EAI Status

(Email Address Internationalization)

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Summary of TWNIC Activities

- 10~15% increase in the number of DN
- Introduce IDN in .tw level
- Security enforcement for DN Server (pass ISMS-BS7799 security check)
- Deal with SPAM problem (80% reduction)
- VoIP DN Server Test
- APIRA-2006, August 9~10, Taipei Taiwan
- I-email testbed
Why I-Email Necessary

• Format of Email address
  – local-part@domain-part
  – domain-part has internationalized by IDNA

• Desired I-Email Format
  – 葉士豪@臺網中心.tw
  – jeff@臺網中心.tw
  – 葉士豪@臺網中心.台灣
  – jeff葉@臺網中心.台灣

• Require Email Address Internationalization
  – not standardized on local-part
What’s the Issues?

• Extensively complexities (miss interpretation??)
  – Computer to computer communication
    • Store and forward
  – Embedded agent/command
    • Server/client
    • Firewall
    • Spam filter
• Mail routing control information on local-part
  – %, +, !, -, ...
  – Locally defined
Mail routing information on local-part

- Ex: some mail servers implement relay function by using ‘%’ on local part
  - user%hostB@hostA ➔
  - mail send to user@hostB via hostA

Client ➔ Server ➔ HostA ➔ HostB

Change local part: user%hostB to user@hostB and send out
Administrator may change the mail routing (Scenario I)
Administrator may change the mail routing (Scenario II)

Server

Client

User@host

Virus scanner

host
Server Spam filter Firewall Server Server Server
Local routing

Client

June 23-30, 2006 Ming-Cheng Liang from TWNIC
ICANN ccNSO update at Marrakech, Morocco
History

- Feb 2003 – IMAA
  - Start to talk about i-Email requirement and issues
- Aug 2004 – CDNC Meeting
  - Discuss about i-Email issues
- May 2005 – CDNC Meeting/ JET Meeting
  - Discuss possible solutions
- Sep 2005 – i-Email Beijing Meeting
  - Experimental RFC
  - Outline the solution framework
- Nov 2005 – IEE BoF on IETF 64
  - Discuss Internet drafts
  - Apply for WG
- Mar 2006 – EAI WG on IETF 65
  - WG established
  - More Internet drafts discussed
EAI WG

- Chairs:
  - Harald Alvestrand
  - XiaoDong Lee

- Goal:
  - The initial target will be a set of experimental RFCs that specify the details of this approach and provide the basis for generating and testing interoperable implementations.
  - Once the Experimental RFCs are completed and implemented, the experience gathered will be evaluated.
  - If the approach is found to have been successful, the WG will be rechartered to update the documents for processing onto the standards track.

- WG page:

- Mailing List:
Goals and Milestones

- Done Overview/architecture draft first
- Done Interworking scenarios first draft
- Done SMTP Extensions first draft
- Done Header format first draft
- Done Downgrading in SMTP first draft
- Done Downgrading in POP first draft
- Done Downgrading in IMAP first draft
- Jun 2006 Overview/architecture draft to IESG
- Jun 2006 Interworking scenarios to IESG
- Sep 2006 SMTP Extensions to IESG
- Sep 2006 Header format to IESG
- Sep 2006 Downgrading in SMTP to IESG
- Sep 2006 Downgrading in POP to IESG
- Sep 2006 Downgrading in IMAP to IESG
- Dec 2006 Results and evaluation first draft
- Mar 2007 Results and evaluation to IESG
- Mar 2007 Group recharter for standards track
EAI Structure

SMTP Extension → Header → SMTP Downgrade

POP Downgrade
IMAP Downgrade

葉士豪@台網中心.tw
jeff@twnic.net.tw
EAI Structure

SMTP Extension

Header

SMTP Downgrade

POP Downgrade

IMAP Downgrade

jeff@twnic.net.tw

葉士豪@台網中心.tw

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EAI Structure

SMTP Extension

Header

SMTP Downgrade

POP Downgrade

IMAP Downgrade

jeff@twnic.net.tw
Overview of Solution

• SMTP client handshake with next SMTP server check if SMTP extension is supported by the server
  – Yes: send internationalized email address and headers
  – No: downgrade the email to traditional one (ASCII email address, RFC2821/2822 compatible)
TWNIC role

- Draft header document
  - Internationalized Email Headers
    - draft-yeh-ima-utf8headers-01
- Involve in testing plan
  - Modify sendmail software to implement EAI WG drafts
  - Develop plug-in for MUA to send, receive and display I-Email address
Test bed

- Modify sendmail software to support i-Email specification
  - i-Email SMTP extension
  - UTF8 header
  - Downgrade
More Information

- SMTP extension for internationalized email address

- Internationalized Email Addresses: Scenarios

- Downgrading mechanism for Internationalized eMail Address (IMA)

- IMAP Support for UTF-8

- Internationalized Email Headers