ITU Workshop on IPv6

Geneva, Switzerland, 4 – 5 September 2008

IPv6, DNS & ICANN's Role

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Overview

- Current deployment status
- ICANN's role
- Protocol changes
- Hierarchy
- Outreach

IPv6 Deployment in ISPs and Enterprises

- circa 25,000 IPv4 autonomous networks
- circa 750 IPv6 autonomous networks
- IPv6 Internet about 3% the size of IPv4 Internet
- Most IPv6 networks are not production services

Why so low?

- IPv6 does not offer any significant new features
- So end-users don't see a reason to deploy it
- So ISPs can't make money deploying it
- So no-one asks for it... so no-one deploys it

But...

- We know that IPv4 will be completely allocated in the next few years
- If IPv6 is not deployed and available IPv4 remains essential
- And if it's essential but scarce it will become expensive

ICANN's role

- Set an example by deploying IPv6 in our own networks
- Raise awareness on deployments and impediments
- Provide training and information

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www.iana.org. IN   A      208.77.188.193
www.iana.org. IN   AAAA   2620:0:2d0:1::193
```

DNS Hierarchy

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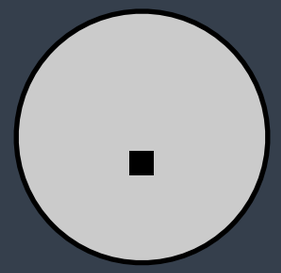

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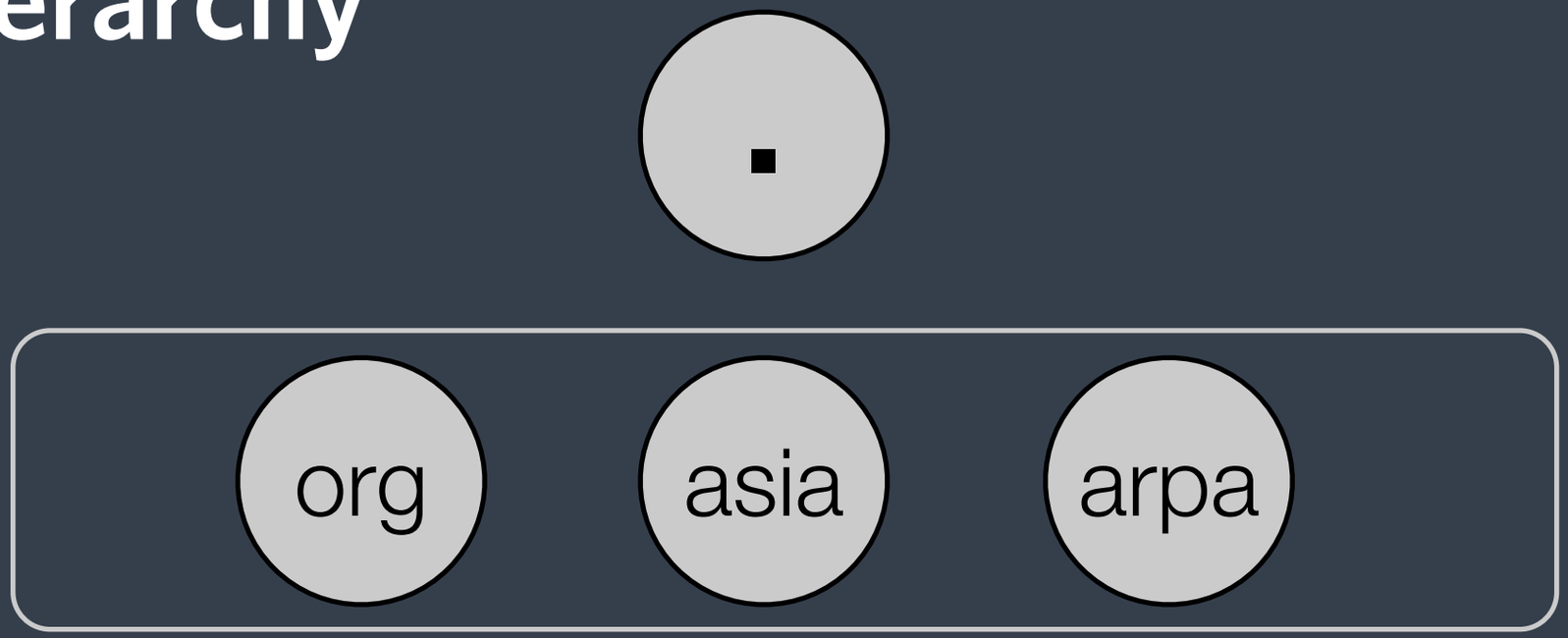

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Organisational Hierarchy

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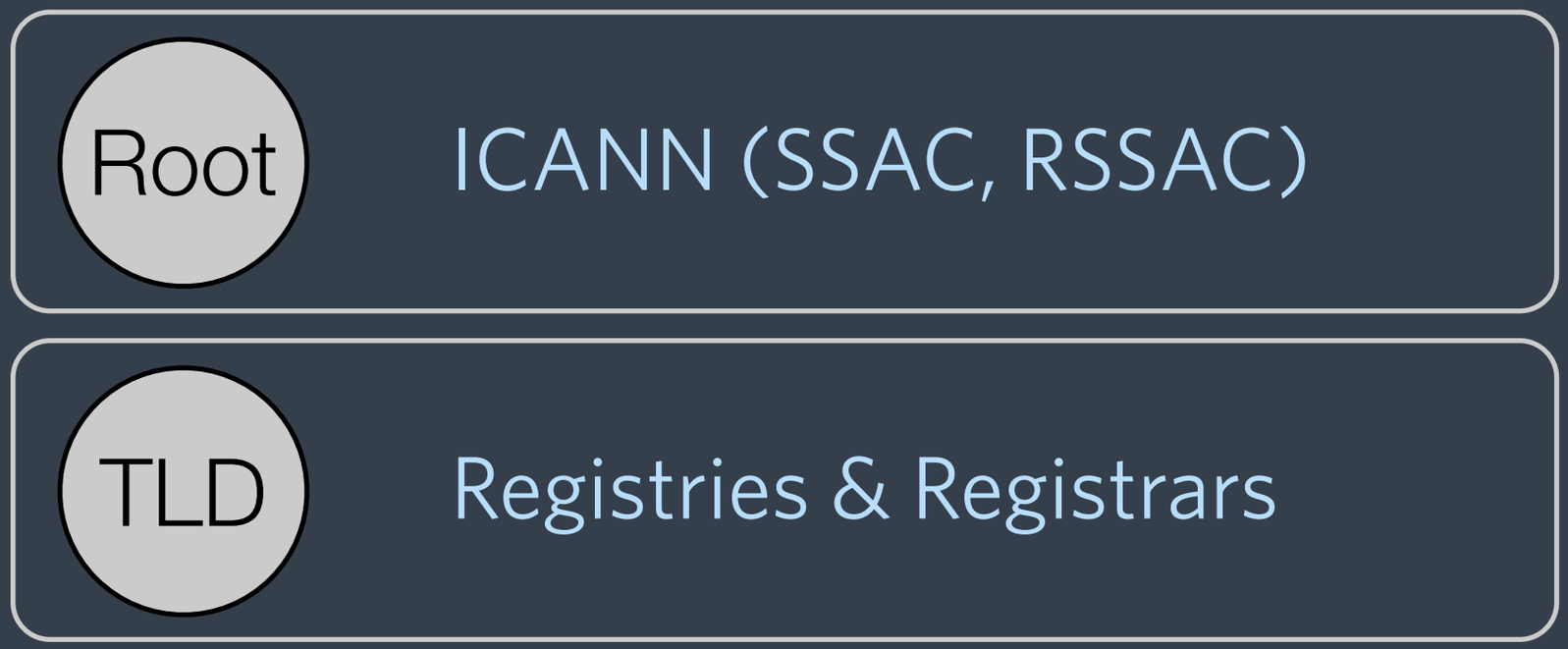

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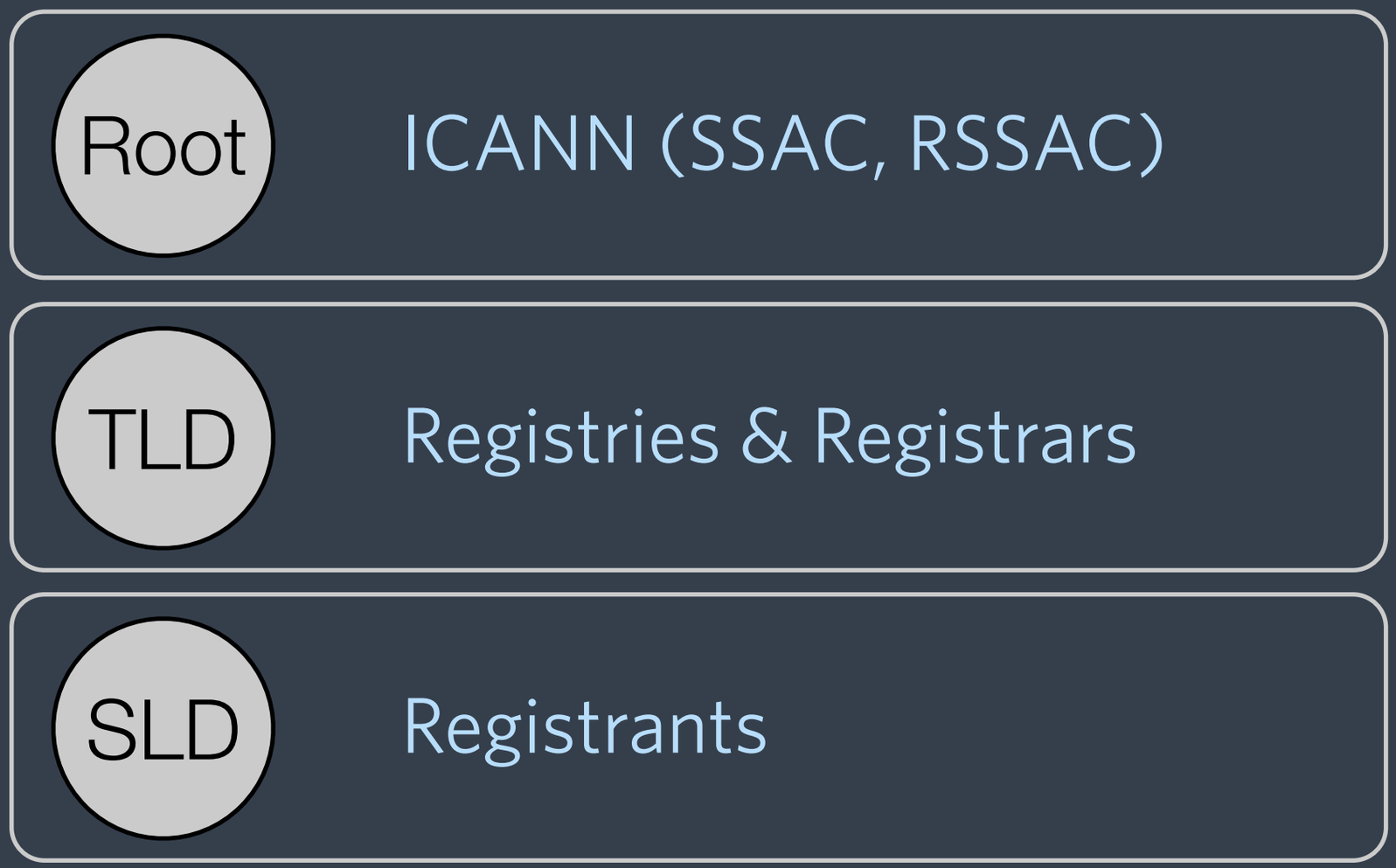

Security & Stability

- Bottom-up process, innovation at the edges
- Adding IPv6 to the root zone was carefully researched and tested
  - IPv6 glue for TLDs added first
  - IPv6 glue for root DNS servers added later
- Technical advice from RSSAC & SSAC

Key Dates

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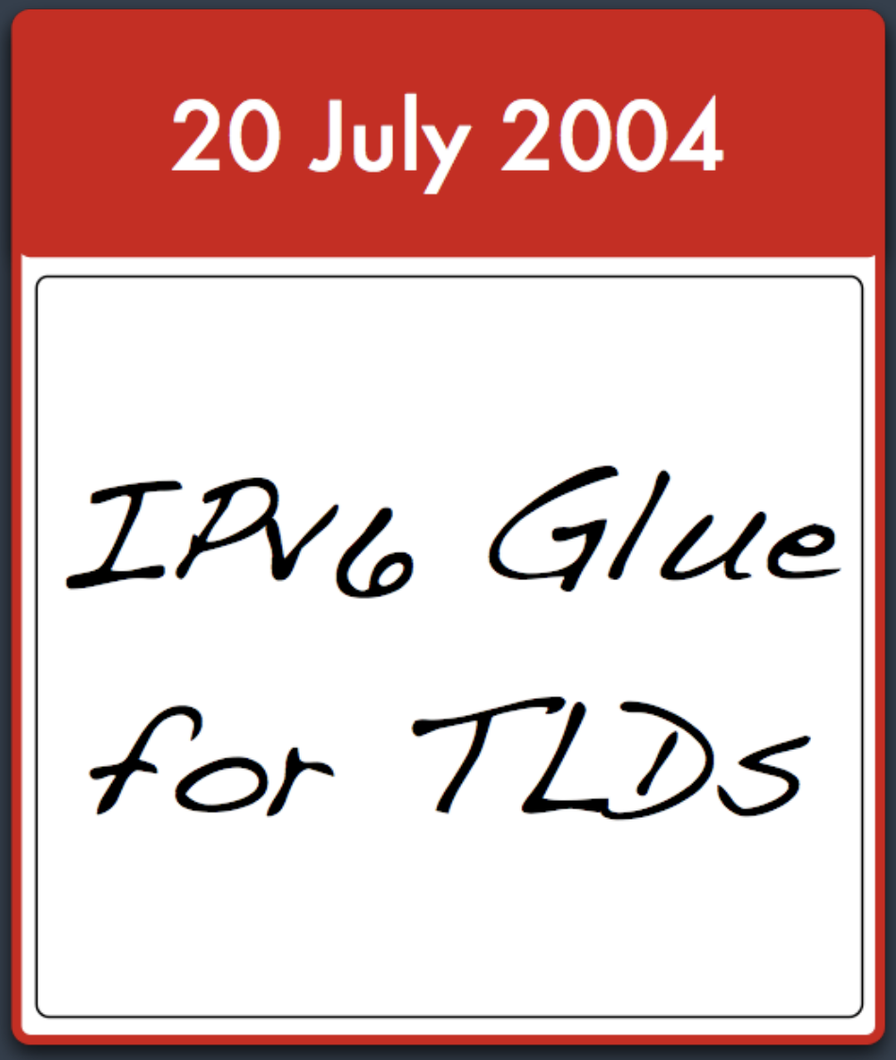

Key Dates

20 July 2004

IPv6 Glue for TLDs

29 January 2008

IPv6 Glue for Root DNS Servers

TLD Registries

- The largest registries have offered IPv6 support for years
- Cooperate with ICANN in education and training outreach to smaller registries

Domain Name Registrars

- Actively encouraging registrars to provide IPv6 support
- Registrar meetings

  http://www.iana.org/about/presentations/vegoda-registrars-ipv6-080502.pdf
- ICANN meetings

  http://par.icann.org/en/node/69
- ICANN Blog

  http://blog.icann.org/?p=344

Reaching Government & Industry

- Outreach to business

  http://par.icann.org/fr/node/35

- Involved in government working groups
- In contact with trade associations
  - business
  - manufacturing

Thank You

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