WEIRDS interop report

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WEIRDS
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Attendance

• 5 servers
  – 2 number servers
  – 2 name servers
  – 1 number+name server

• 1 test suite (acting as a client) targeting servers
What's new

• Added autnum tests
• Added domain search tests
• Added IDN tests
  – Found bug in libidn, *sigh*
• Added test for /help
  – Turns out it's really hard to get right
• General improvement of the previous tests and core logic
Results

- Discovered 32 issues in implementations
- A few questions about the specs...
Question #1: Domain search in A- and U-label

- /domains?name=xn*
  - Does this return A-labels?
  - Does this return U-labels starting with “xn”?
  - Does this return U-labels starting with “xn” both in their U-label form and in their A-label form?

- (see next slide before answering)
Question #2: A|U-labels

- Allowing U-labels in queries (both search and normal) opens the door to many potential bugs. Increases complexity and code paths to be tested.
- Clients (browsers) already have IDNA code to convert from U-label to A-label which they use for the hostname part of any HTTP request.
- Only use-case for U-labels in queries: curl
  - But if you're hacker enough to use “curl”, then you're hacker enough to use “idn” beforehand.
- Proposal:
  - Client MUST NOT send U-label queries.
  - Say nothing about server side. Implicitly, the server is free to do whatever it wants with U-label queries.
Question #3: Disallowing certain search patterns

• E.g., query string must specify TLD
• Seems like this should return 403.
• How to let the user know what is acceptable?
  – Reason-Phrase?
  – In the body?
Next steps

- Do it again at IETF 89 in London?