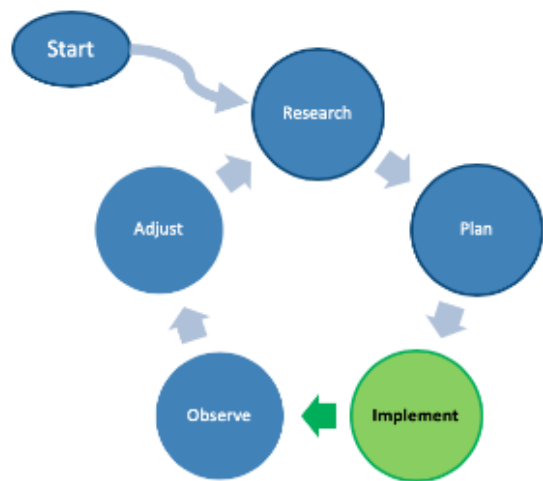


# Implement

Execute your plan, test, and validate the deployment.



- [Table of Tasks for each product](#)
- TESTING

Implementing and testing your deployment will go quickly and effortlessly if you have spent adequate time in the Planning stage. The more detail you Plan has, the easier Implementation is.

Your plan should be executed as documented, following the steps you identified and tested, and then running the appropriate tests at each stage to ensure the implementation meets your requirements. Any step which fails to meet your test criteria should result in an implementation stoppage until you can positively identify the cause. If the issue requires a deviation from the plan then you should rollback that step and return to the Planning stage.

## Table of Tasks for each product

These tables are available for you to use : [Google Sheet Spreadsheet Of Delivery Tasks](#)

An example of the NMIS tasks are below.

## TESTING

Polling Server Performance -

- Is the NMS server operating within acceptable performance metrics (CPU, Memory, polling, etc)
- Are all devices being collected on, as desired? i.e. are appropriate device models being auto-assigned to each device, are devices responding to ICMP and SNMP polling
- Are polling and update cycles being completed within acceptable windows (i.e. before the next collect cycle)
- Are log files rotating properly
- Is disk usage within the expected range(s)

Primary Server Performance (requires opHA)

- Are device performance and events appearing on the Primary server from each Poller?
- If you are using opEvents, and events are forwarded by the opEvents' API, is opEvents on the Primary being populated

TASK	NOTES	WIKI REFERENCE
SECURITY		
Configure network security rules to allow management of devices using NMIS		<a href="https://community.opmantek.com/display/NMIS/Information+about+Network+Ports">https://community.opmantek.com/display/NMIS/Information+about+Network+Ports</a>
Determine how users will authenticate with NMIS		<a href="https://community.opmantek.com/display/NMIS/User+Management+in+NMIS8">https://community.opmantek.com/display/NMIS/User+Management+in+NMIS8</a>

Create initial list of users and identify each authorization level		
Determine server name, IP and FQDN		
Acquire certificate if server will run SSL/HTTPS		
Determine process/responsibility for maintaining NMIS host device (OS and hardware)		
<b>COLLECT DEVICE DATA</b>		
Collect list of devices to import into NMIS		
Collect SNMP Community strings and SNMP version for each device		
Collect WMI admin accounts for management of Windows servers		
Collect device MIBs for SNMPTrap processing		
<b>COLLECT NOTIFICATION INFORMATION</b>		
Collect email server information for sending notifications		
Identify options for SMS text messaging (if required)		
Is integration with a HelpDesk required?		
<b>SYSTEM RESOURCES AND INSTALL</b>		
Determine starting hardware specifications		
Install and configure host OS (if not Opmantek VM)		
Install NMIS or import and resize Opmantek VM		<a href="https://community.opmantek.com/display/opCommon/The+Opmantek+Installer">https://community.opmantek.com/display/opCommon/The+Opmantek+Installer</a> <a href="https://opmantek.com/network-management-download/">https://opmantek.com/network-management-download/</a>
Install SSL certificate and configure for HTTPS		
If using the Opmantek VM change root password for appliance		
Test login to NMIS using default credentials		<a href="https://community.opmantek.com/display/NMIS/Default+Credentials+%28Passwords%29+for+NMIS8+VM">https://community.opmantek.com/display/NMIS/Default+Credentials+%28Passwords%29+for+NMIS8+VM</a>
Copy manufacturer MIBs in SNMPTrap subfolder	Restart SNMPTrap daemon	
<b>SETUP AND CONFIGURE NMIS (INITIAL)</b>		

Complete Basic Setup Wizard	Set cookie type to OMK Set Combined Emails to true Set Node Status Mode to fine-grained	<a href="https://community.opmantek.com/display/NMIS/Configuring+Email+Server+for+NMIS+Notifications+including+Gmail+server">https://community.opmantek.com/display/NMIS/Configuring+Email+Server+for+NMIS+Notifications+including+Gmail+server</a> <a href="https://community.opmantek.com/display/NMIS/NMIS+Node+Status">https://community.opmantek.com/display/NMIS/NMIS+Node+Status</a>
Create/Edit NMIS Groups		<a href="https://community.opmantek.com/display/NMIS/Leveraging+the+NMIS+Group">https://community.opmantek.com/display/NMIS/Leveraging+the+NMIS+Group</a>
Add/Edit Contacts	Populate email for Contact1; this Contact is used in testing NMIS email handling	
Add/Edit Customers		
Adjust Model Policy		<a href="https://community.opmantek.com/display/NMIS/NMIS+Model+Policy">https://community.opmantek.com/display/NMIS/NMIS+Model+Policy</a>
Add/Edit Users	Users should NOT be using the NMIS or Admin user accounts, passwords for these accounts should be changed or the accounts disabled.	
Configure authentication (other than htpasswd) (if needed), and test		<a href="https://community.opmantek.com/display/NMIS/User+Management+in+NMIS8#UserManagementinNMIS8-AuthenticationMethods">https://community.opmantek.com/display/NMIS/User+Management+in+NMIS8#UserManagementinNMIS8-AuthenticationMethods</a>
Test sending email		<a href="#">Configuring Email Server for NMIS Notifications including Gmail server</a>
Import 1-2 devices of each Model from device list		<a href="#">Adding and Editing a Device in NMIS8</a>
Monitor NMIS for proper operation; troubleshoot device connectivity	Are all devices responding to ICMP/SNMP/WMI? Are any devices listed as using the Default or Model model? Are events being created as expected?	
Configure simple Escalation	Configure a single escalation to handle all events and send emails to a test Contact Adjust Escalation rules to only send events at a level that will be addressed by a human operator	<a href="#">NMIS8 Escalations</a>
<b>CONFIGURE NMIS (continued)</b>		
Add/Edit Device Types		
Add/Edit Device Role		
Add/Edit Network Types		
Bulk Import Remaining Devices	Import ~250 devices at a time through bulk import; allow NMIS to complete first Updates before running next bulk import.	<a href="#">Import Nodes into NMIS8 - bulk import and integration</a>
Monitor NMIS for proper operation; troubleshoot device connectivity	Are all devices responding to ICMP/SNMP/WMI? Are any devices listed as using the Default or Model model? Are events being created as expected?	
Identify devices requiring custom modeling		<a href="#">Developing Device Models for NMIS</a>
Setup/Disable events in NMIS		<a href="#">NMIS Event List</a>
Tune Thresholds	These are the alarm levels NMIS applies that generate events.	<a href="#">NMIS Threshold Configuration</a>
Adjust Node Summary Field list	Changing the fields which NMIS sends to the summary file Config.nmis/node_summary_field_list	<a href="#">Handling different location attributes in NMIS</a>
Adjust Node Configuration		<a href="#">How To Customize Interface Speed, Collection, Thresholds and Events Using Node Configuration</a>
<b>ADVANCED NMIS</b>		

Polling Policy		<a href="#">NMIS8 Node Polling Configuration</a> <a href="#">NMIS - Polling Policy - Configuring Variable Polling Policies</a>
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**Next Up**

**Observe** - Monitor the system for performance, operation, and results.