Configuration Active Directory SSO for NAC Guest Server

Document ID: 109602

Contents

Introduction

The Active Directory Single Sign−On (AD SSO) feature uses Kerberos between the web browser of the client and the Cisco NAC Guest Server in order to automatically authenticate a guest against an Active Directory Domain Controller.

Note: For the purpose of this document, the NTP and DNS servers are also on the DC, but this is possibly not the case in your environment.

Prerequisites

Requirements

Ensure that you meet these requirements before you attempt this configuration:

- DNS must be configured and work on the Cisco NAC Guest Server.
- DNS must be configured and work on the Domain Controller.
- The DNS entries for the Cisco NAC Guest Server must be defined:
    - *A* record
    - *PTR* record
- The DNS entries for the Domain Controller must be defined:
    - *A* record
    - *PTR* record
- Cisco NAC Guest Server time settings must be synchronized with the Active Directory Domain.

Components Used

The information in this document is based on these software and hardware versions:

- NAC Guest Server 2.0
- Microsoft Windows XP with Internet Explorer 6.0
- Windows Server 2003

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

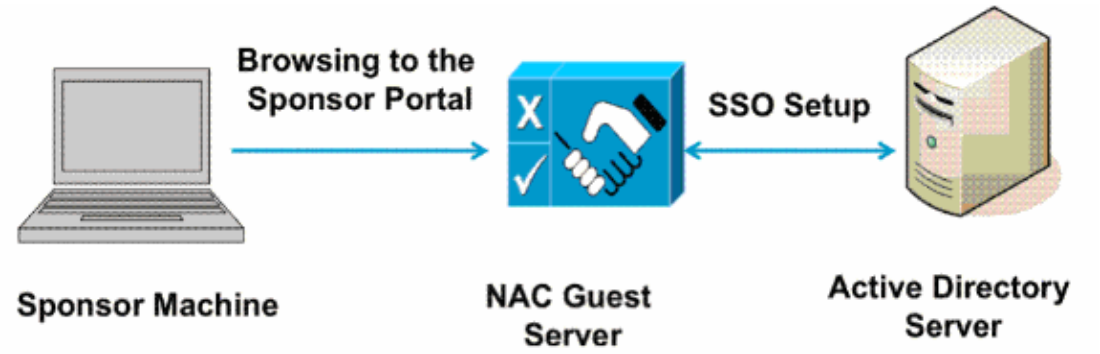
Configure

In this section, you are presented with the information to configure the features described in this document.

Note: Use the Command Lookup Tool (registered customers only) to obtain more information on the commands used in this section.

Network Diagram

This document uses this network setup:



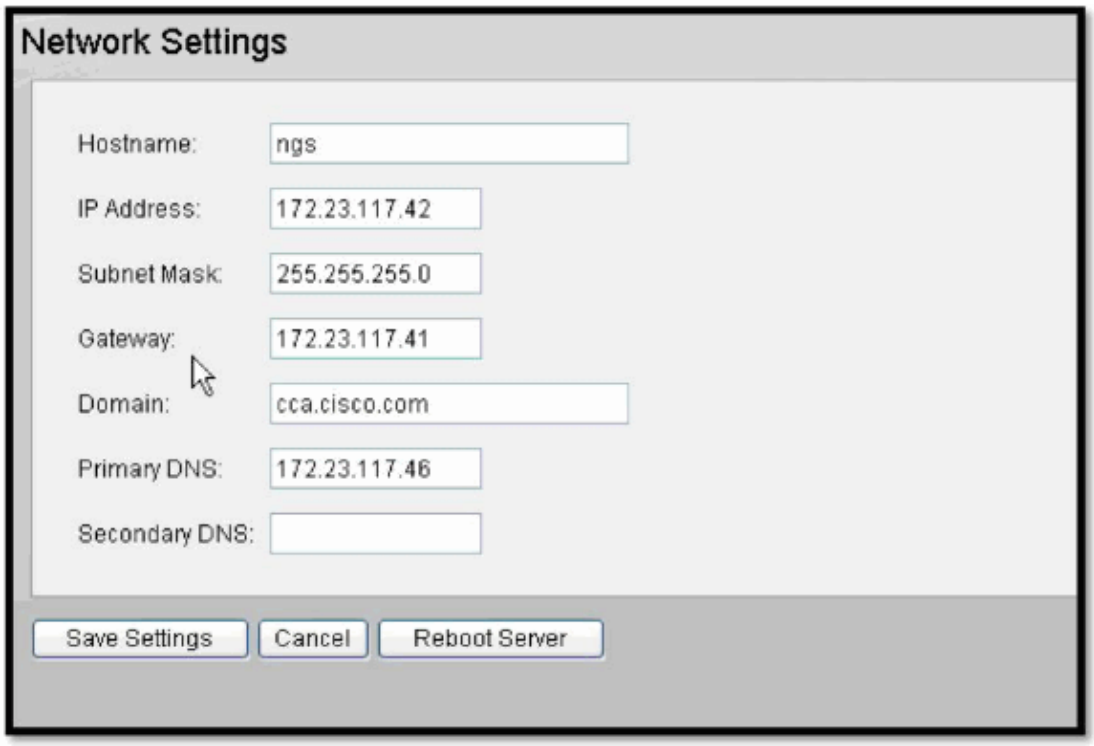
Configurations

This document uses these IP addresses:

- Domain Controller¡72.23.117.46 (w2k3−server.cca.cisco.com)
- NAC Guest Server¡72.23.117.42 (ngs.cca.cisco.com)
- Sponsor Machine¡72.23.117.45

Complete these steps:

1. Access the NGS Admin Interface. From the browser, go to **http://172.23.117.42/admin**



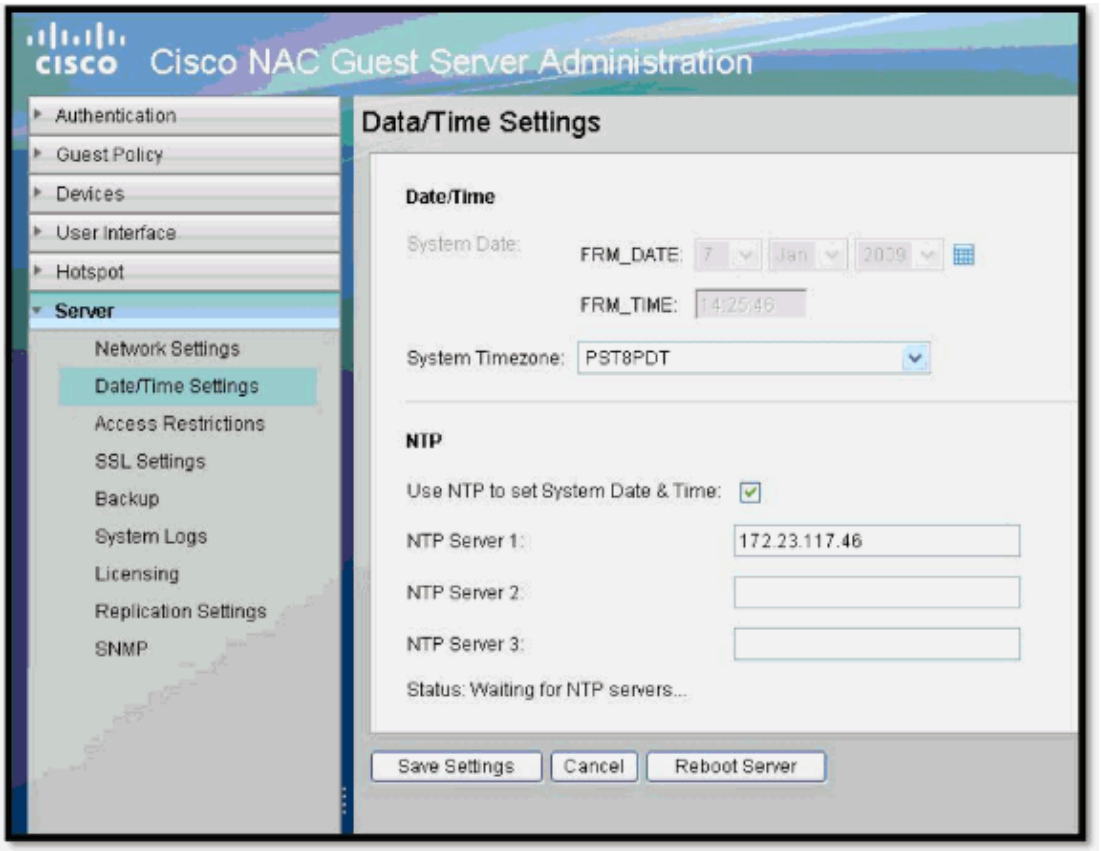
2. **NGS Network Configuration**

   Choose **Server > Network Settings**.

   a. Hostname ngs
   b. Domain cca.cisco.com
   c. Primary DNS¡72.23.117.46

3. **NTP Setup**

   In **Server > Date/Time**, configure the NTP server to DC IP **172.23.117.46** .



4. **AD SSO Setup**

   Before you configure the SSO section, make sure the A and PTR records exist for the domain controller and NAC guest server.

   In the AuthServer > Auth SSO section, configure this:

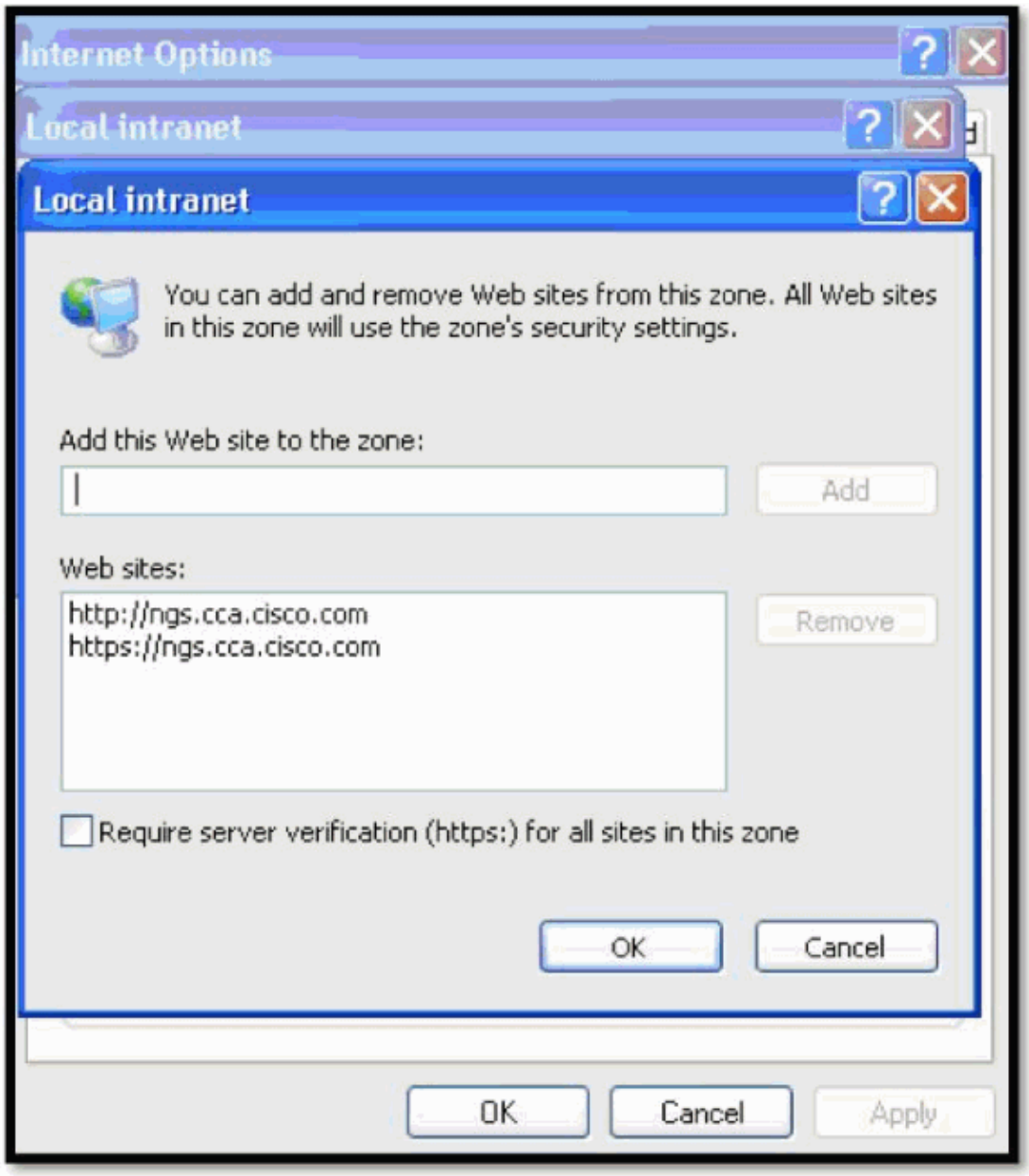
   If the configuration is successful, you should see a success message.

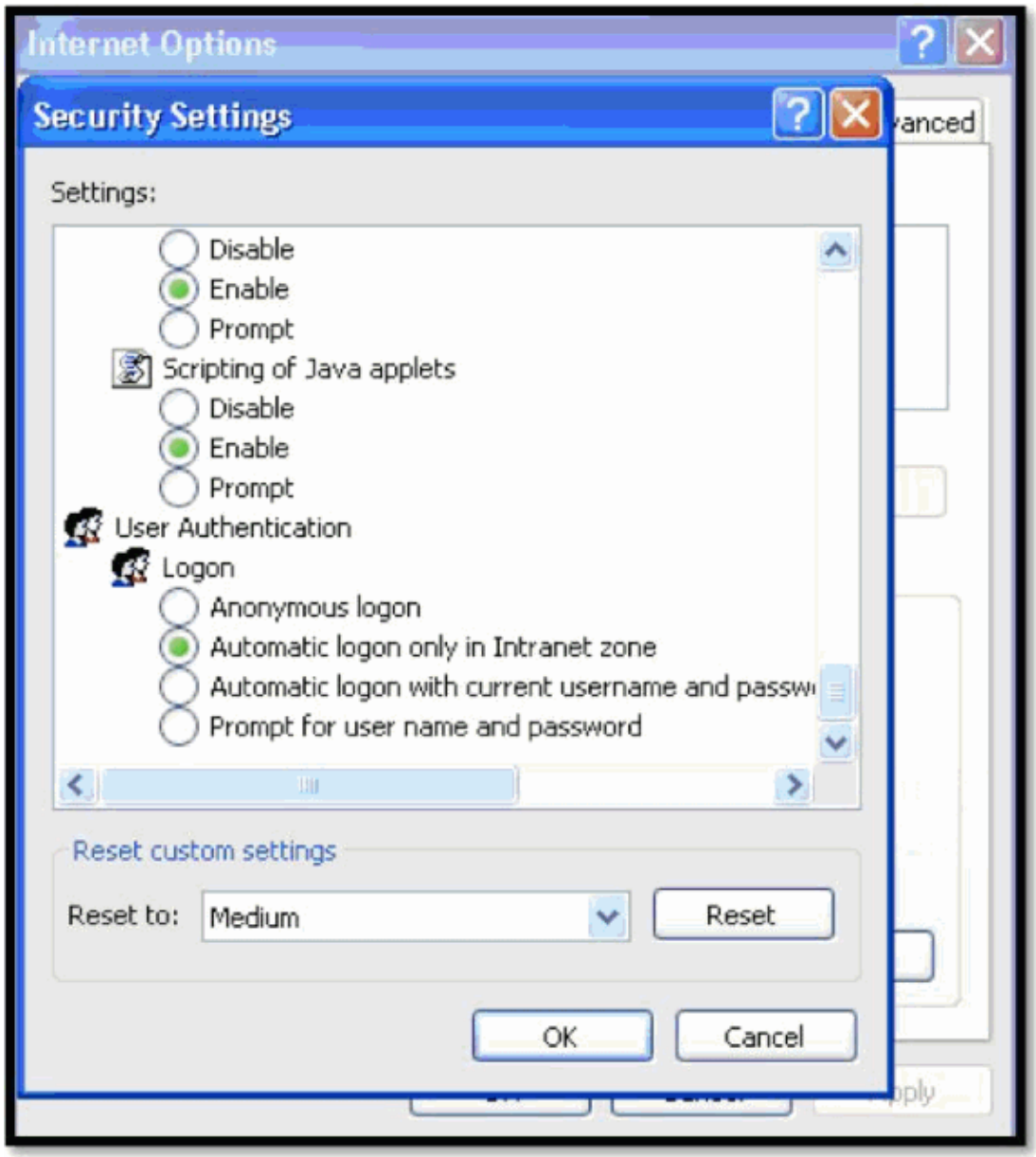
5. **Validate the SSO feature**

   From the user machine, log into the domain. In this example, this machine is part of the cca domain. Only Internet Explorer is supported for the SSO feature. You need to make sure that the NAC Guest Server is part of local intranet and auto−login is turned **on**.

   Note: Use the FQDN for the guest server in order to test SSO from the browser. For example, the IP address does not work.

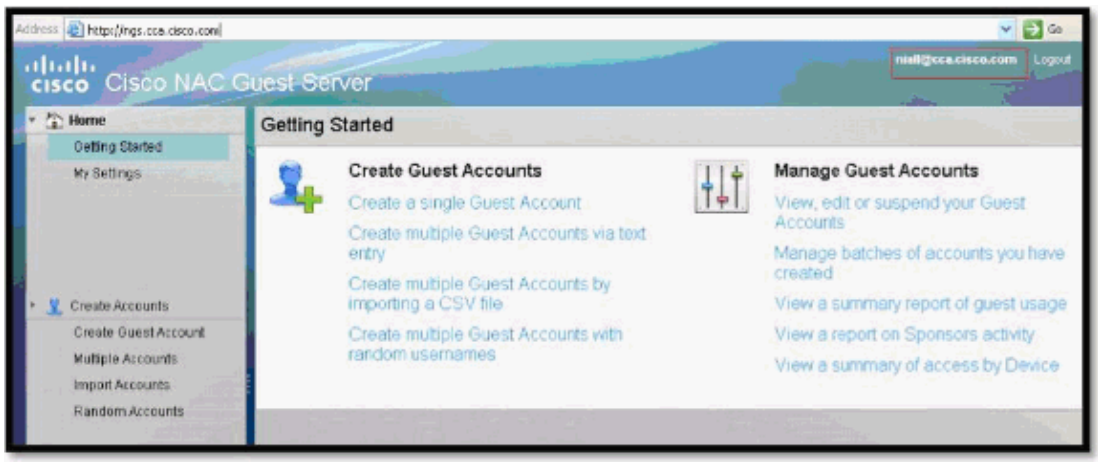
   a. Verify the web browser settings:


Internet Options
Local intranet
Local intranet
You can add and remove Web sites from this zone. All Web sites in this zone will use the zone's security settings.
Add this Web site to the zone:
Add
Web sites:
http://ngs.cca.cisco.com
https://ngs.cca.cisco.com
Remove
Require server verification (https:) for all sites in this zone
OK
Cancel
OK
Cancel
Apply

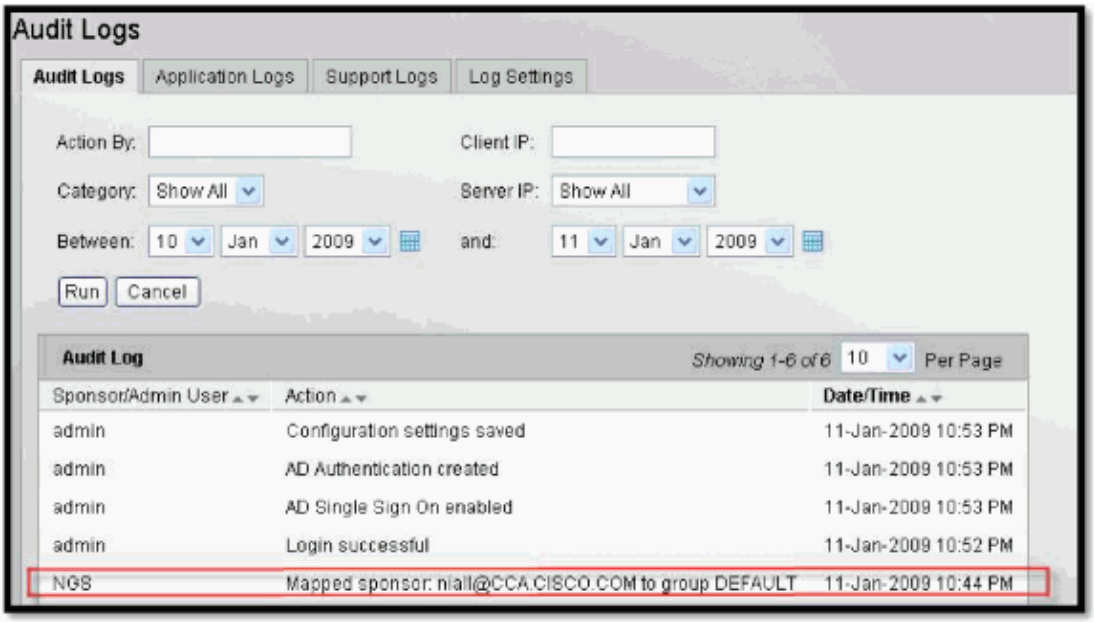


b. From the web browser, go to **http://ngs.cca.cisco.com**. You should be automatically logged in to the ngs with the domain credentials.

Note: The link **http://ngs.cca.cisco.com** will only work if you have configured NAC in admin mode with the user credentials.



Under the NAC Guest Server Audit Logs, you can see the user Niall logged into the default group:

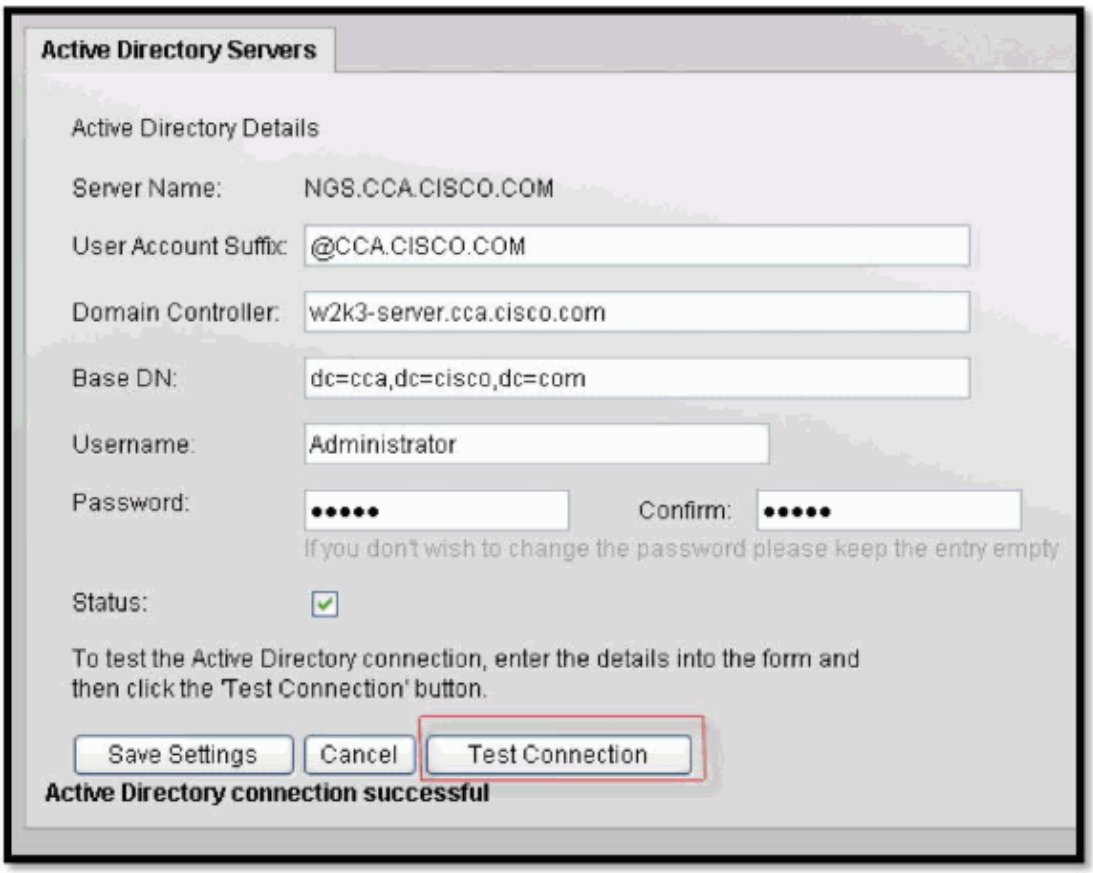


6. **User Group Mapping with AD SSO (Optional)**

In this section you will learn to map the SSO user to a specific group other than the default group.

To map the user group with ADSSO, you need to configure the Active Directory Server as Auth Server and then map the AD group with Sponsor User Group.

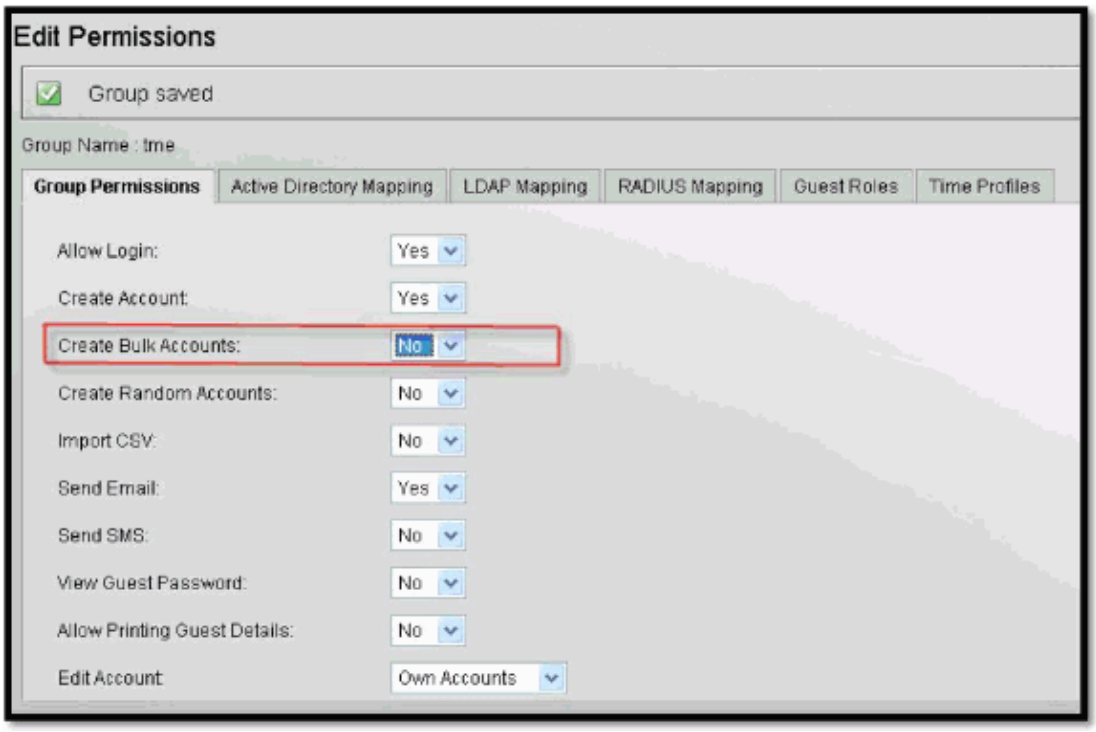
a. Choose **NGS (http://172.23.117.42/admin) Authentications > Sponsors > Active Directory Servers**. Add a new domain controller.



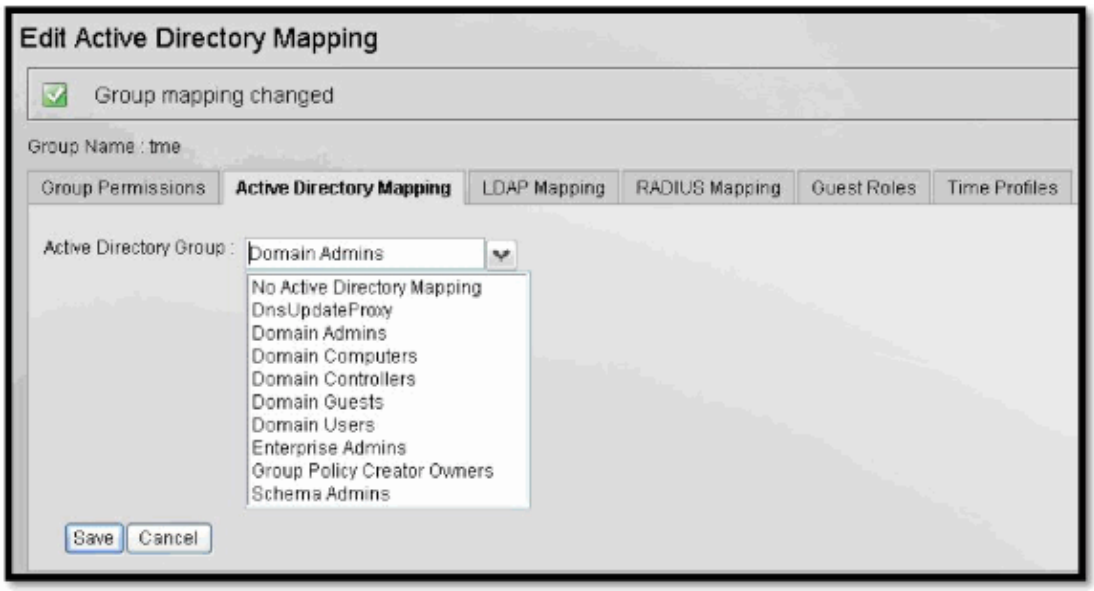
The test connection option has been introduced in NGS 2.0 for ease of troubleshooting. It tells you whether you have configured the DC correctly.

b. **Configure the User Group**

Add a new user group name **tme**. In this example, you choose **NO** in order to bulk account creation. This way you know immediately whether the user has been placed to the tme group *or* the default group.



In Active Directory Mapping, the test user niall is already part of Domain Admins.



Verify

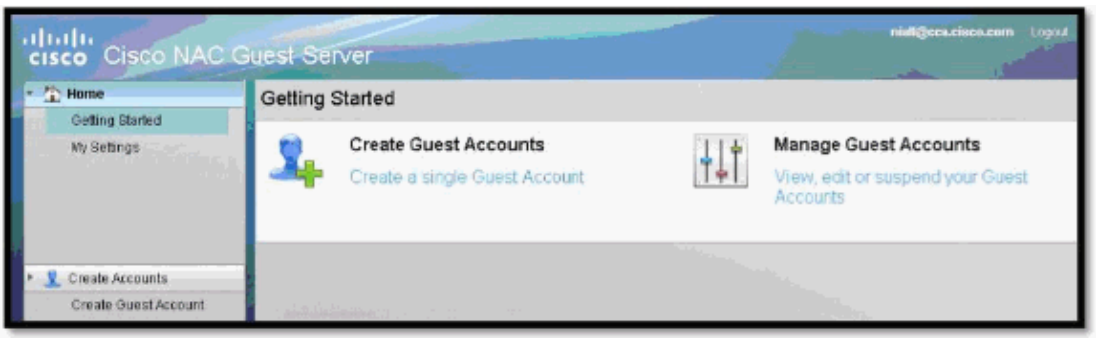
Use this section to confirm that your configuration works properly.

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

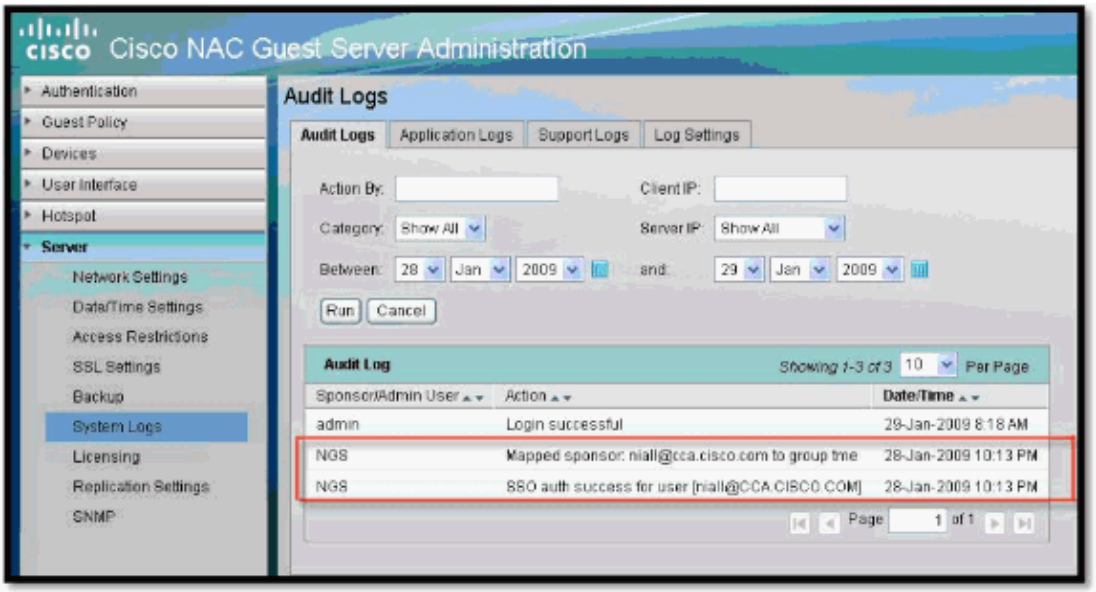
Verify ADSSO User Group Mapping

In order to access the Sponsor machine, open a new browser and go to http://ngs.cca.cisco.com.

Niall should be placed in tme group with no access to bulk account creation.



If you look at the audit logs, you can verify that the Sponsor is placed into the correct Role.



Troubleshoot

This section provides information you can use to troubleshoot your configuration.

These are error messages in the logs. Kerberos errors results in one of these errors:

- `Domain format incorrect / Domain Controller must be a FQDN, not an IP address`

  The domain has not been entered in a correct format (should be of the form CCA.CISCO.COM).
- `Hostname must be a FQDN, not an IP address`

  The hostname of the NAC Guest server cannot be an IP address it must be a Fully−Qualified Domain Name e.g. nac.cca.cisco.com.
- `Cannot determine IP address for Domain Controller`

  There is a DNS configuration issue.
- `Cannot get DNS A record for Domain Controller`

  There is a DNS configuration issue.
- `Cannot get DNS A record for hostname`

  There is a DNS configuration issue.
- `Cannot get DNS PTR record for Domain Controller IP address`

  There is a DNS configuration issue.
- `Cannot get DNS PTR record for hostname IP address`

  There is a DNS configuration issue.
- `Failed to create computer account for this server on the Domain Controller. See application log for details`

  . View the application log to see the full details of the error.
- `Invalid username/password`

  The administrator username/password is incorrect.

- `Invalid Domain or cannot resolve network address for DC`

  There is a DNS problem on the AD server.
- `Domain Controller time does not match this server's time`

  Ensure the server times match, it is recommended you use NTP to synchronise server times.
- `The DC cannot determine the hostname for the Guest server by reverse lookup. There may be an issue with your DNS confiugration.`

  There is a DNS configuration issue on your AD server.

Related Information

- **Technical Support & Documentation − Cisco Systems**

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