HP Network Node Manager i Software

For the Windows $^{\mathbb{R}}$ and Linux $^{\mathbb{R}}$ operating systems

Software Version: NNMi 10.10

HP Network Node Manager i Software—HP Route Analytics Management System Integration Guide

Document Release Date: November 2015 Software Release Date: November 2015



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2008–2015 Hewlett-Packard Development Company, L.P.

Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

Apple is a trademark of Apple Computer, Inc., registered in the U.S. and other countries.

AMD is a trademark of Advanced Micro Devices, Inc.

Google™ is a registered trademark of Google Inc.

Intel®, Intel® Itanium®, Intel® Xeon®, and Itanium® are trademarks of Intel Corporation in the U.S. and other countries.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Internet Explorer, Lync, Microsoft, Windows, and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Oracle and Java are registered trademarks of Oracle and/or its affiliates.

Red Hat® Enterprise Linux Certified is a registered trademark of Red Hat, Inc. in the United States and other countries.

sFlow is a registered trademark of InMon Corp.

UNIX® is a registered trademark of The Open Group.

Oracle Technology — Notice of Restricted Rights

Programs delivered subject to the DOD FAR Supplement are 'commercial computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement. Otherwise, programs delivered subject to the Federal Acquisition Regulations are 'restricted computer software' and use, duplication, and disclosure of the programs, including documentation, shall be subject to the restrictions in FAR 52.227-19, Commercial Computer Software-Restricted Rights (June 1987). Oracle America, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

For the full Oracle license text, see the license-agreements directory on the NNMi product DVD.

Acknowledgements

This product includes software developed by the Apache Software Foundation.(http://www.apache.org).

This product includes software developed by the Visigoth Software Society (http://www.visigoths.org/).

Available Product Documentation

For a complete list of the documentation that is available for NNMi, see the *HP Network Node Manager i* Software Documentation List. This document is available on the HP manuals web site. Use this file to track additions to and revisions within the NNMi documentation set for this version of NNMi. Click a link to access a document on the HP manuals web site.

Also available on the HP manuals web site are <code>.zip</code> files of the complete documentation set for NNMi, NNMi Premium, and NNMi Ultimate. Access these documentation packages from the HP Network Node Manager i Software Documentation List or directly from the HP manuals web site.

To check for recent updates or to verify that you are using the most recent edition of a document, go to:

https://softwaresupport.hp.com

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to:

https://hpp12.passport.hp.com/hppcf/createuser.do

Or click the **Register** link at the top of the HP Software Support page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at:

https://softwaresupport.hp.com

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches and associated patch documentation
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport user ID, go to:

https://hpp12.passport.hp.com/hppcf/createuser.do

To find more information about access levels, go to:

https://softwaresupport.hp.com/web/softwaresupport/access-levels

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this web site is:

http://h20230.www2.hp.com/sc/solutions/index.jsp

Contents

HP NNMi–HP RAMS Integration	3
Value	3
Integrated Products	4
Documentation	4
Using the HP NNMi-HP RAMS Integration	4
HP NNMi-HP RAMS Traps Integration	4

Contents 5

HP RAMS

The NNMi–HP RAMS integration enables HP Route Analytics Management System (HP RAMS) to support enterprises that have multiple sites connected by a WAN through ISPs that use multi-protocol label switching (MPLS) within their own networks.

For information about purchasing HP RAMS, contact your HP sales representative.

This chapter contains the following topics:

- NNMi–HP RAMS Integration
- Using the NNMi-HP RAMS Integration
- NNMi-HP RAMS Traps Integration

NNMi-HP RAMS Integration

The NNMi–HP RAMS integration provides features for accessing RAMS traps, MPLS WAN, and enhanced Path View information from the NNMi console.

Value

The NNMi–HP RAMS integration adds the feature to view the connectivity through different network clouds and enhanced Path Views, so that NNMi users can detect and view the multiple sites.

HP RAMS 7

Integrated Products

The information in this chapter applies to the following products:

HP RAMS



For the list of supported versions, see the NNMi System and Device Support Matrix

NNMi 10.10 with an NNMi Advanced license

For information about the NNMi supported hardware platforms and operating systems, see the *NNMi System and Device Support Matrix*.

Documentation

The NNMi–HP RAMS integration is fully described in *Using Route Analytics Management Systems (RAMS) with NNMi Advanced* in the NNMi help.

Using the NNMi-HP RAMS Integration

The steps to enable the NNMi–HP RAMSintegration take place on the NNMi management server.

For information about enabling, using, disabling, and troubleshooting the NNMi–HP RAMSintegration, see *Using Route Analytics Management Systems (RAMS) with NNMi Advanced* in the NNMi help.

NNMi-HP RAMS Traps Integration

NNMi-HP RAMS traps integration can be divided into *Custom Correlation Configuration* and *Forwarding Traps*.

For information about Custom Correlation Configuration, see *Configure Custom Correlations* in the NNMi help.

For information about Forwarding Traps, see *Alerts* in the RAMS User Guide.

NNMi-HP RAMS Path View

After you configure the NNMi- HP RAMS integration, NNMi calculates the Path View using RAMS data.

RAMS data enhances the ability to trace the route path between the source and destination node in the following ways:

HP NNMi-HP RAMS integration does not use SNMP to calculate the router path.
This means that NNMi does not need to wait for SNMP responses and can
calculate the Path View more quickly.

• NNMi-HP RAMS integration Path View provides extended path visualization such as equal cost multi-path visualization.

See *HP RAMS MPLS WAN Configuration (NNMi Advanced)* in the NNMi help for information about configuring RAMS.

See Enhanced Path View and Using Route Analytics Management Systems (RAMS) with NNMi Advanced in the NNMi help for more information about Path View.

NNMi-HP RAMS MPLS WAN

After you configure the NNMi- RAMS integration, NNMi provides the following additional information:

- The MPLS WAN Clouds (RAMS) table view is added to the Inventory workspace. Information displayed in the MPLS WAN Clouds (RAMS) view includes the name and Autonomous System Number assigned to the MPLS Cloud as well as the number of Customer Edge (CE) routers associated with the MPLS WAN Cloud.
 - This information is also provided on each MPLS WAN Cloud (RAMS) form.
 - See MPLS WAN Connections RAMS (Inventory) (NNMi Advanced) and MPLS WAN Cloud Form (NNMi Advanced) in the NNMi help for more information.
- A new NNMi map, the MPLS WAN Cloud Map view, is available from the Actions
 menu for participating objects. The MPLS WAN Cloud Map view displays a
 graphical representation the Layer 3 connectivity in your network, as well as any
 Customer Edge and Provider Edge devices. See MPLS WAN Cloud Map in the
 NNMi help for more information.

See *HP RAMS MPLS WAN Configuration (NNMi Advanced)* in the NNMi help for information about configuring RAMS.

For more information on MPLS WAN, see the HP Route Analytics Management Software (RAMS) for MPLS WAN User's Guide, which is available at: http://h20230.www2.hp.com/selfsolve/manuals

HP RAMS 9

We appreciate your feedback!

If an email client is configured on this system, by default an email window opens when you click here.

If no email client is available, copy the information below to a new message in a web mail client, and then send this message to

network-management-doc-feedback@hpe.com.

Product name and version: $NNMi\ 10.10$

 $\textbf{Document title:} \ HP\ NNMi\ - HP\ RAMS\ MPLS\ Integration\ Guide,\ November\ 2015$

Feedback: