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| Codescape Consultants PL  [5/3/2011] |

# Product Name: NMS

Feature: NMS Inventory

Requested By: Vivek Bansal

Reviewed By: Prateek Goel

Implemented By: Peeyush Raj

Verified By: Utkarsh Jain

SW release version in which Feature included:

## Revision history (in case multiple revisions)

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| --- | --- | --- | --- |
| Revision | Date | By | Description |
| 0.01 | 7/11/2011 | Peeyush Raj | Inventory |
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# Feature Description: Inventory

*List of all the network elements present in the network, manually added or automatically discovered. Admin or the authorized personal would be able to Manage Configuration profile, mark as favorite device to monitor, schedule firmware update, schedule downtime of device, assign some user group to device, assign devices’ alerts to user group, assign device to a host group, change the IP address, mark as black-listed device, manage the device type and more.*

## Supported System Requirements

* Linux System, preferably Ubuntu/Debian

## System Use Cases

## List of Active Devices

## List of Disabled Devices

## Information of deleted Devices

## Auto Discovered Devices

## Manual Addition of Devices

## Black-listing/white-listing of Devices’ MAC

### Active Device List

Provide information of all the actively monitored devices in the network. Admin would be able to assign the device to user groups, assign configuration profile to a device, disable the device, scheduling of events e.g Firmware Update, Downtime etc.

### Disabled Device List

Provide information of all the disabled devices present in the network. Admin has privilege to re-enable the device.

### Deleted Device Information

Admin can delete the devices in the network; deleted devices could be added back manually or by discovery. Deleted device information would give comprehensive detail about deletion date, deleted by which user, type of device, the affected/associated nodes.

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### Auto Discovered Devices

Proprietary TCP discovery would always be running on the server as multithreaded and keep alive TCP connection server, along with that PING Discovery, SNMP discovery, UPNP discovery, and Shyam Device Manager discovery would additionally be provided to user, to be run manually or via scheduling, scheduling’s minimum time would be 2 minutes.

### Manual Addition of Devices

Admin would be able to add individual device, and set configurations accordingly.

### Blacklisting / Whitelisting of MAC addresses

Admin can always blacklist a device’s MAC, in next discovery the device will not be displayed to the user, also if someone manually tries to add the device, it would generate a error, and the incident will be reported. [MAC based security].

# Feature Design Description

## Active Device List

* Configuration Profile Management
* Disable Device
* IP configuration
* Allocation of a device to a user group
* Allocation of a device to a host group
* Device’s events scheduling
* Device’s Alarms Masking
* Device’s Events Masking
* Manage Device’s Downtimes
* Device’s information listing, MAC, IP, Alias, Updated By, Added By, Addition Date Time, Update Date Time
* Device filtering with predefined filters
* Delete Device from Network
* Device’s User Comments management
* Device Service Management
* Device’s Parent host settings
* Favorite Device Management
* Device Dependencies [ Future ]
* Device Service Dependencies [ Future ]

## Disabled Device List

* Re-enable the device in network with previous profile
* Delete Device from network
* IP configuration
* Device’s information listing, MAC, IP, Alias, Updated By, Added By, Addition Date Time, Update Date Time
* Device’s events scheduling
* Device’s User Comments management

## Deleted Device List

* Device deletion date time
* Deleted By which User
* Reason for deletion
* Device’s information listing, MAC, IP, Alias, Updated By, Added By, Addition Date Time, Update Date Time
* Host Deletion Dependencies

## Auto Discovery

* VNL proprietary TCP unicast discovery
* UPNP Discovery
* SNMP Discovery
* Ping Discovery
* Discovery Scheduling
* Automatic device type mapping to discovered devices
* Automatic default profile application to discovered devices
* Manual start, stop and restart of all Auto-discovery types

## Manual Addition of Devices

* Configuration Profile Management
* Disable Device
* IP configuration
* Allocation of a device to a user group
* Allocation of a device to a host group
* Device’s events scheduling
* Device’s Alarms Masking
* Device’s Events Masking
* Manage Device’s Downtimes
* Device’s information listing, MAC, IP, Alias, Updated By, Added By, Addition Date Time, Update Date Time
* Device filtering with predefined filters
* Delete Device from Network
* Device’s User Comments management
* Device Service Management
* Device’s Parent host settings
* Favorite Device Management
* Device Dependencies [ Future ]
* Device Service Dependencies [ Future ]

# Implementation Design Description

*<System Architecture be discussed here>*

# Test Report

*<Describe what “development” / Integration unit test has been done – and what the test results here are>*