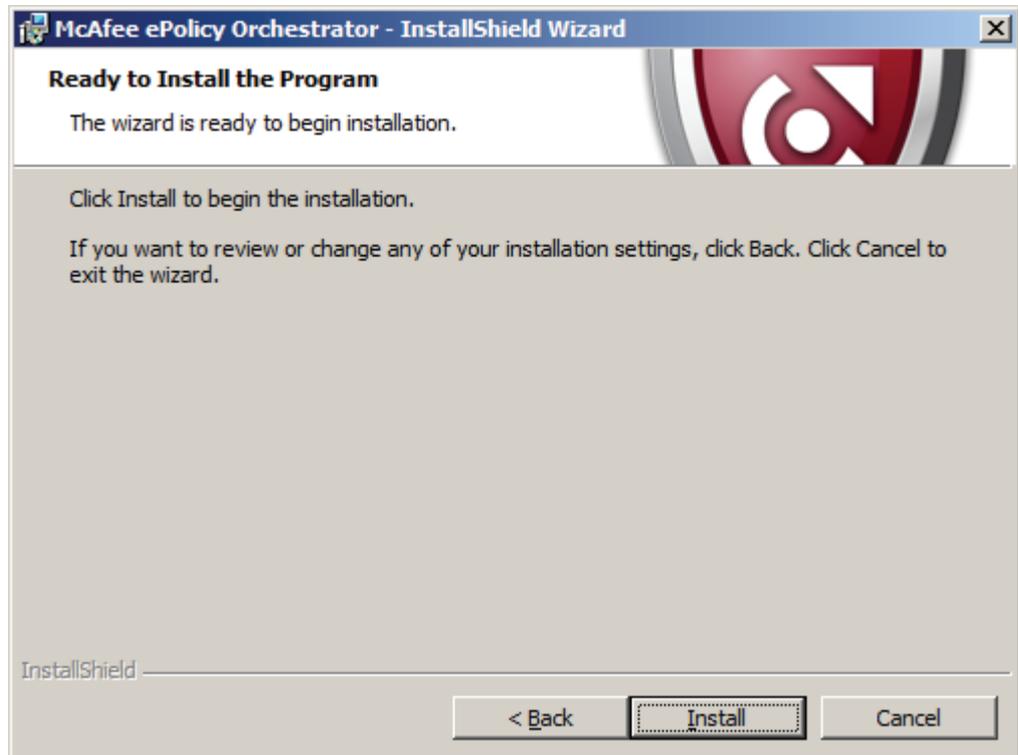


The screenshot shows a dialog box titled "McAfee ePolicy Orchestrator - InstallShield Wizard" with a sub-header "Type License Key". Below the sub-header, it says "Please enter your license key." There is a text area with the instruction: "Type your ePolicy Orchestrator license key. If you do not have a license key, select Evaluation to install an evaluation version of the software." Below this, there are two radio button options: "License Key:" (which is unselected) and "Evaluation:" (which is selected and highlighted with a dotted border). Below the radio buttons, there is a text box for the license key. At the bottom, there are three buttons: "< Back", "Next >" (which is highlighted with a dotted border), and "Cancel". The McAfee logo is visible in the top right corner.

12. Select "I accept the terms in the license agreement" to acknowledge the "McAfee End User License Agreement" in the next dialog.



13. Click "Install" to launch the installation process that may take a few minutes. Setup is concluded by clicking "Finish" in the "InstallShield Wizard completed" dialog.

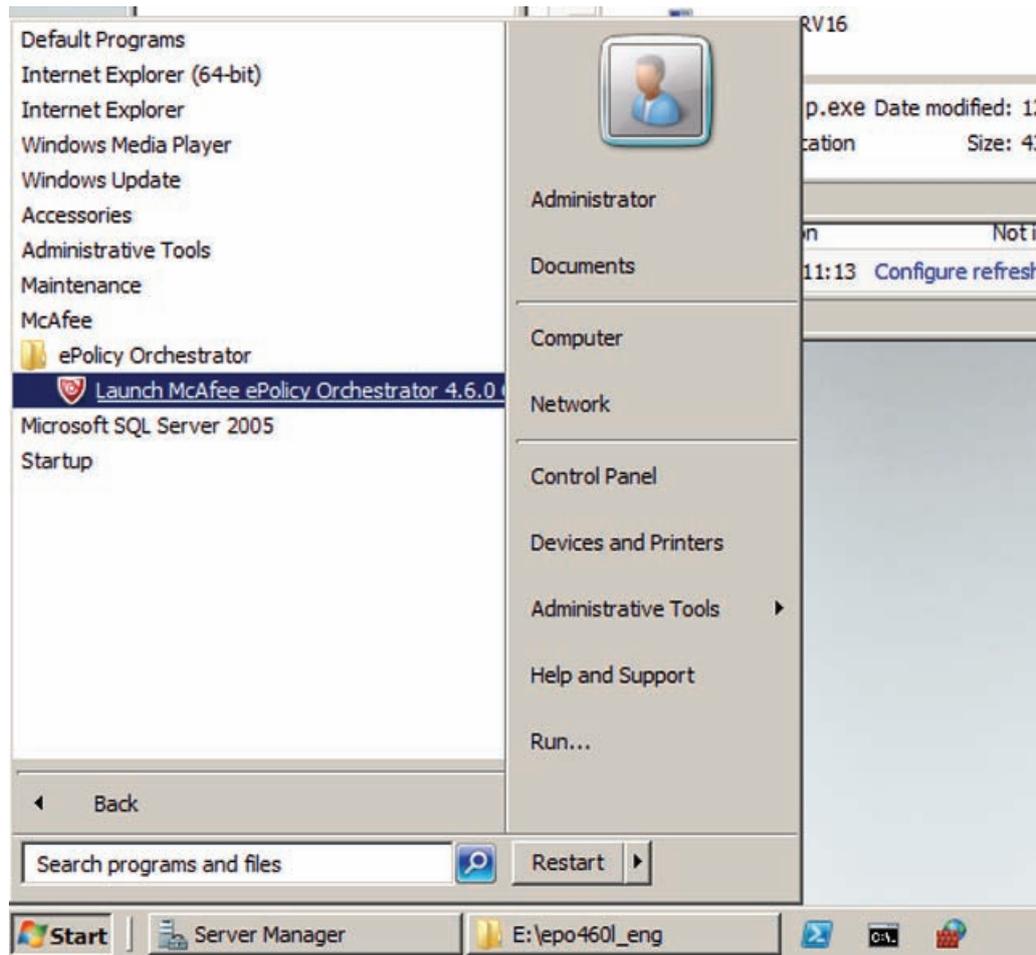


### 4.3.2 Installing the Solidcore Extension Package

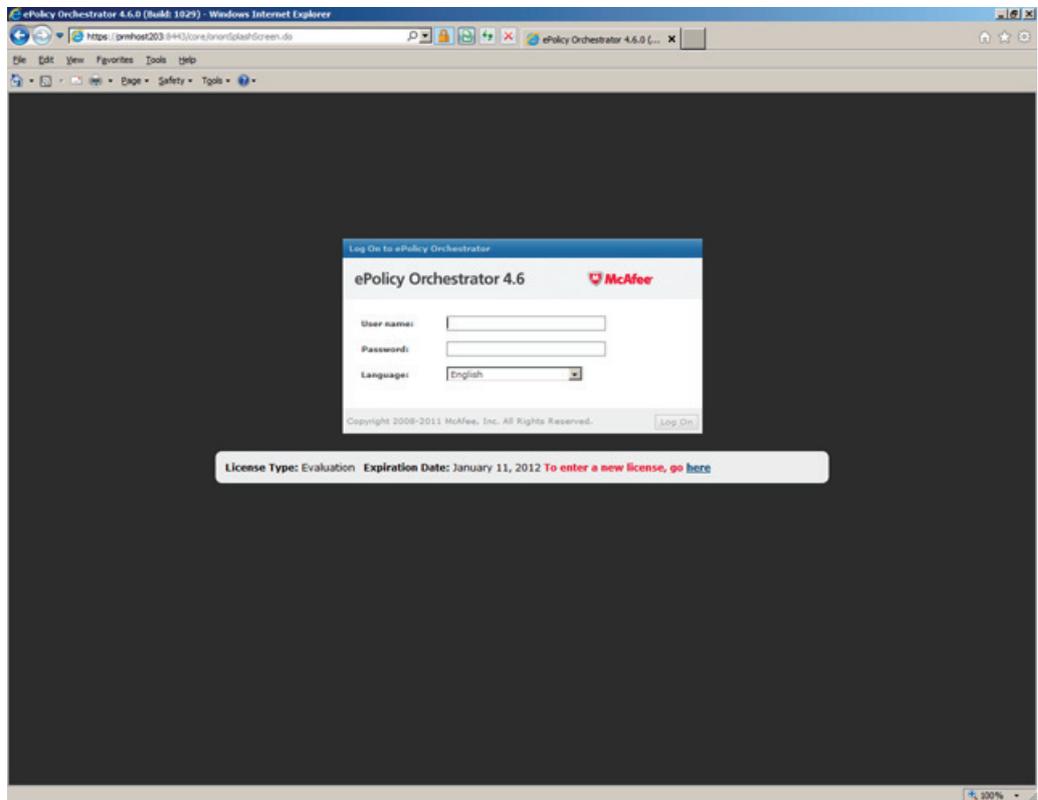
#### Installing the Solidcore Extension Package

On successful completion of your installation of McAfee ePolicy Orchestrator, install the "Solidcore Extension Package". Follow these steps:

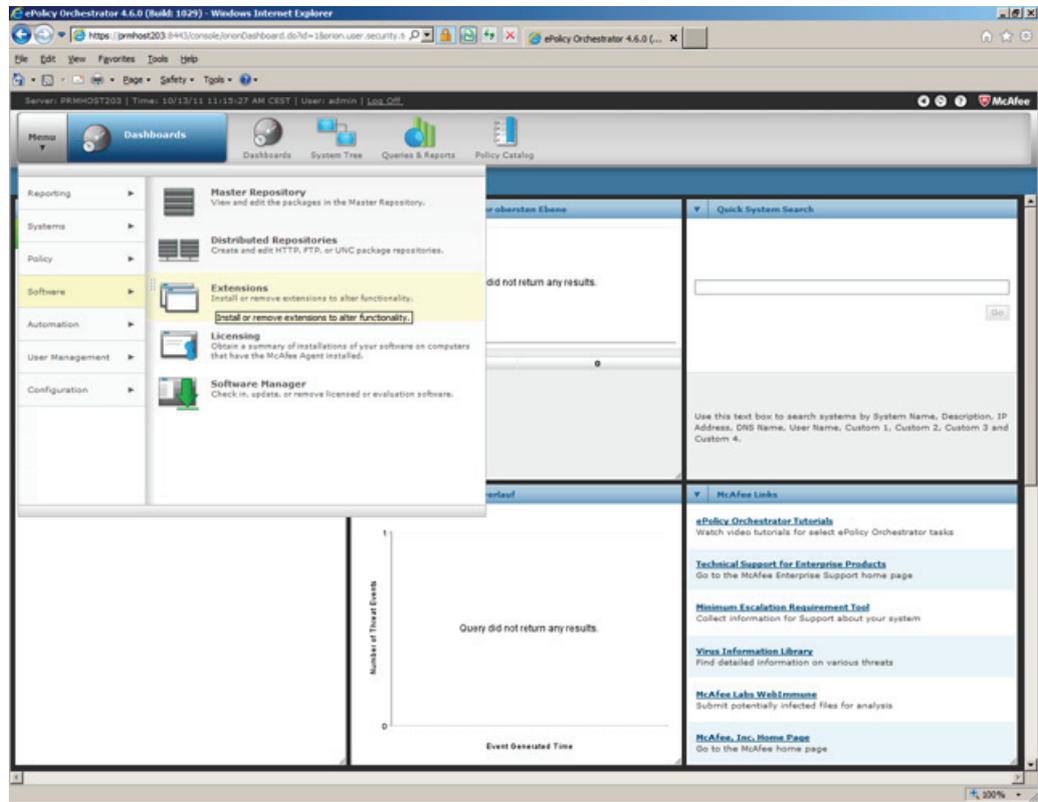
1. Launch McAfee ePO by selecting  
Start > Programs > McAfee > ePolicy Orchestrator > Start McAfee ePolicy Orchestrator  
4.6.0 Console



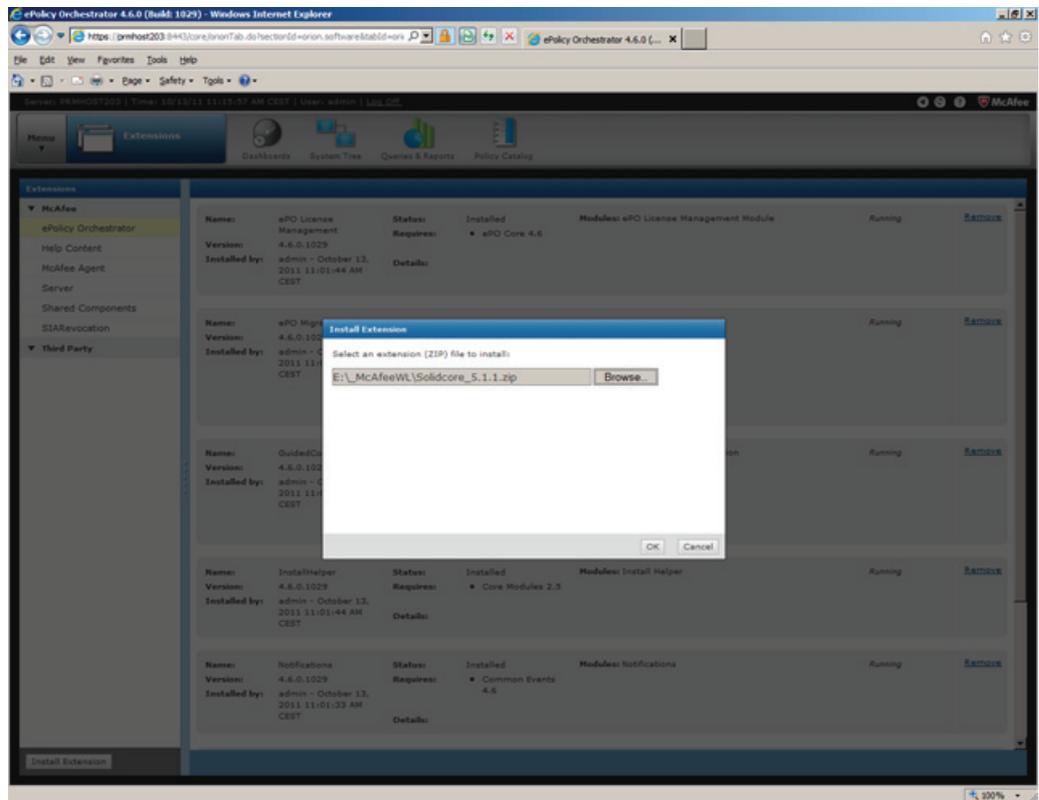
2. In the login dialog, enter the user name and password you specified during ePO installation.



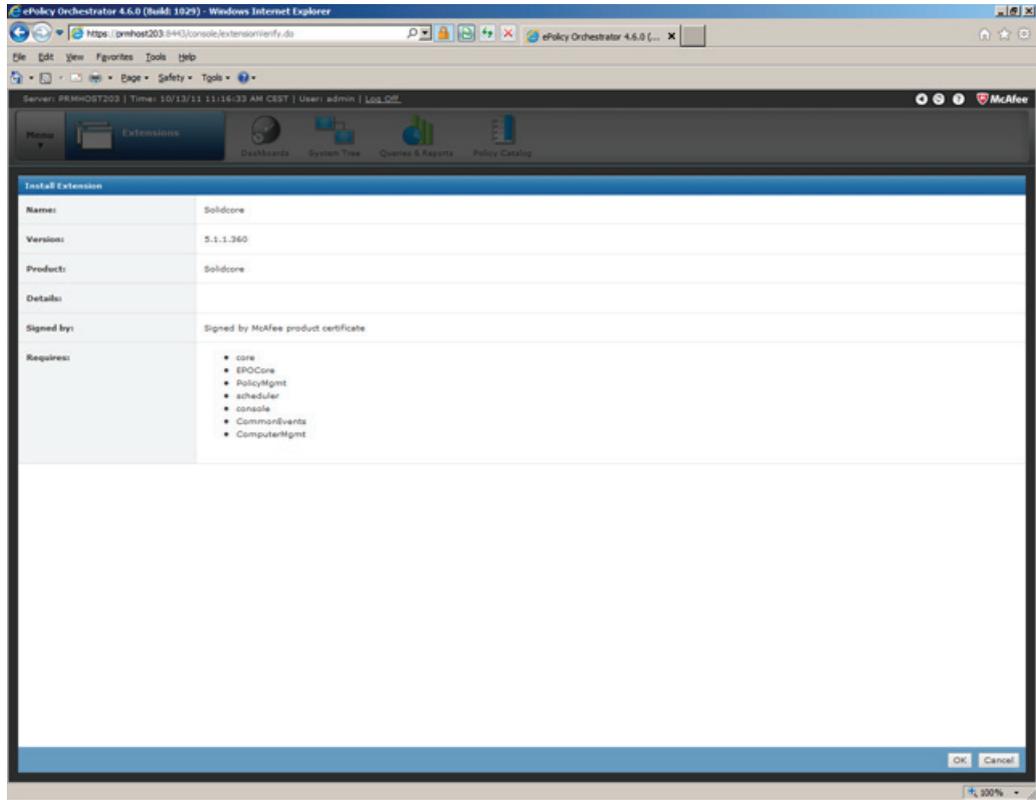
3. Select the Software > Extensions command in the ePO 4.6 Console



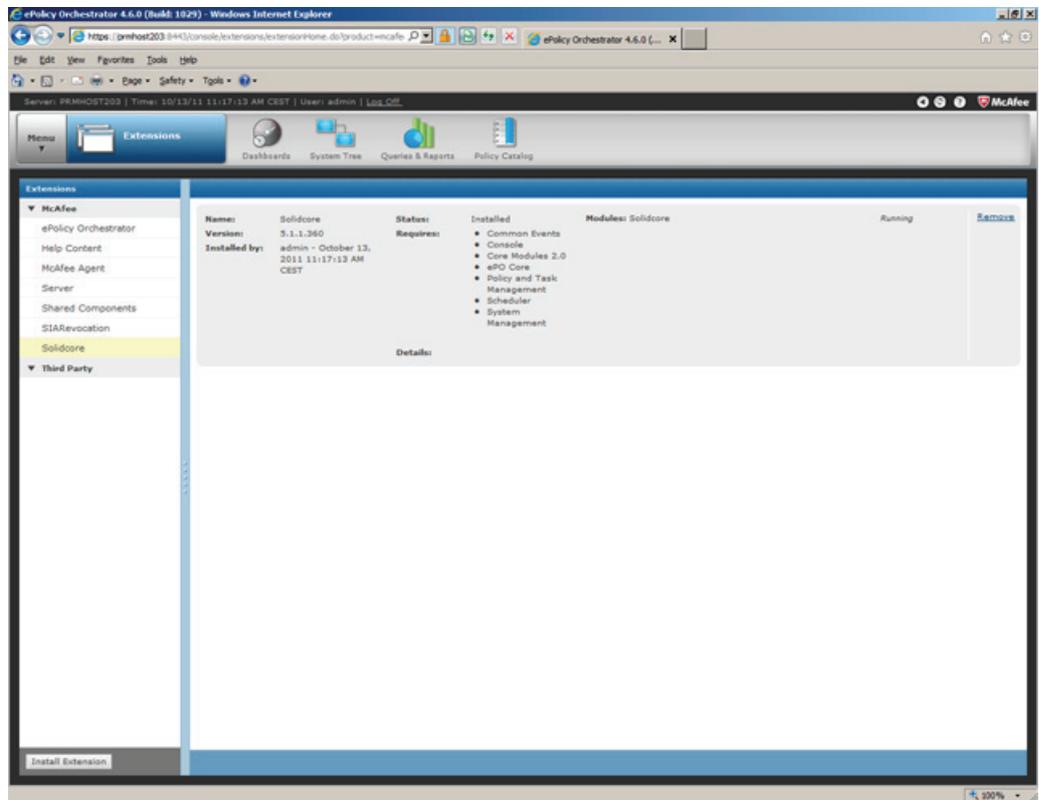
4. In the next dialog, "Install extension", click "Browse" to select the Solidcore Extension Package SOLIDCORE\_5.0.0.ZIP.



5. Click "OK" to confirm the summary that follows.



6. Check the list of installed extensions; the "Solidcore Extension Package" you just installed should be displayed.

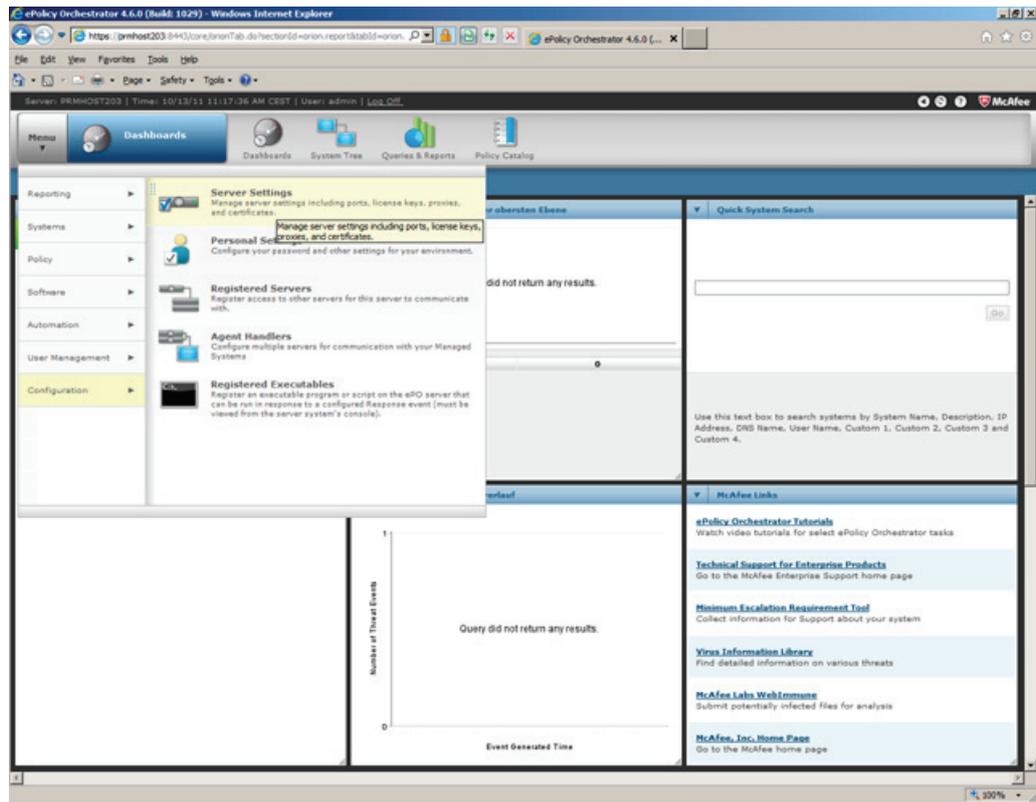


### 4.3.3 Installing the license for Solidcore, or McAfee Application Control

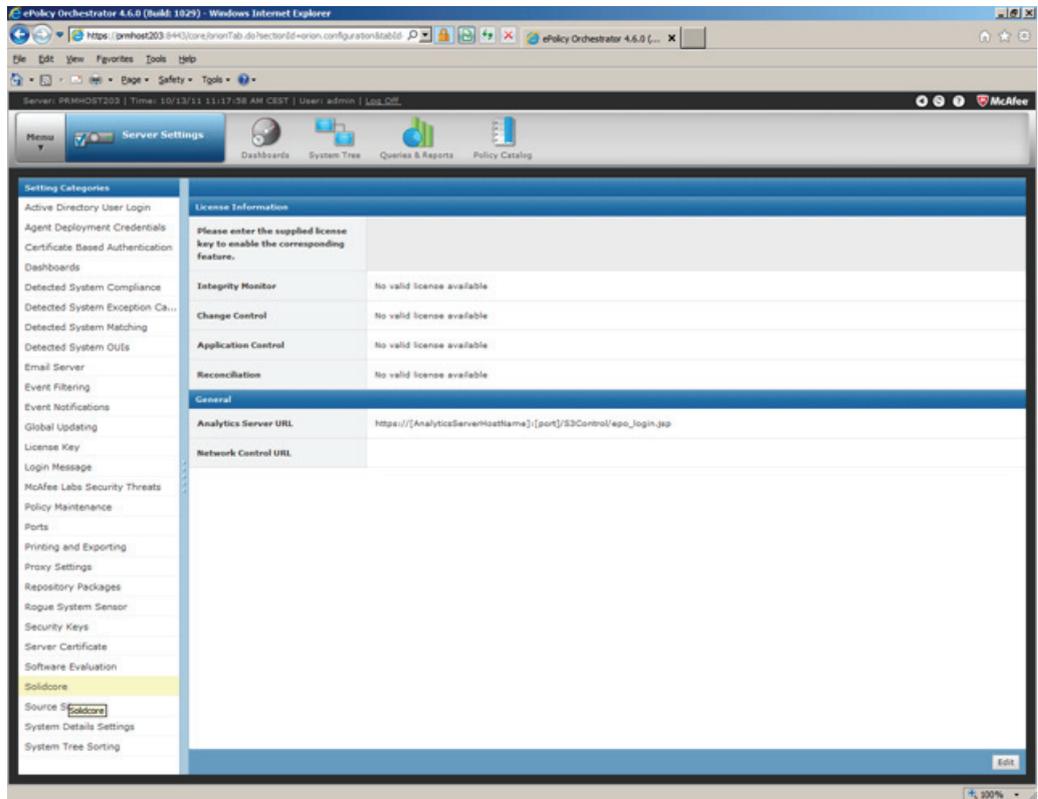
#### Installing the license for Solidcore, or McAfee Application Control

Install the valid Application Control license key. Follow these steps:

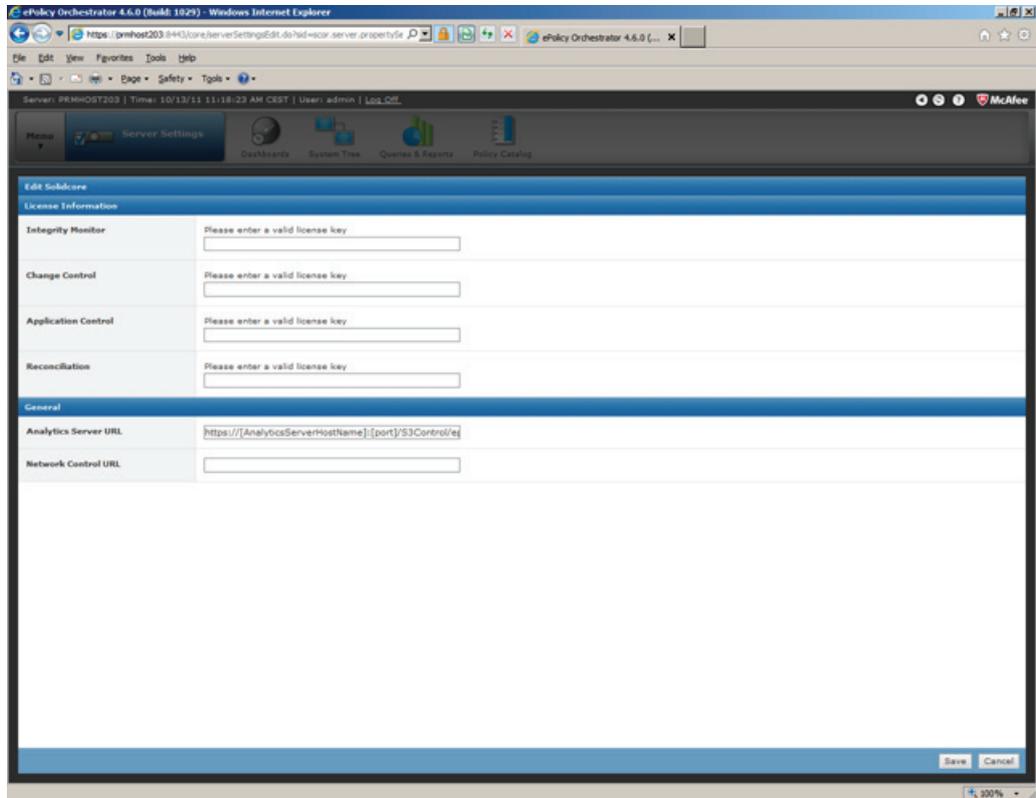
1. In the ePO 4.6 console, point to Configuration > Server settings



2. In the left of the next window, select the "Solidcore" menu command and then click "Edit".



3. Enter the valid Application Control license key in the "Edit Solidcore - License information" window and then click "Save".



You successfully completed installation of the McAfee ePolicy Orchestrator Server. Continue by installing the McAfee Solidcore client.

#### 4.3.4 Installing the McAfee Solidcore clients

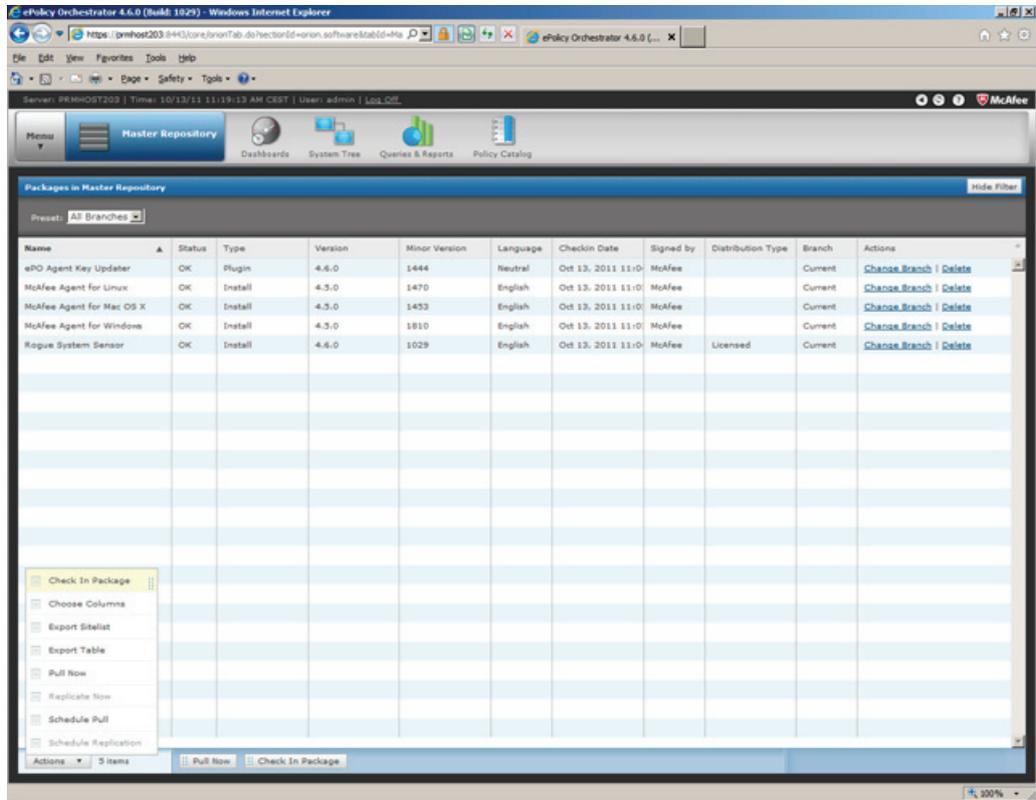
Installation of the McAfee Solidcore Agent on the clients is based on the following procedures:

- Adding the Solidcore Agent Deployment Package to the ePO Repository
- Integrating the client systems into the ePO Console
- Installation of the Solidcore Agent on the clients
- Activating the Solidcore Agent on the clients

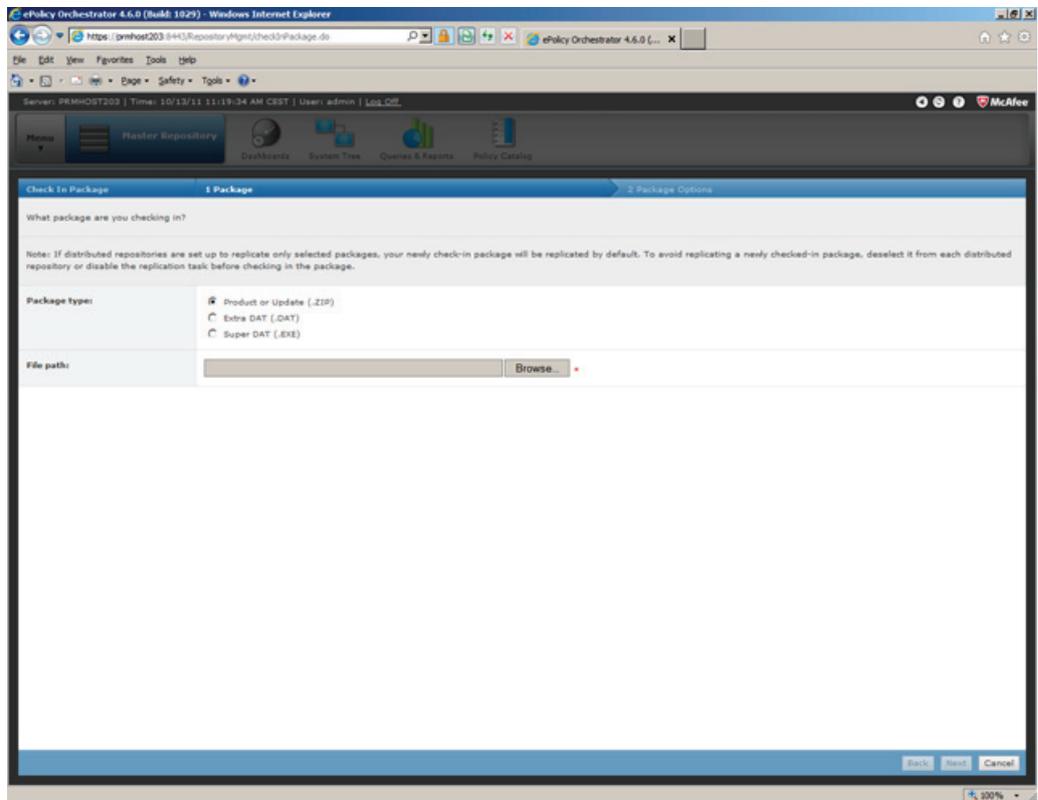


4.3 Central administration using McAfee ePolicy Orchestrator

- 2. In the "Packages in the Master Repository" window, click "Actions" to select the "Check In Package" action.



3. Select the "Product or Update (.ZIP)" package type. You can click "Browse..." to select the Solidcore Agent Package.

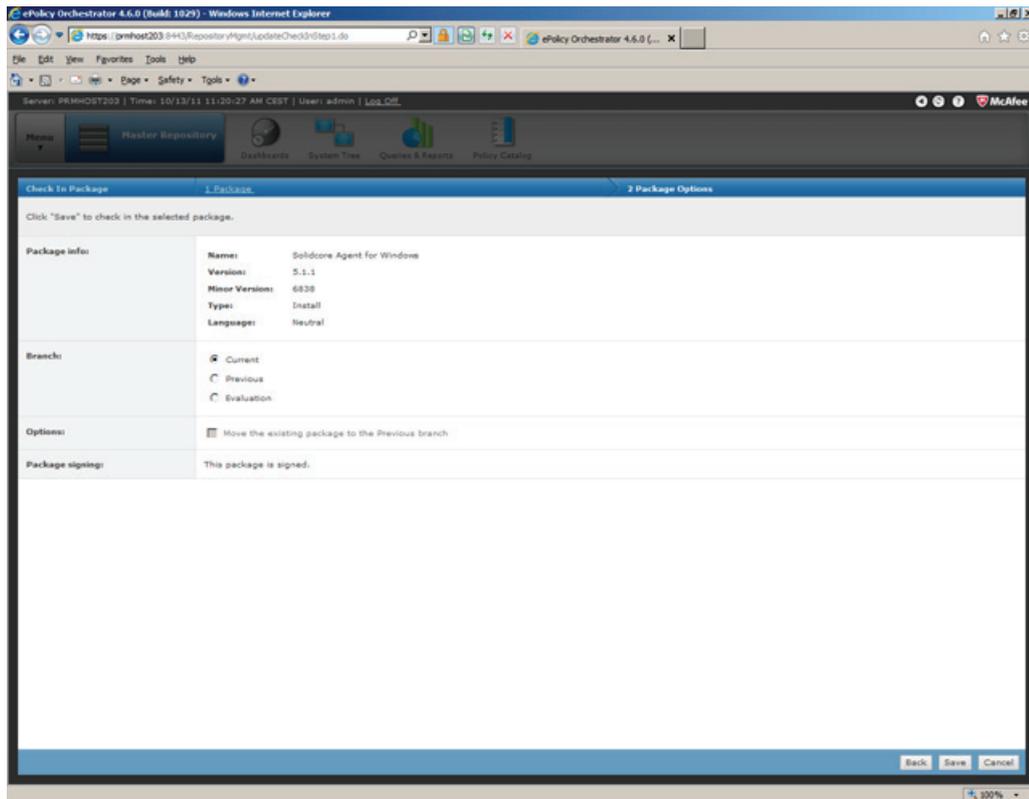


4.3 Central administration using McAfee ePolicy Orchestrator

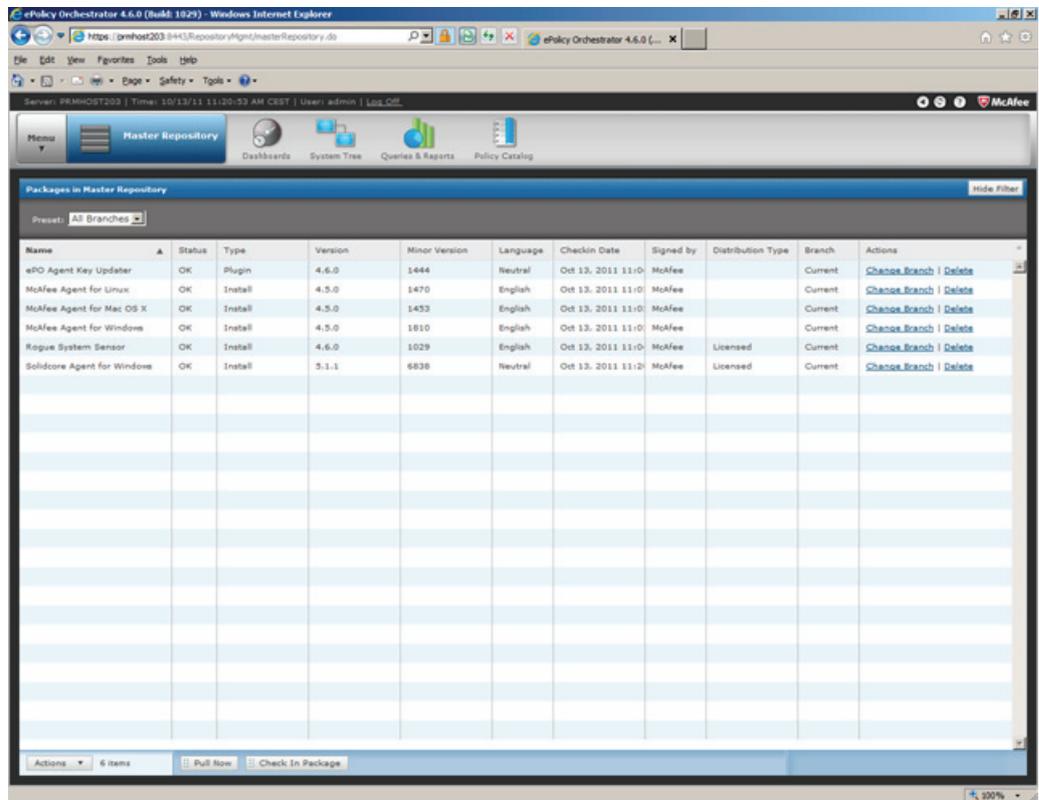
4. Click Next. The Package Options page appears.

Confirm the following:

- Package Info: Confirm that this is the correct package (correct name, version, type, and language).
- Branch: "Current" must be selected.
- Package signing: This specifies if the package is signed by McAfee or is a third-party package.



5. Click "Save" to begin checking in the package. The new package appears in Packages in Master Repository list on the Master Repository tab.

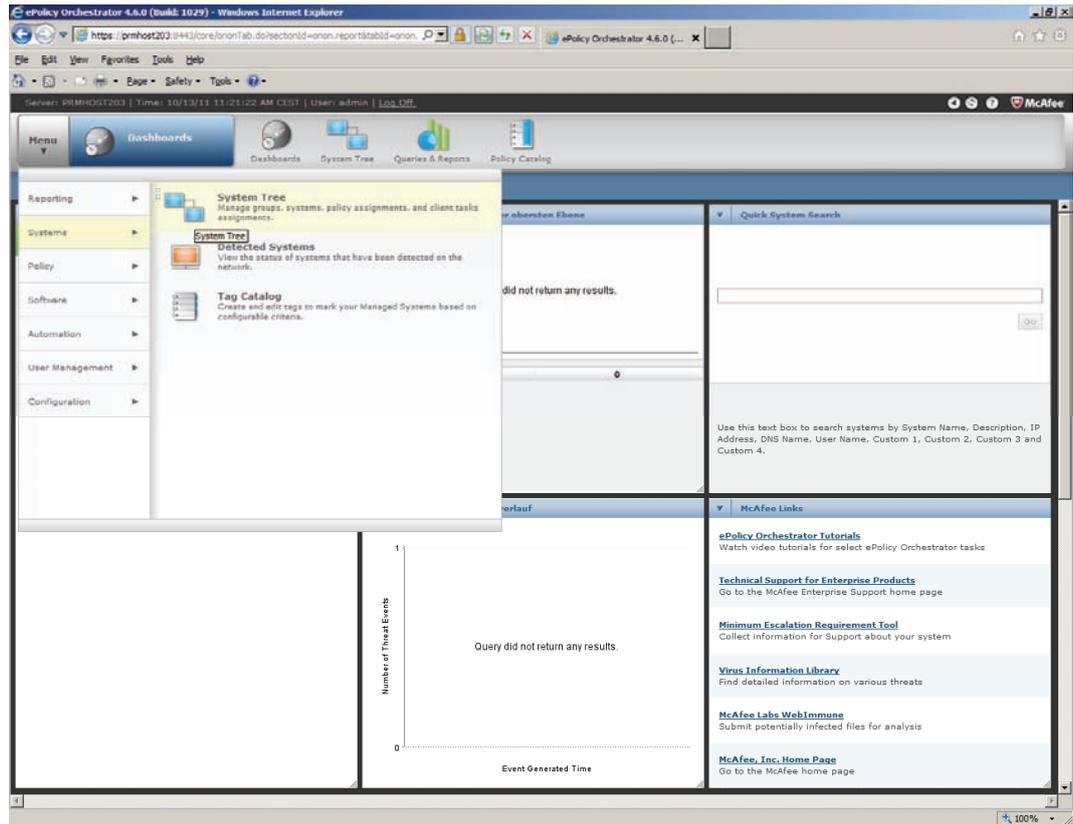


### 4.3.6 Integrating the client systems into the ePO Console

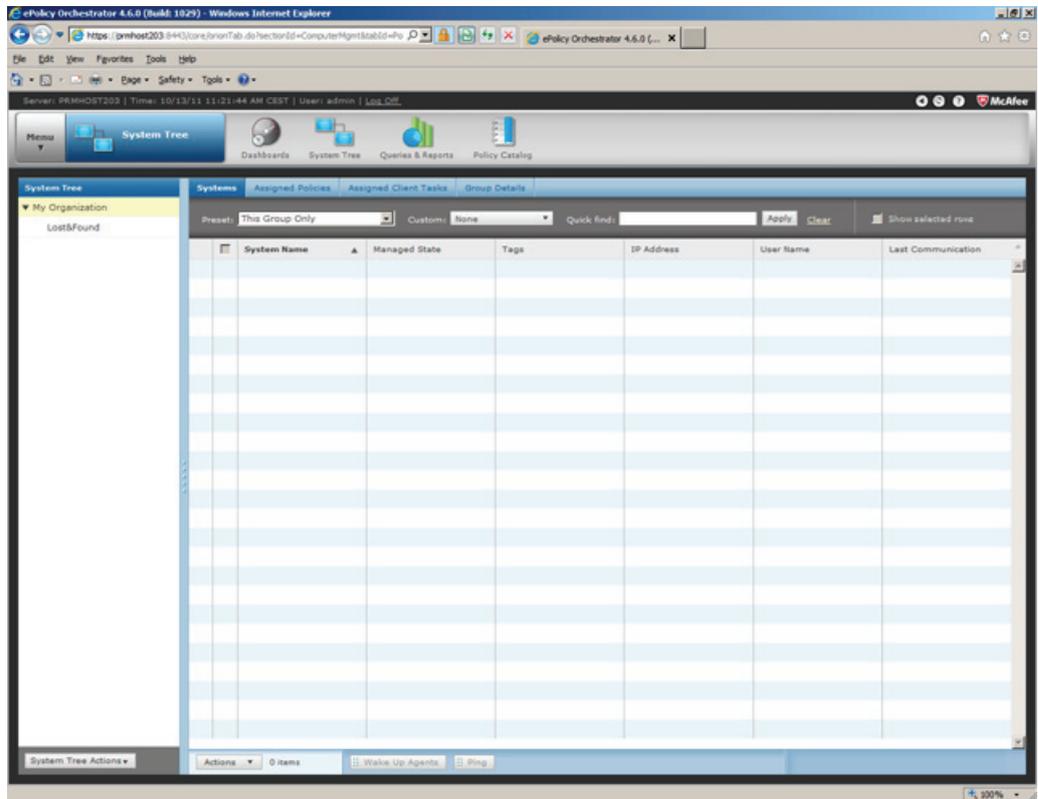
#### Integrating the client systems into the ePO Console

Integrate all clients as new systems in the ePO Console before you install the Solidcore Agent on the clients. Follow these steps:

1. In the ePO 4.6 console, point to the menu Systems > System Tree.

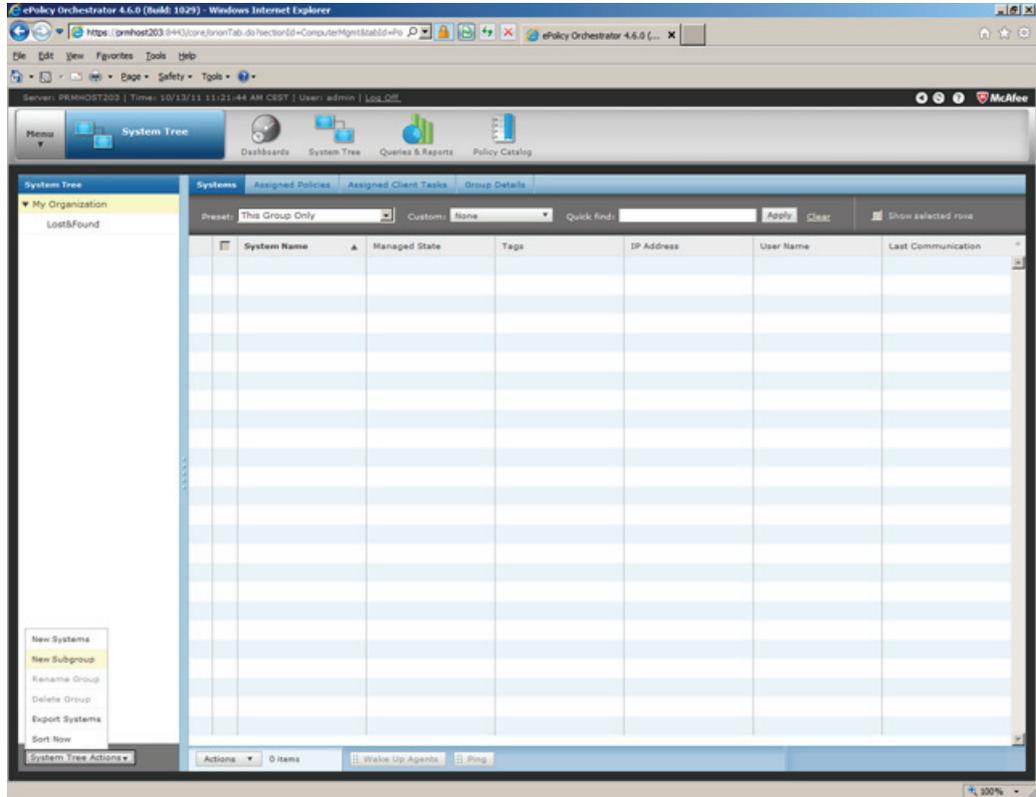


2. The "System Tree" window opens

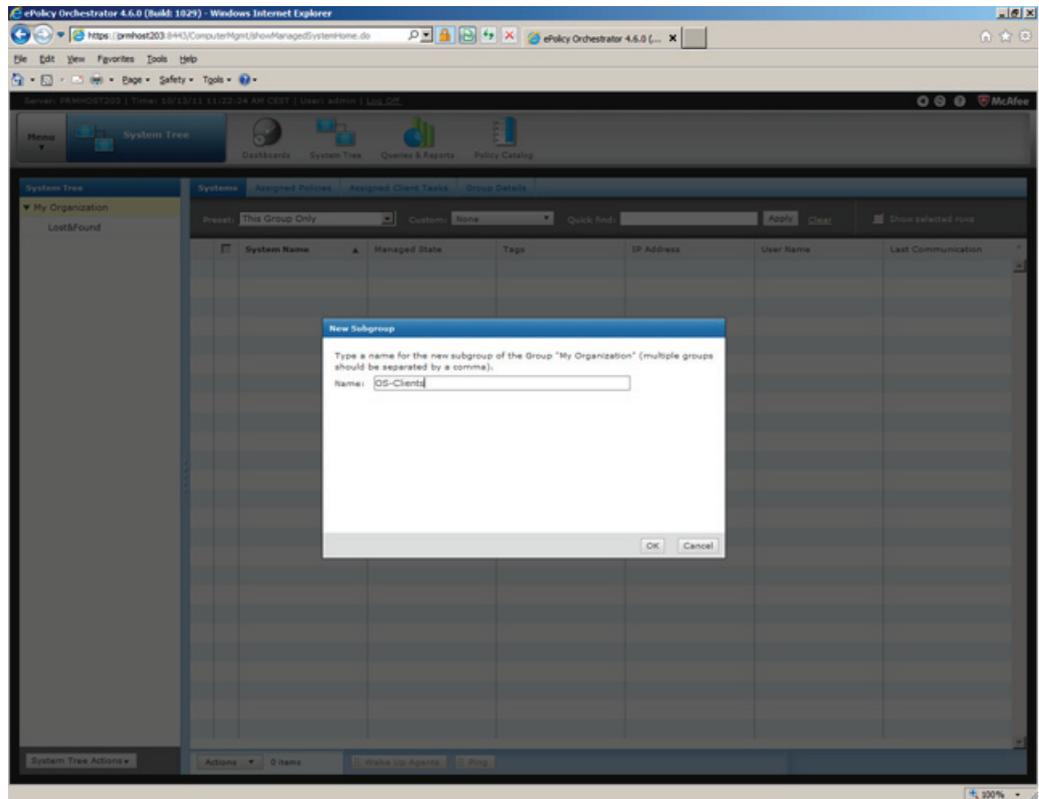


4.3 Central administration using McAfee ePolicy Orchestrator

- 3. You may assign your clients to different subgroup structures. To create a new subgroup, click on "System Tree Actions" and select the "New Subgroup" command from the menu that is displayed.

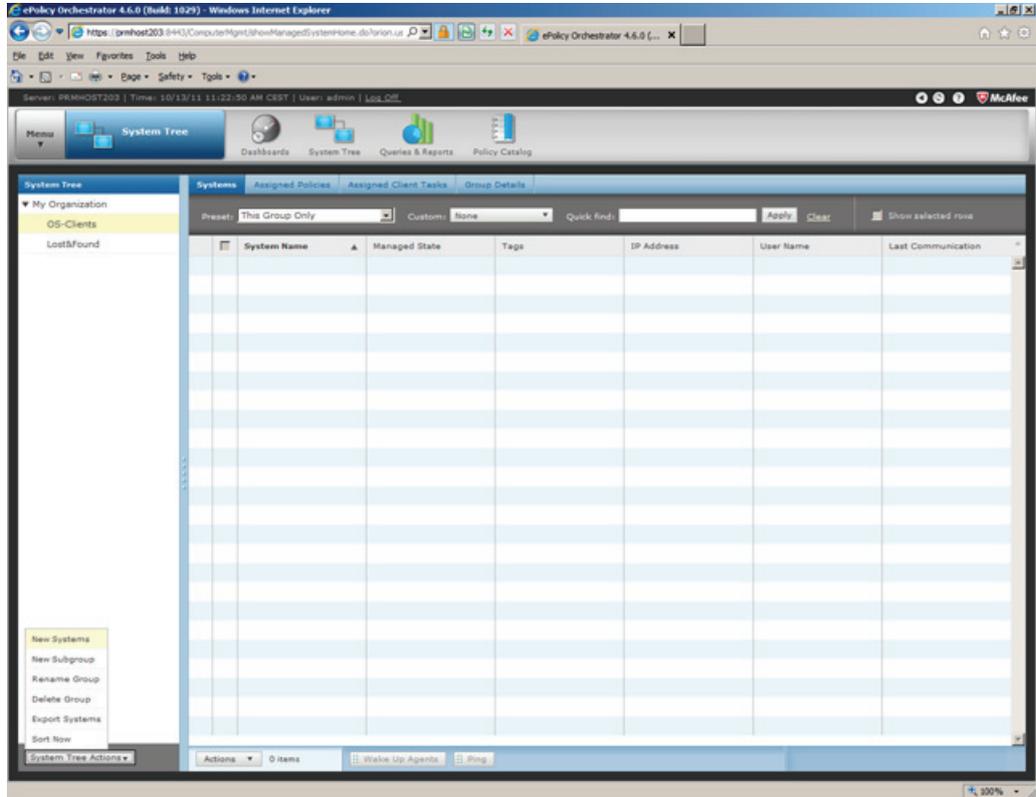


4. Enter a name for the subgroup to be created.

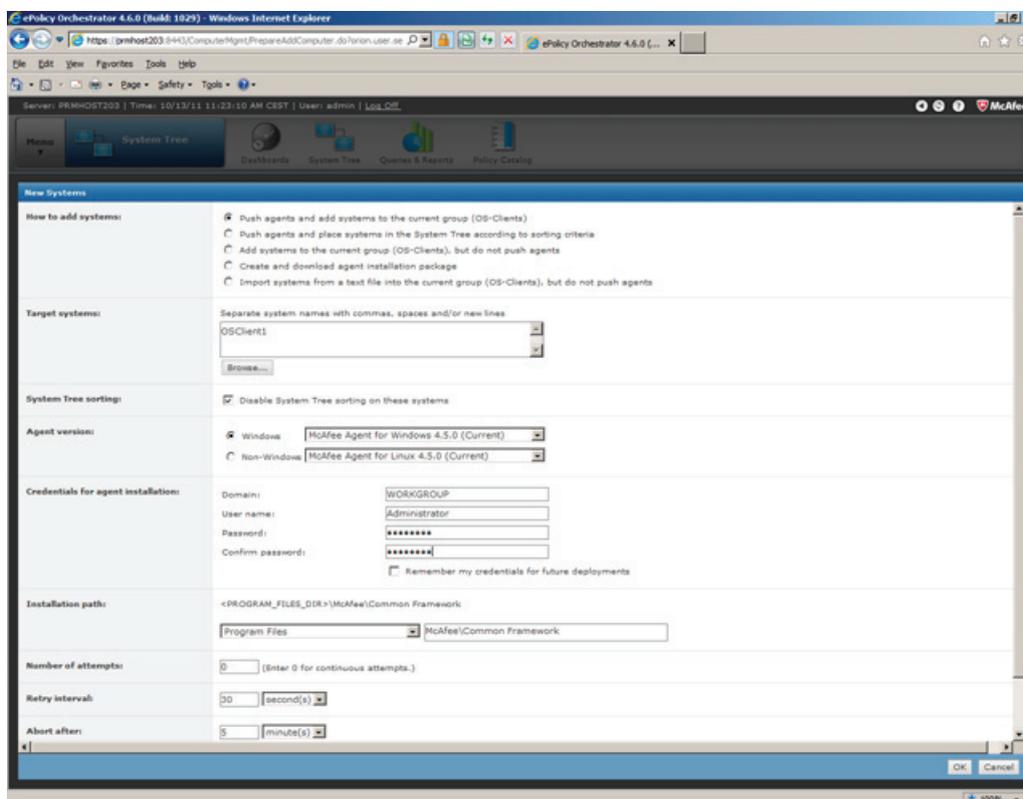


4.3 Central administration using McAfee ePolicy Orchestrator

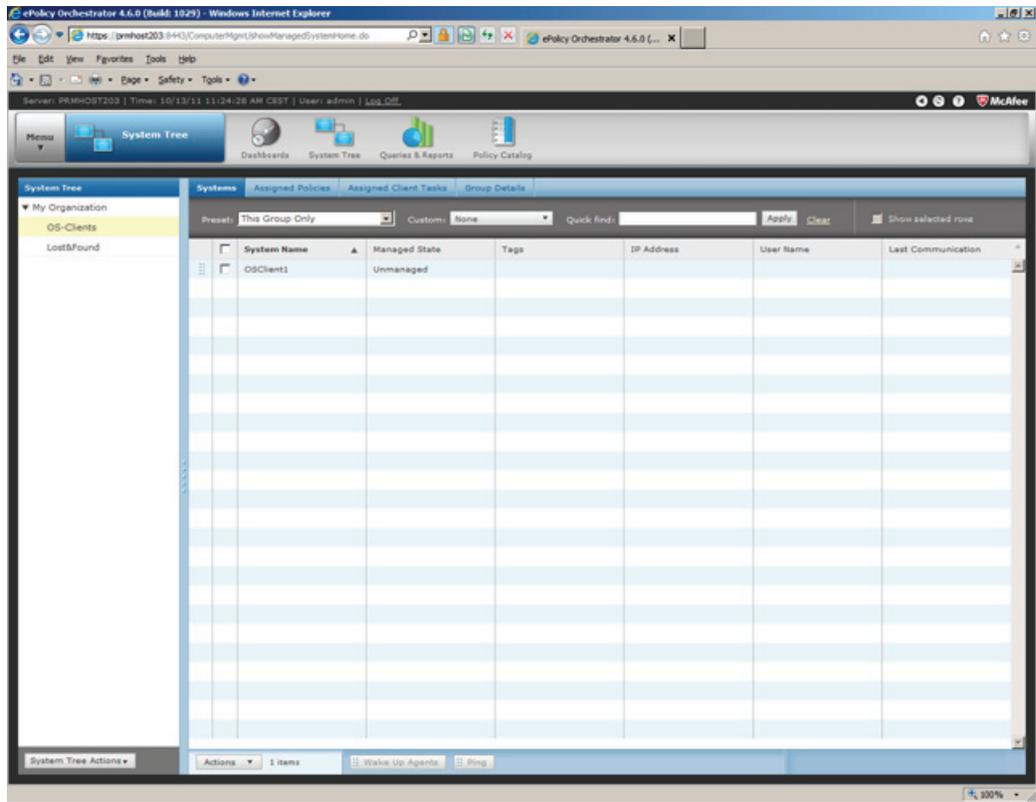
- 5. This new subgroup is now ready for integration of new systems. To add systems, click on "System Tree Actions" and select the "New Systems" command from the menu that is displayed.



6. Enter the following data in the "New Systems" window:
  - Method for adding new systems:  
Push the agents and add the systems to the current group (...).
  - System to add:  
System names of the system(s) to add
  - Agent version:  
McAfee Agent for Windows 4.6.0 (current)
  - Installation path:  
<PROGRAM\_FILES\_DIR>\McAfee\Common Framework
  - Login information for agent installation:  
Domain:domain or workgroup name  
Username:user name  
Password:password
  - Number of attempts:  
0 = any
  - Retry interval:  
30 seconds
  - Cancellation after:  
5 minutes
  - Connection setup using:  
all agent controls



7. Confirm your entries with "OK".



Repeat items 5 to 7 and, if necessary, items 1 to 4 until you integrated all clients in the ePO Console.

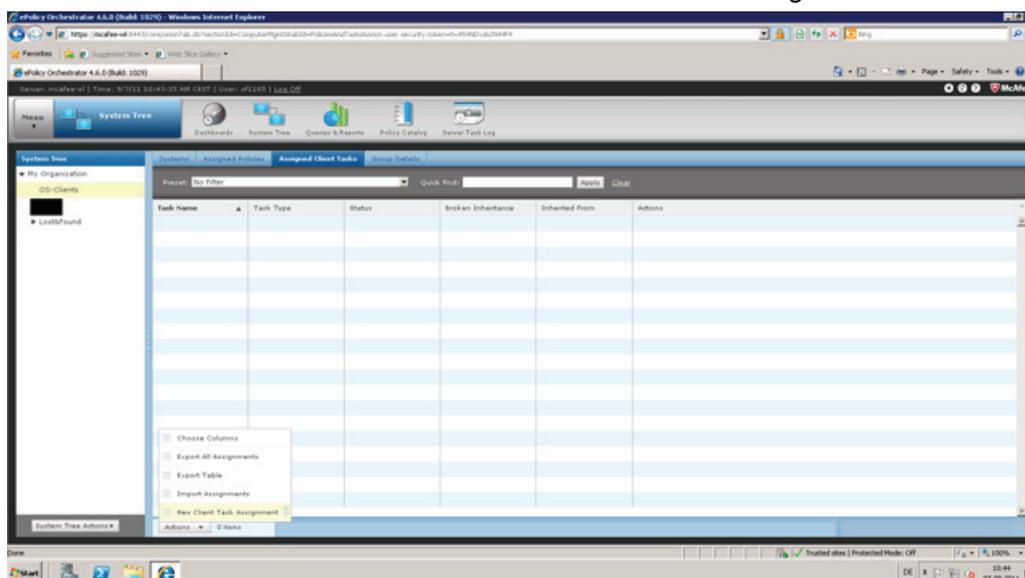
## 4.3.7 Installing the Solidcore Agent on the clients

### Installing the Solidcore Agent on the clients

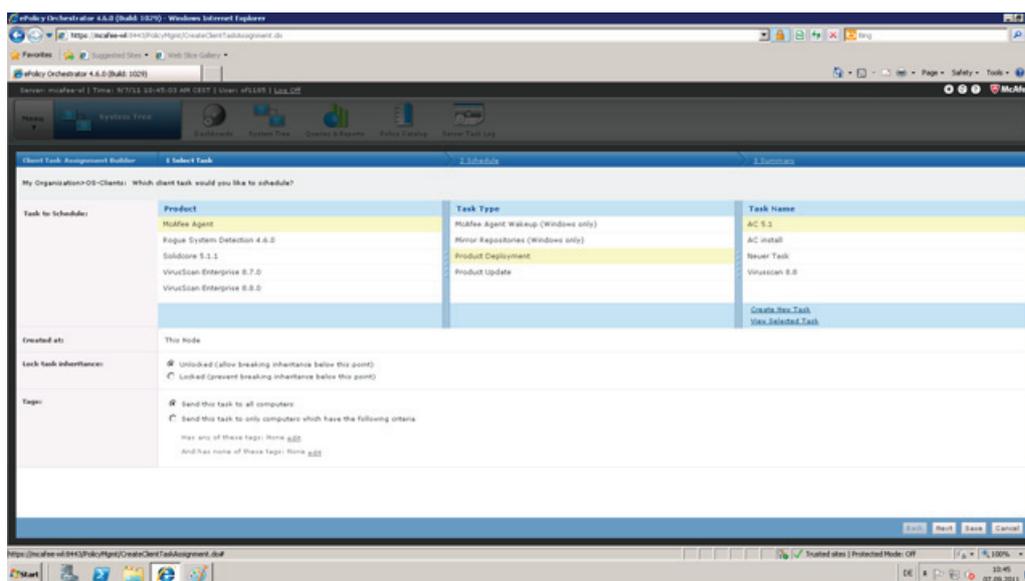
Once you completed integration of all clients in the McAfee ePO Console, you can install the Solidcore Agent on the clients. Follow these steps:

1. In the "System Tree" window, select the "Assigned client tasks" menu.

Then click on the "Actions" button and select "New client task assignment".

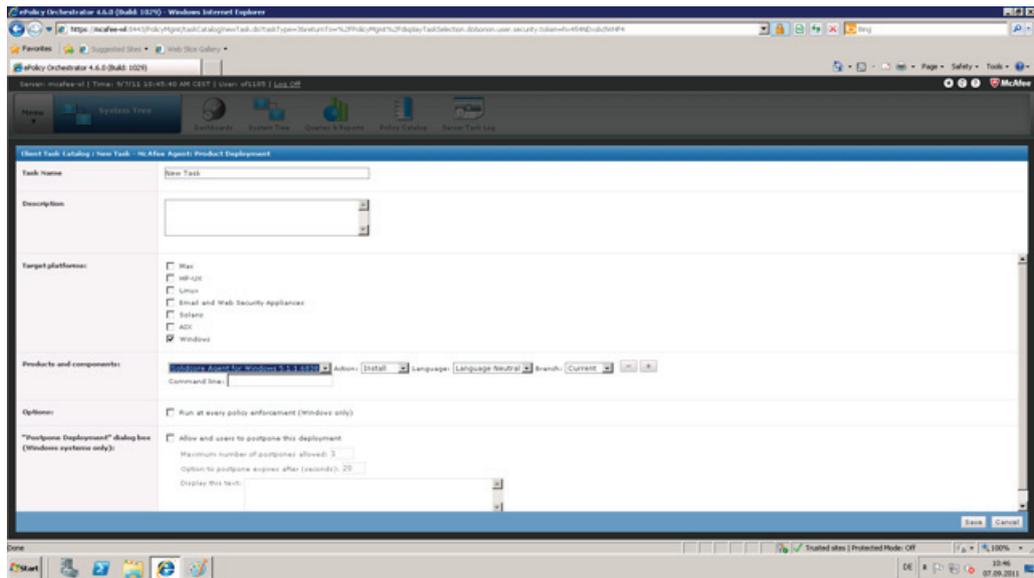


2. In the subsequent window, select McAfee Agent under "Product", select Product Deployment under "Task type" and click on "Create new task". In the Tags area, select the "Send this task to all computers" check box.

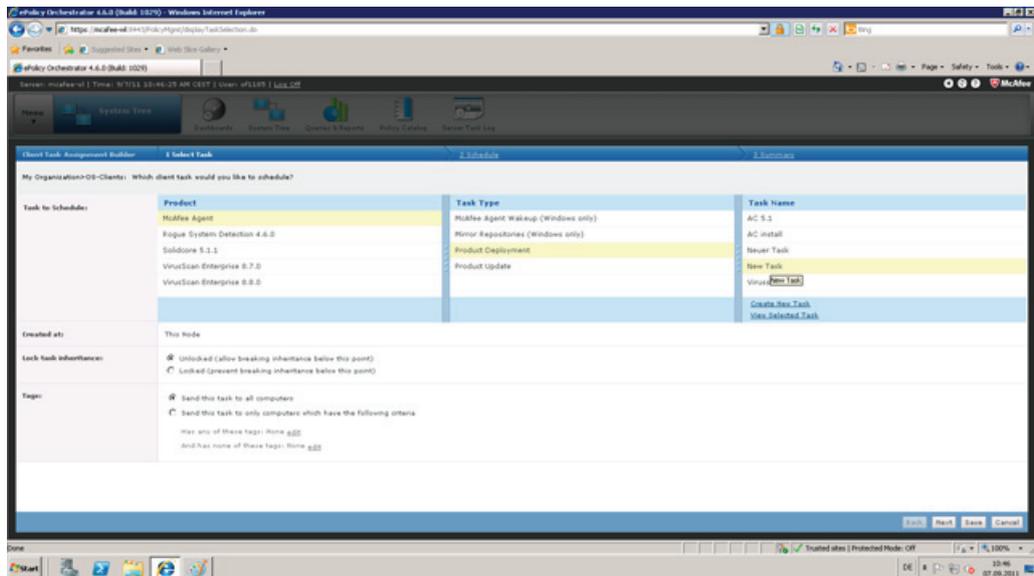


4.3 Central administration using McAfee ePolicy Orchestrator

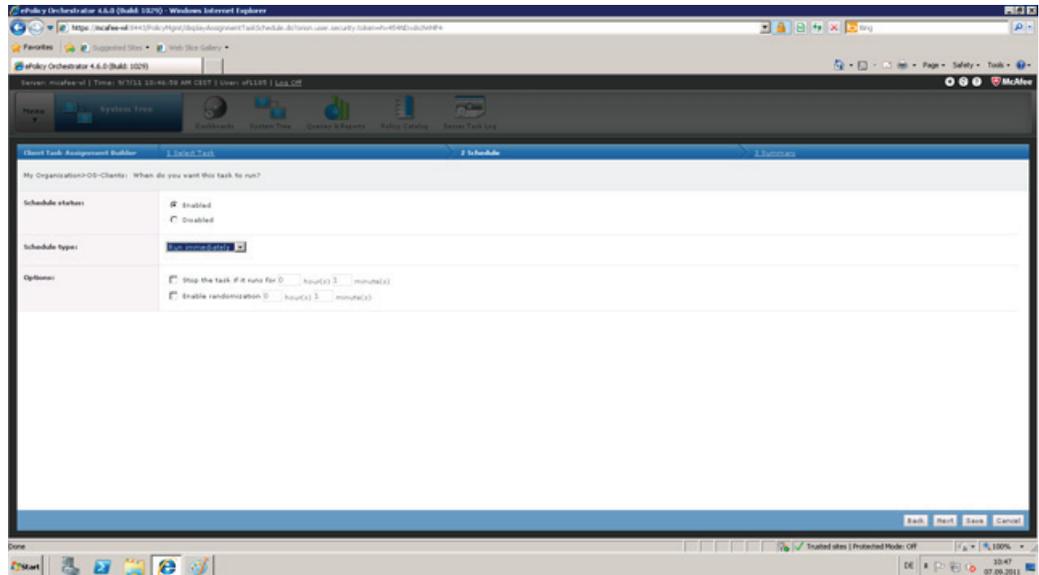
- 3. In the subsequent window, assign the new task a name and a message text. Select the following:
  - for "Target platforms"
    - "Windows"
  - for "Products and components"
    - "Solidcore Agent for Windows 5.1.1.xxx "
  - Then click "Save".



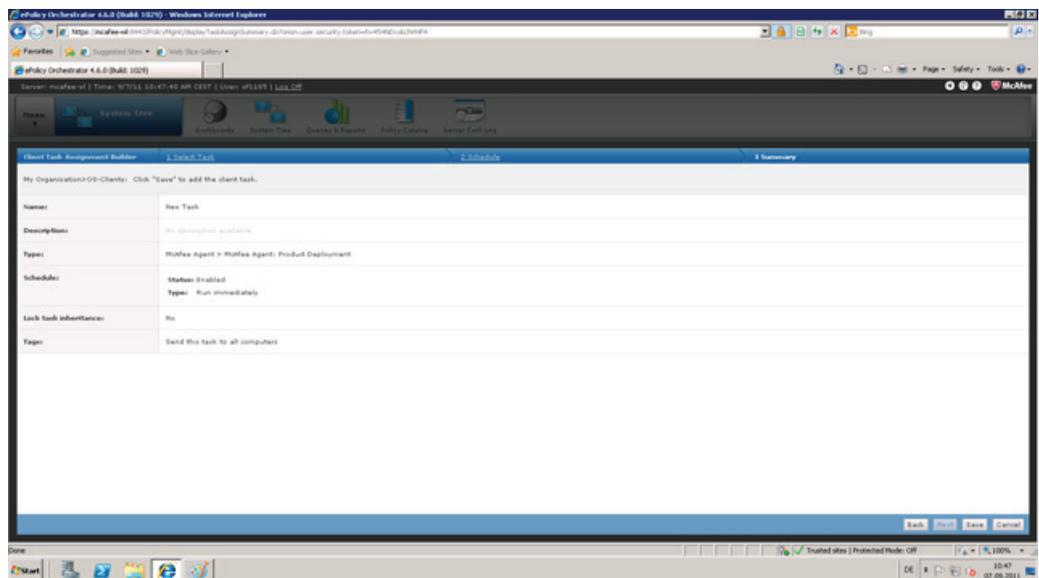
- 4. Now select your task under "Task name" and click "Next".



5. In this window, you plan the execution of tasks on the client station. Select the "Activated" option as corresponding planning status. Select "Execute immediately" from the selection list for the planning status.



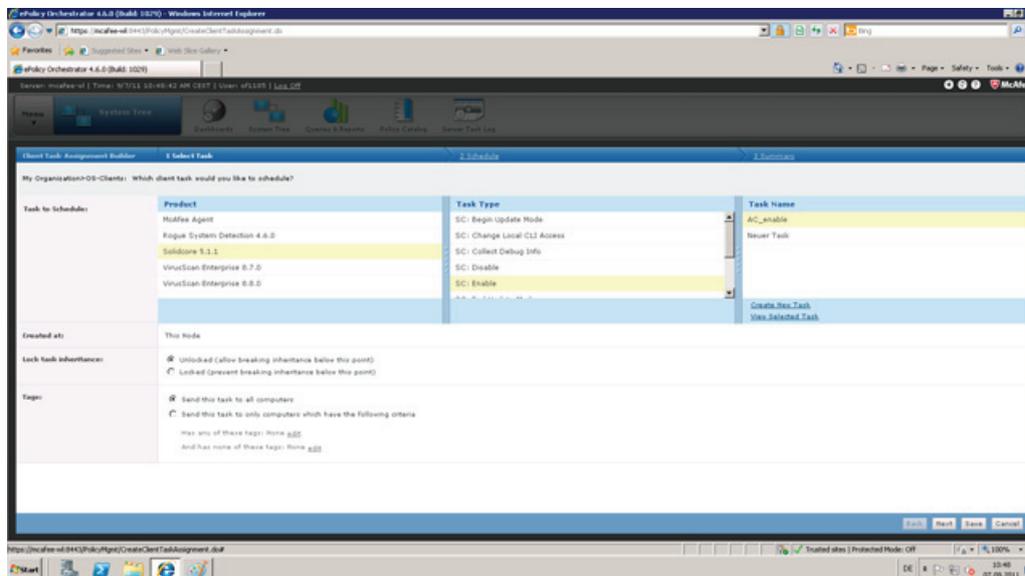
6. Click "Next" to open a window that once again displays the settings you made for this new client task. Check the settings you made. Keep clicking the "Back" button until the window opens in which you can correct the relevant setting. Click "Save" if all settings are OK.



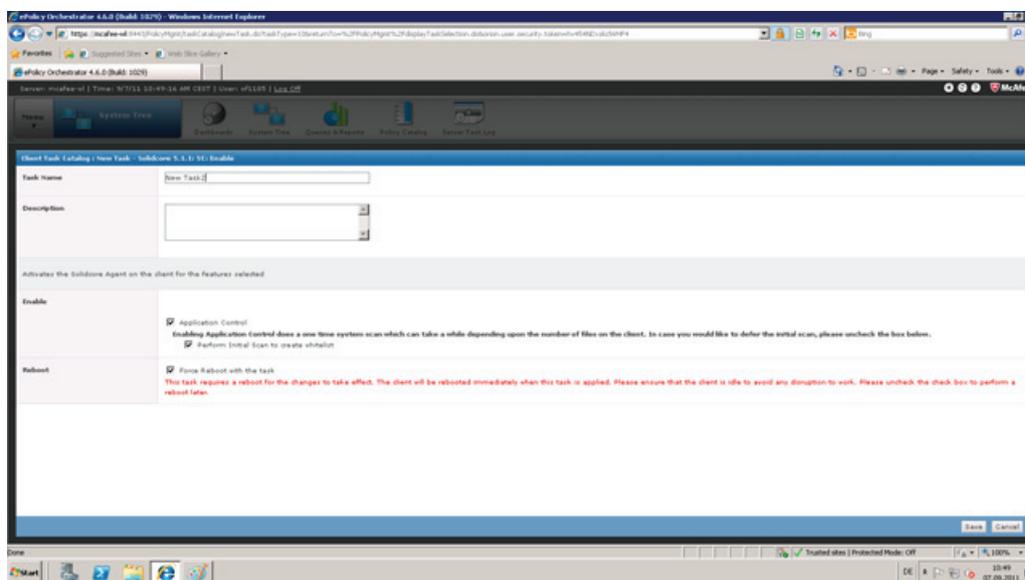
7. The clients will now start automatic installation of the Solidcore Agent. You can monitor the status in the "System Tree" view.



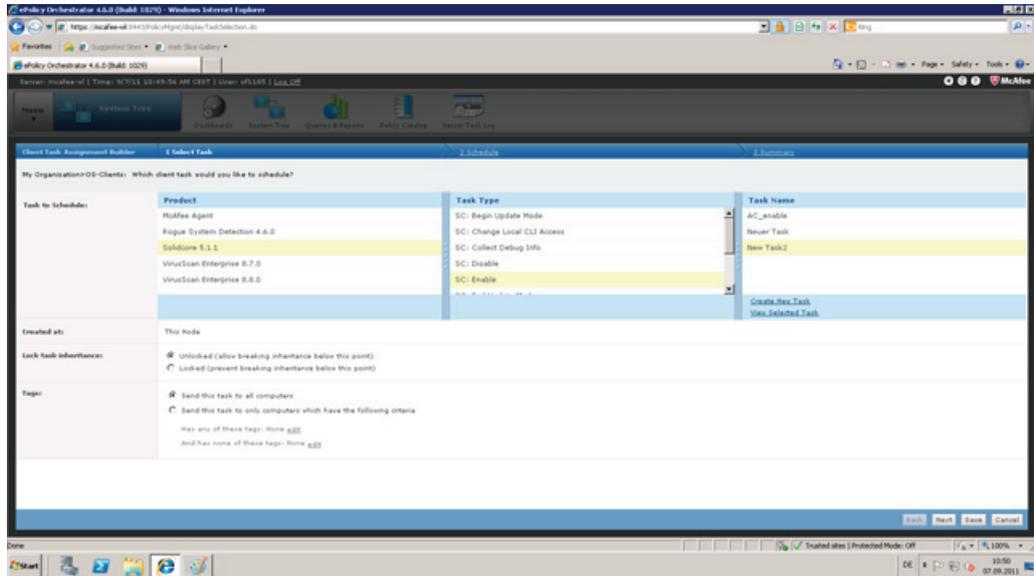
2. In the subsequent dialog, select Solidcore 5.1.1 under "Product" and, under Task-type", SC: Activate and click on "Create new task". In the Tags area, select the "Send this task to all computers" check box.



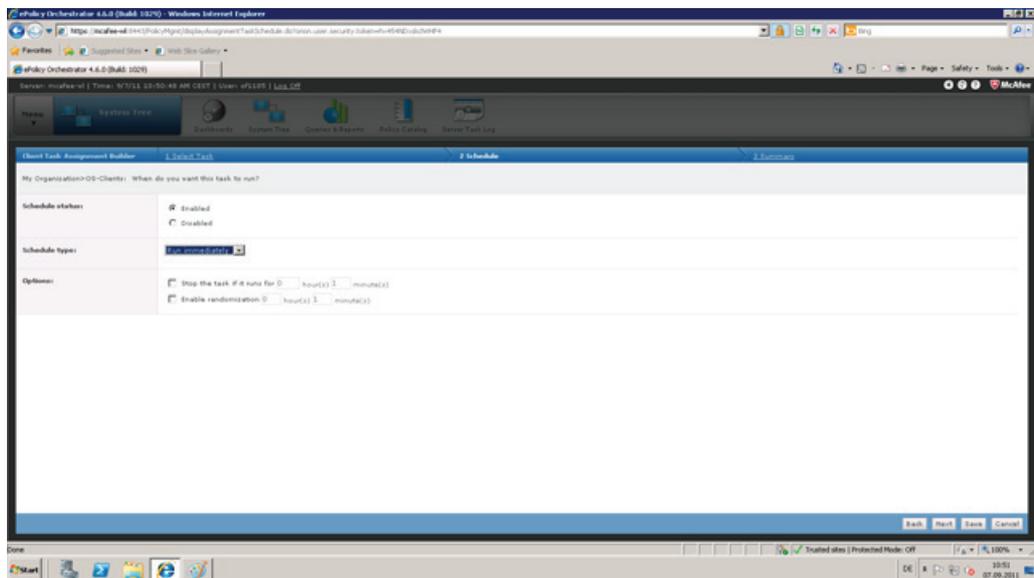
3. Enter the jobs that this new task has to execute. Select "Application Control" for the "Activate" menu command and "Execute initial scan to create the whitelist" to specify that Solidcore Agent has to solidify the client. In the "Restart" field, select "Force restart for this task". Then click "Save".



- 4. Select your task under "Task name" and click "Next".



- 5. Click "Next" to open the planning window of the new task. In this window, you plan the execution of tasks on the client station. Select the "Activated" option as corresponding planning status. Select "Execute immediately" from the selection list for the planning status.



- 6. Click "Next" to open a window that once again displays the settings you made for this new client task. Check the settings you made. Keep clicking the "Back" button until the window opens in which you can correct the relevant setting. Click "Save" if all settings are OK.
- 7. The clients will automatically start the scan (solidify) to generate the Whitelist. Application Control is then activated and the client restarted by the Client Solidcore Agent as specified in the menu command "Restart". You can monitor the status in the "System Tree" view.

#### **4.3.9 Additional client tasks**

The procedure described above can be employed to create additional client tasks for controlling the Solidcore Agent on the clients. For example, it is possible to disable Solidcore Agent on the client(s) (SC: Disable (Solidcore 5.1.1)". Proceed exactly as described above and select the corresponding type of client task using the "Type" menu command.



## Update installation

### 5.1 Update installation

You can only run authorized applications on computers that are protected with McAfee Application Control. However, in certain scenarios it is possibly necessary to install new applications on a computer, or install an update or hotfix for authorized application.

Examples of such a scenario:

- Installation of Microsoft Security Updates, or Important Updates within the framework of Patch Management.
- Installation of virus pattern updates, or update of the VirusScan engine.
- Installation of hotfixes for SIMATIC products.
- Installation of additional diagnostics tools.

McAfee Application Control offers various options or procedures for authorizing new applications:

- By means of a defined file (binary file)
- By trusted users
- By trusted manufacturers (certificate)
- From a trusted directory
- Installation programs
- By means of Updater (update programs such as WSUS, or virus scanners)

Most users fall back on the use of an update program, namely an "Updater".

An "Updater" is a tool that may be used to modify registered files, or add new files to the "Whitelist". The use of such a tool may be necessary for Windows Updates.

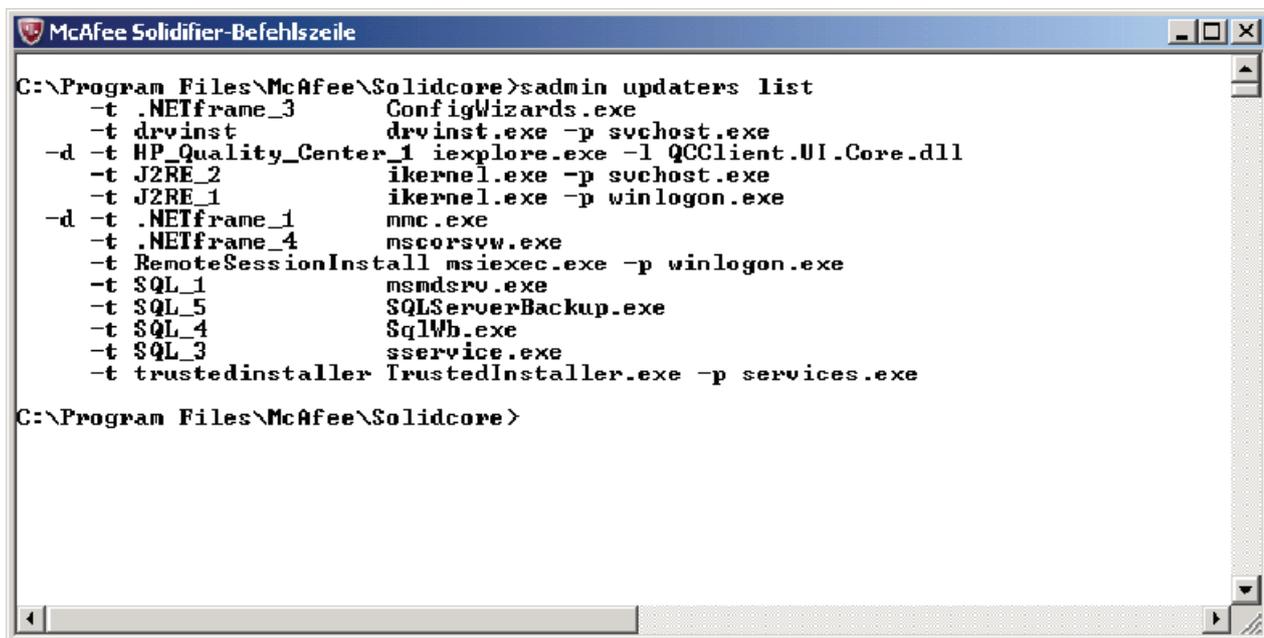
Procedures depend on the way you manage the system.

## 5.2 Local administration

### Local administration

For local administration of McAfee Application Control, the security measures such as Windows Update (Patch Management) or virus scanners that run system updates at cyclic intervals can be enabled using the "finetune.bat" batch file that is available in "C:\Programs\McAfee\Solidcore". This self-explanatory script helps you to enable updates for programs such as WSUS Update Clients.

To view the list of authorized update programs, enter the "sadmin updaters list" command at the McAfee Solidifier command line.



```
McAfee Solidifier-Befehlszeile
C:\Program Files\McAfee\Solidcore>sadmin updaters list
-t .NETframe_3      ConfigWizards.exe
-t drvinst          drvinst.exe -p svchost.exe
-d -t HP_Quality_Center_1 iexplore.exe -l QCClient.UI.Core.dll
-t J2RE_2           ikernel.exe -p svchost.exe
-t J2RE_1           ikernel.exe -p winlogon.exe
-d -t .NETframe_1   mmc.exe
-t .NETframe_4     mscorsvw.exe
-t RemoteSessionInstall msiexec.exe -p winlogon.exe
-t SQL_1           msmdsrv.exe
-t SQL_5           SQLServerBackup.exe
-t SQL_4           SqlWb.exe
-t SQL_3           sservice.exe
-t trustedinstaller TrustedInstaller.exe -p services.exe

C:\Program Files\McAfee\Solidcore>
```

Follows these steps to add one of the available update programs:

1. Enter the "finetune.bat" command at the McAfee Solidifier command line. The batch file will list all available updaters:

```
C:\Program Files\McAfee\Solidcore>finetune.bat
Finetune.bat (Fine tunes solidifier for a windows system)
Copyright 2008 McAfee, Inc. All Rights Reserved

Add or remove solidifier customizations for a particular application

finetune.bat add/remove APPLICATION

add                adds solidifier rules
remove            removes solidifier rules
APPLICATION       application for which you can add/remove
                  solidifier rules.

specify the application indentifier from the list given below.

ANTI VIRUS
=====
A-McAfee          McAfee (8.0,9.0), McAfee virusscan (7.1,10.0),
                  McAfee Enterprise 8.0,McAfee Total Protection 4.7
A-Etrust          Etrust Version 7.0, Etrust version 7.1,
                  Etrust Version 6.0, Etrust PestPatrol Anti-Spyware
A-NAV             2005, NAV Corporate Editon (8.1, 10.1,10.2,9.0),
                  NAV 2004,Norton Removal Tool, Norton 2008
A-SPC             Symantec PcAnywhere (11.5, 12.1)
A-MSE             Symantec Mail Security
A-SMSMSE          Symantec Mail Security for Exchange
A-SEP             Symantec Endpoint Protection
A-Sophos          Sophos Version 5.1.3
A-Avast           Avast virus cleaner
A-AVG             AVG Version 7.0
A-Fsecure         Fsecure2006, 2007, 2008, 2009 Anti Virus
A-NOD32           NOD32 Anti Virus version 2.5
A-TrendMicro      Trend Micro IMSSS, Client server security Agent,
                  Officescan, Trend Micro Server Protect
A-GDATA           GDATA version
A-ZoneAlarm       Zone Alarm 6.1
A-AVK             AVK version
A-BTD             BitDefender 9 prof plus, BitDefender 8,BitDefenderAVPlus10 Final
A-FProt           F-Prot AV 3.16f
A-MCGroupshield   McAfee Group shield for Exchange
A-QHeal           Quick Heal Total Security 2007
A-QHealPlus       Quick Heal Plus 2007
A-Ksky            Kaspersky Internet Security 7.0
A-Panda           Panda antivirus 2009

BACKUP/RESTORE
=====
B-Veritas         Veritas Backup 10, Veritas Storage Cental
B-Brightstor      BrightstorARCServe 9.0/11.5 Backupserver
B-Symantec         Symantec Backup Exec 11d

Press any key to continue . . .|
```

## Update installation

### 5.2 Local administration

```
M-SI                System Information
M-FMON             FileMon application
M-SQL             MySQL2005,MS SQL Server 2000
M-SQL5            MySQL5
M-IMail9          IMail9.1
M-IMail2006       IMail2006
M-SMS             SMS 2003 Server
M-SMSclient       SMS 2003 Client
M-WD              Windows Defender (Beta 2) version 1.1.1347.0
M-WM             Windows Messenger 5.1
M-WA             wixAware
M-NDA            Netpro Directory Analyzer (NetPro DA)
M-NCA            Netpro Change Auditor for Active Directory (NetPro CAAD)
M-QRM           Install and Run Quest Recovery Manager
M-AD            Windows AD server
M-BUI           Install and Run Install and Run st. Bernard UI Expert
M-HPACU         HP Array Configuration Utility
M-HPDP          HP Data Protector 5.5
M-HPRSM         HP Remote Support Software Manager
M-IBMDR         IBM Director 4.2
M-IGOLD         I Goldmine Server
M-VNC           VNC Server/Viewer
M-ZIP           win Zip
M-VPC           Microsoft virtual PC
M-OutlookExpress Microsoft Outlook Express
M-Firefox        Mozilla Firefox
M-HP_QC         HP Quality Center
M-J2RE         Java 2 Runtime
M-DLP           McAfee DLP Agent
M-SymantecUpdate Symantec LiveUpdate
M-IntelGD       Install Intel (R) Extreme Graphics 2 Driver
M-McAfeeAgent   Install McAfee Agent
M-SSLite        SiSoftware Sandra Lite 2009
M-2X           2X ApplicationServer and LoadBalancer
M-Altiris       Altiris
```

#### ENTERPRISE APPLICATIONS

```
=====
E-CitrixServer   Citrix Metaframe Presentation Server 3.0
E-SUSServer     windows server Update services 2.0(SUS)
E-WSUSServer    windows server Update services 2.0SP1
E-TSMServer     Tivoli Storage Management Server 4.1.6,5.3.1.0(TSM)
E-TSMClient     IBM Tivoli Storage Manager Client
E-MOMServer     MOM server 2005
E-Shavlik       Shavlik Netchk
E-SCOMServer    System Center Operations Manager
E-SCOMClient    System Center operations Client
E-InstallSCOMClient Install system Center operations Client
```

For example, command to add rules for McAfee is:  
finetune.bat ADD A-McAfee

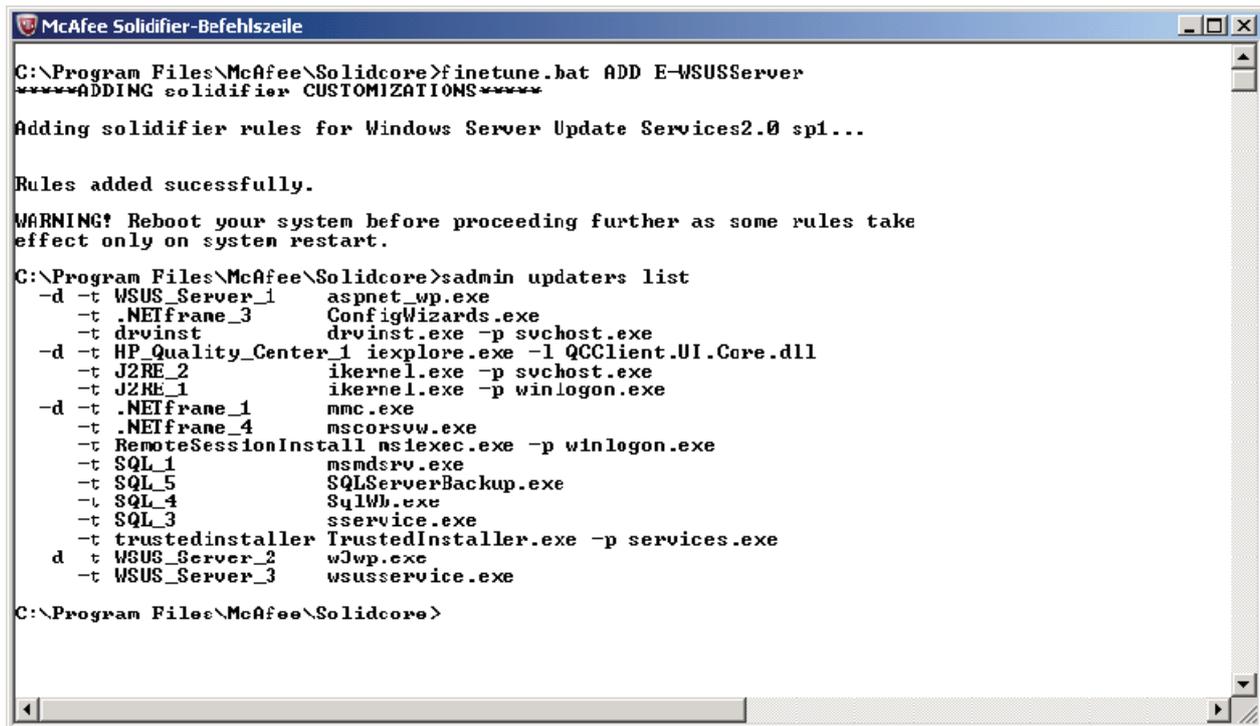
Please note that application identifiers are case sensitive.

\*\*\*\*\*CRITICAL EXES - NOT TO BE ADDED IN FINETUNE.BAT\*\*\*\*\*

The following exes can't be used as an updater: system.exe, smss.exe, svchost.exe, lsass.exe, services.exe, winlogon.exe, csrss.exe, notepad.exe, winword.exe, wordpad.exe, ntvdm.exe, userinit.exe, regedit.exe, explore.exe, Explorer.exe, Msiexec.exe, Cscript.exe, wscript.exe, cmd.exe

```
C:\Program Files\McAfee\Solidcore>
```

2. To add an updater, enter  
C:\Program Files\McAfee\Solidcore\finetune.bat ADD E-WSUSServer  
. This command adds Windows Server Update Service 2.0 SP1 to the list of updaters on the computer. This means that McAfee Application Control will accept all future changes on the computer which have been made using WSUS 2.0SP1.
3. On completion of this step, you can view the list of authorized updaters (sadmin updaters list) to check whether WSUS has been added.



```
McAfee Solidifier-Befehlszeile
C:\Program Files\McAfee\Solidcore>finetune.bat ADD E-WSUSServer
*****ADDING solidifier CUSTOMIZATIONS*****
Adding solidifier rules for Windows Server Update Services2.0 sp1...
Rules added sucessfully.
WARNING! Reboot your system before proceeding further as some rules take
effect only on system restart.
C:\Program Files\McAfee\Solidcore>sadmin updaters list
-d -t WSUS_Server_1    aspnet_wp.exe
  -t .NETframe_3      ConfigWizards.exe
  -t drvinst           drvinst.exe -p svchost.exe
-d -t HP_Quality_Center_1 iexplore.exe -l QCClient.UI.Core.dll
  -t J2RE_2            ikernel.exe -p svchost.exe
  -t J2RE_1            ikernel.exe -p winlogon.exe
-d -t .NETframe_1      mmc.exe
  -t .NETframe_4      mscorsvw.exe
  -t RemoteSessionInstall nsisexec.exe -p winlogon.exe
  -t SQL_1             msmdsrv.exe
  -t SQL_5             SQLServerBackup.exe
  -t SQL_4             sqlwb.exe
  -t SQL_3             sservice.exe
  -t trustedinstaller TrustedInstaller.exe -p services.exe
  d -t WSUS_Server_2   wjwp.exe
  -t WSUS_Server_3    wsusservice.exe
C:\Program Files\McAfee\Solidcore>
```

To add the updater for McAfee VirusScan, enter the command  
C:\Program Files\McAfee\Solidcore\finetune.bat ADD A-McAfee

