Using postfix header_checks to re-write From headers

Introduction

This page explains how to use postfix header_checks to re-write "From:" headers, specifically to adjust the display name.

It was developed and tested on a Debian 6 Squeeze system running postfix 2.7.1 using POSIX regular expressions.

Terminology

The terms used for address components on this page are taken from RFC2822 (http://tools.ietf.org/html/rfc2822#section-3.4). Using example address

```
"Mr Foo" <foo@example.com>
```

- `"Mr Foo"` is the **display-name**
- `<foo@example.com>` is **angle-addr**

The essential steps

Create /etc/postfix/header_checks (discussed below) then run these commands

```
cd /etc/postfix
postconf -e 'smtp_header_checks = regexp:/etc/postfix/header_checks'
/etc/init.d/postfix reload
```

Developing the header_checks file

Line format

For present purposes, each effective line of the header_checks file is of the form

```
/pattern/ REPLACE text...
```

The pattern

The /pattern/ is a POSIX regular expression matching the "FROM:" header. So it always begins with

```
/^From:
```

The pattern should always be anchored to the start of the line using ^. This ensures no false positives (such as matching "From:" in some other header such as the subject) and gives better postfix performance (postfix does not have to scan the whole of each header looking for the match).

The rest of the pattern depends on local requirements – what you want to match.

Any whitespace in the pattern should be represented by [[:space:]]. This avoids warnings from postmap such as "*record is in "key: value" format; is this an alias file?*" and "*duplicate entry*" .

The text

- display-name needs double quotes.
- angle-addr needs the < and > characters.

Development techniques

To find out what's after the "From:":

1. If the regex matches, the original headers can be displayed by
   ```
   grep -o 'replace: header .*$' /var/log/mail.info
   ```
2. Keep the original header text in the re-written header by using back-substitution in header_checks like (replace <email_address>):
   ```
   /^From:[[:space:]]+(.*)/ REPLACE From: ">${1}<" <email_address>
   ```

Documentation

HOWTOs

There are few HOWTO pages on the Internet about this topic. The ones found most useful were:

- Postfix sender address rewriting, changing mails "from" field in header on relay server (but beware < and > represented as "<" etc.): http://tech.gate.io/postfix-sender-address-rewriting-changing-mails-from-field-in-header-on-relay-server/
- Missing full sender name in your sent email with postfix?: http://www.ifusio.com/blog/missing-full-sender-name-in-your-sent-email-with-postfix

Reference

- Postfix Architecture Overview: http://www.postfix.org/OVERVIEW.html
- Postfix Address Rewriting: http://www.postfix.org/ADDRESS_REWRITING_README.html
- Postfix Lookup Table Overview: http://www.postfix.org/DATABASE_README.html
- REGEXP_TABLE man page: http://www.postfix.org/regexp_table.5.html
- header_checks man page: http://www.postfix.org/header_checks.5.html