IDN Emails and TEST BED

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CNNIC 2009
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IDN and IDN email

- IDN RFC 2003 published
  - IDNAbis almost finish its job at the end of 2009.
- Users want to use IDN not only in web browsing but also in email address
  - Why not [Native-characters]@IDN?
- IETF EAI (Email address internationalization) working group to try to solve the problem of IDN email
TLD
DN
EMAIL

.CN
Beijing.cn
name@abc.cn

.中国
北京.cn
名字@北京.cn
The problem for EAI

- The existing email address has two parts, local part and domain part separated by the sign “@”. For example yaojk@cnnic.cn
- Many want to use their native language as the address. 用户@中国互联网络信息中心.cn
- The domain part has been addressed by IDNA[RFC3490]
- The <local-part> portion are restricted to a subset of ASCII.
  — no standard on local-part
- This poses a fundamental barrier for users needing mail addresses to be expressed in a richer set of characters, such as many Asian characters.
Feb 2003 – IMAA
  Start to talk about i-Email requirement and issues
May 2005 – CDNC Meeting/ JET Meeting
  Discuss possible solutions
Sep 2005 – i-Email Beijing Meeting
  JET submit the drafts to IETF
Nov 2005 – IEE BoF on IETF 64
  Discuss Internet drafts
Mar 2006 – EAI WG on IETF 65 (WG established)
  (Co-chaired by Harald Alvestrand and Xiaodong LEE)
July 2006 – EAI WG on IETF 66
July 2007 – EAI WG published RFC 4952
Sep 2008 – EAI WG 3 core RFC published
March 2009 – Downgrade RFC published
Overview and Framework for Internationalized Email
(RFC4952 July 2007)
SMTP extension for internationalized email address
(RFC5336 September 2008 submitted by CNNIC)
Internationalized Email Headers
(RFC5335 September 2008)
International Delivery and Disposition Notifications
(RFC5337 September 2008)
Downgrading mechanism for Email Address Internationalization (RFC5504 March 2009)
UTF-8 Mail: Scenarios
IMAP Support for UTF-8
Mailing Lists and Internationalized Email Addresses
POP3 Support for UTF-8
Implementation Status

Documents implemented
- SMPText
- UTF8header
- EAI downgrade
- EAI POP (in progress)
- EAI IMAP (in progress)

Open source software used
- Postfix
- Cyrus-imap
- openwebmail
CNNIC-TWNIC-NIDA-JPRS-AFILIAS co-tests
Testing between EAI system with the same implementation (postfix)

Scenario 1: Two i18mail users
From: <测试@邮件.postfix.asrc.cn>
To: <测试@中文.postfix.asrc.cn>
From: 测试@邮件.postfix.asrc.cn Fri Jul 18 13:51:10 2008
Return-Path: <测试@邮件.postfix.asrc.cn>
Received: from murder ([unix socket])
    by m2.localdomain (Cyrus v2.2.12) with LMTPA;
    Fri, 18 Jul 2008 13:50:42 +0800
X-Sieve: CMU Sieve 2.2
Received: from xn--5nQ051N.postfix.asrc.cn (unknown [218.241.108.51])
    (using TLSv1 with cipher ADH-AES256-SHA (256/256 bits))
    (No client certificate requested)
    by xn--fiQ228C.postfix.asrc.cn (Postfix) with ESMTP id 601EA370215
    for <测试@中文.postfix.asrc.cn>; Fri, 18 Jul 2008 13:50:41 +0800 (CST)
Received: from xn--5nq051n.postfix.asrc.cn (localhost.localdomain [127.0.0.1])
    by xn--5nQ051N.postfix.asrc.cn (Postfix) with ESMTP id AB8D85C04ED
    for <测试@中文.postfix.asrc.cn>; Fri, 18 Jul 2008 13:51:10 +0800 (CST)
From: <测试@邮件.postfix.asrc.cn>
To: "测试@中文.postfix.asrc.cn" <测试@中文.postfix.asrc.cn>
Subject: TEST 2 i18n users
Date: Fri, 18 Jul 2008 13:51:10 +0800
Message-Id: <20080718054907.M71057@xn--5nq051n.postfix.asrc.cn>
MIME-Version: 1.0
Content-Type: text/plain;
    charset=utf-8
Status: R

TEST 2 i18n users, welcome to IETF meeting.
Testing between EAI system with the same implementation (postfix)

Scenario 2: Three i18mail users

From:

From: <测试@中文邮件.cn>
To: <测试@中文.postfix.asrc.cn>
Cc: <测试@邮件.postfix.asrc.cn>
From 测试@中文邮件.cn Fri Jul 18 11:42:46 2008
Return-Path: <测试@中文邮件.cn>
Received: from murder ([unix socket])
    by blade1.localdomain (Cyrus v2.2.12) with LMTPA;
    Fri, 18 Jul 2008 11:42:46 +0800
X-Sieve: CMU Sieve 2.2
Received: from xn--fiqys627cso3b.cn (localhost.localdomain [127.0.0.1])
    by xn--5nQ051N.postfix.asrc.cn (Postfix) with ESMTP id 325765C067B;
    Fri, 18 Jul 2008 11:42:46 +0800 (CST)
From: <测试@中文邮件.cn>
To: "测试@中文.postfix.asrc.cn" <测试@中文.postfix.asrc.cn>
Cc: "测试@邮件.postfix.asrc.cn" <测试@邮件.postfix.asrc.cn>
Subject: test
Date: Fri, 18 Jul 2008 11:42:46 +0800
Message-Id: <20080718034133.M58706@xn--fiqys627cso3b.cn>
MIME-Version: 1.0
Content-Type: text/plain;
    charset=utf-8
Status: R

Open WebMail Project (http://openwebmail.org)
Testing between EAI system with the same implementation (postfix)

Scenario 3: An i18mail user sends to one ascii user

From: 〈测试@邮件.postfix.asrc.cn 〈test@ml.postfix.asrc.cn〉

To: 〈yaojk@cnnic.cn〉
Received: (eyou send program): Tue, 29 Jul 2008 22:26:03 +0800
Message-ID: <417341563.00919@cnnic.cn>
Received: from unknown (HELO ironportc600.cnnc.cn) (218.241.99.60)
   by 159.226.7.146 with SMTP: Tue, 29 Jul 2008 22:26:03 +0800
X-IronPort-Anti-Spam-Filtered: true
X-IronPort-Anti-Spam-Result: AisFAES7jkja8Wwz/2dsh2JhbACLIIganIg
X-IronPort-AV: E=Sophos;i='4.31,272,1215360000';
   d='scan'208'a='25777175'
Received: from unknown (HELO xn--5nq051n.postfix.asrc.cn) ([218.241.108.61])
   by ironportc600.cnnc.cn with ESMTP: 29 Jul 2008 22:26:02 +0800
Envelope-Downgraded-From: =?utf-8?q?B?P0ali+iV1UDpq7ku7YucG9zdGZpc2cJjlJmPpg==?= <test@1.postfix.asrc.cn>
Received: from xn--5nq051n.postfix.asrc.cn (localhost.localdomain [127.0.0.1])
   by xn--5nq051n.postfix.asrc.cn (Postfix) with ESMTP id ECC9C6C05A2
   for <yaojk@cnnic.cn>: Tue, 29 Jul 2008 22:25:07 +0800 (CST)
Downgraded-From: =?utf-8?q?ImKvb1dkb2nIiA85rML64+VQOMCr5ti5w3N0Zal4LmFxcnY24gFHR1cRAoTEucG9zdGZpc2cJjlJmPj4==?= From: "dongdong" <test@1.postfix.asrc.cn>
To: "yaojk@cnnic.cn" <yaojk@cnnic.cn>
Subject: yao
Date: Tue, 29 Jul 2008 22:25:07 +0800
Message-Id: <20080729142507.M87316@xn--5nq051n.postfix.asrc.cn>
MIME-Version: 1.0
Content-Type: text/plain;
   charset=utf-8

Open WebMail Project (http://openwebmail.org)
Testing between EAI systems with different implementations

Test with NIDA (own implementation with python)

From: <测试@邮件.postfix.asrc.cn>

To: 〈미시시피의조치통@테스트.kr〉
测试 b
Testing between EAI systems with different implementations

Test with JPRS (own implementation with C)

From: <测试@邮件.postfix.asrc.cn>
To: <テスト@日本語.dnslab.jp>
Return-Path: <测试@邮件.postfix.asrc.cn>
Delivered-To: <テスト@日本語.dnslab.jp>
Received: from xn--5nQ051N.postfix.asrc.cn (localhost.localdomain [127.0.0.1])
           by xn--5nQ051N.postfix.asrc.cn (Postfix) with ESMTP id B04CC5C0686
           for <テスト@日本語.dnslab.jp>; Mon, 14 Jul 2008 11:40:48 +0800 (CST)
From: <测试@邮件.postfix.asrc.cn>
To: "テスト@日本語.dnslab.jp" <テスト@日本語.dnslab.jp>
Subject: test once without alt-address
Date: Mon, 14 Jul 2008 11:40:48 +0800
Message-Id: <20080714034033.M87293@xn--5nQ051N.postfix.asrc.cn>
MIME-Version: 1.0
Content-Type: text/plain;
   charset=utf-8

Open WebMail Project (http://openwebmail.org)
Testing between EAI systems with different implementations

Test with AFILIAS (implementation based on sendmail)

From: <伊昭杰@环球电邮.info>  
<jyee@ca.afilias.info>

To: <测试@邮件.postfix.asrc.cn>
<table>
<thead>
<tr>
<th>#</th>
<th>Sent Date</th>
<th>Sender</th>
<th>Subject</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>07/18/2008 10:28:14 am</td>
<td>伊昭杰@环球电邮.info</td>
<td>Scenario A Testing</td>
<td>1649</td>
</tr>
<tr>
<td>2</td>
<td>07/18/2008 10:05:59 am</td>
<td>伊昭杰@环球电邮.info</td>
<td>Scenario A Testing</td>
<td>1692</td>
</tr>
<tr>
<td>3</td>
<td>07/18/2008 10:00:35 am</td>
<td>伊昭杰@环球电邮.info</td>
<td>Re: test once without alt-address</td>
<td>3KB</td>
</tr>
<tr>
<td>4</td>
<td>07/18/2008 09:59:38 am</td>
<td>伊昭杰@环球电邮.info</td>
<td>Re: test once - with raw header</td>
<td>3KB</td>
</tr>
<tr>
<td>5</td>
<td>07/18/2008 12:47:24 pm</td>
<td>伊昭杰@环球电邮.info</td>
<td>Re: test once without alt-address</td>
<td>1836</td>
</tr>
<tr>
<td>6</td>
<td>07/18/2008 12:46:48 pm</td>
<td>伊昭杰@环球电邮.info</td>
<td>Re: test once</td>
<td>1881</td>
</tr>
</tbody>
</table>
Hi CNNIC,

Please let me know if you receive this message. Thanks!
Привет, свит!
Hello, world!
Testing between EAI systems with different implementations

Test with TWNIC (implementation based on sendmail)

From: <中文測試@中文.twnic.tw>
To: <测试@邮件.postfix.asrc.cn>
    <test@ml.postfix.asrc.cn>
Message sent from 中文測試@中文.twnic.tw

From 中文測試@中文.twnic.tw Tue Jul 29 00:45:57 2008
Return-Path: <中文測試@中文.twnic.tw>
Received: from murder ([unix socket])
    by blade1.localdomain (Cyrus v2.2.12) with LMTPA;
    Tue, 29 Jul 2008 00:45:15 +0800
X-Sieve: CMU Sieve 2.2
Received: from xn--fiq228c.twnic.tw (xn--fiq228c.twnic.tw [203.73.24.199])
    (using TLSv1 with cipher DHE-RSA-AES256-SHA (256/256 bits))
    (No client certificate requested)
    by xn--5nQ051N.postfix.asrc.cn (Postfix) with ESMTP id 4A7E35C05C4
    for <中文測試@中文.twnic.tw>; Tue, 29 Jul 2008 00:45:13 +0800 (CST)
From: "中文測試" <中文測試@中文.twnic.tw>
To: <測試@郵件.postfix.asrc.cn <test@m1.postfix.asrc.cn>>
Subject: <測試@郵件.postfix.asrc.cn <test@m1.postfix.asrc.cn>>
Date: Tue, 29 Jul 2008 00:45:57 +0800
Message-Id: <20080728164529.M95349@xn--fiq228c.twnic.tw>
X-Mailer: OpenWebMail 2.52 20060502
X-OriginatingIP: 130.129.22.116 (中文測試)
MIME-Version: 1.0
Content-Type: text/plain;
    charset=utf-8
Status: R

TWNIC EAI-aware Mail Service
實驗.tw: http://xn--sdt066l.tw
Simple Live DEMO
Next Step

• Implementation and Tests
  • CNNIC TWNIC AFILIAS NIDA JPRS
  • MICROSOFT is planning to implement EAI in its new version of windows products
• Promote the commercial company to use it
  • China will publish the EAI standard based on EAI RFCs
• Promote the users to use it
  • Many internet users inquire this problem
• Make other drafts of the EAI WG to become RFCs
  • IMAP draft begins IESG last call
• [your native character name]@IDN
Since key EAI RFCs have been published by IETF, please request your email service provider to support these kind of email addresses

اختبار@ اختبار. eg
परीक्षा@उदाहरण. in
例え@例え. jp
실례@실례. kr
用户@中文.cn
été@Économie.fr
teusre@Schön. de
Q&A!
yaojk@cnnic.cn