

The Internet Engineering Task Force

Standards making in the Internet.

Standards process

- Internet standards are known as Request For Comment memos (RFCs)
- not all RFCs are standards
- RFC can be informational or a standard
- RFC creation and adoption process is through the Internet Engineering Task Force (IETF)
- now function of the Internet Society

History

- 1979

Internet Configuration Control Board (ICCB) formed by DARPA to guide the technological evolution of the TCP/IP protocol suite

- Jan 1983

DARPA declared that TCP/IP to be the only protocol permitted on the ARPANET

the ICCB was reorganized around a series of task forces considering different aspects of internetting, the new group was called the Internet Activities Board (IAB)

History, contd.

- late 1980s

DARPA, NSF, DOE and NASA formed the informal Federal Research Internet Coordinating Committee (FRICC) to coordinate U.S. Government support for the development and use of internetting

IAB formed two task forces

- Internet Research Task Force - long term

- Internet Engineering Task Force - short term

- Internet Engineering Steering Group ran IETF

both formed working groups

IAB approved standards

the FRICC took over support of the IAB

History: contd.

- early 1990

FRICC reorganized to expand membership and was renamed the Federal Networking Council (FNC) includes liaison to the Office of Science and Technology Policy (headed by the President's Science Advisor)

Coordinating Committee for Intercontinental Research Networks (CCIRN) to provide international coordination

- 1991

Internet Society (ISOC) formed

open membership

elected officers

professional society

standards organization

IAB renamed Internet Architecture Board &

moved under ISOC.

structure changed so that IESG approved standards

IAB

- IAB functions

- chartered by ISOC

- specific functions:

- 1/ quality control in standards process

- 2/ processes appeals to standards process

- 3/ organizational oversight

- 4/ performs strategic planning for the Internet,
identifying long-range problems
and opportunities

IETF

- Internet Engineering Task Force
 - responsibility for specifying the short and mid-term Internet protocols and architecture and recommending standards for IESG approval
 - provision of a forum for the exchange of information within the Internet community (open meetings three times this year)
 - identification of pressing and relevant short- to mid-range operational and technical problem areas and convening of Working Groups to explore solutions
 - more than 70 Working Groups
 - ad hoc groups concerned with a specific problem meet at IETF meetings and on their own
 - Working Groups arranged into 9 areas, each with one or two Area Directors

IETF Areas

1/ Applications	John Klienstein/MIT Erik Huizer/SURFnet
2/ Internet Area	Stev Knowles/FTP Software Claudio Topolcic/BBN
3/ Network Management	Marshall Rose/DBC
4/ Operational Requirements	Scott Bradner/Harvard Univ. Mike O'Dell/Altnet
5/ Routing	Joel Halpern/Newbridge
6/ Security	Jeff Schiller/MIT
7/ Transport	Allison Mankin/NRL
8/ User Service	Joyce Reynolds/ISI
9/ IPng	Scott Bradner/Harvard Allison Mankin/NRL

IESG

Internet Engineering Steering Group

- technical management of IETF activities
- approves Internet standards specifications
- composed of the IETF Area Directors & a chair
chair - Paul Mockapetris/ISI
- chair also on IAB

RFC process

- draft RFC produced by IETF Working Group
- draft is placed for anonymous FTP
- after a period for comment the draft is recommended by the IESG for RFC status
- the draft is installed as a "proposed standard" with an indication as to what level of standard it will finally become
- after period of review, proposed standard considered for advancement to draft standard status
 - must have at least two interoperating implementations
- after period of review, draft standard considered for advancement to full standard status
 - must have market acceptance
- standard levels:
 - required
 - must be present in all Internet devices
 - only IP and ICMP are required
 - recommended
 - should be implemented in Internet devices
 - elective
 - may be implemented

RFC access

- RFCs may be retrieved by anonymous ftp from:

ds.internic.net

directory rfc

name format: rfc1234.txt

RFC retrieval via email

To get an RFC index:

send email to:

service@ds.internic.net

with a Subject line of:

send rfc:rfc-index.txt

To get a specific RFC:

send email to:

service@ds.internic.net

with a Subject line of:

send rfc:rfcXXXXX.txt

or

send rfc:rfcXXXXX.ps

(only some RFCs are in PostScript, see index)