

# SafeNet Authentication Service (SAS)

Service Provider Role and Scope Guide

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# Preface

## Introduction

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This guide describes concepts and recommendations for developing and implementing administrative security by establishing:

- **Roles**—This defines the Management Console functionality available to an Account Manager.
- **Scope**—This defines what can be managed.

Users are encouraged to read this guide in the order in which information is presented, as successive chapters often rely on information and concepts presented in prior chapters.

## Audience

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This guide is intended for SafeNet Authentication Service administrators responsible for how managed authentication services are delivered to accounts, and for configuring SAS to reflect the Service Provider's internal business processes, service level agreements, and management hierarchy.

## Additional Reading

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Administrators are encouraged to read the *Service Provider Administrator Guide for SafeNet Authentication Service*. This is a complete guide to the Management Console and the many features that are available to automate the day-to-day operations, provisioning, and reporting functions of SAS.

## Support Contacts

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Contact Method	Contact Information	
<b>Address</b>	Gemalto 4690 Millennium Drive Belcamp, Maryland 21017, USA	
<b>Phone</b>	US	1-800-545-6608
	International	1-410-931-7520
<b>Technical Support Customer Portal</b>	<a href="https://serviceportal.safenet-inc.com">https://serviceportal.safenet-inc.com</a> Existing customers with a Technical Support Customer Portal account can log in to manage incidents, get the latest software upgrades, and access the Gemalto Knowledge Base.	

## 1

# Introduction

## Operational Security Overview

As a Service Provider, it is likely that you will add a number of Account Managers to assist with the tasks of on-boarding, managing, and supporting your Subscriber accounts. An Account Manager is any person that can log in to the Management Console with access to any of the following Service Provider tabs—**Dashboard**, **On-boarding**, **Virtual Server**, and **Administration**. Subscriber accounts in this document refer to organizations that you on-board and manage, including accounts configured as **Subscriber** or **Virtual Service Provider** in the **Services** module.

Operational security gives you the tools to tailor Account Manager “roles” and “scope.” SafeNet Authentication Service (SAS) can also generate service alerts and automatically deliver these alerts to specified Account Managers, making them aware of events that require their attention as they occur in real time.

The steps in establishing operational security are:

- Configure Account Management Groups
- Configure Account Manager Roles
- Add Account Managers
- Configure Alert Event Thresholds
- Configure External Alert Recipients

## About Roles

A **role** defines what an Account Manager can do through the Management Console. Roles provide a way to tailor the Management Console to reflect your business objectives, security requirements, operational hierarchy, and workflow.

A role is created by defining a combination of tabs, modules within tabs, and actions within modules (refer to Figure 1: Service Provider Management Console Tabs, Modules, and Actions on page 7).

Access to tabs and modules can be disabled. Where access is allowed, the actions within any module can be restricted. For example:

- Disabling the **Create Accounts** hyperlink under **Shortcuts** would remove the ability for an Account Manager to create a new account.
- Disabling the **Add**, **Edit**, and **Remove** actions in the **Auth Nodes** module would allow an Account Manager to view the **Auth Node** list and deny the ability to make any changes.

The combination should be limited to the functionality required to perform the tasks defined by the role.

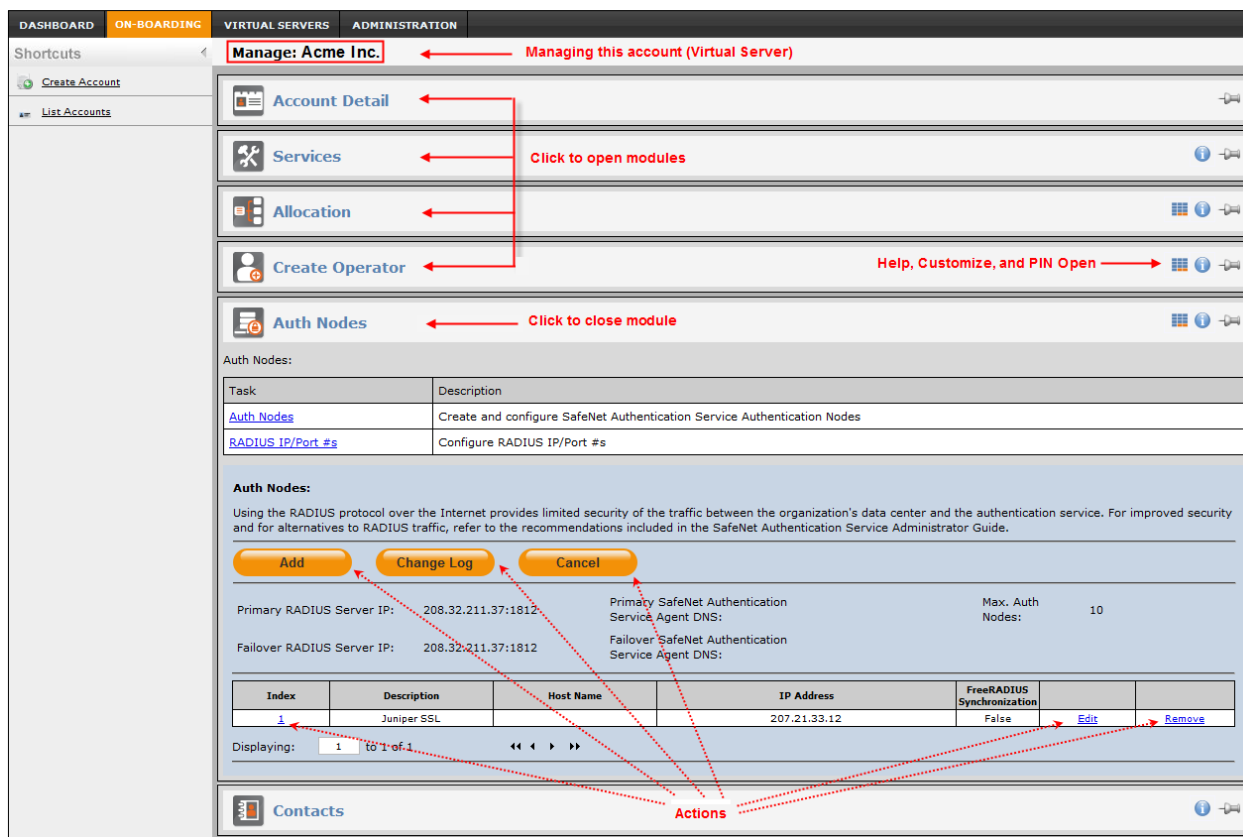


Figure 1: Service Provider Management Console Tabs, Modules, and Actions

## Adding and Managing Roles

Roles are added and managed from the **Administration** tab via the **Account Manager Roles** link.

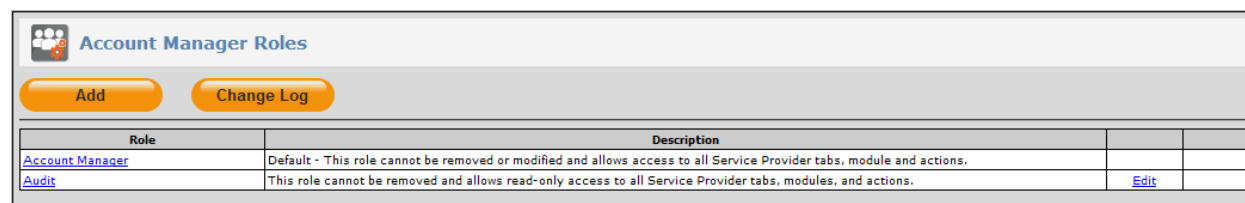


Figure 2: Account Manager Role Management

## Default Role

The **Default** role is a Service Provider role that grants access to all Management Console functionality and all Account Management Groups. This role cannot be modified. Account Managers will be automatically assigned to this role if no other roles are created. In general, only a few and trusted Account Managers should have the **Default** role.

## Default Management Group

The **Default** Management Group is an initial group created at the time your Service Provider account was created. Additional groups can be created and accounts can be moved between groups at any time. The **Default** group cannot be removed or renamed. All other groups can be modified or removed as necessary.

## Role Creation

The roles you'll need to create will depend on your business requirements; however, there are a number of roles that are commonly required:

- **Administrator Role**—This role has unrestricted access to all accounts and all Management Console functionality. Assign the **Default** role to Account Managers that should have administrative privileges.
- **On-boarding Role**—Most Service Providers separate the “business” functions of creating and provisioning accounts from the day-to-day help-desk type of support functions provided to accounts. These functions typically include creating/updating accounts, adding/modifying services, and allocating inventory (tokens and capacity). If your Subscriber accounts will manage their own service, this role may also be responsible for creating Operators.<sup>1</sup> This role may be combined with group management to restrict various members of the **On-boarding** role to managing specific groups of Subscribers.
- **Help Desk Role**—This role is generally performed by technical support personnel who must have access to a Subscriber's virtual server<sup>2</sup>, from which they can perform functions such as issuing/revoking tokens, adding users, and resolving authentication issues. Essentially, the aim of this role is to allow access to a range of Subscriber virtual servers based on scope but to disallow access to most other functionality available in the **Dashboard**, **On-boarding**, and **Administration** tabs, such as the ability to add, modify, or remove Account Managers. This role may be combined with Group Management to restrict various members of the **Help Desk** role to managing specific groups of Subscribers.
- **Audit and Reporting Role**—This role is essentially “read-only,” allowing access to view information displayed in the **Dashboard** and **On-boarding** tabs, and certain functions on the **Administration** tab, including generating and running usage, audit, inventory, and billing reports. Depending upon your business requirements, this role may be limited to running a specific set of reports or may be allowed to create a range of reports. This role is generally not allowed to access any Subscriber virtual servers.
- **Sales Representative Role**—This role provides Sales Representatives with access to the Management Console for the purposes of demonstration and creating evaluation accounts, while denying access to production accounts. This role may be combined with group management to restrict each or various members of this role to managing specific groups of evaluation accounts. Note that by making Sales Managers members of this role but with access to a range of Management Groups, they will have the ability to view and monitor the activity of all members of this role.

Chapter 2 describes recommended settings for each of these roles.

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<sup>1</sup> An Operator is an “Administrative” account in the subscriber's virtual server. With this account, the Operator can log in to the Management Console and have access to all management functionality for their server. If the account type is **Virtual Service Provider**, the same user will have administrative privileges to the **Service Provider** tabs for their account.

<sup>2</sup> Note that the management functionality available in a Subscriber's virtual server is controlled by the role and scope configured for **External Operators**. This means that while the Help Desk role may have access to a Subscriber's virtual server, the functions they can perform may vary, depending on the role/scope configured for the External Operator in each Subscriber's virtual server.



## About Scope

SafeNet Authentication Service allows accounts to be placed into Management Groups. Management Groups are best thought of as “buckets” which hold various accounts. Though accounts can be moved between Management Groups, they cannot exist in more than one group at a time.

Scope determines which groups, and therefore which accounts, can be managed by an Account Manager. For example, consider a Service Provider with a global support desk and two sales regions, East and West, each of which is exclusively responsible for on-boarding accounts for their respective regions. The support desk must be able to manage the Virtual Servers for accounts in both regions.

One solution would be to create two groups, East and West. Accounts on-boarded in the East would be placed in the **East** Management Group while those in the West would be placed in the **West** Management Group. The next step would be to create an on-boarding role and a help desk role. Then, as Account Managers are added to the system, they would be assigned one of the following combinations of role and scope:

Role	Scope	Able to Manage
On-boarding	East Group	Only accounts in the East Management Group
On-boarding	West Group	Only accounts in the West Management Group
Help Desk	East Group and West Group	All accounts in the East and West Management Groups.

## 2

# Role Configuration

## Recommended Role Settings

See the following sections for recommended role settings:

- Account Manager Role – see below
- On-Boarding Role – page 11
- Help Desk Role – page 13
- Audit Role – page 14
- Sales Representative Role – page 15

## Account Manager Role

The default **Account Manager** role provides unrestricted access to all **Service Provider** tabs, modules within tabs, and actions within modules (as shown in Figure 3), and allows access to all Management Groups. Access to the **Virtual Servers** tab means that this role is able to access the virtual servers for every Subscriber account.

The screenshot shows the 'Account Manager Roles' configuration page. It includes a 'Close' button, role information (Role: Account Manager, Description: Default), and four expandable sections, each containing a table of permissions. The permissions are organized by tab: Dashboard, On-Boarding, Virtual Servers, and Administration. Each table has columns for Module, Access, Edit, Delete, Add, Import, Export, and View Log.

Module	Access	Edit	Delete	Add	Import	Export	View Log
Alerts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Subscriber Metrics	<input checked="" type="checkbox"/>						
Inventory	<input checked="" type="checkbox"/>						
Account	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Accounts	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Account Detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Allocation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Create Administrator	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
Auth Nodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Delegation Code	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Create Accounts	<input checked="" type="checkbox"/>						
List Accounts	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Manage	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Administration	<input checked="" type="checkbox"/>						
Roles Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Groups Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Accounts Manager Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Available Reports	<input checked="" type="checkbox"/>						
My Report List	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Scheduled Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Reports Output	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Alert Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
External Alerts Recipients	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Alert Event Thresholds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Customize References	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Account Role Provisioning Rules	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Auto Remove	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					

Figure 3: Administrator Role (Default "Account Manager" Role)

## On-Boarding Role

This role is responsible for and allows access to the following functions:

- Dashboard Tab—View, acknowledge, close, and remove alerts.
- On-boarding Tab—Add, modify, suspend, and remove subscriber accounts.
- Virtual Servers Tab—Access to this tab is denied.
- Administration Tab—Access is limited to running and viewing preconfigured reports. Access to all other modules on this tab is denied.
- Enabling, disabling, or modifying the Subscribers service, including start/stop dates and number of allowed AuthNodes
- Allocating and deallocating inventory, including tokens, capacity, and SMS credits
- Adding, modifying, and deleting Subscriber accounts
- Adding, modifying, and deleting Auth Nodes
- Adding, modifying, and deleting additional contacts
- Adding, modifying, and deleting Delegation Codes

Figure 4 on page 12 provides an example of **On-boarding Role** settings:

- Clearing the **Virtual Servers** option hides this tab and denies access to all virtual servers.
- In the **Administration Tab** section, clearing the **Access** options as shown hides and denies access to the **Role Management, Groups Management, Account Manager Management, Customization, Available Reports, Alert Management, External Alert Recipients, and Event Threshold** modules and functions.
- Service Providers that will manage all aspects of their client's services and virtual servers may opt to remove access to the **Create Operator, Auth Nodes, and Delegation Nodes** functions.
  - The **Create Operator** function is only relevant when the subscriber will manage their own virtual server.
  - The **Auth Nodes** module is used to enable/disable RADIUS clients, such as Subscriber VPN's. Often, this functionality is not part of business functions and is offloaded to the help desk or the Subscriber. **Auth Node** configuration is available within each Subscriber's virtual server and help desk, and/or the Subscriber can manage this functionality without having access to the **On-boarding** module.
  - **Delegation Codes** are used to add third-party Subscriber accounts, such as those created by an intermediary service provider (for example, a grandchild account), to the **Virtual Servers** tab.

Account Manager Roles

Edit
Duplicate

Role: On-boarding Role  
 Description: Access to Virtual Servers Tab denied. Access to Admin Tab limited to running predefined reports.

Save
Cancel

Dashboard
 

Module	Access	Edit	Delete	Add	Import	Export	View Log
Alerts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Subscriber Metrics	<input checked="" type="checkbox"/>						
Inventory	<input checked="" type="checkbox"/>						
Account	<input checked="" type="checkbox"/>						

On-Boarding
 

Module	Access	Edit	Delete	Add	Import	Export	View Log
Accounts	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Account Detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Allocation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Create Administrator	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
Auth Nodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Delegation Code	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Create Account	<input checked="" type="checkbox"/>						
List Accounts	<input checked="" type="checkbox"/>						

Virtual Servers
 

Module	Access	Edit	Delete	Add	Import	Export	View Log
Manage	<input checked="" type="checkbox"/>						

Administration
 

Module	Access	Edit	Delete	Add	Import	Export	View Log
Administration	<input checked="" type="checkbox"/>						
Roles Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Groups Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Accounts Manager Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Available Reports	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
My Report List	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Scheduled Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Reports Output	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Alert Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
External Alerts Recipients	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Alert Event Thresholds	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
Customize References	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Account Role Provisioning Rules	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Auto Remove	<input type="checkbox"/>	<input checked="" type="checkbox"/>					

Figure 4: On-boarding Role Example

## Help Desk Role

This role is responsible for providing technical assistance to Subscribers, and typically involves functions such as sorting authentication issues, configuring Auth Nodes, creating auto-provisioning and pre-authentication rules, configuring custom reports, and possibly managing users and issuing tokens.

All of the above functions are conducted from within the subscriber's virtual server via the **Virtual Servers** tab. The actual functionality available to this role is determined by the role associated with the "External Operator" account in each Subscriber's virtual server.

In general, the Help Desk tasks are separate from on-boarding tasks and administrative functions, and therefore access to the **On-boarding** tab and the **Administration** tab is typically restricted.

Figure 5 provides an example of **Audit Role** settings:

- Clearing the **Edit**, **Delete**, and **Add** options for all modules on the **On-boarding** tab allows the help desk to view customer information such as service start/stop, number of Auth Nodes, and all other "checked" modules but denies the ability to modify any settings.
- Clearing the **Create Account** option prevents the **Help Desk** role from adding Subscriber accounts.
- Clearing the various **Administration** options restricts this role to running and viewing reports to which they are entitled.
- Access to the **Auth Nodes** and **Create Operator** modules are not required. Similar functionality can be accessed via the Subscriber's virtual server.

**Account Manager Roles**

Role: Help Desk Role  
Description: Limited access to on-boarding and administration tabs/functions.

Module	Access	Edit	Delete	Add	Import	Export	View Log
<b>Dashboard</b>							
Alerts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Subscriber Metrics	<input checked="" type="checkbox"/>						
Inventory	<input checked="" type="checkbox"/>						
Account	<input checked="" type="checkbox"/>						
<b>On-Boarding</b>							
Accounts	<input checked="" type="checkbox"/>		<input type="checkbox"/>				
Account Detail	<input checked="" type="checkbox"/>	<input type="checkbox"/>					<input checked="" type="checkbox"/>
Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>					<input checked="" type="checkbox"/>
Allocation	<input checked="" type="checkbox"/>	<input type="checkbox"/>					<input checked="" type="checkbox"/>
Create Administrator	<input checked="" type="checkbox"/>			<input type="checkbox"/>			
Auth Nodes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				<input checked="" type="checkbox"/>
Delegation Code	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Create Account	<input type="checkbox"/>						
List Accounts	<input checked="" type="checkbox"/>						
<b>Virtual Servers</b>							
Manage	<input checked="" type="checkbox"/>						
<b>Administration</b>							
Administration	<input checked="" type="checkbox"/>						
Roles Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Groups Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Accounts Manager Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Available Reports	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
My Report List	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Scheduled Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Reports Output	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Alert Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
External Alerts Recipients	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Alert Event Thresholds	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
Customize References	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Account Role Provisioning Rules	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Auto Remove	<input type="checkbox"/>	<input checked="" type="checkbox"/>					

Figure 5: Help Desk Role Example

## Audit Role

This role provides view-only access to all tabs and modules, and allows members to run and view reports. Because customized reports can be restricted to intended recipients, it is not normally necessary to divide this role into separate Audit and Reporting roles.

Using intended recipients, members of the same role may be denied access to reports that do not coincide with their function, such as billing reports and the audit function.

Figure 6 provides an example of the **Audit Role** page and applicable settings:

- Clearing all **Edit**, **Delete**, and **Add** options restricts this role to view-only access.
- Clearing the **Virtual Server** tab option prevents access to Subscriber virtual servers.
- Enabling the **View Log** options allows this role to view detail related to up to the last five (5) configuration changes applied in each module without running reports.
- This role is able to run and view reports to which they are entitled.

**Account Manager Roles**

Role: Audit  
Description: Allows view only access to all tabs and modules

Save Cancel

Module	Access	Edit	Delete	Add	Import	Export	View Log
Alerts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Subscriber Metrics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Inventory	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Account	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Module	Access	Edit	Delete	Add	Import	Export	View Log
Accounts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Account Detail	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Allocation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Create Administrator	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Auth Nodes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Delegation Code	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Create Account	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
List Accounts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Virtual Servers

Module	Access	Edit	Delete	Add	Import	Export	View Log
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Module	Access	Edit	Delete	Add	Import	Export	View Log
Administration	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Roles Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Groups Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Accounts Manager Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input checked="" type="checkbox"/>
Available Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
My Report List	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Scheduled Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Reports Output	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
Alert Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
External Alerts Recipients	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Alert Event Thresholds	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Customize References	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			
Account Role Provisioning Rules	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Auto Remove	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			

Figure 6: Audit & Reporting Role Example

## Sales Representative Role

The purpose of this role is to provide Sales Representatives with the ability to demonstrate the functionality of the Management Console and to on-board accounts that want to evaluate the service. The important aspect of this role is to combine it with Management Groups, generally by restricting each member of the role to a specific group. By doing so, all subscriber evaluation accounts created by a member are automatically created in the specific group, effectively hiding them from any other role or member that does not have the Management Group in their scope.

Typically, upon converting an Evaluation account to Production, it is moved from the Representatives Management Group to a Production Group, denying the Sales Representative any further access to the account. Likewise, a Sales Manager with all Evaluation Management Groups in their scope will be able to monitor the activity of each Sales Representative and each Subscriber Evaluation Account.

Note that alerts can be used to automatically advise members of various roles or events, such as adding or modifying a Subscriber account, changes to services, and upcoming events, such as an evaluation period expiration or service period expiration.

Figure 7 provides an example of **Sales Representative Role** settings:

- Only access to the **Administration** tab and therefore all modules and functions therein are denied.
- It is critical that “scope” be applied when elevating a person to the Sales Representative role, limiting each individual to a reduced number of Management Groups. In particular, they should always be denied access to the Default Management Group and any Production Management Groups.

**Account Manager Roles**

Role: Sales Representative  
Description: Access to all functionality in Dashboard, On-Boarding and Virtual Server Tabs for accounts in the representative's scope.

Save Cancel

Module	Access	Edit	Delete	Add	Import	Export	View Log
Alerts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Subscriber Metrics	<input checked="" type="checkbox"/>						
Inventory	<input checked="" type="checkbox"/>						
Account	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Accounts	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Account Detail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Services	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Allocation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>
Create Administrator	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
Auth Nodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Delegation Code	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Create Account	<input checked="" type="checkbox"/>						
List Accounts	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Manage	<input checked="" type="checkbox"/>						

Module	Access	Edit	Delete	Add	Import	Export	View Log
Administration	<input checked="" type="checkbox"/>						
Roles Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Groups Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Accounts Manager Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
Available Reports	<input type="checkbox"/>			<input checked="" type="checkbox"/>			
My Report List	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>			
Scheduled Reports	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Reports Output	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
Alert Management	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
External Alerts Recipients	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Alert Event Thresholds	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
Customize References	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
Account Role Provisioning Rules	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Auto Remove	<input type="checkbox"/>	<input checked="" type="checkbox"/>					

Figure 7: Sales Representative Role Example

## Account Role Provisioning Rules

Use this function to automatically add an Account Manager and grant access to the Management Console based on attributes, such as Active Directory group membership. Conversely, an Account Manager can be automatically removed if the rule that promoted the user to Account Manager evaluates false.

The screenshot shows the 'Account Role Provisioning Rules' configuration page. At the top, there is a 'New Rule' button. Below it, a message states 'No Role Provisioning Rules'. The main section is titled 'Add New Account Role Provisioning Rule:' and contains several fields and lists:

- Rule Name:** Remote Access Admins
- Auto Revoke:**
- Account Manager Role:** Account Manager (dropdown menu)
- Scope:**
  - Account Management Groups:** Americas, APAC, Default, EMEA
  - Applied by rule:** (empty list)
- Group Filter:** (text input) and **Search** button
- Virtual Server Groups:** (empty list)
- Selected Groups:** (empty list)

Figure 8: Account Role Provisioning Rules

### Add a Provisioning Rule

1. Click the **Administration** tab.
2. Click the **Account Role Provisioning Rules** link.

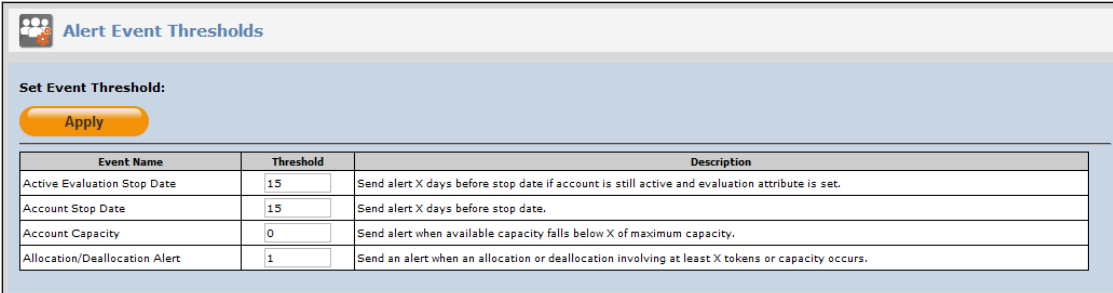


3. Click **New Rule**. Complete the following fields, and then click **Add**:

<b>Rule Name</b>	Enter a unique name to identify the rule.
<b>Auto Revoke</b>	If selected, the Account Manager created by this rule will be automatically removed if the conditions (group membership) are no longer valid.
<b>Account Manager Role</b>	Select the role that will be assigned to the Account Manager. The list contains all configured roles.
<b>Scope</b>	The <b>Account Management Groups</b> list contains all configured groups. The Account Manager will have access to the groups listed in the <b>Applied by Rule</b> window. To move a group to the <b>Applied by rule</b> list, click the group name in the <b>Account Management Groups</b> list and then click the right arrow. To select multiple groups, use <b>Ctrl+Click</b> .
<b>Group Filter</b>	The <b>Group Filter</b> is used to limit the number of groups displayed in the <b>Virtual Server Groups</b> list based on specific search criteria. To perform a search, enter a value in the search box and then click <b>Search</b> .
<b>Groups</b>	The <b>Virtual Server Groups</b> list shows all groups defined for the virtual server. To apply a search filter to this list, use the <b>Group Filter</b> function to apply specific search criteria.  Users that are members of one or more of the groups in the <b>Selected Groups</b> list will be promoted to Account Manager. To move a group to the <b>Selected Groups</b> list, click the group name in the <b>Virtual Server Groups</b> list and then click the right arrow. To select multiple groups, use <b>Ctrl+Click</b> .

## Alerts Management

Various alerts and alert event thresholds can be configured, generating an event that is listed in the **Alerts** module on the **Dashboard** and/or delivered by email and/or SMS to members of specified roles.



**Alert Event Thresholds**

Set Event Threshold:

Apply

Event Name	Threshold	Description
Active Evaluation Stop Date	15	Send alert X days before stop date if account is still active and evaluation attribute is set.
Account Stop Date	15	Send alert X days before stop date.
Account Capacity	0	Send alert when available capacity falls below X of maximum capacity.
Allocation/Deallocation Alert	1	Send an alert when an allocation or deallocation involving at least X tokens or capacity occurs.

**Figure 9: Alert Event Thresholds**

For example, setting the **Active Evaluation Stop Date** to a value of **5** would cause an alert to be generated five (5) days in advance of the service expiration. As an example, this alert could be configured for delivery by SMS message to members of the **Sales Representative** role.