VeriSign’s com/net IDN Experience

VeriSign Naming and Directory Services
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Standards Implementation

Standards published in March, 2003
Standards deployed into OT&E on 27 August, 2003
Registrar Migration window began on 13 December, 2003
  + Registry converted all registrations to punycode on 13 December
  + Registrars permitted to send punycode or RACE encoding during migration window
  + Fewer than 500 invalid registrations were deleted
    – Full stops (U+3002)
    – Leading or trailing dashes
    – Bi-directional rules
  + Began publishing punycode into com and net zones on same date
Closed Migration window for registrars on 24 April, 2004
  + All registrar registration requests required to meet standards and guidelines
Removed RACE resolution capabilities in i-Nav™ resolution plug-in on 2 July, 2004
Guidelines Implementation

Strict Compliance with IDN standard RFCs
Allowable characters in an IDN should be “inclusion-based”
  + Applied to languages that have identified and appropriate tables
Support language specific rules and tags
  + All new registrations must have a language tag
    – Valid language tags are a subset of ISO 639-2
      • List pared for Registrar UI consideration
    – Chinese, Japanese, Korean, Polish, Greek, Russian and other Cyrillic based languages currently have tables
      • Chinese deploys the CDNC variant table as well as an inclusion table
      • A Chinese base registration that commingles Traditional and Simplified variants will not generate registration variants
      • Greek and Russian tables prohibit the inclusion of Latin characters
    – German and Scandinavian language tables to be deployed with next drop of core software (estimated 1Q05)
Guidelines Implementation

Support the development of language specific registration policies
  + Working with regional authorities to deploy appropriate tables

Limit domain label to characters associated with one language/sets of languages
  + VeriSign only limits based upon language tables
  + Script make-up in com/net registrations
    – 69% com/net IDNs are single language/script registrations
    – 31% combine a single non-Latin script/language and Latin
    – Only 69 registrations combine multiple non-Latin scripts

Provide informational resources in languages supported
  + VeriSign uses a language service to support registrars in their native language as needed.
Com/Net Standards Migration

Over Ninety Registrars had IDNs under management
  + Five registrars chose to no longer participate in IDN program
    – VeriSign successfully transferred 54% of those domains to other registrars through the Temporary IDN Transfer Policy
  + Many European registrars began registering IDNs once standards deployed

No major technical conversion issues
  + Many registrars used the VeriSign IDN SDK
    – Provided direct access to VNDS engineering resources
  + Exercises provided to registrars for self-assessment
  + Active registrars have continued to register at consistent rates

Remaining Registrar Issues
  + Some resellers have yet to convert their own data
  + Not all name server records have been updated
    – Removal of RACE from i-Nav plug-in has expedited updates
Client enablement is final key to adoption

Applications that have adopted IDN
  + Browsers
    – Netscape, Mozilla, Opera, Safari, Camino, Epiphany, Firefox and others
  + E-Mail
    – FoxMail
  + FTP Clients
  + Full list can be found at http://www.verisign.com/nds/naming/idn

Still represents less than 2% of the desktops

IDN SDKs and Language support
  + GNU libidn, JPNIC, VeriSign
  + Group for Business Intelligence IDN Libraries
  + IBM ICU
IDN Software Developer Consortium (SDC)

Participants
+ Application Developers, Registries and Registrars

Key Issues
+ Significant demand for IDNs in Asia and Europe
+ Clear business direction of application providers
+ Remaining standards issues

Current goals
+ Encourage Internet users to adopt applications that are IDNA enabled
+ Focus consumer demand for applications that are not IDNA
+ Recruit membership to the IDN SDC
  – Provide technical and business forum for sharing knowledge
  – Assist in creation of business strategies

Meeting in San Diego on 31 July
+ Interested parties are encouraged to participate
+ For more information, contact Pat Kane at pkane@verisign.com