

IETF Stuff

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2002-1-15

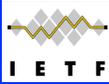
Topics

- ◆ I E T F
- ◆ QoS
- ◆ telephony
- ◆ security
- ◆ storage
- ◆ IPv6
- ◆ sub-IP
- ◆ network management
- ◆ routing
- ◆ ipr
- ◆ is there a future?



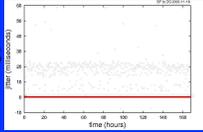
IETF

- ◆ since 1986, Internet standards R us
- ◆ does not exist, **no** members, **no** voting
- ◆ **“rough consensus & running code”**
- ◆ 1,200 to 2K at 3/year meetings, **NK** on mail lists
- ◆ 137 working groups (where the stuff happens)
- ◆ 8 areas (for organizational convenience) with ADs
APS, GEN, INT, O&M, RTG, SEC, SUB, TSV
- ◆ management: **IESG** (ADs, chosen by community)
- ◆ architectural guidance & liaisons: **IAB**
- ◆ produces **standards** (defined as such by use)

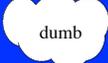


Quality of Service (QoS)

- ◆ reservation-based: IntServ
- ◆ class-based: diffserv
- ◆ signaling: RSVP & (soon) NSIS
- ◆ **works!** - but is that important?
- ◆ heavy use in enterprise nets
- ◆ but is the Internet crappy enough?
Casner's study
<http://www.nanog.org/mtg-0105/casner.html>
- ◆ "The Internet does not work." (by definition?) 
- ◆ multi-ISP QoS?
- ◆ ieprep as poster child - will all plugs work? 



Telephony

- ◆ got the models covered
megaco (H.248), SIP  
does e2e matter?
- ◆ SIP becoming the global answer (sorry, ITU)
at least for voice, but was it technology?
- ◆ **works!** but is that important?
- ◆ what is advantage of VoIP for customer? carrier?
- ◆ I wonder,
if it works so bad why are they so scared? 
- ◆ enum: life as a number?

Security

- ◆ techno rich:
IPsec, TLS, PKI, IKE, SMIME, SSH (but can I say SSH?)
- ◆ in reality, will it always be a myth? 
- ◆ trace-/push-back? 
- ◆ do **you** want security? (bad enough?)
Clarke backing down
- ◆ flip side: privacy
geopriv - a granular 'where I am'
Ashcroft as Santa
- ◆ counter force: DMCA
legally mandated stupidity

Storage

- ◆ cable & glass replacements
iSCSI, iFCP
- ◆ basically done, nitsville
- ◆ law of unintended consequences?
aim was for cheaper-fast
will main use be fast-enough-even-cheaper?
iFCP: bridging gaps or connecting devices?
- ◆ *Innovator's Dilemma* fodder?
a myriad of reasons for "no" but it **will** be "yes"
- ◆ RDDP
polishing the secondary use?



IPv6

- ◆ the future or a past future?
- ◆ status:
standards done, lots of implementations, lots of tests
Scott & Steve have come through
John & Bill are getting closer
- ◆ the mandated future
3GPP, DoD (but didn't they do that once before?)
- ◆ carrot-free zone?
- ◆ right & wrong, & 2 out of 3 is not too bad
- ◆ but how else do India, China & cell phones?



SUB-IP

- ◆ configurable under-IP networks
GMPLS, IPO, TE
ways to control & optimize the fiber glut?
- ◆ will MPLS save the Internet?
what is MPLS good for?
"wires" are a phone company's best friend
- ◆ does the V in VPN stand for "virtually no reason?"
why a VPN? (lawyers in Ottawa!)
is **pp**vpn a vain attempt at non-commodity?
IP-VPN: 'mother please, I'd rather do it myself'
then there is IP



Network Management

- ◆ SNMP misnamed
not the telco network management concept
- ◆ what does "SLA" mean?
telling me who is hurting would be a start
me telling the net that you are to get bad service would be nice
- ◆ does policy have a place?
- ◆ is there gold in network management?
for anyone other than Telcordia? for Telcordia?
- ◆ can there be a Knowledge Plane?

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Routing

- ◆ is BGP the answer or an impediment?
or is that impediment spelled y-a-k-o-v?
- ◆ is convergence time an issue when the net does not converge?
- ◆ can you make money on a new routing protocol?
- ◆ routing research group: so far not converging
- ◆ something for the CSTB?



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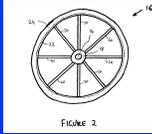
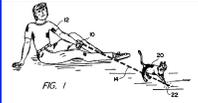
Other Stuff

- ◆ content: opes, CDI (CDN), copyright forever
- ◆ instant messaging: N types - is security important?
- ◆ mobility: devices & nets
- ◆ multicast: technology yes, business??
- ◆ grid: do you remember DCE?
- ◆ bluetooth: now just Ethernet?

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IPR

- ◆ IETF tweaking its IPR rules
 - 1st law: disclose in order to propose (or talk)
 - there is no 2nd law
- ◆ getting pressure from the open source folk for no-(known?) IPR standards
- ◆ maybe in some parallel universe
 - see AU "Innovation Patent" AU 2001100012 A4 (8/01)
 - also U.S. Patent 5,443,036 (8/95)



Is There A Future?

- ◆ this is this SOB, not the IETF
- ◆ is there an Internet business model?
 - there can be, iMODE as case study
- ◆ in the face of the content mafia?
 - the Internet as a Disney-controlled TiVo
- ◆ is there a future ISP that is not a telco?
 - remember: telcos think that the Internet does not work
- ◆ the ITU will "help", as will Ashcroft & China
- ◆ can AT&T get a cut from Amazon?
 - remember iMODE

Closing

- ◆ Internet == e2e
- ◆ e2e == commodity carriers
 - the above equations will make the future "fun"
- ◆ but, oh - those edges!
 - real-options @ e2e
 - edge-rich, core-poor

