opFlowSP - Role Based Access Control (RBAC) Configuration

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Purpose

Demonstrate opFlowSP Role Based Access Control (RBAC) feature.

Feature Description

Service providers may want to allow customers to view flow statistics related to their interfaces, yet prevent them from viewing other customer interfaces. This feature facilitates this functionality.

Order of Operation

- Create a role (GUI)
- Create a user and assign a role (GUI)
- Create an object with a privilege tag (CLI)
- Associate the privilege tag with a role (CLI)

Configuration

Create a Role

From the opFlowSP main page, top menu bar, select System -> Portal Roles. This should render the following page.

😸 opFlowSP 1.0.2 Views - Advanced			Modules 🔹 System 👻 Help 👻 🔇 EN 👻 User: nmls 👻	
嶜 Portal Roles 👔				
	Search term	Name Go X Description	Portal Roles Each role represents a group of privileges which can have multiple users assigned to it.	
No records to display	<< < 1 > >>	5 records per page	To committee when the might be many built output in the weak of the might be many built of the might be many built of the might be many built of the might be might b	
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Click the blue '+' button to add a role. At a minimum enter a name and click 'Add'.

New role		×
Name	CustomerA	
Description		
Cancel	Ac	ld

Create a User

From the opFlowSP top menu bar, select System -> Portal Users. This should render the following page.

SopFlowSP 1.0.2 Views - Advanced			Modules 👻 System 👻 Help 👻 😧 EN 👻 User: nmis 👻	
L Portal Users 🛛				
+ 0	Search term	Name - Go X	Portal Users	
0	Name 🔺	Description	Portal users only have access to opc-narts, their role defines their privileges. When the user logs in, they will be directed to a page showing resources they have access to, defined by their role.	
No records to display			A role must be created before a user can be assigned to it.	
	<< < 1 > >>	5	The Views GUI menu will show links to other resources they also have access to.	
		records per page	Online Documentation	
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Click the blue '+' button to an a user.

	×
CustomerA_NOC	
CustomerA	·
•••	
	Add
	CustomerA_NOC CustomerA

At a minimum do the following.

- Add a username
 From the Role drop down menu, choose a previously provisioned Role.
 Enter a password

Create an Object with a Privilege Tag

This is accomplished via the CLI. Objects are assigned a 'Privilege Tag'. These tags are latter associated with Roles; thus enabling users assigned to that Role to view them. The 'Privilege Tag' provides a lot of granularity.

The object in this example is a specific interface on a network device.

```
root@spflow:~# /usr/local/omk/bin/oprbac_admin.exe act=create-object path=root,opflowsp,agent,10.10.1.1,
interface,3 read_privileges=CustomerA_read
created new object
```

Syntax

/usr/local/omk/bin/oprbac_admin.exe act=create-object path=root,opflowsp,agent,<IP Address>,interface,<SNMP IF Number> read_privileges=<Privilege Tag>

- IP Address: The IP address that the network device uses to source flow data.
- SNMP IF Number: This is the SNMP index number of the interface in question.
- Privilege Tag: This tag is user defined and will be assigned to a role.

It's possible to set a privilege tag for an entire node by simply not adding the interface information. This would allow all the interfaces for a particular node to be viewed; for example:

```
/usr/local/omk/bin/oprbac_admin.exe act=create-object path=root,opflowsp,agent,<IP Address>
read_privileges=<Privilege Tag>
```

Associate a Privilege Tag with a Role

This step is also accomplished via the CLI.

```
root@spflow:~# /usr/local/omk/bin/oprbac_admin.exe act=update-role name=CustomerA privileges=CustomerA_read
updated role.
```

Syntax

/usr/local/omk/bin/oprbac_admin.exe act=update-role name=<Role Name> privileges=<Privilege Tag>

- Role Name: The role that the user is assigned to.
- Privilege Tag: The privilege tag that is associated with the previously defined interface object that the user is allowed to view.

Verification

Log in as the newly configured user and verify only the allowed interfaces are available.

The CLI can also be used to verify access as seen below.

```
root@spflow:~# /usr/local/omk/bin/oprbac_admin.exe act=list-users verbose=1
              Description
                                                                              Privileges
                                      Roles
                                                     Properties
Name
CustomerA_NOC
                                      CustomerA
root@spflow:~# /usr/local/omk/bin/oprbac_admin.exe act=list-roles verbose=1
              Description
                                                             Privileges
Name
                                     Properties
CustomerA
                                                      CustomerA_read
root@spflow:~# /usr/local/omk/bin/oprbac_admin.exe act=list-objects verbose=1
              Description
                                     Create
                                                                      Update
                                                                                     Delete
Path
                                                     Read
root,opflowsp,agent,10.10.1.1,interface,3
                                                                      N/A
                                                                                     CustomerA_read
N/A
           N/A
```