# **Configuring NMIS for Multi-Tenancy**

NMIS8 is a powerful Open Source Network Management System which can support multi-user and multi-tenant scenarios, this can be useful for a Managed Service Provider or for a large IT organisation who have devices which other users are not permitted to see. The following describes how to configure that.

- What is Multi-Tenancy
- How Simple Multi-Tenancy Works
- Task List for Simple Multi-Tenancy
  - Manage Groups
  - Manage Nodes
  - <sup>o</sup> Manage Users
- Conclusion

## What is Multi-Tenancy

- Multi-Tenancy is the ability to use the same software for multiple customers (tenants)
- This should work so that when the customer logs in, the customer only sees things relating to their business, and nothing from other customers.
  Another aspect of multi-tenancy for network management systems is how to handle managed elements (nodes) with the overlapping IP
- addresses and address ranges.
  There are several ways which multi-tenancy can be achieved with NMIS and all solutions involve some form of physical or logical data segmentation.
- This document will address one technique for NMIS to do simple multi-tenancy.

#### How Simple Multi-Tenancy Works

The following diagrams shows the relationships between Users, Groups, Nodes and Customers.



- A node belongs to a group of Nodes
- A user is permitted to see all groups, or selected groups
- A customer is made up of multiple groups of nodes.

### Task List for Simple Multi-Tenancy

- Define the groups for the customers
- Add nodes for the customer, selecting the groups
- · Create one or more users for the customer select the corresponding groups for the user

#### Manage Groups

To manage groups in NMIS access the menu option "Setup -> Add/Edit Groups".

æ	NMIS 8	8.5.8G	NMIS Tenants	NMIS Servers	ᅌ NMIS N	lodules ᅌ NMIS	8		
Netw	ork Status	Network	Performance	Network Tools	Reports	Service Desk	Setup System	Windows	Help
							Basic Setup		
							Advanced Se	tup	
							Add/Edit Group	15	
							Add/Edit Node	and Devices	S
							Node Customis	ation	
							<b>Contact Setup</b>		
							Emails, Notific	ations and E	scalations
							Event Configur	ation	
							Thresholding A	lert Tuning	

This will launch a small widget, which you can see the existing groups and add or delete groups.

Add/Edit Groups 🛛 🔁 🔁	🗲 Wed 10:30 🗙					
Edit of NMIS Config - Config.nmis						
Add New Group						
	Add					
Existing Groups						
Branches (1 members)	Delete Group					
Campus	Delete Group					
Cloud (5 members)	Delete Group					
Cloud-CA	Delete Group					
Cloud-East	Delete Group					
Cloud-MW	Delete Group					
DataCenter (10 members)	Delete Group					
HeadOffice (1 members)	Delete Group					
MainOffice	Delete Group					
Open-AudIT	Delete Group					
PACK	Delete Group					
Study (5 members)	Delete Group					
WAN	Delete Group					
Zurich	Delete Group					
xAN (5 members)	Delete Group					
Delete Cancel						

#### Manage Nodes

Assuming you already have nodes in NMIS and you just need to assign them to groups, you can edit the nodes, access the nodes, use the menu item "System -> System Configuration -> NMIS Nodes (devices)".

Then edit the node you want to change and change the group, save by clicking the "Edit" button at the bottom of the widget.

NMIS Nodes (devices)			Ð	Ð	Wed 1	0:37	×	
Table Nodes								
Name *	air							
UUID	524bed25-f441-11e4-9085-b6289e395a0c							
Name/IP Address	192.168.1.252							
Group *	XAN						¢	
SNMP Community *								
Service Management Options								
Customer	PACK						\$	
Business Service	Billing System Core Network Email Media Services Printing Web Page							
Service Status	Production						\$	

* mandate	ory fields.	
Edit and Update Node	Edit Cancel	//.

#### Manage Users

To manage Users in NMIS access the menu option "System -> System Configuration -> Users".

This will display a list of users already being managed by NMIS. You can view, add, edit, delete users from this menu.

Once viewing a user, select the groups which apply to that user (those groups of devices they are permitted to see) and click on "add" or "edit" on the bottom

Users	된 🖓 🗲 Wed 10:40 🗙						
Table Users	5						
User	customer1						
Config file		]					
Privilege	operator 🖨						
Admission	true						
	none all						
Group	network Branches						
	Campus Cloud						
	* mandatory fields.						
	Edit Cancel						

## Conclusion

By creating groups of nodes and permitting users to view those groups, you are providing a level of security to the system so that people can not things which are they not supposed to see.