

Internet Stability

A study by
National Post and Telecom
Authority (PTS) - Sweden

Background

- Three different investigations on .se
- The latest with a draft bill on management of .se
- Government IT bill for improved trust in Internet use
 - User trust in IT
 - User skills
 - Greater accessibility
- PTS has developed Internet competence
- Swedish authorities are offering 24/7 service
- Sweden will be able to run local Internet if needed

Why .NU?

- Third tld in Sweden, with 84.000 +
- Used by Government authorities
- Used mostly by companies
- Very well known tld in Sweden
- .NU Domain open to cooperate

Methods for the study

- Determine the most important tlds for Sweden
- Onsite visits to tlds
- Consultations with tlds and operators
- Data collection from previous investigations
- Participating in ICANN development

Threats to tld operations

- Unauthorized modification of data
- False zone file transfers
- Cache poisoning
- Address spoofing
- DOS attacks

Responsibility of a tld

- One section of the Internet
- Customer database
- Zone file quality and distribution
- Registrars
- DNS and connectivity monitoring
- Development and implementation of new Internet technology

Security for the operation of tlds

- Sufficient capacity in slave servers
- Redundancy and more than one ISP
- Sufficient connectivity
- Correct configured and updated name servers
- Testing of zone file before publication
- Security for transfer from master to slave
- Sufficient number of slave servers

Security for the operation of tlds

- Name servers spread and close to users
- Secure premises for name servers
- Deversified operation through several DNS operators
- Deversified software for name server OS
- Deversified DNS software
- Enough staff for good testing and development

Security for the administration of tlds

- Security routines in communicating with registrars
- Appropriate security for outside database access
- Established routines for ICANN / IANA data changes
- Established routines for testing new systems
- A documented and updated security strategy
- A documented and updated disasterplan

What's next?

- Ongoing talks with .se, .com and .nu
- Establish best practice for the "Swedish" tlds
- Established routines for monitor tld operation
- Establish the cooperation between PTS & tlds