



Net-Net® 9200
Maintenance Release Guide

Release Version S-D7.1.0

Acme Packet, Inc.
100 Crosby Drive
Bedford, MA 01730 USA
t 781-328-4400
f 781-275-8800
<http://www.acmepacket.com>

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About this Guide

Overview

The *Net-Net 9200 Maintenance Release Guide* provides information about the contents of maintenance releases related to Net-Net OS Version S-D7.1.0. This information can be related to defect fixes, to adaptations made to the system software, and to adaptations ported to this release of the Net-Net OS from prior releases. When applicable, this guide contains explanations of defect fixes to the software and step-by-step instructions, if any, for how to enable these fixes on your system. This guide contains explanations of adaptations including conceptual information and configuration steps.

Purpose of This Document

Designed as a supplement to the main documentation set supporting Net-Net OS S-D7.1.0, this document informs you of changes made to the Net-Net OS software in the maintenance releases of S-D7.1.0. Consult this document for content specific to maintenance releases. For information about general Net-Net OS features, configuration, and maintenance, consult the [Associated Documentation \(4\)](#) listed in the section below and then refer to the applicable document.

Organization

The *Net-Net 9200 Maintenance Release Guide* is organized chronologically by maintenance release number, started with the oldest available maintenance release and ending with the most recently available maintenance release.

This document contains a [Maintenance Release Availability Matrix \(3\)](#), showing when and if given maintenance releases have been issued and the date of issue. Each available maintenance release constitutes one chapter of this guide.

In certain cases, a maintenance release will not have been made generally available. These cases are noted in the Maintenance Release Availability Matrix. When Acme Packet has not made a maintenance release available, there will be no corresponding chapter for that release. Therefore, you might encounter breaks in the chronological number of maintenance release.

Maintenance Release Availability Matrix

The table below lists the availability for Net-Net OS Version S-D7.1.0 maintenance releases.

Maintenance Release Number	Availability Notes
S-D7.1.0M1	22-August-2011
S-D7.1.0M2	13-February-2012
S-D7.1.0M3	28-March-2012

Maintenance Release Number	Availability Notes
S-D7.1.0M4	11-December-2012
S-D7.1.0M5	25-March-2013
S-D7.1.0M6	24-May-2013

Associated Documentation

The Net-Net 9200 and Net-Net 9200 OS Release S-D7.1.0 are supported by the documentation listed in the table below.

Document Number	Document Name	Description
400-0073-20	Net-Net 9200 Hardware Guide	Describes the hardware components of the Net-Net 9200, and provides removal and replacement procedures
400-0076-71	Net-Net 9000 S-D7.1.0 ACLI Configuration Guide	Provides detailed alphabetical descriptions of the commands and configurations available on the Net-Net 9200
400-0077-71	Net-Net 9000 S-D7.1.0 MIB Reference Guide	Provides information about the Net-Net 9200's MIB, trap, and alarm support
400-0078-71	Net-Net 9000 S-D7.1.0 Accounting Reference Guide	Provides information about the Net-Net 9200's RADIUS support, including Acme Packet VSAs
400-0079-71	Net-Net 9000 S-D7.1.0 Maintenance and Troubleshooting Guide	Provides information about viewing and interpreting Net-Net 9200 statistics, as well as other maintenance information
400-0080-71	Net-Net 9000 S-D7.1.0 Release Notes	Provides an overview of the Net-Net 9200 hardware and the Net-Net 9200 OS Release S-D7.1.0; includes caveats and limitations, and known issues with workarounds

Who is Acme Packet?

Acme Packet (NASDAQ: APKT), the leader in session delivery network solutions, enables the trusted, first-class delivery of next-generation voice, data and unified communications services and applications across IP networks. Our Net-Net product family fulfills demanding security, service assurance and regulatory requirements in service provider, enterprise and contact center networks. Based in Bedford, Massachusetts, Acme Packet designs and manufactures its products in the USA. For more information, visit www.acmepacket.com.

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Contact Us

Acme Packet, Inc.
100 Crosby Drive
Bedford, MA 01730 USA
t 781-328-4400
f 781-275-8800

<http://www.acmepacket.com>

Overview

This chapter provides descriptions, explanations, and configuration information for the contents of Net-Net OS Release S-D7.1.0M4.

Content Map

This section provides a table listing all content in Net-Net OS Release S-D7.1.0M4.

Content Type	Description
Defect	maddr parameter handling unsupported

Via: Header maddr Handling

The maddr parameter indicates where to reply to the message which it is a part of, in a variety of cases. See RFC 3261 for more detail. The Net-Net SBC considers the Via: header's optional maddr parameter to determine if an endpoint is behind a NAT, and where to send the reply. The Net-Net SBC considers three addresses:

- L3 address — The actual L3 IP address which last sent the SIP message.
- sent-by address — The first address in a Via: header
- maddr address — The address in the Via: header's maddr parameter

Note: When TCP is used as the transport protocol, the maddr parameter is not used. Thus the reply address is always the layer 3 source IP address of the message.

IP Address in Via Header

The routing decisions are based on comparing the two addresses in the Via header to the L3 address and determining where to send the reply and if the sender is behind a NAT (for other processing). Use the following table to determine call classification:

Sent-by Address	maddr address	Behind NAT	Reply IP
= L3	= L3	No	maddr address
≠ L3	≠ L3	Yes	L3 address
= L3	≠ L3	No	maddr address
≠ L3	= L3	No	maddr address
= L3	empty	No	L3 address
≠ L3	empty	Yes	L3 address

FQDN in Via Header

Routing decisions when FQDNs are employed in the Via header are determined according to the following call classifications:

Sent-by Address	maddr address	Behind NAT	Reply IP
FQDN	= L3	No	maddr address
FQDN	≠ L3	No	maddr address
FQDN	empty	No	L3 address
= L3	FQDN	No	L3 address
≠ L3	FQDN	Yes	L3 address

Via: Header maddr Handling Override

Handling the maddr parameter in the Via header can be disabled globally by configuring the **ignore-via-maddr** option in the sip-config configuration element. When set, the maddr parameter is ignored and routing decisions are determined according to the following table that lists NAT determination and the IP address to send the reply:

Sent-by Address	Behind NAT	Reply IP
= L3	No	L3 address
≠ L3	Yes	L3 address
FQDN	No	L3 address

Overview

This chapter provides descriptions, explanations, and configuration information for the contents of Net-Net OS Release S-D7.1.0M5.

Current patch baseline: S-D7.1.0M4p2

Content Map

This section provides a table listing all content in Net-Net OS Release S-D7.1.0M5.

Content Type	Description
Defect	Adds show about command
Defect	Hardened FTP security
Defect	Updates excessive failed password change rejection

Overview

This chapter provides descriptions, explanations, and configuration information for the contents of Net-Net OS Release S-D7.1.0M6.

Current patch baseline: S-D710M5p1

Content Map

This section provides a table listing all content in Net-Net OS Release S-D7.1.0M6.

Content Type	Description
Forward Merge	S-D7.0.0M12
Adaptation	CNAM subtype support for ENUM queries

CNAM Subtype Support for ENUM Queries

CNAM, calling name, data is a string up to 15 ASCII characters of information associated with a specific calling party name. The Internet-draft, draft-ietf-enum-cnam-08.txt, registers the Enumservice 'pstndata' and subtype 'cnam' using the URI scheme 'pstndata:' to specify the return of CNAM data in ENUM responses. The Net-Net SBC recognizes CNAM data returned via this mechanism. CNAM data is then inserted into the display name of the From: header in the original Request. If a P-Asserted-ID header is present in the original request, the CNAM data is inserted there as well.

CNAM data is identified by an ENUM response with service-type: E2U+pstndata:cnam

CNAM support is configured in the sip profile configuration element, which can then be applied to either a session agent, realm, or SIP interface.

The Net-Net SBC can preform CNAM queries on the signaling message's ingress or egress from the system by setting the cnam lookup direction parameter to either ingress or egress. If the CNAM lookup direction parameters are configured on both the ingress and egress sides of a call, the Net-Net SBC will only preform the lookup on the ingress side of the call.

CNAM Unavailable Response

A CNAM response can include a Calling Name Privacy Indicator parameter ('unavailable=p') or Calling Name Status Indicator parameter ('unavailable=u') in responses. The Net-Net SBC can insert a custom reason string into the SIP message's From and P-Asserted-ID header in the original requires.

Configuring the **cnam unavailable ptype** parameter inserts the specified text into the From and P-Asserted-ID headers when a CNAM response contains the unavailable=p parameter.

Configuring the **cnam-unavailable-utype** parameter inserts the specified text into the From and P-Asserted-ID headers when a CNAM response contains the unavailable=u parameter.

SIP Profile Inheritance

CNAM features, via the SIP Profile configuration element can be applied to session agents, realms, and SIP interfaces. The more generalized object inherits the more specific object's values. For example, if CNAM support via a SIP profile is configured on a session agent, the expected processing will override any SIP profile configuration on the downstream realm or SIP interface. Likewise, if CNAM support is unconfigured on the receiving session agent, but configured in the realm, CNAM configuration on the SIP interface will be ignored.

ACLI Configuration and Examples

To enable the Net-Net SBC to preform CNAM subtype ENUM queries, you must configure a SIP profile with an enum-config object (that points to valid ENUM servers). The referenced enum-config configuration element lists the servers to contact for CNAM type queries (and other general ENUM server interaction parameters).

To configure CNAM subtype support:

1. In Superuser mode, type **configure terminal** and press <Enter>.


```
ACMEPACKET# configure terminal
```
2. Type **session-router** and press <Enter> to access the signaling-level configuration elements.


```
ACMEPACKET(configure)# session-router
ACMEPACKET(session-router)#
```
3. Type **sip-profile** and press <Enter>. The system prompt changes to let you know that you can begin configuring individual parameters.


```
ACMEPACKET(session-router)# sip-profile
ACMEPACKET(sip-profile)#
```
4. **name**—Enter a string that uniquely identifies this SIP profile configuration. You use this name in other areas of the Net-Net SBC configuration to refer to this SIP profile in session agents, realms, or SIP interfaces.
5. **cnam-lookup-server**—Set this parameter to the name of an ENUM-config to that will query ENUM servers for CNAM data.
6. **cnam-lookup-dir**—Set this parameter to **ingress** or **egress** to identify where the Net-Net SBC performs a CNAM lookup with respect to where the call traverses the system. The default value is **egress**.
7. **cnam-unavailable-ptype**—Set this parameter to a string, no more than 15 characters, to indicate that the unavailable=p parameter was returned in a CNAM response.
8. **cnam-unavailable-utype**—Set this parameter to a string, no more than 15 characters, to indicate that the unavailable=u parameter was returned in a CNAM response.
9. Save your work.