BIND and DNS at ISC

UKNOF5
London
DHCP

• Resumed active development after some quiet years
• Current version: 3.0.4
• Working on a feature rich DHCPv6 implementation
• Work on 3.1 and 4.0 as soon as DHCPv6 is out
• Seeing increase in usage across ISPs and Enterprises
Current BIND versions

• Current versions of BIND are:
  – Releases: 9.3.2-p1, 9.2.6-p1, 8.4.7
  – Testing: 9.2.7rc2, 9.3.3rc2 and 9.4.0b2
BIND 9.4

- BIND 9.4 includes a few radical new features and needs exhaustive testing
  - Its performance is much better than that of previews BIND 9 releases.
    - Additional cache
    - Architecture dependant lock relief using atomic operation support
Ongoing work

• Stuff we are working on
  – GSS-TSIG
  – NSEC3
  – New hash support (SHA-256)
  – New resolver library
  – Better, more complete stats and new way of fetching them
GSS-TSIG

- Work started 2 years ago but stumbled on implementation incompatibilities and fuzzy standard interpretation
- Thanks to SPARTA, got funding to tackle this development
- Currently finalising details for interoperability with various versions of Microsoft Windows
This is an example of the work ISC does to implement early standards work into BIND to enable analysis of the work in progress. Work is being sponsored by Verisign and Nominet. Pending final agreement details.
SHA-256

- With the current call on IETF to initiate migration to stronger (than SHA-1) hashes, ISC has implemented SHA-256 in BIND
New resolver library

- Work initially undertaken by Jinmei Tatuya from Toshiba, working at ISC
- Will be used first in conjunction with ISC DHCP
- Current work on integration is ongoing
BIND roadmap

- 9.4 completion as quickly as bugs permit
  - Beta right after IETF
- 9.5 (Beta release at the end of 2006)
  - GSS-TSIG
  - SHA-256
  - Better Statistics
DNS ops - TLD service

- ns-ext/ns-any
  - ns-ext.isc.org == ns-ext.vix.com
- Secondary service for TLDs
- Now going to anycast.
  - Each zone operator can tell us if they wish to use the anycast or unicast service.
DNS Ops - F root

More, better, faster :)
Recent anycast nodes added
  • Buenos Aires, Chicago
Focusing on Latin America and trying to reach more African countries.
Nice picture
Misc

- ISC support: BIND & DHCP
- ISC BIND training
  - First in USA, then Europe,…
  - Based on Johan Ihren’s training material
Questions?