

# IETF Hackathon: Multilingual Email

IETF 101  
17-18 March, 2018  
London



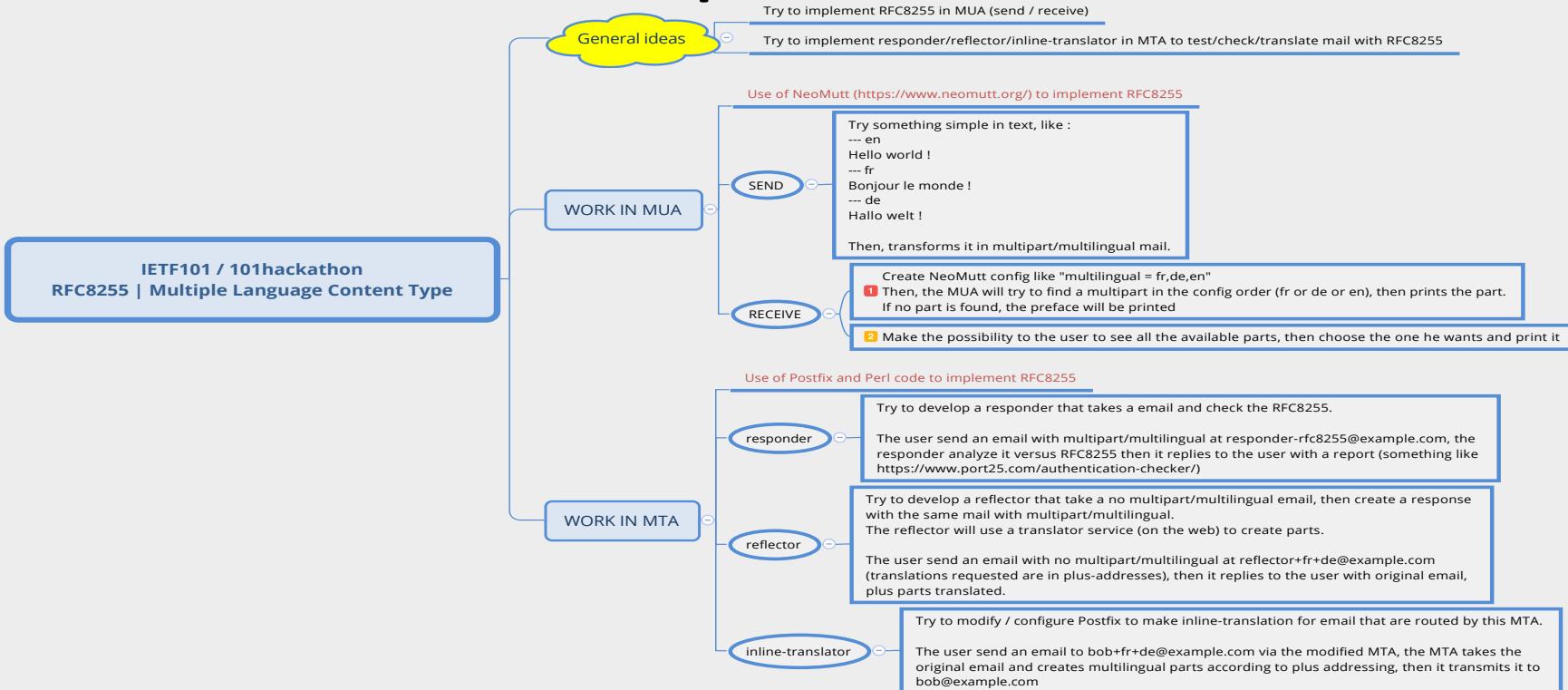
# Hackathon Plan

- Multilingual email implementations
  - RFC 8255 Multiple language content type
  - Development of Sending and Receiving Implementations of multipart/multilingual content types.
- Plan from Technology Champion: use Java implementation in development as inspiration for other languages and environments

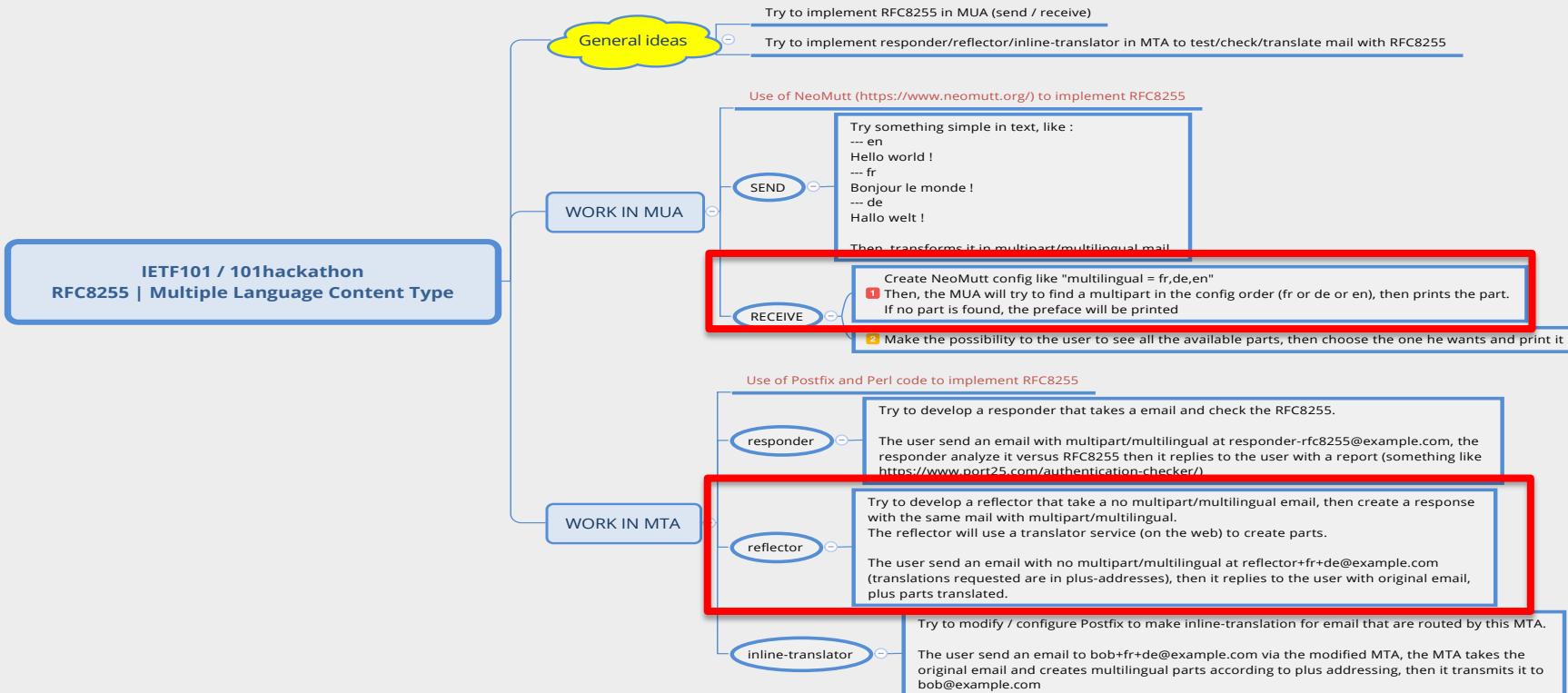
# What got done

- What was actually achieved:
  - Plan changed to develop a email reflecting service on an MTA that transforms a regular incoming email into a multilingual email which is returned to the sender
  - Client code developed for NeoMutt to correctly select email part given preferred language configuration complying with RFC 8255
  - Feedback into an in-progress Java implementation

# What we planned to do



# What we achieved



# Reflector

Aims of the reflector :

- receive text/plain mail with a source language
- translate text/plain from source language to chosen destination language(s) (one or more destination)
- build a multipart/multilingual (RFC8255) with original mail and translated parts
- reply to the original sender with the multipart/multilingual mail

# Reflector

To: reflector+sl\_en+tl\_fr+tl\_es@example.com  
From: sender@example.com  
Subject: Initial test

This is my first test of the reflector.

Send simple text/plain email

Reflector MTA

Reply with correctly formed multilingual email

To: sender@example.com  
From: sender@example.com  
Subject: Initial test

Content-Language: en  
Subject: Initial test  
This is my first test of the reflector.

Content-Language: fr  
Subject: Test initial  
C'est mon premier test du réflecteur.

Content-Language: es  
Subject: Prueba inicial  
Esta es mi primera prueba del reflector.

# NeoMutt part selection

```
i:Exit -:PrevPg <Space> NextPg v:View Attach d:Del r:Reply  
Date: Sun, 18 Mar 2018 12:44:02 +0100 (CET)  
From: Bob <as@localhost>  
To: Bob <as@localhost>  
Subject: Initial test  
X-Mailer: MIME-tools 5.508 (Entity 5.508)  
  
[-- Attachment #1 --]  
[-- Type: text/plain, Encoding: binary, Size: 0.1K --]  
  
This is my first test of the reflector.  
  
[-- Attachment #2 --]  
[-- Type: message/rfc822, Encoding: binary, Size: 0.1K --]  
  
From: Bob <as@localhost>  
Subject: Initial test  
  
This is my first test of the reflector.  
  
[-- Attachment #3 --]  
[-- Type: message/rfc822, Encoding: binary, Size: 0.1K --]  
  
From: Bob <as@localhost>  
Subject: Test initial  
  
C'est mon premier test du réflecteur.  
  
[-- Attachment #4 --]  
[-- Type: message/rfc822, Encoding: binary, Size: 0.1K --]  
  
From: Bob <as@localhost>  
Subject: Prueba inicial  
  
Esta es mi primera prueba del reflector.  
  
[-- Attachment #5 --]  
[-- Type: message/rfc822, Encoding: binary, Size: 0.4K --]  
  
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| R | T |  
| F | I |  
| C | L |  
| 8 | I |  
| 2 | N |  
| 5 | G |  
| 5 | U |  
|   | A |  
|   | L |  
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Before
```

```
i:Exit -:PrevPg <Space> NextPg v:View Attach  
Date: Sun, 18 Mar 2018 12:44:02 +0100 (CET)  
From: Bob <as@localhost>  
To: Bob <as@localhost>  
X-Mailer: MIME-tools 5.508 (Entity 5.508)  
Subject: Initial test  
  
From: Bob <as@localhost>  
Subject: Test initial  
  
C'est mon premier test du réflecteur.
```

preferred\_language="fr"

```
i:Exit -:PrevPg <Space> NextPg v:View Attach  
Date: Sun, 18 Mar 2018 12:44:02 +0100 (CET)  
From: Bob <as@localhost>  
To: Bob <as@localhost>  
X-Mailer: MIME-tools 5.508 (Entity 5.508)  
Subject: Initial test  
  
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| 5 | U |  
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|---| / |  
  
preferred_language="de"
```

```
i:Exit -:PrevPg <Space> NextPg v:View Attach  
Date: Sun, 18 Mar 2018 12:44:02 +0100 (CET)  
From: Bob <as@localhost>  
To: Bob <as@localhost>  
X-Mailer: MIME-tools 5.508 (Entity 5.508)  
Subject: Initial test  
  
From: Bob <as@localhost>  
Subject: Prueba inicial  
  
Esta es mi primera prueba del reflector.
```

preferred\_language="es"

# What we learned

- First Hackathon for all team members
  - Plan can change and still make great progress
  - Good to prepare environment and exchange plan before event

# Wrap Up

Team members also first timers @ Hackathon:



Nik Tomkinson



Alexandre Simon

Reflector code complete

NeoMutt code complete

## GitHub locations

- Reflector code at <https://github.com/igit/rfc8255-reflector>
- NeoMutt code at <https://github.com/igit/neomutt/tree/devel/rfc8255-display-multilingual>