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# Wonderbolt

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## Wonderbolt LDA

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Wonderbolt is a config based email modifier, acting as local delivery agent and resubmitting emails via SMTP after modification.

Wonderbolt's main purpose is to enable simple email lists with external management of subscribers.

- Depends: python >= 3.4
- Recommends: python3-systemd

### 1.1 Command-Line Options

- config file** Required. This option takes one or more paths to config files. Later config files overwrite values from earlier ones.
- sasl-username username** Optional. See config option `require_sasl_username`.

### 1.2 Configuration Options

All configuration options are optional. However, you probably want to change an option like `envelope_rcpt_to` to avoid loops.

**bounce\_from** *string* or `null`

The *From* header that is used for bounce messages generated by Wonderbolt. If not specified or `null`, the header is set to *Mail Delivery System* <MAILER-DAEMON@hostname>, where *hostname* is replaced by the configured `hostname`.

**envelope\_mail\_from** *string* or `null`

Bounce address for the new delivery of the email. If this setting is `null`, it will be derived from the *From* email header.

**envelope\_rcpt\_to** *list of strings* or `null`

Recipients for new delivery of the email. If this setting is `null`, it will be derived from the *To* email header.

**header\_add** *mapping*

Adds header values without removing/changing existing header lines. Performed after `header_replace` and `header_add_if_missing`. Therefore, `header_add` adds a header

a second time if key overlaps with `header_replace` and/or `header_add_if_missing` are present.

**header\_add\_if\_missing** *mapping*

Adds header values only if header with the given key does not exist. Performed after `header_replace`, but before `header_add`. Therefore, `header_add` adds a header a second time if key overlaps with `header_add_if_missing` are present.

**header\_replace** *mapping*

Removes all existing headers with the given keys and adds the new values.

**hostname** *string*

The configured hostname is used in the content of bounce messages generated by Wonderbolt and is part of the default value for the `bounce_from` option.

**reject\_msg\_requirements** *string*

Error message used if emails are rejected by Wonderbolt due to violated `require_` configurations. This message is usually contained in a bounce message generated by the MTA and delivered to the sender afterwards.

**require\_from** *list of strings* or "envelope\_rcpt\_to" or false

Enables to reject mails if the *From* email header does not fulfill a condition.

- *list of strings*: *From* must be contained in this list.
- "envelope\_rcpt\_to": *From* must be contained in the `envelope_rcpt_to` list. If this option is set, `envelope_rcpt_to` must be set and not null.
- false: Disables checks (default).

**require\_sasl\_username** *list of strings* or "envelope\_rcpt\_to" or false

Enables to reject mails if the SASL username does not fulfill a condition. Same parameters as for `require_from`.

For this feature to work, `--sasl-username` has to be specified on delivery.

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**Note:** While this feature is named after the SASL (Simple Authentication and Security Layer), there is no aspect of the implementation that limits the functionality to this exact authentication protocol.

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**sasl\_recipient\_delimiter** *string*

Recipient delimiters only affect the interpretation of `envelope_rcpt_to` if `require_sasl_username` is set to this value. The local part of all recipients is stripped from all characters occurring after a first delimiter for comparing with the SASL username.

This option should be set to the same value as the `recipient_delimiter` option of the postfix server. Every character in the string is treated as a delimiter. An empty string (default) corresponds to no delimiters.

**smtp\_server** *string*

SMTP server via which the email is submitted. Default is "localhost:25".

## 1.3 Configuration Examples

Example of a wonderbolt config without a specific use case.

```
{
  "reject_msg_requirements": "Rejected due to unprivileged SASL user",
  "header_add": {
    "X-Header-1": 1,
    "X-Header-3": "Value 3"
  },
  "header_replace": {
    "X-Header-1": "Value 1",
    "X-Header-2": "Value 2"
  },
  "envelope_mail_from": "Bounce To <bounce_to@example.com>",
  "envelope_rcpt_to": [
    "User Name <user@example.org>",
    "user2@example.org"
  ],
  "require_from": false,
  "require_sasl_username": "envelope_rcpt_to",
  "smtp_server": "mail.example.com:25"
}
```

### 1.3.1 Complete Mailing List under Postfix

*master.cfg*

```
wonderbolt  unix  -      n      n      -      -      pipe
 flags=Ohu
 user=wonderbolt:wonderbolt
 argv=/usr/local/bin/wonderbolt.py --config /etc/wonderbolt/${nexthop}.json --sasl-username ${sasl_u}
```

*main.cfg*

```
wonderbolt_destination_recipient_limit = 1
```

*/etc/wonderbolt/list@example.org.json*

```
{
  "envelope_mail_from": "list+bounce@example.org",
  "envelope_rcpt_to": [
    "listadmin@example.org",
    "user1@example.com",
    "user2_lists@example.com"
  ],
  "header_add_if_missing": {
    "List-Id": "<test.example.org>",
    "List-Post": "<mailto:list@example.org>",
    "Precedence": "bulk"
  },
  "header_replace": {
    "List-Help": "<mailto:listadmin@example.org>",
    "List-Owner": "<mailto:listadmin@example.org>",
    "List-Subscribe": "<mailto:listadmin@example.org?body=subscribe%20list%20list@example.org>",
    "List-Unsubscribe": "<mailto:listadmin@example.org?body=unsubscribe%20list%20list@example.org>"
  },
}
```

```

"require_sasl_username": "envelope_rcpt_to",
"sasl_recipient_delimiter": "_"
}

```

**Note:** The choice of which headers are kept and which are replaced is made such that the list should conform with all currently applicable RFCs.

This configuration follows [RFC 2919](#) by not removing the *List-Id* of a “parent” mailing list by not removing any *List-Id*. Since it is hard to tell what an *unexpected source* for such a header is, it does pass a given *List-Id* through to the list in any case, which violates a *SHOULD NOT* of this RFC.

It further follows [RFC 2369](#) by replacing the *List-Help*, *List-Owner*, *List-Subscribe* and *List-Unsubscribe* headers. The *List-Post* header could also be replaced.

*maps/aliases* (postfix virtual\_alias\_maps)

```
list+bounce@example.org listadmin@example.org
```

**Note:** This aliasing of the list-admin address is done to use it as an envelope sender, which does not conflict with any sender policies defined by via the SPF and similar mechanisms.

*maps/transport* (postfix transport\_maps)

```
list@example.org wonderbolt:list@example.org
```

## 1.4 See also

[pipe\(8\)](#), Postfix delivery to external command

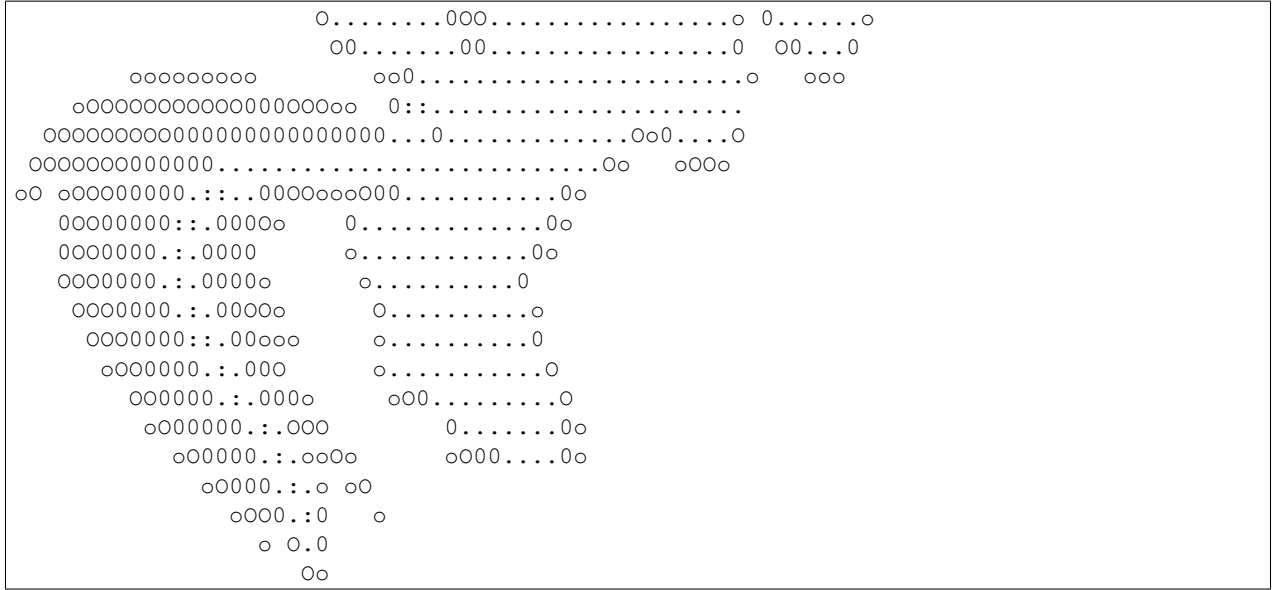
## 1.5 Dedication

```

          ooooooooo
        o00.....00000o
      o00.....00o
    o00000000000000000o
  o000o000000000000000o00o
  0....000000000000000000o
  .....0000000000000000o
  0.....000..00000000o
o0o0000.....0..00o0ooooo
  0.....0....000oo..00...0 00
00000.....000...00o  oo0::.....o
0.....000....00o  0:.....0
  0.....000000.....0.....00o
  o0.....00000000.....0o
    o0.....000000.....000o
00000.....00000000.....0o      oooo
0.....00000000.....0  o0....00
  o0.....00000000.....0000.....0o
    o0.....00000.00.....00....0o
      o0.....0000..0.....0oo.....0

```





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**wonderbolt module**

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