

Neda Libre Email Appliance
Design and Implementation Notes
Debian Qmail++ – A Family of Adopted LSIP Components

Draft Document – Reflects Work in Progress

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Mohsen Banan

<http://mohsen.banan.1.byname.net/ContactMe>

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Chapter 1

Overview

1.1 This is a Draft Document

It reflects work in progress. It is subject to frequent changes. Use at your own risk.

1.2 Part of LSIP

This document is part of Libre Services Integration Platform Neda-LSIP.

Neda-LSIP is a comprehensive set of tools and conventions for the transformation of software into services. Neda-LSIP is the key technological component of our realization of the concept of Libre Services, allowing practical and cost-effective aggregation of free software components into coherent services. Neda-LSIP is free software itself, available under the Affero GPL version 3 license. For complete details see the document titled, *Neda-LSIP Design and Implementation Notes* [6].

You can obtain Neda-LSIP by following the instructions below:

```
cvs -d ":pserver:anoncvs@cvs.bysource.org:/repl" checkout -d osmt public/osmt
```

Neda-LSIP is a series of self documenting scripts. The most current and complete documentation is embedded in the scripts.

This document is for the most part auto generated and includes much information that is extracted from the LSIP scripts directly.

This document provides structure and organization to the individual script information.

1.2.1 Realizations and Uses of Neda-LSIP

Neda-LSIP is a platform it allows for good things to be built on top of it.

The 3 categories of things that use Neda-LSIP are:

- - Ready to run Software. To be installed by the user.
- - Pre-Configured Servers. Ready to be plugged in. See <http://store.neda.com>

- - Ready to use ByStar Internet Application Services.
- - As part of a Libre Service Engine.

1.2.2 About Neda Libre Appliances

Certain functional profiles (sub-sets of Neda-LSIP) are often desired as dedicated ready to run servers.

In that spirit, we have created the following Neda Libre Appliances.

- Neda Libre Email Appliance. See [7]
- Neda Libre Web Appliance.
- Neda Libre Intranet Office Appliance.
- Neda Libre Fax Appliance. See [5]

1.3 Neda-LSIP Approach and Policy

General Preference for std debian distribution packages. Bystar is layered on top of Debian/Ubuntu. qmail and all else is part of Debian/Ubuntu.

Versions – Stable and testing.

Goals

Highly Scalable

Plug and Play

Robust and Secure

Expandable

Best of Breed incorporation

1.4 About This Document

```

<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 3.2 Final//EN">
<HTML>
<HEAD>
<TITLE>
</TITLE>
<META
NAME="generator" CONTENT="HTML::TextToHTML v2.23">
</HEAD>
<BODY>
<P>Neda Libre Email Appli-
ance is based on Debian and qmail++ as a coherent family of adopted LSIP components.

```

<P>Neda Libre Appliances can be used as:

```

<UL>
<LI>Ready to run Software. To be installed by the user.

```

- Pre-Configured Servers. Ready to be plugged in. See <http://store.neda.com>
- Ready to use ByStar Internet Application Services.
- As part of a Libre Service Engine.

Chapter 2

Email Facilities

2.1 Big Picture Perspective

lpEmailHosts.sh

lcaQmailHosts.sh

OBSOLETE BY: </libre/ByStar/InitialTemplates/activeDocs/bxServices/mailManage/roadmap/fullUsagePanel-en.org>

2.2 Summary of Lower Layer LSIP Facilities

2.3 Summary of Mail Layer LSIP Facilities

2.4 Summary of Peer Layer LSIP Facilities

2.5 MTA Facilities

qmail 1.03 ++

2.5.1 Incoming Mail Processing

2.5.1.1 RBL

2.5.2 Mail Queue Processing

2.5.3 Outgoing Mail Processing

2.5.4 MMA Qmail

2.5.4.1 Model and Terminology – MMA Qmail

Extracted by `mmaQmailRoadmap.sh -i modelAndTerminology`

Description of `modelAndTerminology` -- `modelAndTerminology`

OBSOLETE BY: `/libre/ByStar/InitialTemplates/activeDocs/bxServices/mailManage/roadmap/fullUsagePanel-en.ora`

2.5.4.2 Files Overview – MMA Qmail

Extracted by `mmaQmailRoadmap.sh -i help`

Description of `help` -- `help`

OBSOLETE BY: `/libre/ByStar/InitialTemplates/activeDocs/bxServices/mailManage/roadmap/fullUsagePanel-en.ora`

2.5.4.3 Hints – MMA Qmail

Extracted by `mmaQmailRoadmap.sh -i howTos`

Description of `howTos` -- `howTos`

OBSOLETE BY: `/libre/ByStar/InitialTemplates/activeDocs/bxServices/mailManage/roadmap/fullUsagePanel-en.ora`

2.5.4.4 Pointer and References – MMA Qmail

Extracted by `mmaQmailRoadmap.sh -i pointersAndReferences`

Description of `pointersAndReferences` -- `pointersAndReferences`

OBSOLETE BY: `/libre/ByStar/InitialTemplates/activeDocs/bxServices/mailManage/roadmap/fullUsagePanel-en.ora`

2.5.5 MTA Anti-Spam Facilities

- RLB - `qrlbcheck` - Reject at SMTP (Priority 2) - `spamGuard`
- `qconfirm`

2.6 Mail Submission and Injection

SMTP Auth

2.6.1 Mail Submission Anti-Spam

2.7 Mail Delivery

Extracted by `mmaQmailAddrs.sh -i help`

Description of help -- help

Account Processing:

=====

```
vis_acct{Manipulate}:      -p acctName
do_acct{Manipulate}:      -s qmailAcctsList_
                           -s qmailAcct_
```

```
** Manipulate an account entry as locDeliveryAcct
    in /var/qmail/users/
```

Address Processing:

=====

```
vis_addr{Manipulate}:     -p acctName -p localPart -p mbox,forward,progs
                           -p FQMA -p mbox,forward,progs
do_addr{Manipulate}:      -s qmailAddrsList_
                           -s qmailAddr_
```

```
** Manipulate an addr by editing the dotQmailFile
```

Account/Address Processing:

=====

```
do_acctAddrs{Manipulate}: -s qmailAcctsList_
                           -s qmailAcct_
```

```
** Manipulate an account entry as locDeliveryAcct
    in /var/qmail/users/
    and manipulate addresses associated with the account.
```

Account VirDom Manipulate:

=====

```
vis_virDom{Manipulate}:   -p acctName -p domainPart

do_acctAddrsVirDom{Manipulate}:
                           -s qmailAcctsList_
                           -s qmailAcct_
```

```
** Manipulate a virtual domain
```

Address ControlFile Show:

=====

```

vis_addrCtlFileShow :      -p acctName -p localPart
                           -p FQMA

do_addrCtlFileShow :      -p acctName -s qmailAddr_

** Show the dotQmailFile for an address

Account Addresses FQMA Show:
=====
vis_addrsFqmaShow:        -p acctName

do_acctAddrsFqmaShow:     -s qmailAcctsList_
                           -s qmailAcct_
                           -s qmailAddrList_

** Show all addresses corresponding to
    an account in FQMA format.

```

2.7.1 Mail Delivery Anti-Spam: SpamAssassin

2.7.2 Mail Delivery Anti-Virus: ClamAV

2.8 MailBox Management Facilities

MaildirToMbox

Vacation

Autoresponder

qsecretary

2.9 MailBox Access Facilities

2.9.1 POP

2.9.2 IMAP

Our Choice of IMAP server is courier.

We Considered the below mentioned alternatives:

```

cyrus      = Cyrus IMAP server
uw         = University of Washington's IMAP server
courier    = Courier IMAP server
dovcod

```

2.9.2.1 Model and Terminology – MMA IMAP**Extracted by mmaImapRoadmap.sh -i modelAndTerminology**

Description of modelAndTerminology -- modelAndTerminology

Terminology and Model:
=====

Objects Overview:

mmaGnats Object Processors and Containers:

mmaGnatsServerHosts.sh

2.9.2.2 Files Overview – MMA IMAP**Extracted by mmaImapRoadmap.sh -i help**

Description of help -- help

DESCRIPTION

mmaGnats (MailMeAnywhere QMAIL) is a set of consistent policies built on the QMAIL as a CAPABILITY and on (OSMT) Open Services Management Tools.

mmaGnats Commands, each contain a set of related functions which allow you to accomplish specific tasks. Specifically:

COMMAND	TYPE	USED BY
mmaGnats.sh	action.sh	any
mmaGnatsLib.sh	library.sh	root/any
mmaGnatsBinsPrep.sh	action.sh	root
mmaGnatsServerHosts.sh	subjectAction.sh	root/any
mmaGnatsAdmin.sh	action.sh	root/any

At A Glance

Basic qmail

```
mmaGnats.sh          -- This File. General Orientation and Information

mmaGnatsLib.sh        -- To be included in all mmaGnats scripts.
                       General configuration parameters and
                       general useful functions go here

mmaGnatsBinsPrep.sh   -- Prepare binary files for qmail/ezmlm
                       -- for relevant pltforms and versions

mmaGnatsBinsInstall.sh -- Install mmaGnats binaries on opRunHostName

mmaGnatsServerHosts.sh -- For subject host, configure qmail

mmaGnatsAdmin.sh      -- Start, stop and addNewAccounts

mmaGnatsUserConfig.sh -- Setup Per user environment parameters.
```

2.9.2.3 Hints – MMA IMAP

Extracted by mmaImapRoadmap.sh -i howTos

Description of howTos -- howTos

A) How Do I setup a null client from scratch?
Follow (A-1), and then:

3) Specify basic null client paramters (smarthost, domain, ...)
In ../siteControl/nedaPlus/mmaGnatsListItems.main
add an entry for your host. Then:

```
mmaGnatsHosts.sh -s bacs0021 -a configure
```

4) Verify and Monitor installation

```
mmaGnatsAdmin.sh -i fullReport
```

5) Sendout a test message.

```
mmaGnatsUserConfig.sh -i mailTest
```

6) Allow users to customize their desired parameters.

```
mmaGnatsUserConfig.sh
```

2.9.2.4 Pointer and References – MMA IMAP

Extracted by `mmaImapRoadmap.sh -i pointersAndReferences`

Description of pointersAndReferences -- pointersAndReferences

cgi-bin is: `/usr/lib/cgi-bin/gnatsweb.pl`

Gnats web conf params are in: `/etc/gnatsweb/`

Web config is in: `+ /usr/doc/gnatsweb/CUSTOMIZE.vars.gz`

2.9.3 WebMail

2.9.3.1 Squirrelmail

sqwebmail

2.10 User Agent Facilities

2.10.1 Gnus

2.10.2 Mozilla

2.11 Mailing List Facilities

2.11.1 ezmlm

2.11.2 mhonarc

2.12 In Access Units

2.12.1 In Fax Access Unit - Mail

See [\[5\]](#) for details.

2.12.2 WhiteBerry: In EMSD Access Unit - Mail

See [\[1\]](#), [\[2\]](#), [\[3\]](#), [\[4\]](#) for details.

2.13 Out Access Units

2.13.1 Mail - Out Access Unit

See [5] for details.

2.13.2 WhiteBerry: Mail - Out Access Unit

See [1], [2], [3], [4] for details.

2.14 Mail Processing Tools

2.14.1 mess822

2.15 Mail Monitoring and Analysis

2.15.1 qmailanalog

Chapter 3

Peer and Lower Layer Facilities

3.1 Related Peer Facilities

3.1.1 web

3.2 Lower Layer Facilities

daemontools ucspi tcpsrvr djbdns splogger

Chapter 4

Large Site Deployment

4.1 Introduction

4.1.1 General Policies & Procedures

4.1.2 Site Deployment Policies & Procedures

The abbreviations that are used in Figure 4.1

EMR-IN: Edge Mail Router - Inbound
MB provide the description.

EMR-OUT: Edge Mail Router - Outbound
MB provide the description.

SMR-DS: Site Mail Router - Delivery Server
MB provide the description.

SMR-DS-LIST: Site Mail Router - Delivery Server - List
MB provide the description.

SMR-SS: Site Mail Router - Submit Server
MB provide the description.

SMR-SA: Site Mail Router - Submission Agent
MB provide the description.

MBAS: Mail Box Access Server
MB provide the description.

FDS: Final Delivery Server
MB provide the description.

MUA: Mail User Agent
MB provide the description.

MRUA: Mail Retrieval User Agent
MB provide the description.

MSUA: Mail Submission User Agent
MB provide the description.

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