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NETWORK MANAGEMENT AND IT AUDIT SOFTWARE



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iAWARDS

NMIS Setup and Configuration – March 2018

## Housekeeping

- Attendees will be on mute during the presentation to prevent interruptions from feedback and background noise.
- If you wish to answer a question please ask via GoToWebinar's chat
- We will have a Q&A session at the end and have allowed lots of time.
- This session will be recorded and made available to all attendees

## Topics for Today

- What's new in the latest NMIS v8.6.3g release
- Prerequisites (incl sizing your VM and installation)
- NMIS Setup
- NMIS Configuration

### Useful References

Where can I go when I have questions?

- Wiki – <https://community.opmantek.com/display/NMIS/Home>
- Community Questions Board - <https://community.opmantek.com/questions>
- Support Issues – [support@opmantek.com](mailto:support@opmantek.com)
- Sales – [usa@opmantek.com](mailto:usa@opmantek.com)

## WHAT'S NEW IN THE LATEST NMIS v8.6.3G RELEASE

### NMIS 8.6.3g

What's new in the latest release?

- Variable frequency polling; create custom polling (Setup -> Polling Policy)
- Schedule recurring outage or maintenance windows with very flexible candidate and period selectors (Service Desk -> Alerts -> Outages)
- Configurable input data validation (eg. Table-Nodes.nmis)
- Expansion of audit logging to audit.log
- Configurable context links (see device details header menu)
- Supports single signon for other Opmantek applications (Config.nmis)

## **NMIS 8.6.3g**

What's new in the latest release? (continued)

- Nodes that have never been polled successfully are now automatically demoted to a reduced polling frequency: polling is attempted only once per day, and a log message about this demotion is logged (once per hour). Once such a node becomes pollable, polling resumes at normal frequencies.

## **PREREQUISITES FOR INSTALLATION**

## NMIS Installation Overview

Basic Decision Points for Installing NMIS 8.6.3g

- 2 Choices
  - Install NMIS from scratch
    - <https://community.opmantek.com/display/NMIS/NMIS+8+Installation+Guide>
  - Download Opmantek Virtual Appliance (fully configured OVA based on Centos 6.9)
    - <https://community.opmantek.com/display/opCommon/Opmantek+Virtual+Appliance%3A+Installation+and+Getting+Started>
    - Size VM as needed (CPU, RAM, Disk, etc.)
- Ready now for Setup and Configuration

## Installation

What Is Needed to Install and Run NMIS 8.6.3g?

- Download NMIS Installer from - <https://opmantek.com/network-tools-download/>
- Configure SELinux and IPTables
- NMIS Installer supports upgrading existing installation
- NMIS installer is both automated and flexible - access the source without installing, install to non-standard locations/shares, run automatic installation, do manual install

## Engineering Resources

What Is Needed to Support an NMIS 8.6.3 Deployment?

- System Implementation - 1 PTE, 16-24hrs per NMIS server
- System Maintenance - 1 PTE, ~2hr/week per NMIS server
- System Operation - A single engineer can effectively support 8-12k devices/shift

## NMIS Server Sizing

	Small	Medium	Large	Massive
Applications	NMIS Only	All	All	All
Storage	60GB	160GB	320GB	600GB
Memory	2GB	16GB	32GB	64GB
CPU	2 x vCPU	8 x vCPU	12 x vCPU	12 vCPU
Device Count	< 500	< 2,500	< 5,000	A large number of devices.
Element Count	2,000	20,000	40,000	A large number of elements.

- Total devices served by an individual server depends on total number of devices being monitored, how often collections are run, total number of interfaces being collected on, and complexity of services/applications being monitored.
- The key metric, for all implementation sizes and number of devices or elements, is disk write speed performance (IOPS).

## Deployment Considerations

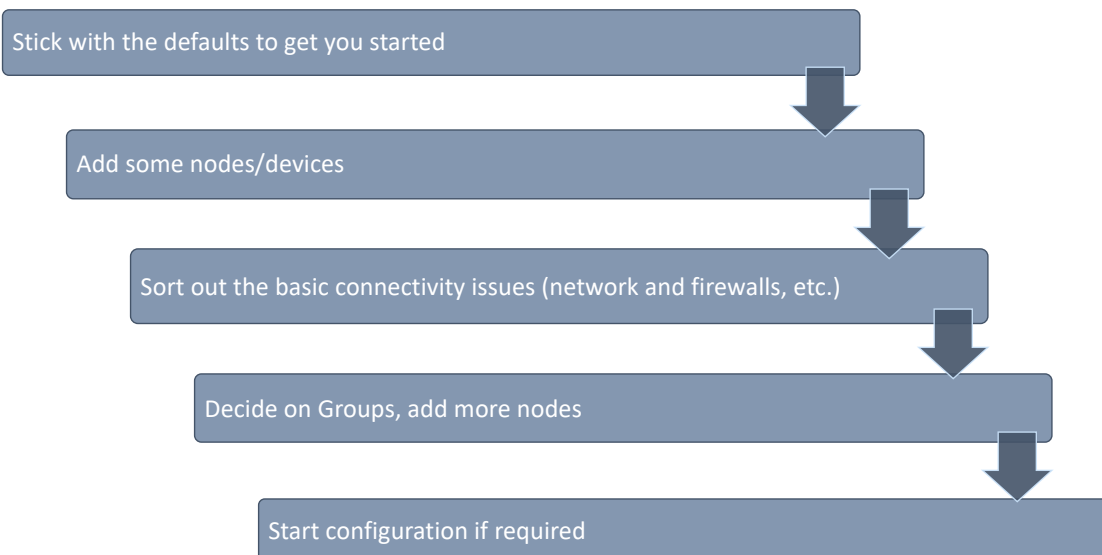
What issues can impact deployment architectures?

- Network Security Restrictions
  - Network DMZ (i.e. PCI-DSS zone, etc.)
  - Restrictions to inbound/outbound connections
  - Limitations on credentials
- Physical Limitations
  - Remote locations with no dedicated circuit or high latency
  - Air gapped networks

**NMIS SETUP**

## NMIS Setup

### Simple Process for Getting NMIS Going



## NMIS Setup

### Key System Setup

- Setup Wizard (Setup -> Basic Setup)
  - NMIS Host – key for links back to NMIS server
  - Configure Outgoing Email Server
  - Combined Emails – one email per event, or one email for all events per threshold check
  - Node Status (Classic, Course, or Fine Grained), *we recommend Fine Grained*
  - Groups – primary metadata tag used throughout NMIS and OMK modules
- Add initial set of devices manually (Setup -> Add/Edit Nodes and Devices)
  - Confirm NMIS is connecting to device, selecting model, and polling properly (~3 collect cycles)



## NMIS CONFIGURATION

### NMIS Default Settings and Configurations

NMIS has 18 years with huge volume feedback in default settings

- Almost everything in NMIS is configurable
  - With great flexibility comes many decisions
  - With default configuration means less decisions up-front and faster startup
- The current default settings in NMIS have evolved from long interaction with the NMIS user and manufacturer community
- Opmantek interactively maintains these feature settings and adjusts to improve system performance as well as the lives of the users
- As working engineers, we ***strongly*** recommend you start with the default settings for a few days before turning knobs and pulling levers; there's plenty of time for that once you see how the system works in your environment.

## NMIS Configuration

Once NMIS has been running for a while, you want to get alerts now

- Contact Setup; create the list of who/what will get notified
- Emails, Notifications and Escalations; determine which events will cause notifications and how those notifications will escalate until cleared or acknowledged
- Node Customization; optional Node and Interface customization

## NMIS Configuration

Adjusting Performance Collection and Alarm Levels

- Model Policy; adjust advanced inventory and performance collections
- Event Configuration; adjust what NMIS does with an event
- Thresholding Alert Tuning; adjusts alarm levels for performance data
- Polling Policy, adjusts how often performance data is collected, assign policies to devices

## BONUS EXTRAS

## BONUS

### Troubleshooting Device Collection

- Reports/Current
  - Collect /Update Time (sort by column header)
  - Response Time
- Device Details
  - Any open Events?
  - Responding to Ping, SNMP/WMI polling?
  - What model is assigned?

## BONUS

Troubleshooting NMIS Performance

- System/Host Diagnostics
  - NMIS Self Test
  - NMIS Runtime Graph

## CONTACT FOR FOLLOW UP

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