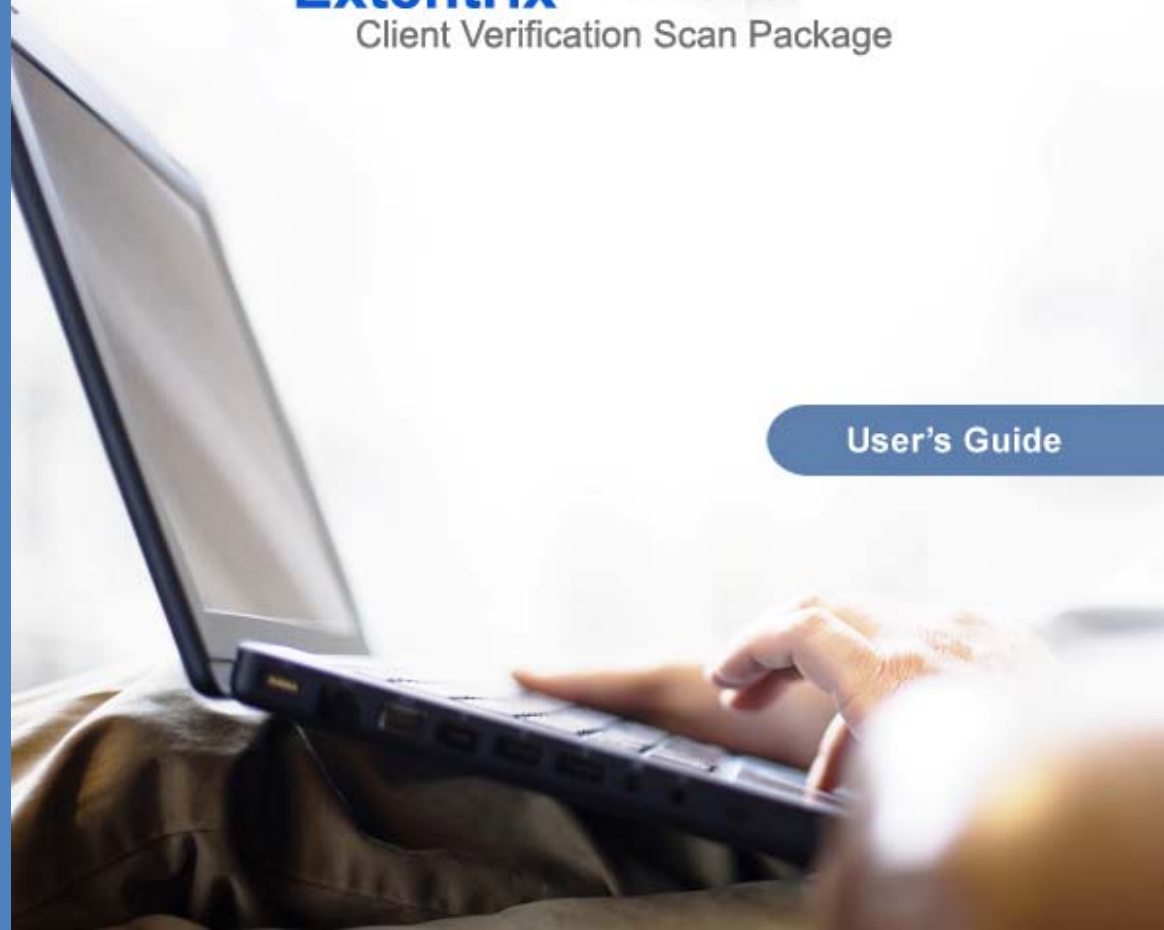


extentrix



Extentrix
Client Verification Scan Package

User's Guide



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INTRODUCTION

Extentrix Client Verification Scan Package extends your ability as an administrator to verify the identity of the user and the client's machine. It consists of the following files and scan packages:

1. Distributed File:

- EPAClient.exe
- Append.txt

2. Scan Packages:

- Extentrix Client Certificate Scan
- Extentrix Client Registration Scan

SCANS INCLUDED INSIDE EXTENTRIX CLIENT VERIFICATION SCAN PACKAGE

Extentrrix Client Verification Scan Package contains two Scans inside it. We are going to explain in more details a description about each scan package; detailed description of the parameters required when creating scans out of each scan package, how to install scan package using Citrix Access Management Console and how to create scans and specifies rules for each created scan by using the parameters available.

1. EXTENTRIX CLIENT CERTIFICATE SCAN**SCAN DESCRIPTION**

Scan Name: Extentrrix Client Certificate Scan.

Description: Scans the client machine and checks if a list of certificates were installed on the machine or not.

Parameters:

- **Certificates map:** Double-columned data set; the first column has a search text string that represents the text to be searched for, the second column has a store string that represents the path where the certificate was stored in. The file might contain more than one set of data.
- **Searching Method:** Defines the Method which will be used to check for the certificate. There are two methods:
 - Searching by Issuer.
 - Searching by Subject.

Scan Output:

- **Allow Access:** A Boolean output which indicates whether the list of certificates are installed or not.
 - True:** Indicates that all certificates in the list are installed on the client's machine.
 - False:** Indicates that at least one certificate is not installed on the client's machine.
- **License Status:** A string output which indicates whether the scan is licensed or not.
 - Trial License:** Indicates that the scan has a trial license.

Invalid License: Indicates that the scan is expired or it doesn't have a license.

Valid License: Indicates that the scan is licensed.

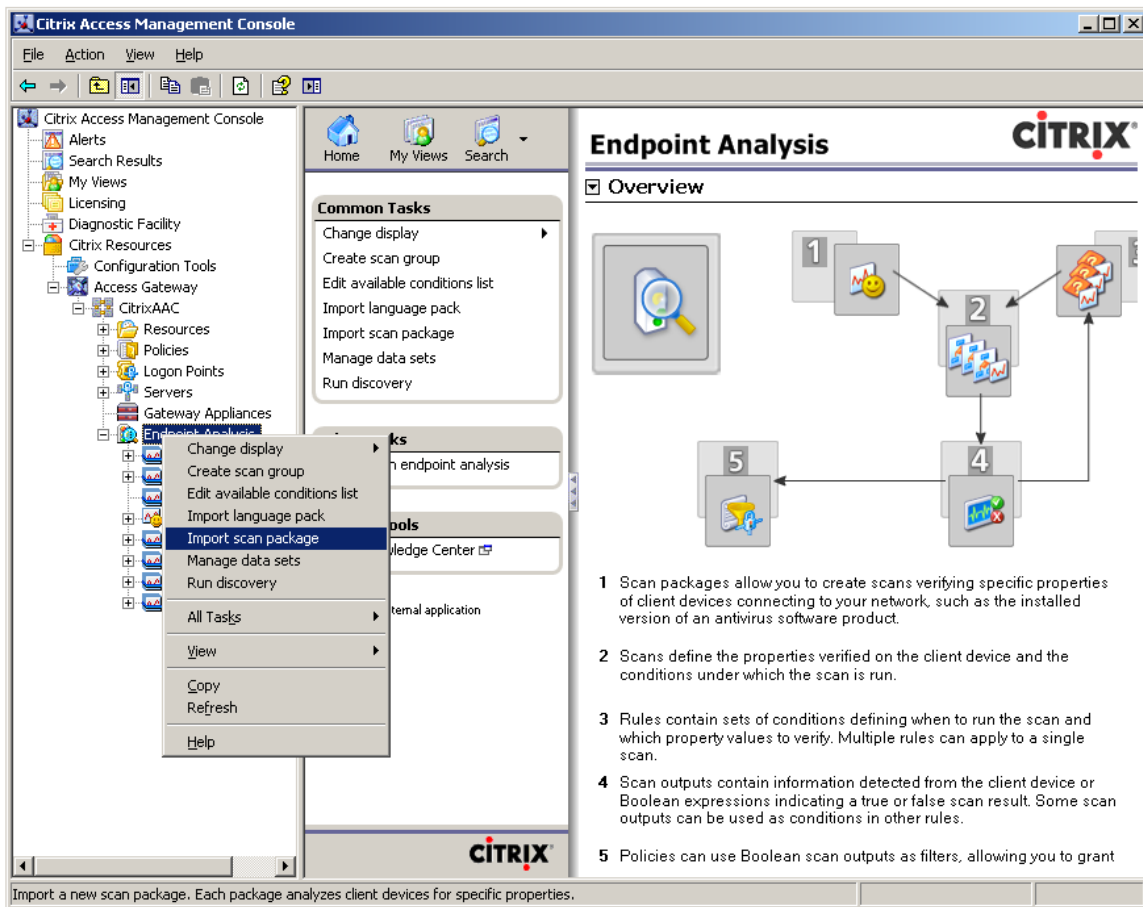
Note: If the License Status has an Invalid License value, the Allow Access will be false.

INSTALLATION AND CONFIGURATION

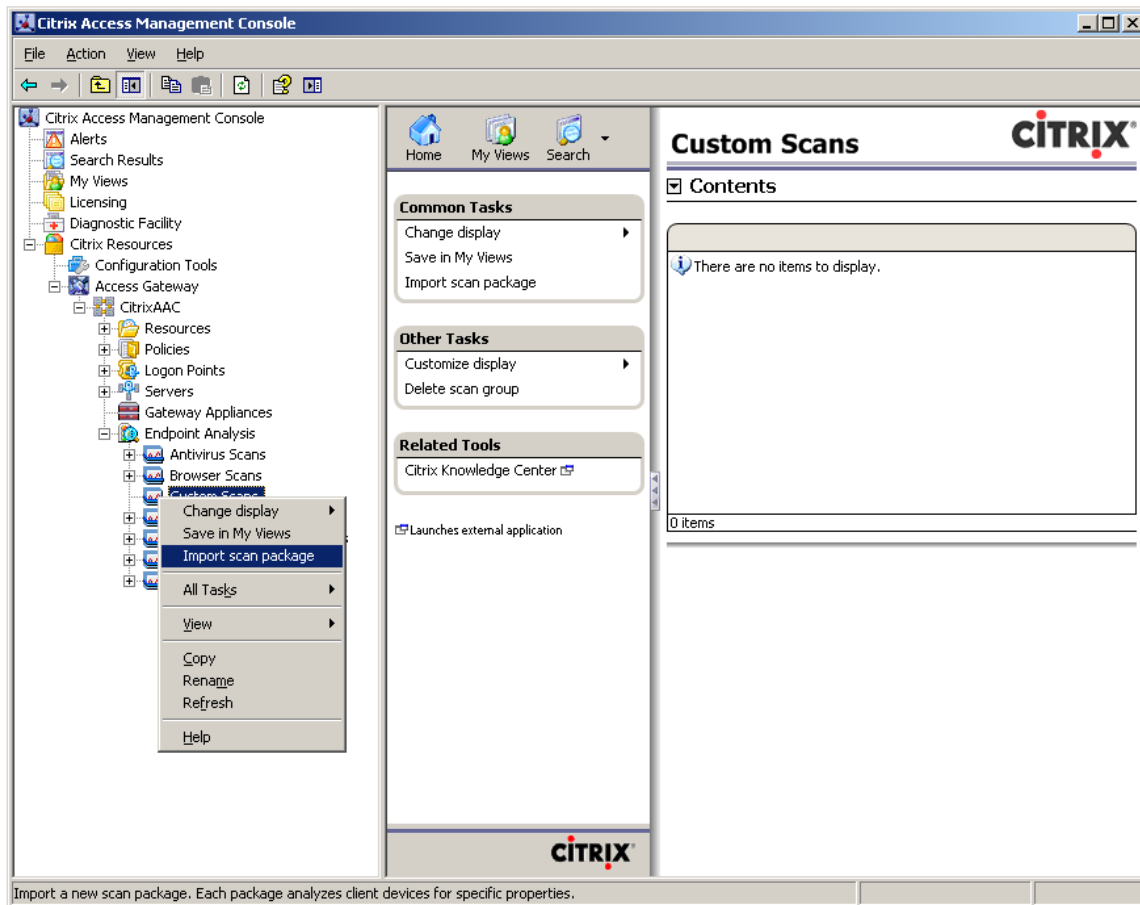
IMPORTING EXTENTRIX CLIENT CERTIFICATE SCAN

To install a custom end point analysis scan package follow the steps below:

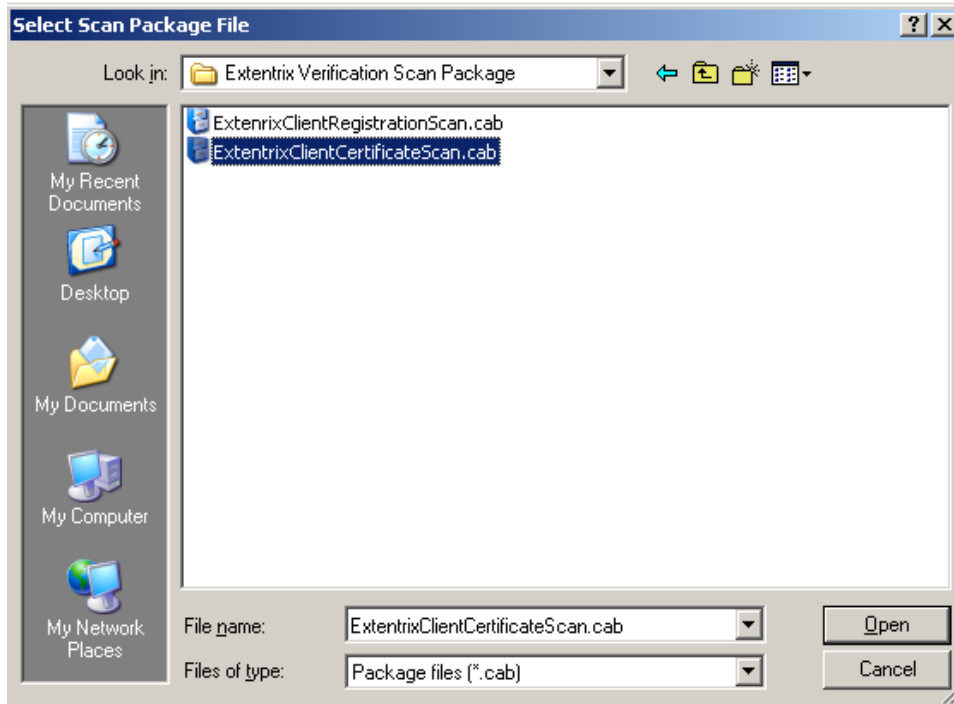
1. Start Citrix Access Management Console. In the console tree select the **Endpoint Analysis** node.
2. Right click and then select **Import scan package** from the pop-up menu that shows up.



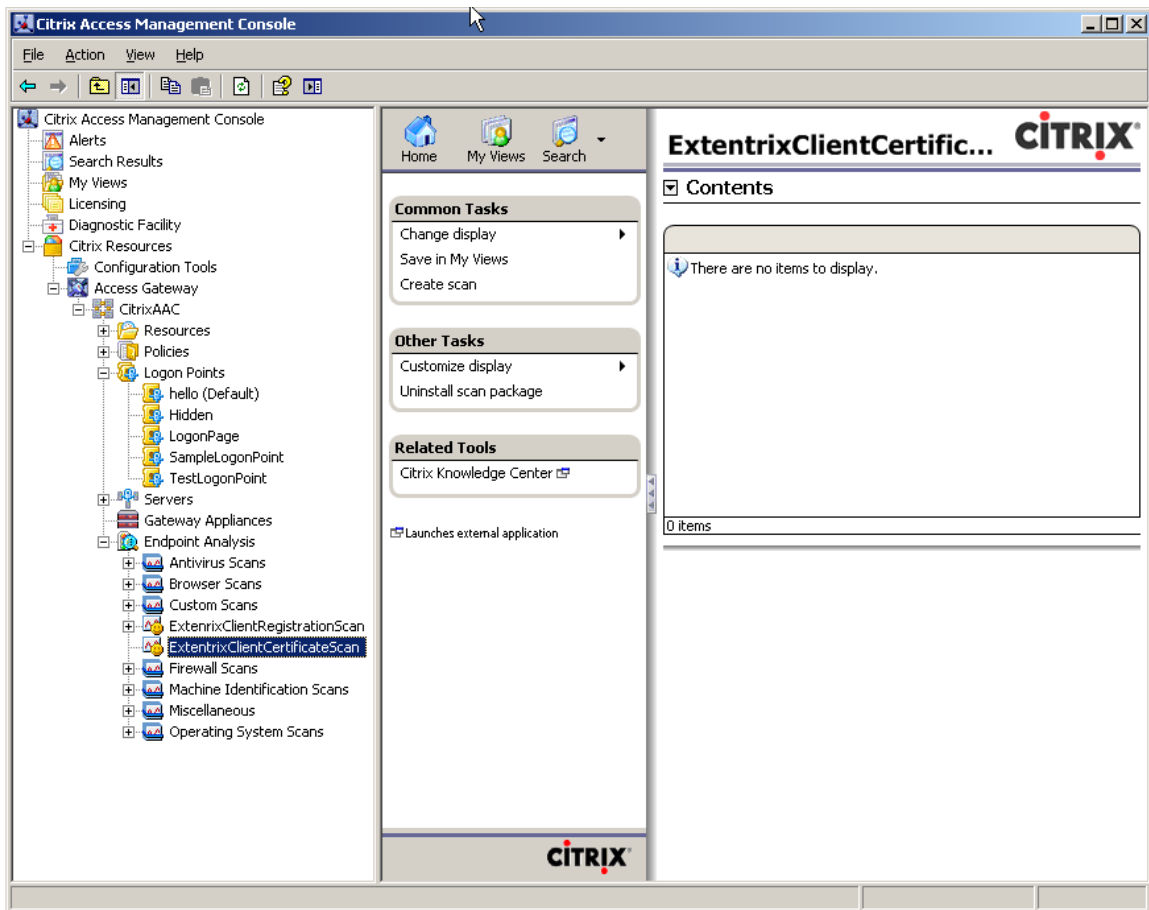
Note: You have the choice to insert the scan package in a specific scan package group; first select the desired group, then right click and select **Import scan package** from the pop-up menu that shows up as shown in the following screen shot.



3. A dialog box titled **“Select Scan Package File”** will appear. Select the (.cab) file which contains the **Extentrix Client Certificate Scan**.



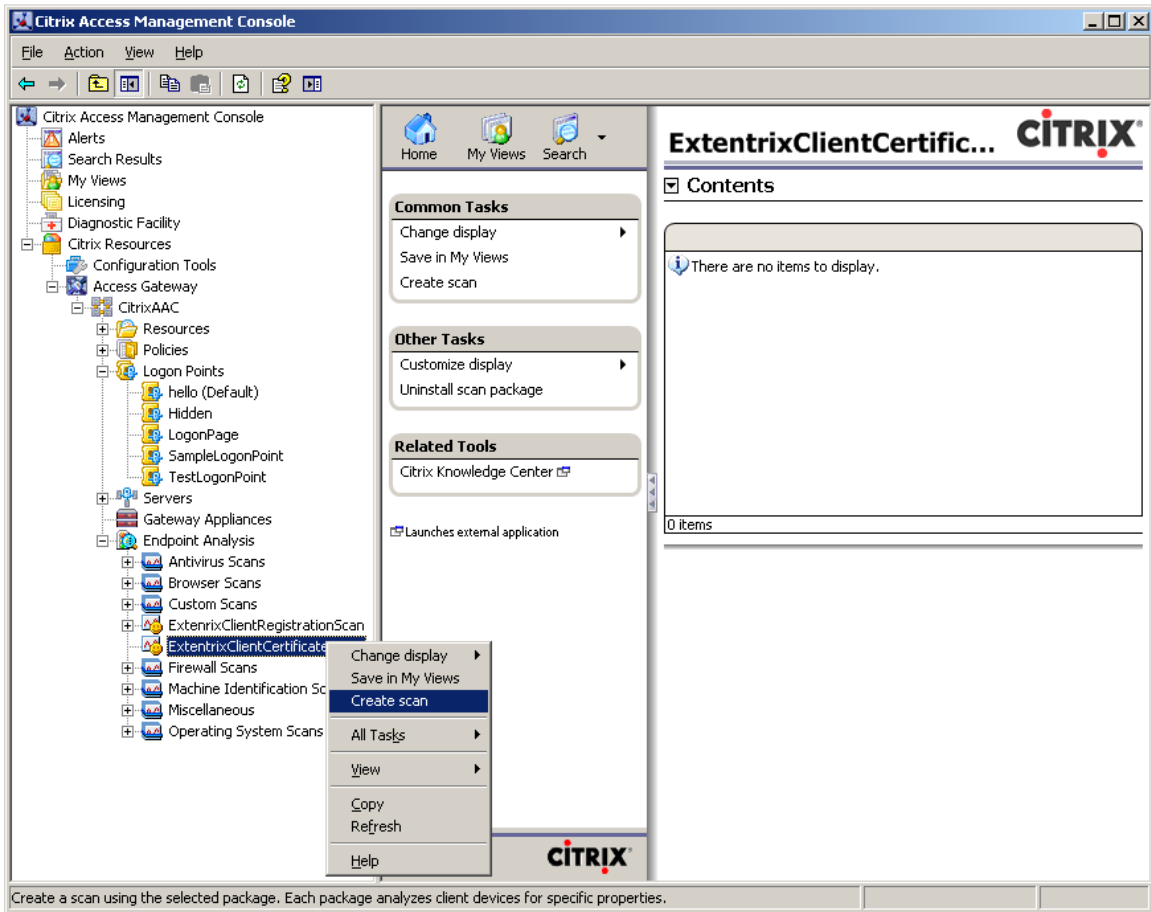
After selecting the **ExtentrixClientCertificateScan.cab**, it will appear in the console pan as shown in the following screen shot.



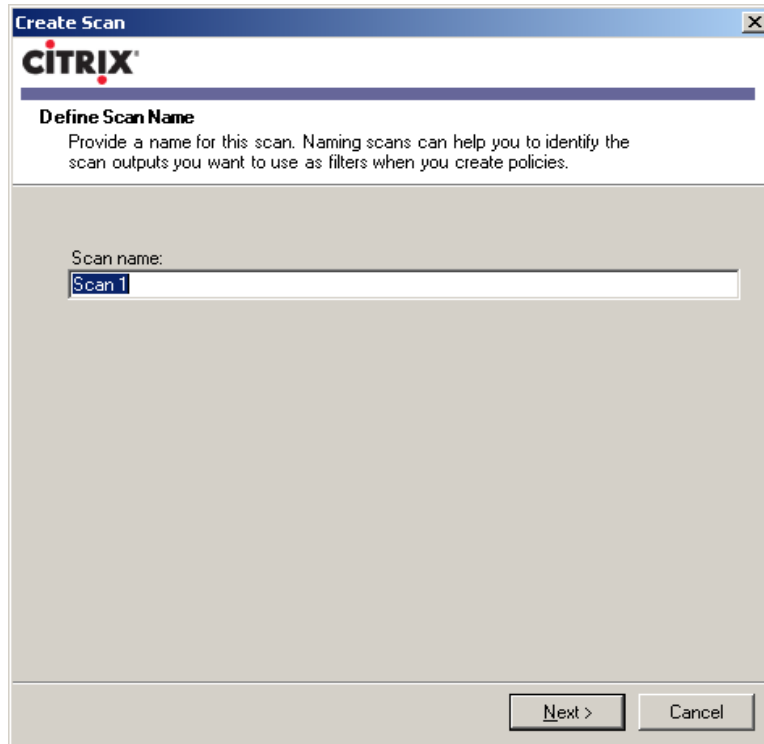
CREATING SCANS

To create a new scan using **ExtentrrixClientCertificateScan** package, follow the steps below:

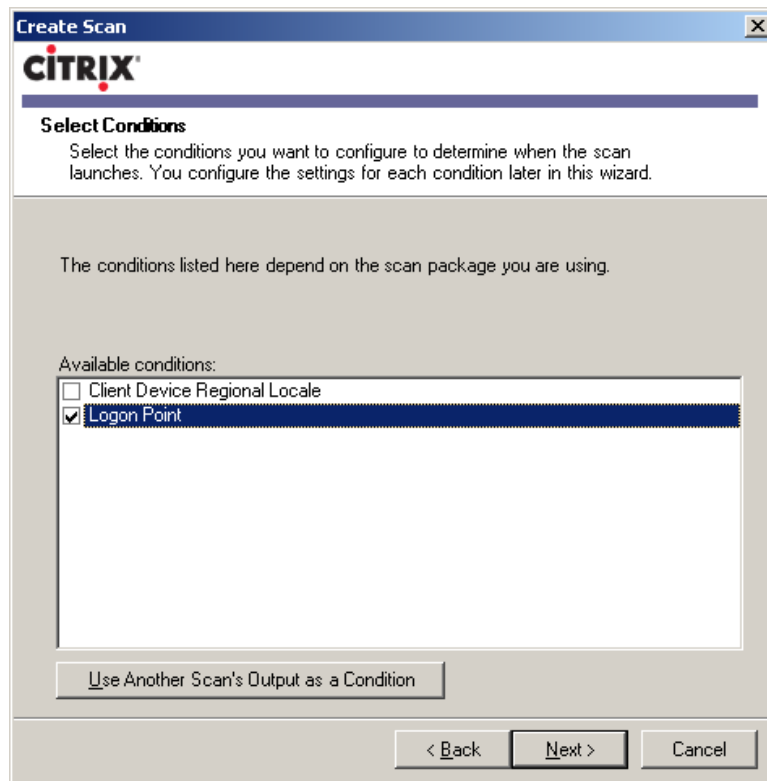
1. Select **ExtentrrixClientCertificateScan** item to highlight, right click and then choose **Create Scan** from the pop-up menu that shows up.



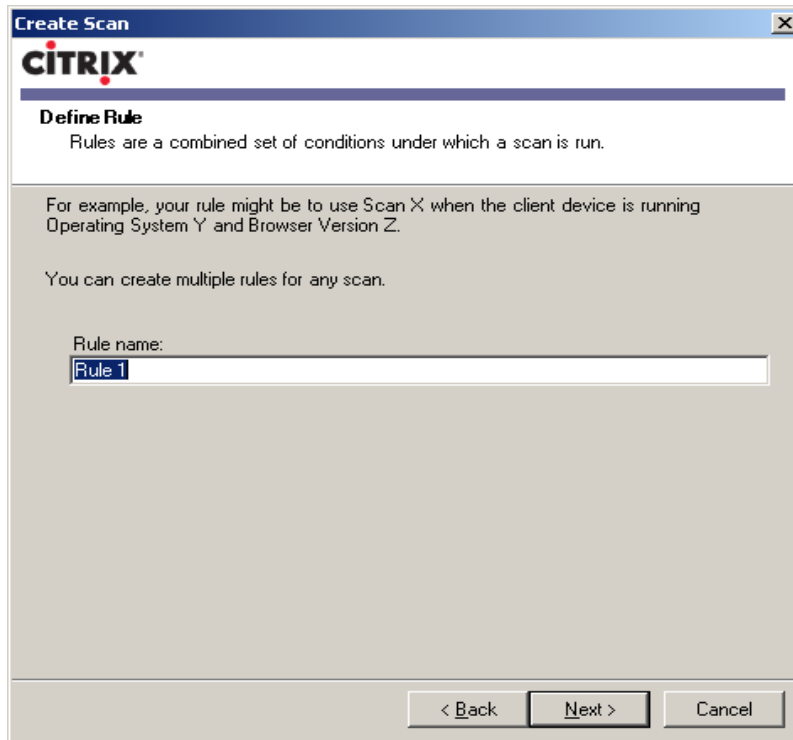
2. You have to provide a name for the created scan to refer to it later. So, in the next dialogue box define scan name- for example let us name it **Scan-** then click next to select conditions upon which the scan will launch.



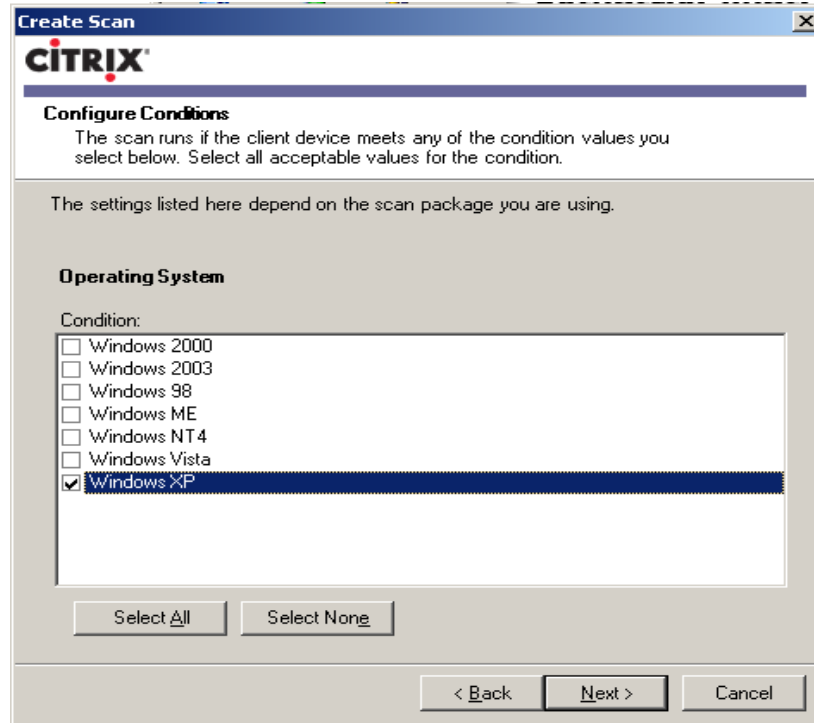
3. Select scan conditions that apply to your scan and click **Next**.



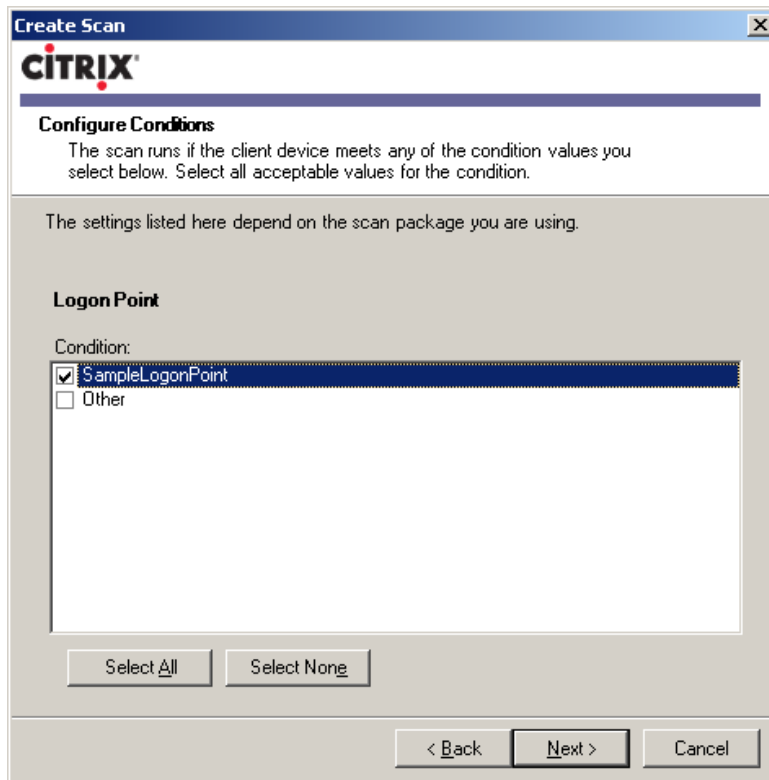
4. Now, we have to define the set of conditions under which the scan will run. These set of conditions are called rule. We have to provide a name for the rule to refer to it, let us say **Rule 1**. Then click **Next**.



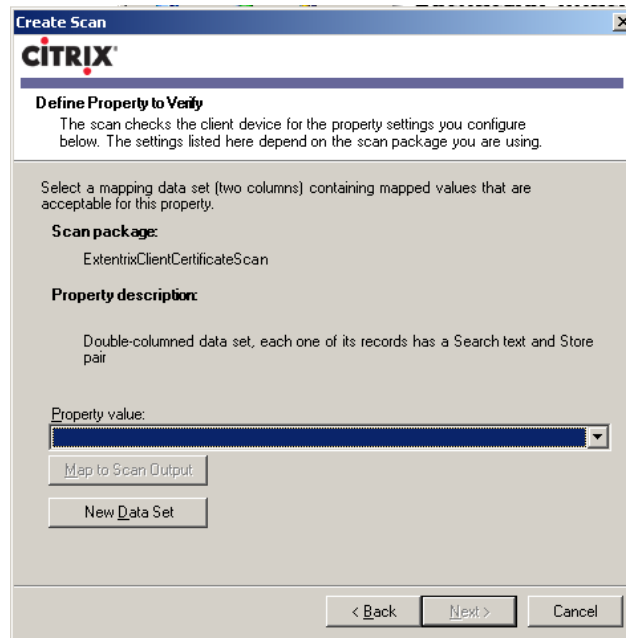
5. The first condition to configure is the type of the Operating System(s) in which the scan will be used for, let us say **Windows XP**.
Then click **Next**.



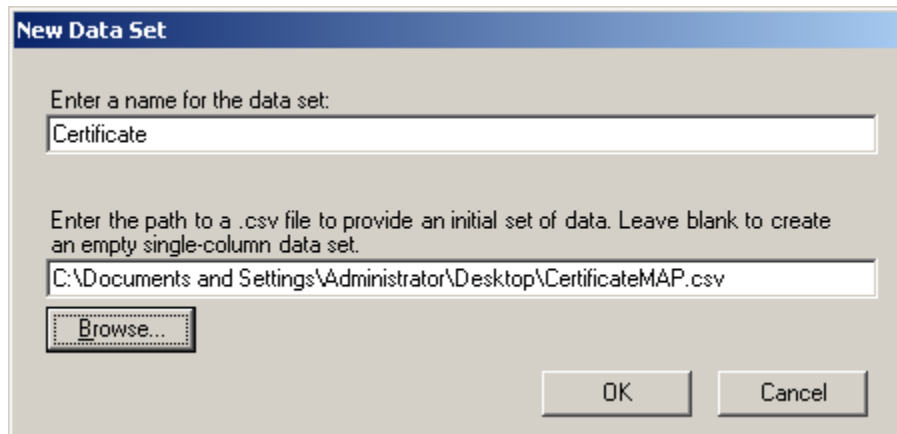
6. The second condition to configure is to select the logon point. Then click **Next**.



7. At this point, we are going to define the properties that are used by the scan. The first property is to define a data set (map); this data set contains a set of records, in which each record has two fields of data which are: **Search text** and **Store**, these data specify the certificate that we would search for in the client. The data set will be provided from a **CSV** file that was prepared before in advance. To load data set, click on **New Data Set**.



8. A dialog box titled **“New Data Set”** will appear. Type a name for the new data set in the first field and use **Browse** Button to locate the **CSV** file and then click **OK**.



9. After defining the data set, click **Next**.

Create Rule

CITRIX

Define Property to Verify
The scan checks the client device for the property settings you configure below. The settings listed here depend on the scan package you are using.

Select a mapping data set (two columns) containing mapped values that are acceptable for this property.

Scan package:
ExtentrixClientCertificateScan

Property description:
Double-columned data set, each one of its records has a Search text and Store pair

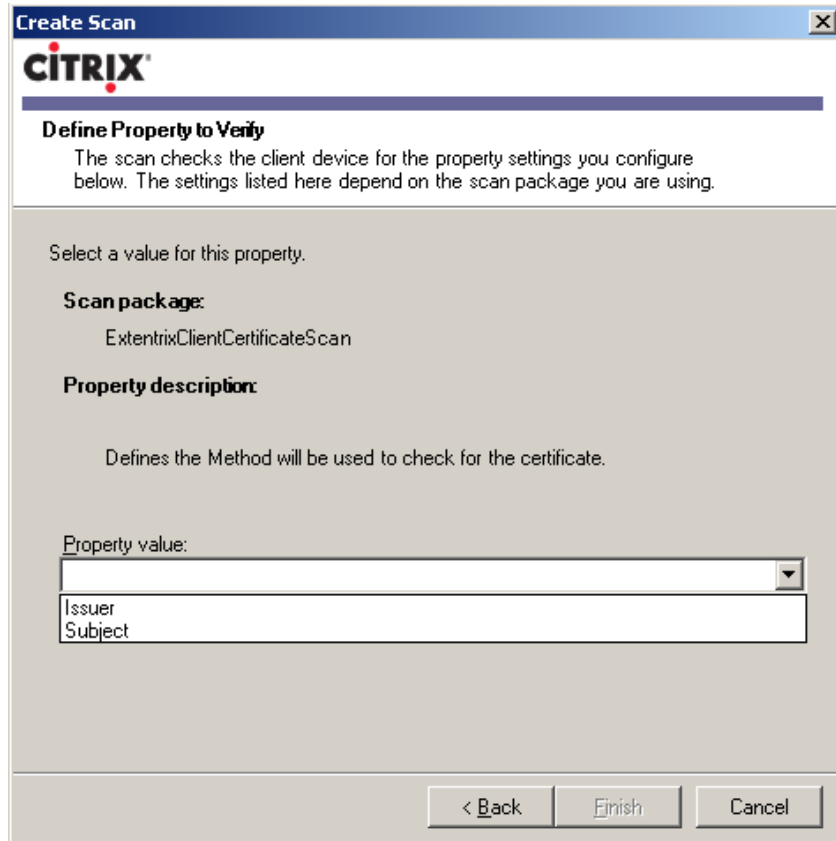
Property value:
Certificate

Map to Scan Output

New Data Set

< Back Next > Cancel

- For the **Search Text**, you can specify the search method to use. Select one from the two values: search by **Subject** or search by **Issuer**.

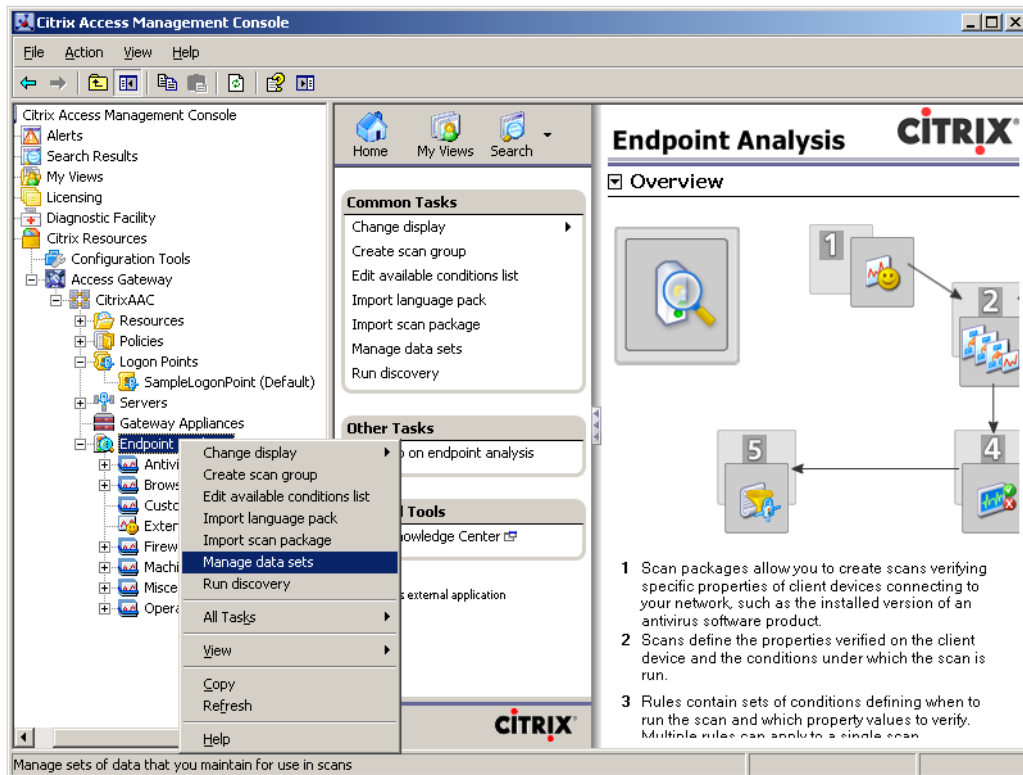


- When you are done, click **Finish**. Now you are ready to use IE browser scan.

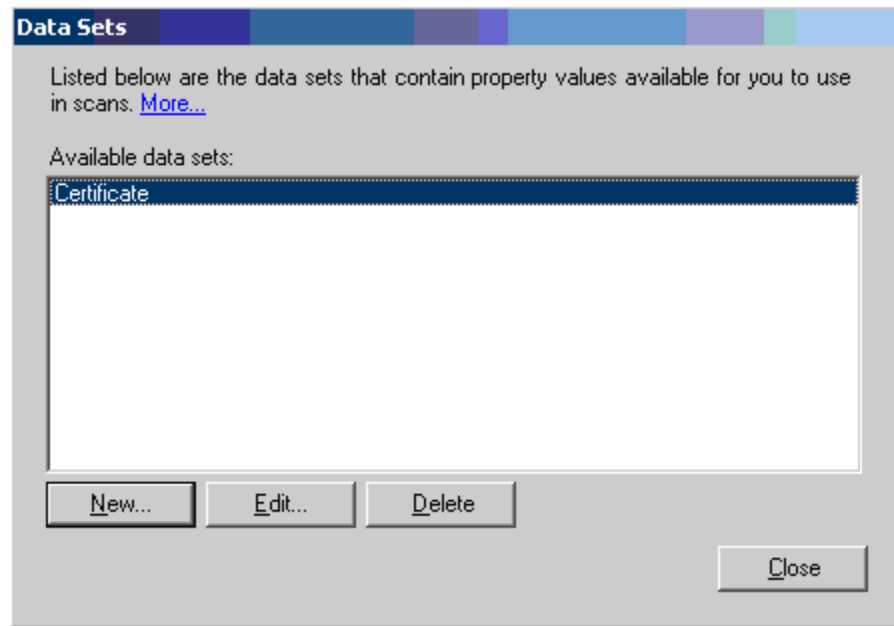
EDITING EXTENTRIX CLIENT CERTIFICATE SCAN DATA SET

You can edit, delete or insert a value to data set. The following steps demonstrate how you can do that:

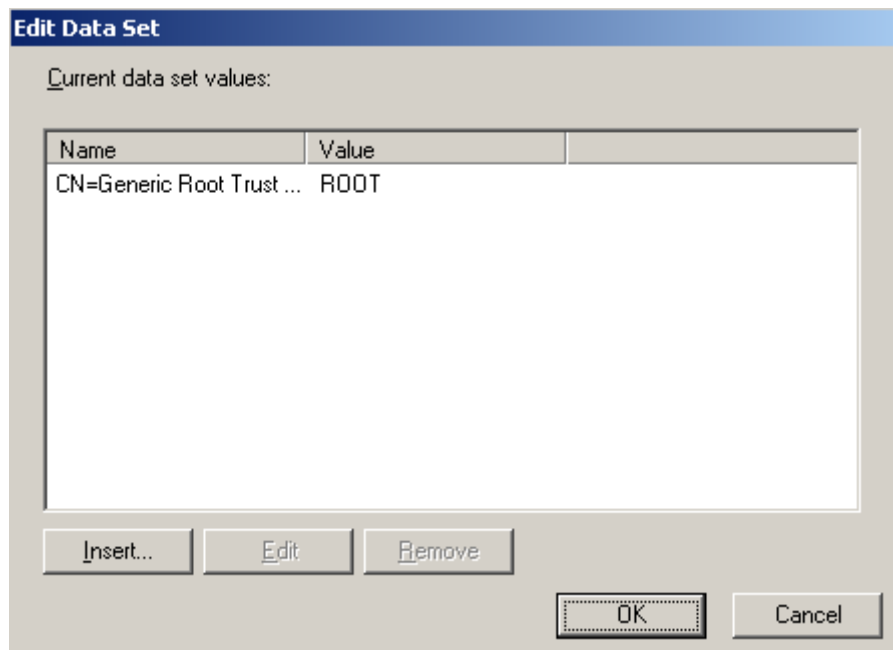
1. Right click **Endpoint Analysis** in the console tree and select **Manage Data Set** from the pop-up menu that shows up.



2. A window titled **"Data Sets"** will appear. Select the data set you want to edit then click **Edit** button.



3. A window titled "Edit Data Set" will appear.



4. In this dialog box, you can insert a new value, edit an existing value or remove unwanted value, then click **OK**.

HOW TO USE SEARCHING METHODS BY EXTENTRIX CLIENT CERTIFICATE SCAN

You should provide 3 items:

- Search Criteria.
- Search String.
- Store Name.

Searching Criteria

You have the ability to check for a certificate using two search methods:

1) By Issuer:

- **Issuer exact string:** You must provide the exact issuer string (see Important Notes).
- **Issuer substring:** You can provide a substring from issuer string and put (*) at the end of substring (see Important Notes).

2) By Subject:

- **Subject Exact string:** You must provide the exact subject string (see Important Notes).
- **Subject substring:** You can provide a substring from subject string and put (*) at the end of substring (see Important Notes).

The data set might contain more than one set of data (Rows). Each row of data represents the search criteria for a certificate which the client searches for. The data contained in each row are: The first data is the search string which might be certificate issuer or certificate subject, the second data is the store name where the certificate is located in the client. Example on that is illustrated below:

1) Search String, which can be:

- Complete Exact String ex (C=GB, O=ViaCode, OU=CA Data, OU=CA1).
- Substring ex (Microsoft*).

2) Store Name, which can be (CA , MY , ROOT , SPC)

- Each user has a MY certificate store which contains his/her personal certificates.
- The ROOT store contains certificates of the most trusted certification authorities.
- The CA store contains less frequently used certification authorities.
- The SPC stands for Software Publisher Certificate.
- The Address Book store contains other people's certificates.

Important Notes:

1) If you choose to search by exact matching either for Issuer or Subject;

- You have to insert string in a format exactly like this:

C=GB, O=ViaCode, OU=CA Data, OU=CA 1

Note: Make sure that there are no spaces around the equal sign. Add a space after the comma.

- Parts of the exact string are inserted from bottom up:

Ex: if the original string in a certificate is:

OU=CA 1

OU=CA Data

O=ViaCode

C=GB

You should insert it like this:

C=GB, O=ViaCode, OU=CA Data, OU=CA 1

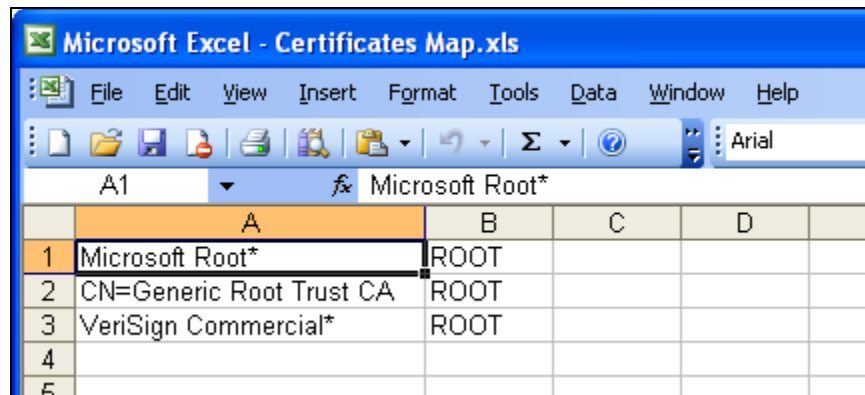
2) If you choose to search by Substring matching either for Issuer or Subject:

- You have to put a (*) just after the substring.

BUILDING THE MAP FILE FOR EXTENTRIX CLIENT CERTIFICATE SCAN

The map file is a .csv file format. We use Microsoft Excel to build up map files due to its simplicity.

We will demonstrate building the map by examples. The figure below shows a screen shot of an area from an excel sheet where we have entered three values for the map file.



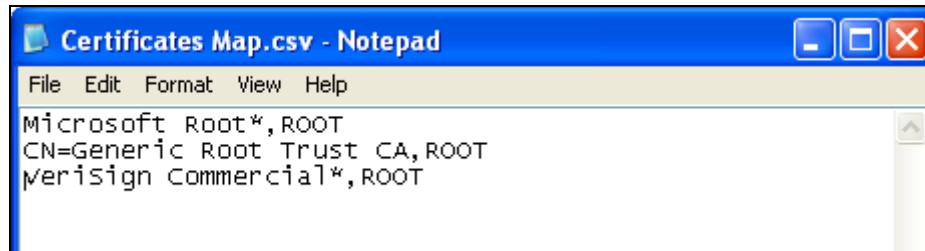
The screenshot shows a Microsoft Excel window titled "Certificates Map.xls". The spreadsheet has columns A, B, C, and D. The first three rows contain the following data:

	A	B	C	D
1	Microsoft Root*	ROOT		
2	CN=Generic Root Trust CA	ROOT		
3	VeriSign Commercial*	ROOT		
4				
5				

To do the same, follow the steps below:

1. Start Microsoft Excel.
2. In column **A** row **1** type the search text you want to check for.
3. In column **B** row **1** type the root of the certificate to be checked for. Repeat the same steps for other values.
4. After typing all of your certificates select **File -> Save**
5. In the **Save** dialog box, type a name for the map file in File Name field and in **Save as Type** field make sure it is in the format *CSV (comma delimited)*.
6. Now you are ready to use the map file in Extentrix Client Certificate Scan.

- **Note 1:** Building a map file can be done by using other softwares like Note Pad. If you want to use the Note Pad, make sure that the values are comma delimited and the extension of the file is .csv as shown below.



2. EXTENTRIX CLIENT REGISTRATION SCAN

SCAN DESCRIPTION

Scan Name: Extentrrix Client Registration Scan.

Description: This scan is used to grant user access if he agrees on a nondisclosure agreement. After that he will be allowed to access the corporate resources for a certain number of days. This period of time can be renewed as the administrator determined. For example, the administrator can allow a user to try an application for 2 days and after that his access will be denied.

Parameters:

- **Agreement Message:** a String of characters makes the text of the agreement, which the Administrator wants the end user to accept before granting him access to the company resources.
- **Hidden Value:** a String value which is specific to each user used to save the acceptance status of the user. This value is hidden from the user and saved internally by Extentrrix scan to ensure that the user has accepted the company's agreement.
- **Agreement Maximum Allowed Days:** an integer value holds the maximum numbers of days in which the client is allowed to access corporate resources starting from the acceptance day of the agreement.
- **Allow Renew:** a Boolean value when it is true, it means that the user is allowed to register again and use the corporate resources for another period of time.
- **Renew Times:** an integer value represents how many times the user is allowed to renew the registration.
- **Renew Days:** an integer value represents how many times the user will be registered after renewing action.
- **Expire Warning Message:** a text represents a warning message that will be displayed to alert the user when his access is about to expire.
- **Expire Warning Message Allowed Days:** an integer value determines after how many days from granting access, the user will receive the warning message.

- **Expired Message:** a String value represents the message text that will be displayed after the user's registration is expired.

Scan Output:

- **Allow Access:** a Boolean output which indicates whether the user has a valid registration or not.

True: Indicates that the client has a valid Client Registration.

False: Indicates that the client does not have a valid Client Registration.

- **License Status:** a String output which indicates whether the scan is licensed or not.

Trial License: Indicates that the scan has a trial license.

Invalid License: Indicates that the scan does not have a valid license.

Valid License: Indicates that the scan is licensed.

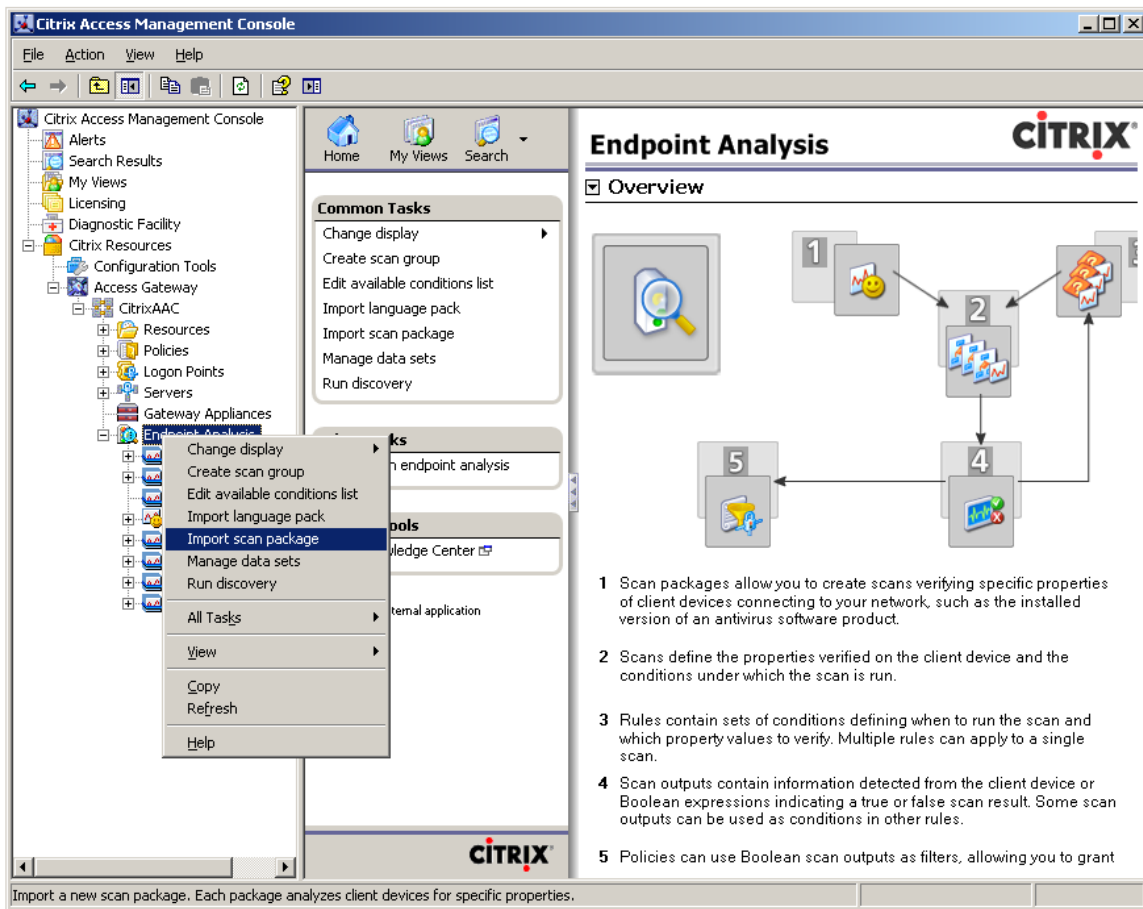
Note: If the License Status has an Invalid License value, the Allow Access will return false.

INSTALLATION AND CONFIGURATION

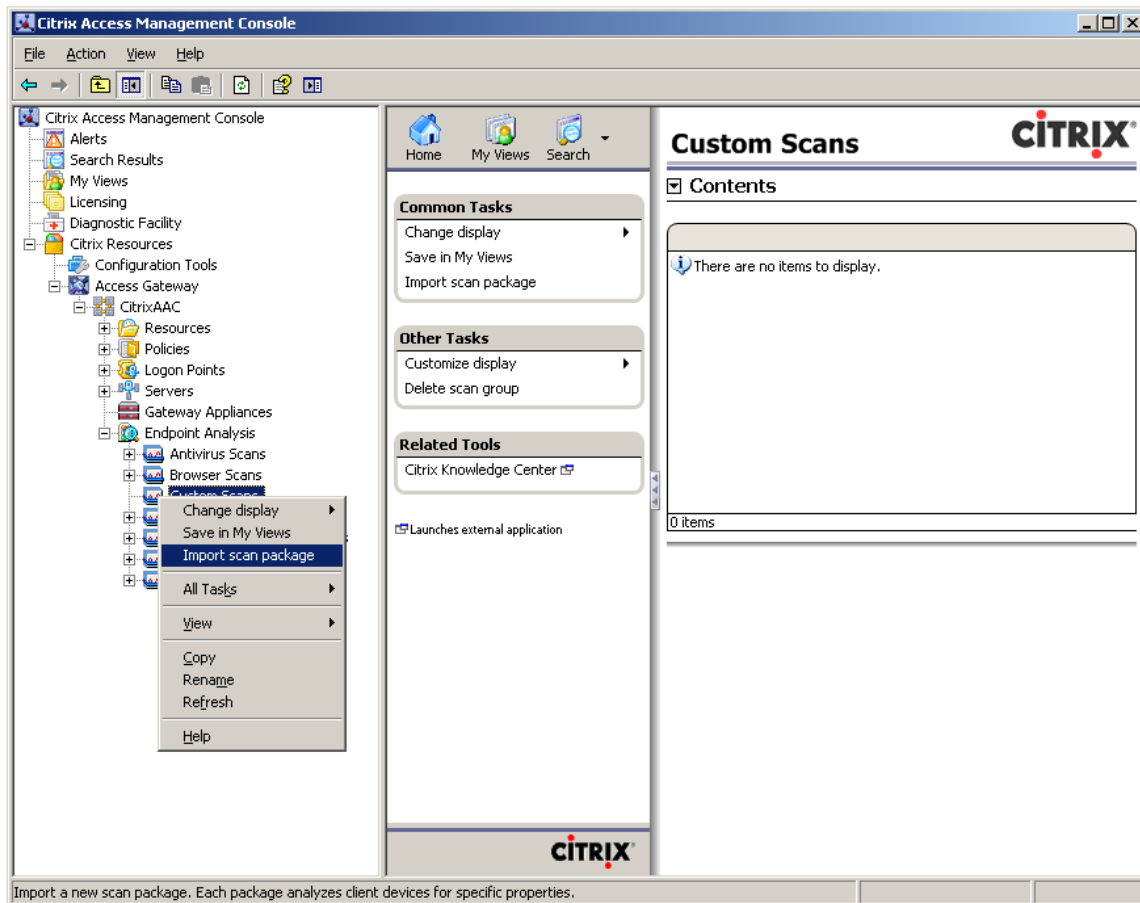
INSTALLING SCAN PACKAGE

To install a custom end point analysis scan package, follow the steps below:

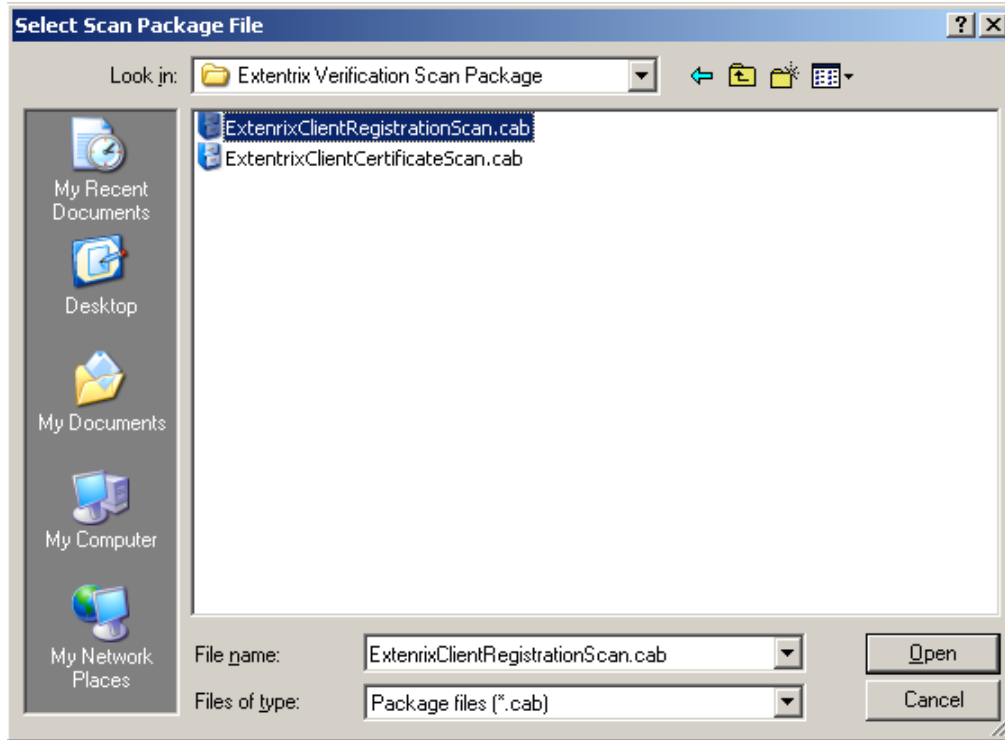
1. Start Citrix Access Management Console. In the console tree select the **Endpoint Analysis** node.
2. Right click any of the displayed scan packages categories and select **Import scan package** from the pop-up menu list that appears.



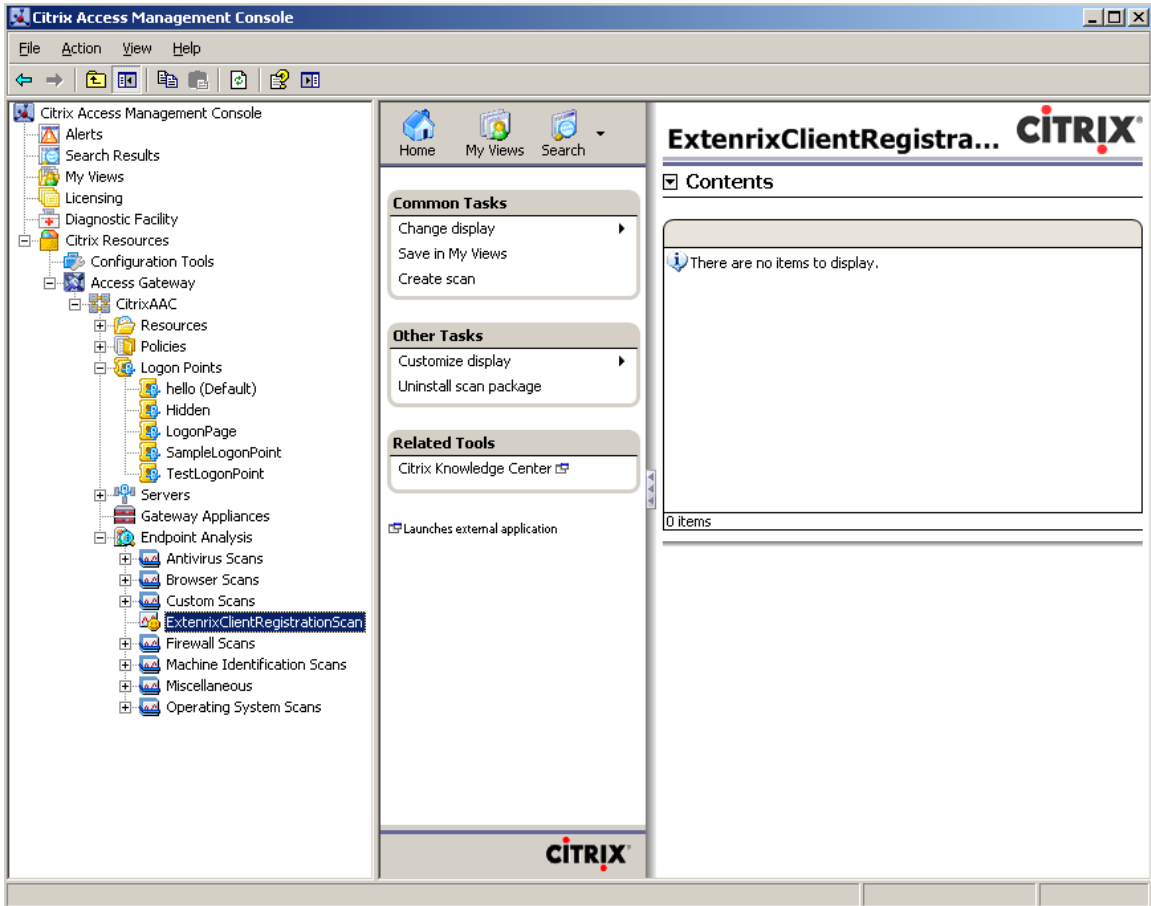
Note: You can choose to insert the scan package to a specific scan package group; first select desired group, then right click and select **Import scan package** from the pop-up menu that shows up as shown in the following screen shot.



3. A dialog box named **“Select Scan Package File”** will appear. Select the (.cab) file which contains the Extentrix Client Registration Scan.



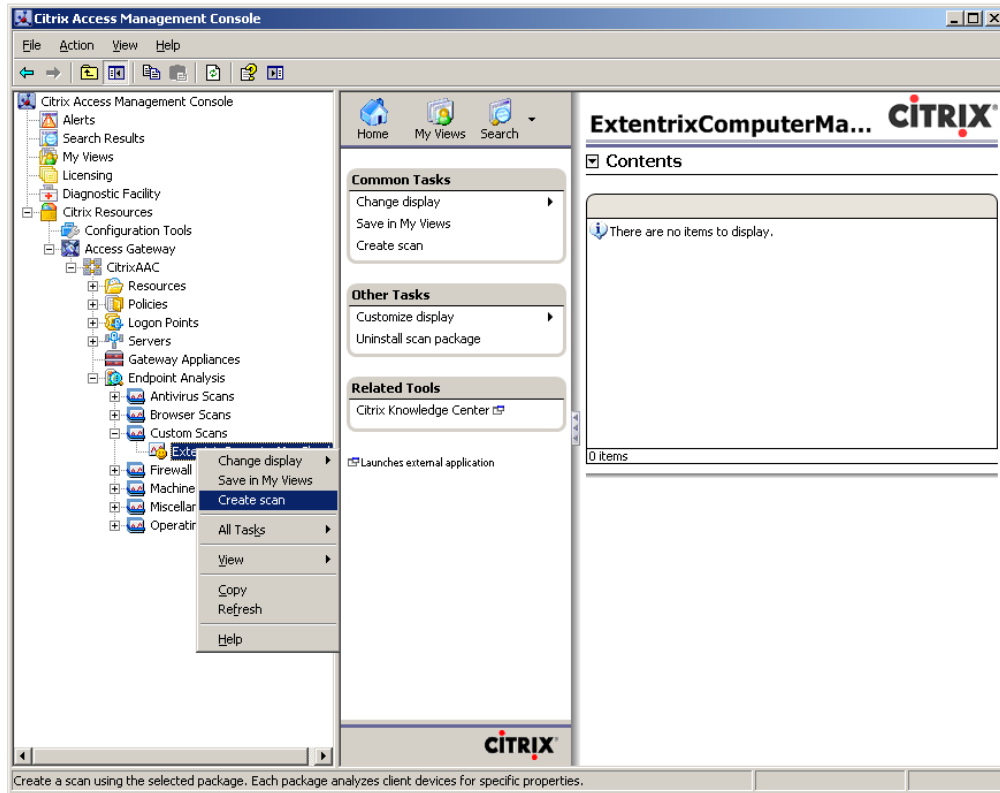
After selecting the **ExtentrixClientRegistrationScan.cab**, it will appear in the console pan as shown in the following screen shot.



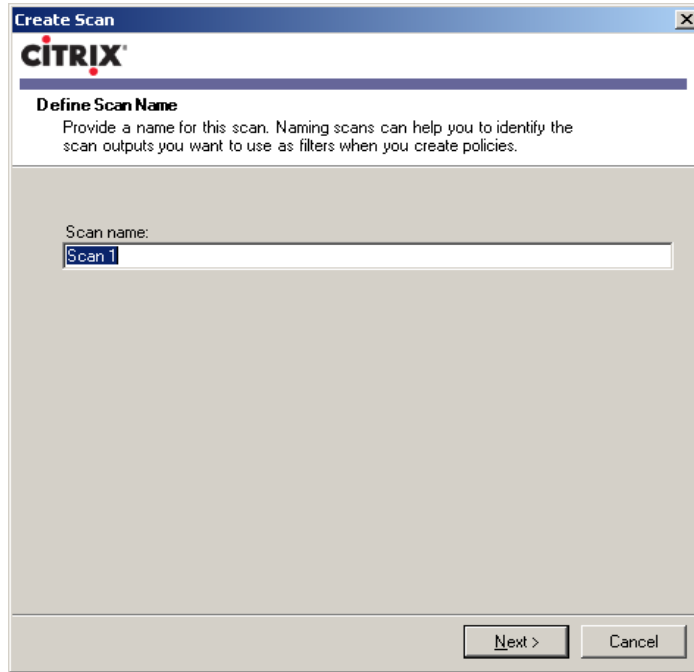
CREATING SCANS

Please follow the steps below to create new scan and rules for **Extentrix Client Registration scan**

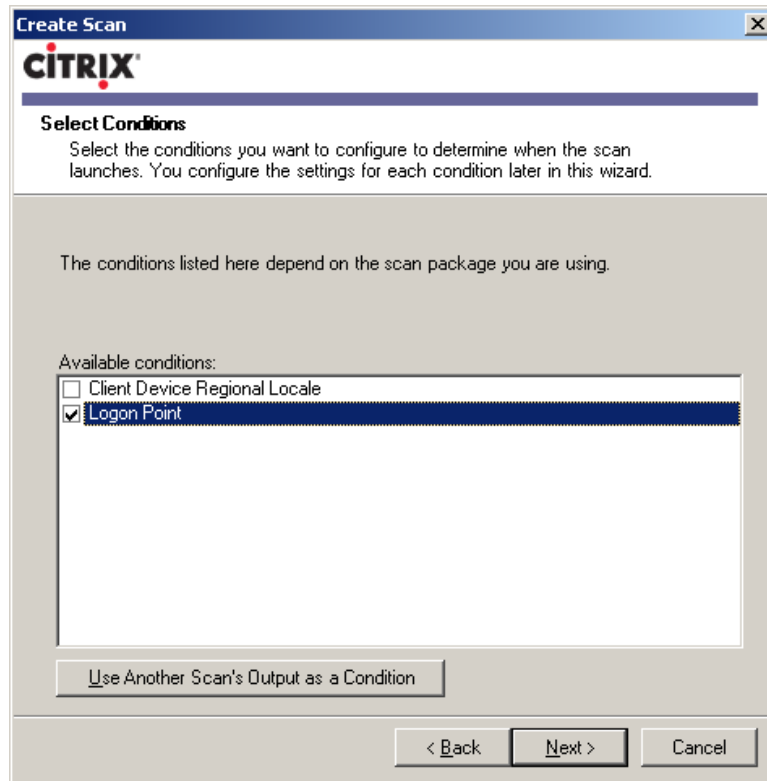
1. To create a new scan, select **ExtentrixClientRegistration** item then right click and choose **Create Scan** from the pop-up menu that shows up.



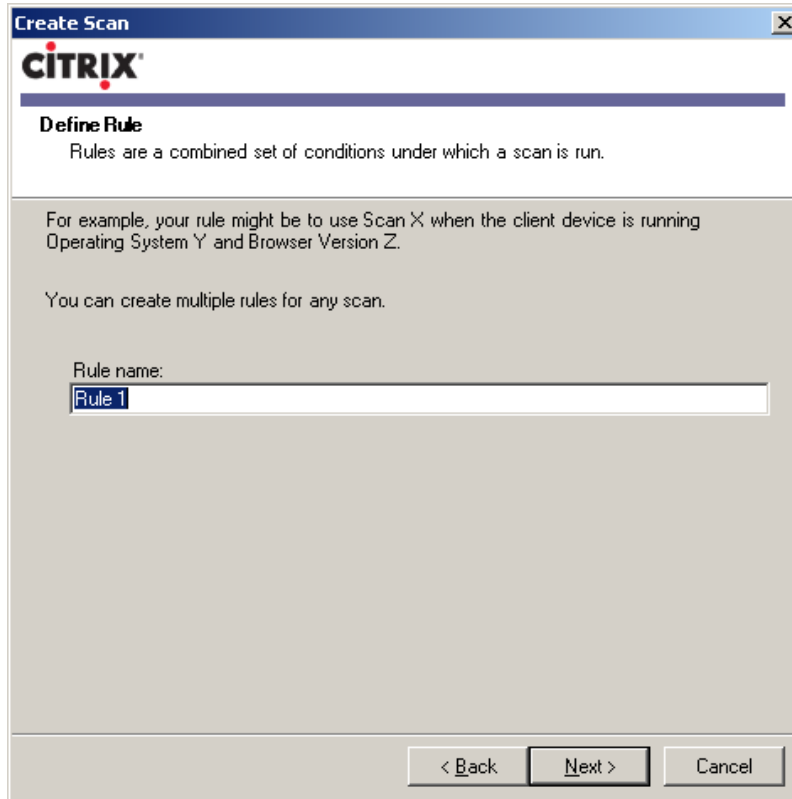
2. Type a name for the new scan then click next.



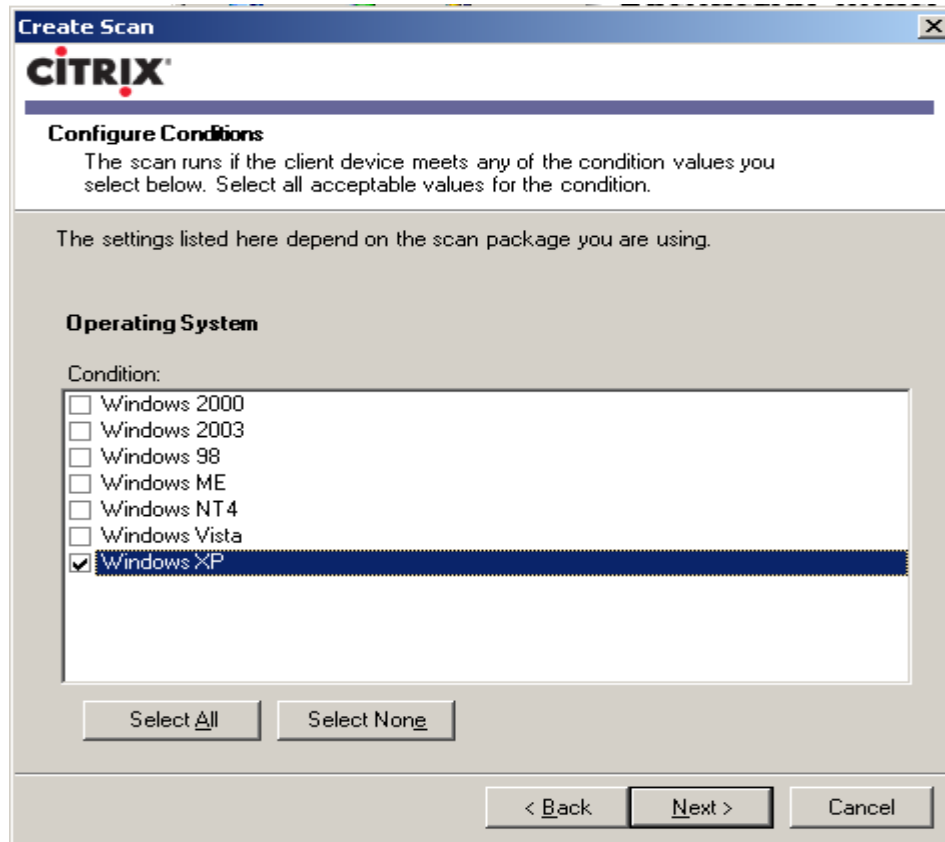
3. Select the appropriate scan conditions and click next.



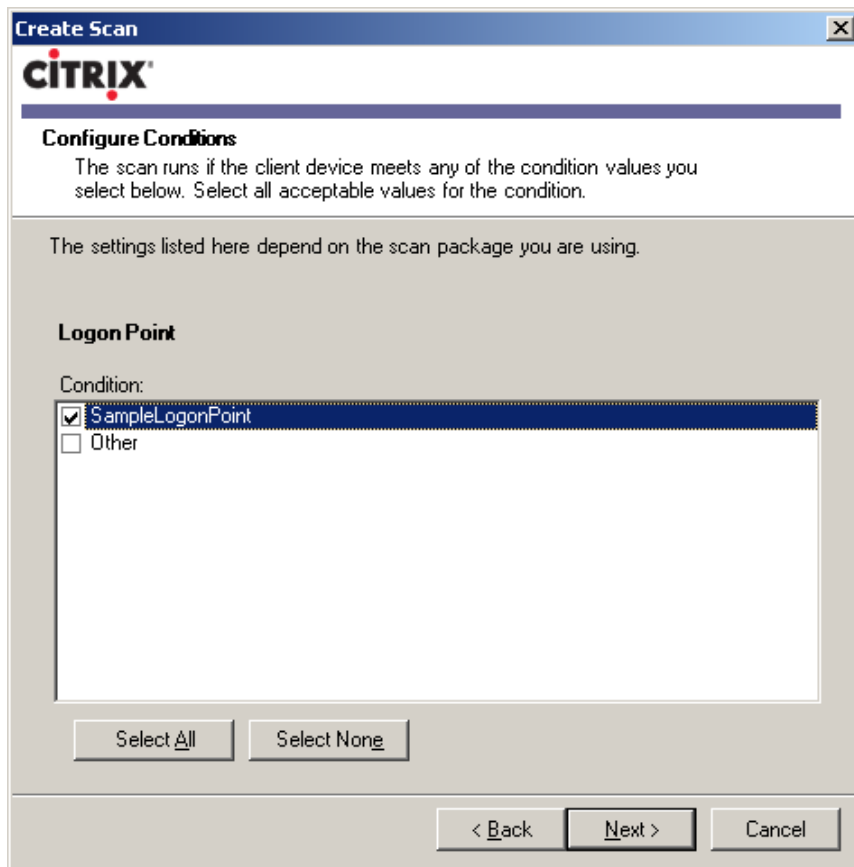
4. Type rule name, for example type rule 1, then click next to configure rule conditions.



5. The first condition to configure is the type of the Operating System(s) in which the scan will be used for, let us say **Windows XP**.
Then click **Next**.



6. The second condition to configure is to select the logon point.
Then click **Next**.



7. At this point we are going to define the properties that are used by the scan. The first property is used to let administrator type the desired Agreement in which he requires the user to accept before granting him access.

Edit Property

Enter a string value for this property.

Scan package:
ExtentrixClientRegistrationScan

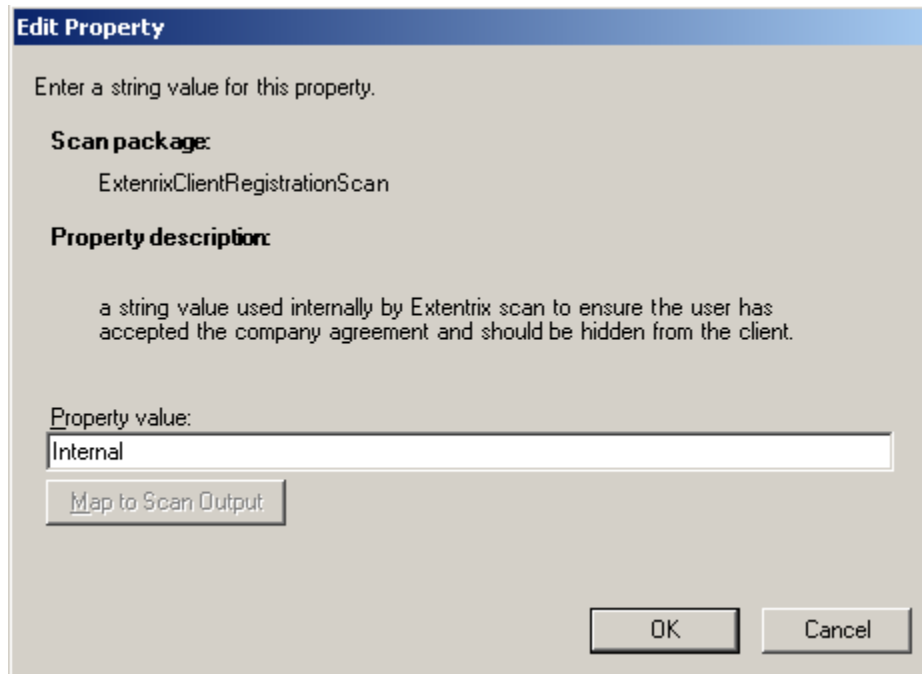
Property description:
a string value holds the agreement the Administrator wants the end user to accept before allowing him access to company internal resources.

Property value:
ing 'I Agree' button, you agree to restrict access to your login and password so no person

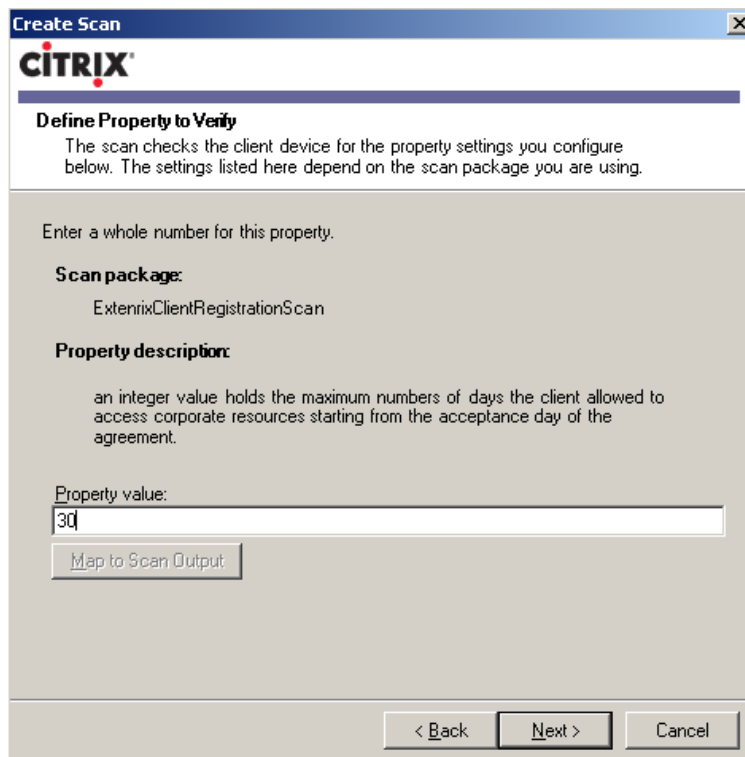
Map to Scan Output

OK Cancel

8. The next property is to enter the name of the Hidden variable. This variable is used to store the acceptance status of the user who is trying to access the system resources. This variable is the scan related, and it should be hidden from the user.



9. The following property value is used to enter the period of time in the days in which the user is allowed to access the corporate resources.



10. Now, at this point, the administrator can determine if the user is allowed to renew his registration for one more time. True, means yes he is allowed. False means no, he is not allowed to renew.

Create Scan

CITRIX

Define Property to Verify
The scan checks the client device for the property settings you configure below. The settings listed here depend on the scan package you are using.

Select a value for this property.

Scan package:
ExtenixClientRegistrationScan

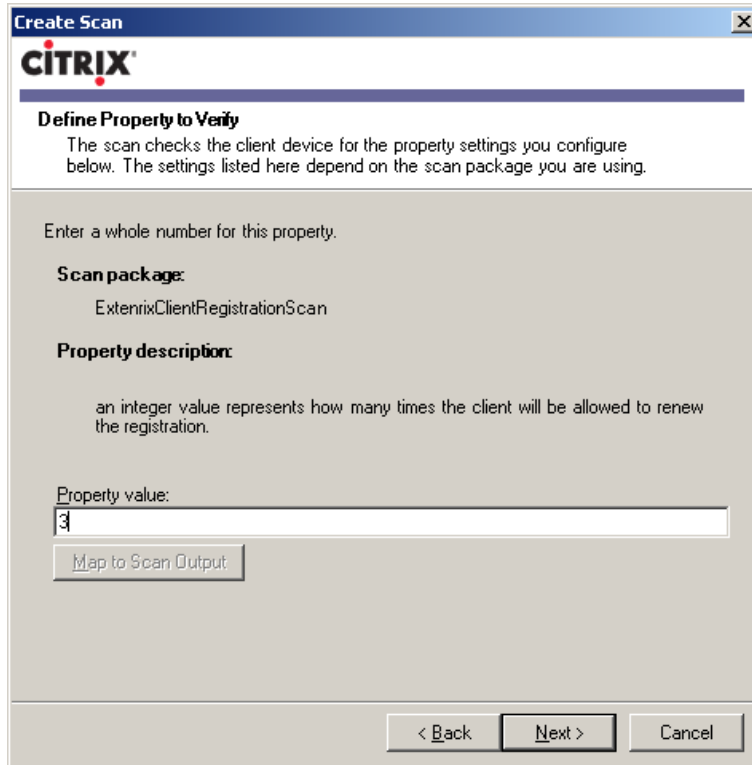
Property description:
a Boolean value which will be used to allow the client to register again when his watermark is about to expire or not (true, false).

Property value:
True

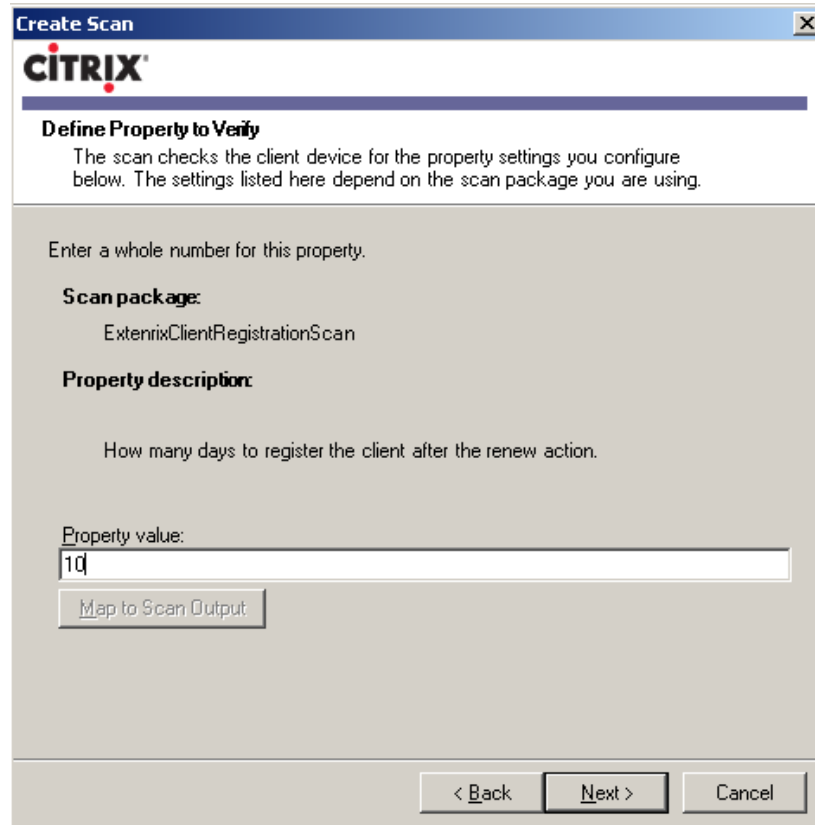
Map to Scan Output

< Back Next > Cancel

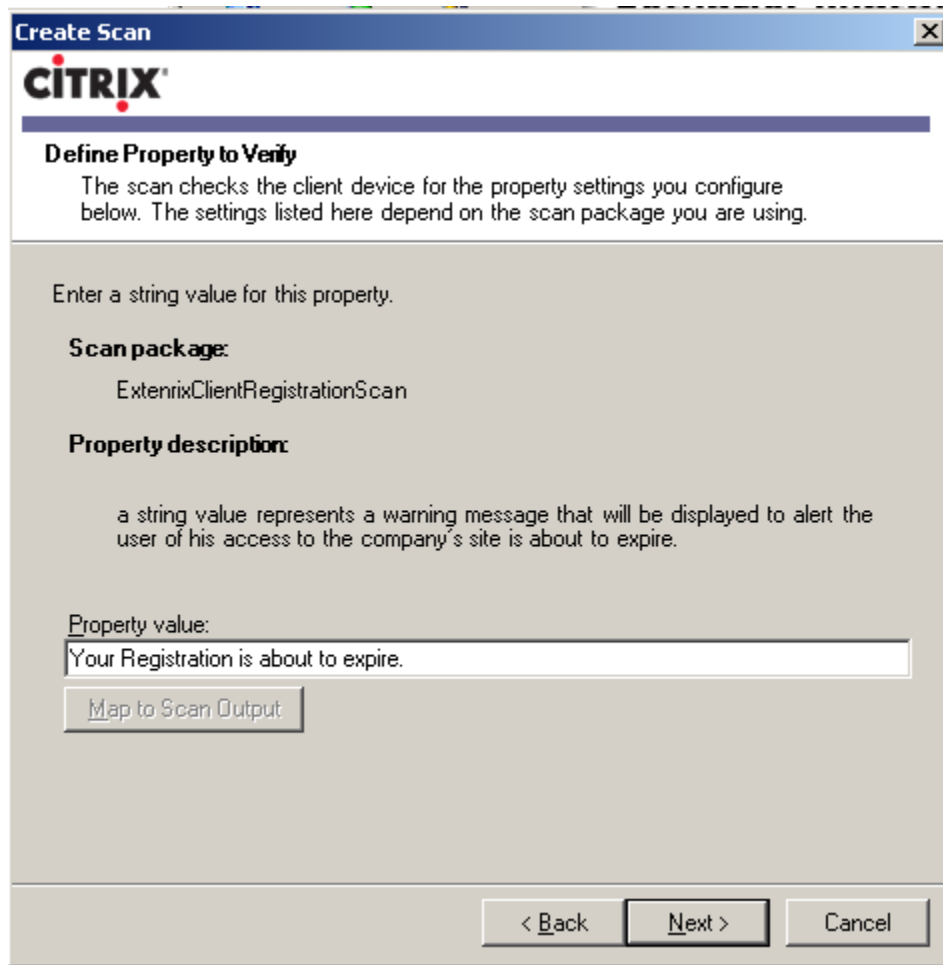
11. In this property value you can determine how many times the user is allowed to renew his registration. The entered value should be an integer.



12. The following property value is used to determine how many days the user is allowed to access the corporate resources after his renewal. Enter here an integer value.



13. Use this property to type the message that will show up to alert the user that his access is about to expire. This is a string value. Example of such a message is shown in the following screen shot.



14. This property value is used to enter an integer value that represents the number of days after which the warning message should start to show up.

Define Property to Verify
The scan checks the client device for the property settings you configure below. The settings listed here depend on the scan package you are using.

Enter a whole number for this property.

Scan package:
ExtentrixClientRegistrationScan

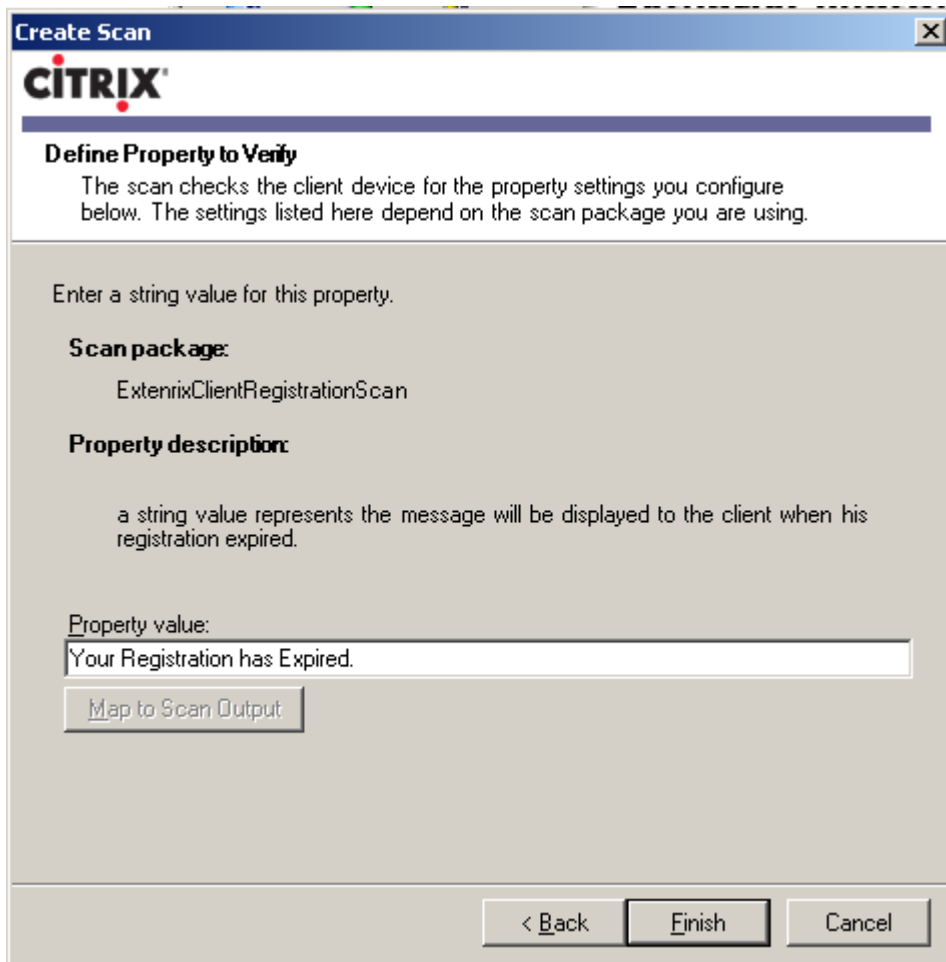
Property description:
an integer value represents the numbers of days before Warning Message will be displayed to end user.

Property value:
5

Map to Scan Output

< Back Next > Cancel

15. Now when the user tries to access the corporate resources after his period is timed out. An expiration message should show up telling him that his access is expired and no longer valid. The message you required to show it up is entered in this property value. This is a string value as shown in the following screen shot.



SUPPORT

Support for Extentrix Client Verification Scan Package is available at [Extentrix Forum](#)

For any support issues, please email your questions or problems to: support@extentrix.com

GLOSSARY

Endpoint analysis: A process that scans a client device and detects information such as the presence and version level of operating system, antivirus, firewall, or browser software. Endpoint analysis can verify that the client device meets your requirements before allowing it to connect. This information can be included as a filter within a policy to determine the appropriate level of access to corporate resources.

Endpoint Analysis Client An ActiveX control or a browser plug-in used to discover information about a device's configuration (such as the operating system, antivirus pattern, and so on).

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ABOUT EXTENTRIX

Founded in 2006, Extentrix Systems is a leading software development company specializing in virtualization and developing custom software solutions for Microsoft and Citrix customers. Established by former software engineers at Citrix, Extentrix have developed access solutions that simplify and speed users' access to Terminal Services and Citrix platforms.

Extentrix Systems is privately held with company headquarters in RAK, UAE. For more information, please visit the company's Web site at www.extentrix.com or call +971-4-208-8496.

For additional support in writing new scan packages or customizing the current one, please contact Extentrix at info@extentrix.com or by visiting the company's home page at <http://www.extentrix.com/>.