## Internet Governance

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## Need for "Governance"

- Shared resources needing administration:
  - IP Addresses (V4 and V6)
  - Domain names (ccTLD, gTLD)
  - AS Numbers (eg, AS3557)
  - Protocol Numbers (TCP=6)
- If we don't follow universal allocation system, then we cannot interoperate

## "Stakeholders" (1)

- If...
  - you hold/use/own/control a resource
  - your business is in allocating resources
  - you are a legislative policy wonk
  - you have too much time on your hands
- ...then you too can be a "stakeholder"!

# "Stakeholders" (2)

- ICANN
- US DoC
- IETF
- ISOC
- RIR's
- TLD's

- EFF
- Ralph Nader
- Lunatic fringe
- Root server operators
- ICANNWatch
- Network owners

# Rebels

- ICANN tries to be all things to all "stakeholders", with predictable results
- Folks who don't get the recognition or power they want/need/crave can *rebel*
- If consensus inertia is higher than rebellion inertia, then the rebels become marginal
- Otherwise time drags on until a newer or better consensus is found

### Loyals (like kc and vix)

- Some of us just want the system to *work* and are willing to ignore the stench of it all
- RIR's and RSO's are prime examples
- IETF is less coherent but tends to be loyal
- Rebels see us as the empire's storm troopers, or lapdogs, or dupes
- Some "powers that be" are uneasy about us

#### Interlude – Global Routeable IP

- Every globally routeable IP address block (IPv4 or IPv6) places a small burden on a large number of Other People's Routers.
- This scales poorly demand is for millions, capacity is for a mere tens of thousands.
- A better economic model would apportion the costs to those who benefit from routes.

## More on Global Routeable IP

- Economic model is course-grained, so back pressure on global routeable IP felt at RIRs
- ARIN/RIPE/APNIC/LACNIC continuously searches for equilibrium between "routing table size" and "minimum allocation size".
- If it's too easy to qualify for minimum-size IP block then there will be too many blocks.

#### Last Word on Routeable IP

- Technical model leads to "only big networks can qualify" allocation system for global IP.
- This means small ISPs have to use address space from large ISPs. Result: hegemony.
- Alternatives all require vast increase of "state" in routing core, which is an anti-IP approach.
- Got a better idea? Go into research and fix it!

## Ex.: VeriSign TypoSquatting

 Washington Post, 15-SEP-2003: "VeriSign Inc. today used its power as the operator of the "dot-com" and "dot-net" Internet domains to redirect a torrent of valuable "junk" Internet traffic away from Microsoft and America Online into its own proprietary search page."

#### SiteFinder Motivation?

- Also from that same article:
  - "VeriSign's Site Finder could easily generate more than \$100 million a year in profits for the VeriSign, according to Mark Lewyn, the chairman of Reston, Va.-based Paxfire Inc.
    Formed in 2003, Paxfire designs systems to redirect misspelled Internet queries."

## Weakness in Governance?

- Many see VeriSign as **steward** not **owner**
- Alternative methods (MSIE, AOL) involve:
  - Contracts with eyeball-owners
  - Service and product subsidies
  - Inherent right/ability to avoid
  - Local language/culture fit

## SiteFinder Timeline (1)

- 16-SEP-2003: VeriSign turns on redirection
- 18-SEP-2003: ISC releases BIND9 patches
- 19-SEP-2003: ICANN requests suspension
- 21-SEP-2003: VeriSign refuses
- 24-SEP-2003: China (all of it) opts out
- 03-OCT-2003: ICANN demands suspension
- 04-OCT-2003: VeriSign complies

## SiteFinder Timeline (2)

- 06-OCT-2003: ICANN provides timeline
- 07-OCT-2003: SECSAC Meeting in WDC
- 15-OCT-2003: SECSAC Meeting in WDC
- 22-OCT-2003: GNSO PDP (by January)
- Before January: updated SECSAC report
- Vixie's prediction: lawsuits, countersuits

# vix's Challenge to VeriSign

- SiteFinder's losers are registrars, spam victims, web surfers, registrants, other typosquatters, users of non-web protocols (FTP, SSH, etc), and the Internet governance trust model
- Who, other than VeriSign, wins? (Please provide diverse and specific examples)
- Please stop until/unless you have a good answer, and consensus from the Internet's governance and technology communities

# kc's Questions for VeriSign

- You couldn't process this through IETF because of proprietary concerns about "200 competitors"
  - but those are registrars and you're a registry?
- You've promised to give more warning if you turn it back on again...
  - but not to respect current Internet governance bodies that have been 20+ years in the making?
- You've clearly staked your flag as the capital of .com and .net country
  - whom do you consider your constituency, and how do you garner their approval?

# kc's plea to community

- listen to both sides: <u>http://secsac.icann.org/</u>
  - all video and transcripts of meetings are online
- icann's secsac committee needs hard data to provide technically sound and equitable guidance
  - send hard data to secsac-comment@icann.org
  - [rather than lists of theoretical breakages, and anecdotal evidence, and predictions]
  - regarding loss of stability in Internet performance or functionality.
- many deployed patch immediately
  - so hard data hard to come by

#### Governance and SiteFinder

- SiteFinder, ISC's patches, China's decision are all instances of cybernetic warlordism
- Governance means those who are affected by a decision get to help make the decision
- IAB, ISOC, ICANN did some fine work on this, but their authority is by no means clear
- And remember, power corrupts!

### What Can Each of Us Do?

- Don't leave governance to the policy wonks
  - Attend those boring ICANN meetings
  - Participate in those boring ICANN mailing lists
  - Find and join your local ISOC chapter
  - Pay attention to ICANNWatch, slashdot, etc
- Be courteous, mature, professional
- Help make the rules, help follow the rules

## Resources

- <u>www.icann.org/</u>
  - /tlds/agreements/verisign/
  - /announcements/announcement-17sep03.htm
  - /correspondence/twomey-to-tonkin-20oct03.pdf
- <u>www.icannwatch.org</u>/
- <u>www.isoc.org/</u>
- <u>www.ntia.doc.gov/</u>