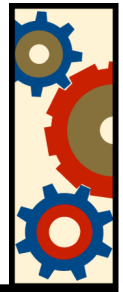
BIND and DNS at ISC

UKNOF5

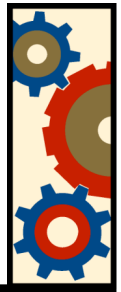
London

DHCP



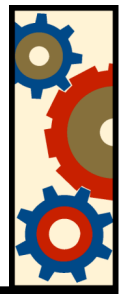
- Resumed active development after some quiet years
- Current version: 3.0.4
- Working on a feature rich DHCPv6 implementation
- Work on 3.1 and 4.0 as soon as DHCPv6 is out
- Seeing increase in usage across ISPs and Enterprises

Current BIND versions



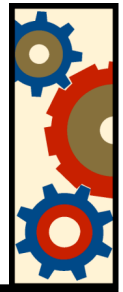
- Current versions of BIND are:
  - Releases: 9.3.2-p1, 9.2.6-p1, 8.4.7
  - Testing: 9.2.7rc2, 9.3.3rc2 and 9.4.0b2

BIND 9.4



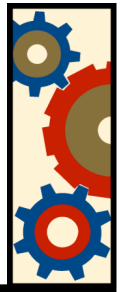
- BIND 9.4 includes a few radical new features and needs exhaustive testing
  - Its performance is **much** better than that of previews BIND 9 releases.
    - Additional cache
    - Architecture dependant lock relief using atomic operation support

Ongoing work



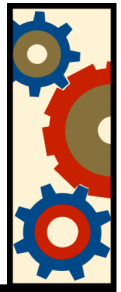
- Stuff we are working on
  - GSS-TSIG
  - NSEC3
  - New hash support (SHA-256)
  - New resolver library
  - Better, more complete stats and new way of fetching them

GSS-TSIG



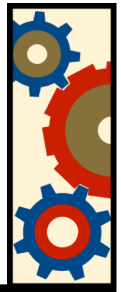
- Work started 2 years ago but stumbled on implementation incompatibilities and fuzzy standard interpretation
- Thanks to SPARTA, got funding to tackle this development
- Currently finalising details for interoperability with various versions of Microsoft Windows

NSEC3



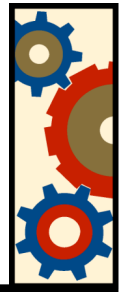
- This is an example of the work ISC does to implement early standards work into BIND to enable analysis of the work in progress
- Work is being sponsored by Verisign and Nominet. Pending final agreement details

SHA-256



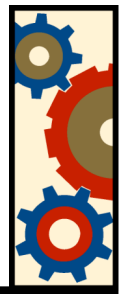
- With the current call on IETF to initiate migration to stronger (than SHA-1) hashes, ISC has implemented SHA-256 in BIND

New resolver library



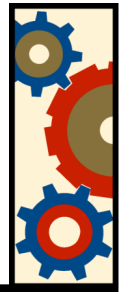
- Work initially undertaken by Jinmei Tatuya from Toshiba, working at ISC
- Will be used first in conjunction with ISC DHCP
- Current work on integration is ongoing

BIND roadmap



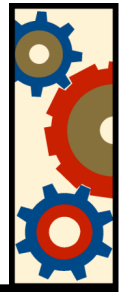
- 9.4 completion as quickly as bugs permit
  - Beta right after IETF
- 9.5 (Beta release at the end of 2006)
  - GSS-TSIG
  - SHA-256
  - Better Statistics

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



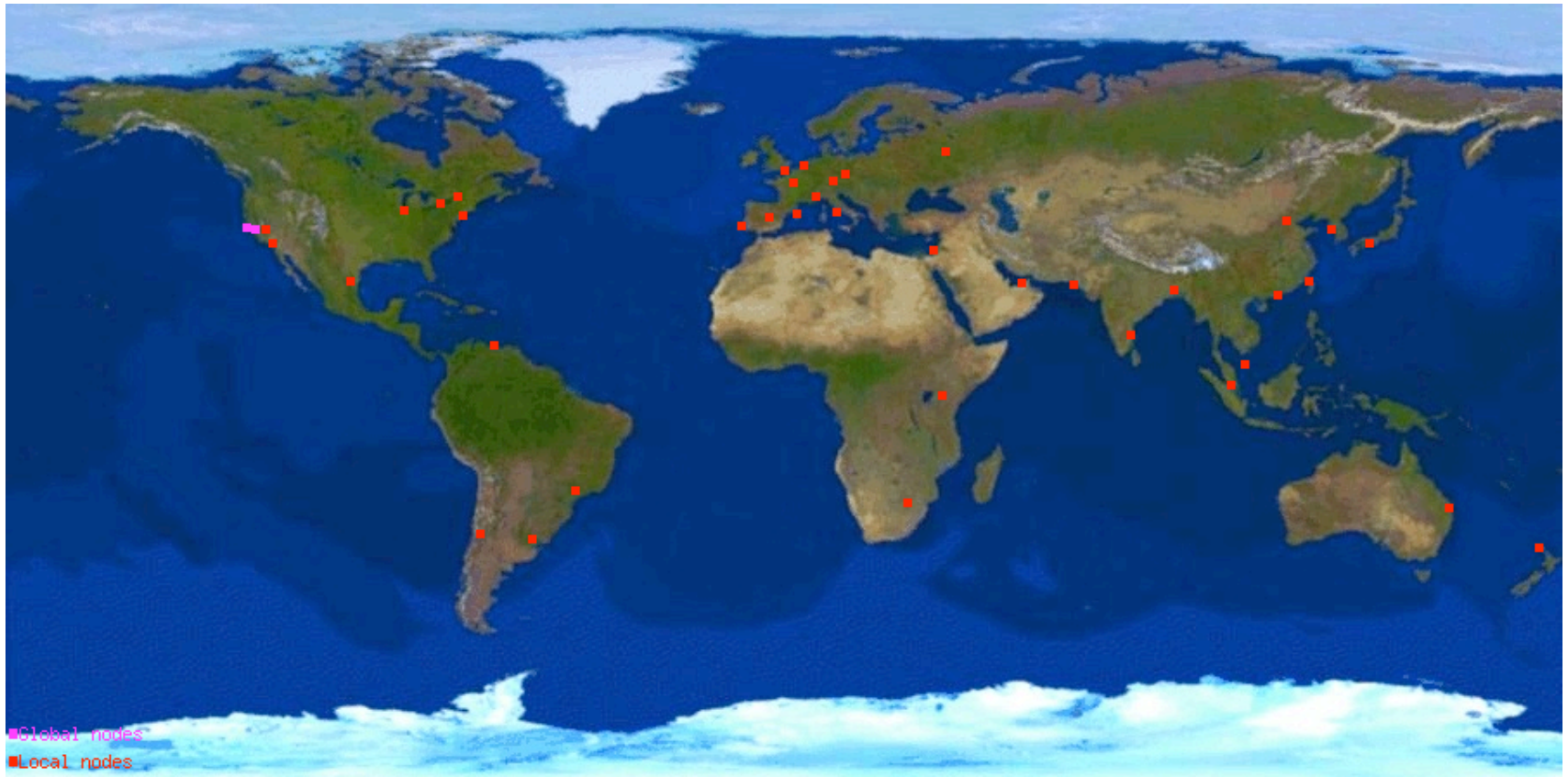
More, better, faster :)

Recent anycast nodes added

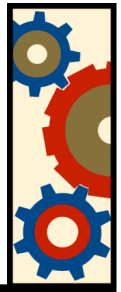
- Buenos Aires, Chicago

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?