

## **Report from an APEC Workshop For The Deployment Of Multi-Language Email Address Technology And The Release Of The World's First Chinese Domain Name E-Mail Account Registration Platform**

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APEC, the Asia Pacific Economic Cooperation group, are holding a series of meetings in Beijing leading up to their leaders summit in mid-November.

CNNIC, in cooperation with APEC and Coremail, organised a workshop looking at EAI – Emails with non-ASCII characters to the left and right of the @ sign. EAI is an important component in the broader topic of Universal Acceptance – making sure that new TLDs, and particularly IDN TLDs, actually work for consumers.

The first day started with a series of presentations by senior Chinese government officials, senior members of CNNIC and others.

We were reminded just how young the Internet is in China – barely 20 years since the first connection was established. At that time, access to the Internet was restricted to academic institutions – but more importantly it was restricted to people who could read and type in English. Today, English is a minority language on the Internet.

More recently CNNIC has been very involved in getting technical standards established for IDN based e-mails – with some experimental RFCs approved in 2006 followed by production level RFCs approved for IDN e-mail in 2013.

But there is still much work to be done getting from an RFC to a usable production grade e-mail solution.

As members will recall from the APTLD Meeting in Oman in May, getting e-mail systems (and other applications) to work with IDNs is not trivial. At that meeting Microsoft reported that it was working through literally thousands of programs and libraries to make accommodation for IDNs. At the same meeting, Google indicated that it would have their Gmail application compliant by the end of the year.

Some progress has been rapid and yet there remains much work to do.

- Google now does have IDN facilities available in Gmail, though you still can't register a gmail account in anything other than ASCII.
- The e-mail facilities of HORDE, an Open Source web based office solution (similar to Outlook) has now implemented support for IDNs. (Of particular note was that HORDE stores all data in UTF8 format – providing maximum flexibility for language and script diversity.)
- Coremail, one of China's largest email providers, now also provides support for IDN email and allows creation and operation of e-mails with no latin characters at all.
- Afilias continues their work in providing IDN email gateway facilities.

But there remains much work to do and there is a need for a forum where those working in IDN email can meet and consider different approaches to thorny issues. The group gathering in Beijing agreed to use the IAM IETF mailing list because it was already established and would connect with an existing part of the community. It was also noted that the keynote speaker, John Klensin, was the convenor of the list.

Also during the meeting, we heard from the Chinese Ministry that this was indeed challenging work, but much has been achieved. The Chinese Ministry and CNNIC are both committed to taking their experiences and helping others within the region accelerate their own local implementations of IDN email. *If there is interest, APTLD will be able to help foster this offer of cooperation.*

The following were identified as areas for continued development community discussion:

- How to cope with intermediate legacy non-UTF8 systems
- How to reduce the possibility of spoofing of content (particularly embedded links)
- How to cope with bi-directional scripts – and particularly addresses that included multiple script that operate in multiple directions
- How to ‘normalise’ (i.e. case folding) addresses.
- How to validate digital signatures
- How to tie two addresses together – an IDN and an ASCII – and how to keep them tied as messages transit legacy services.
- Developing community standards for character policies.
- The development of client side mail software
- Aligning local side addresses with TLD address script restrictions

Other points of interest:

- John Klensin provided a history of e-mail
- Korea operates a 118 emergency response phone number to deal with computer problems.
- A commitment to continue to pursue and promote IDN email solution was printed on a giant scroll and signed by those present.
- There is an opportunity to document an engagement strategy to get IDN email deployed within a community.

Besides the expected large contingent from China, CNNIC were able to get people from Russia, USA, Canada, India, Hong Kong, Thailand, Korea, and New Zealand.