The Internet Engineering Task Force

June 2021

Making the Internet work better

IETF mission

Make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.

[RFC 3935]

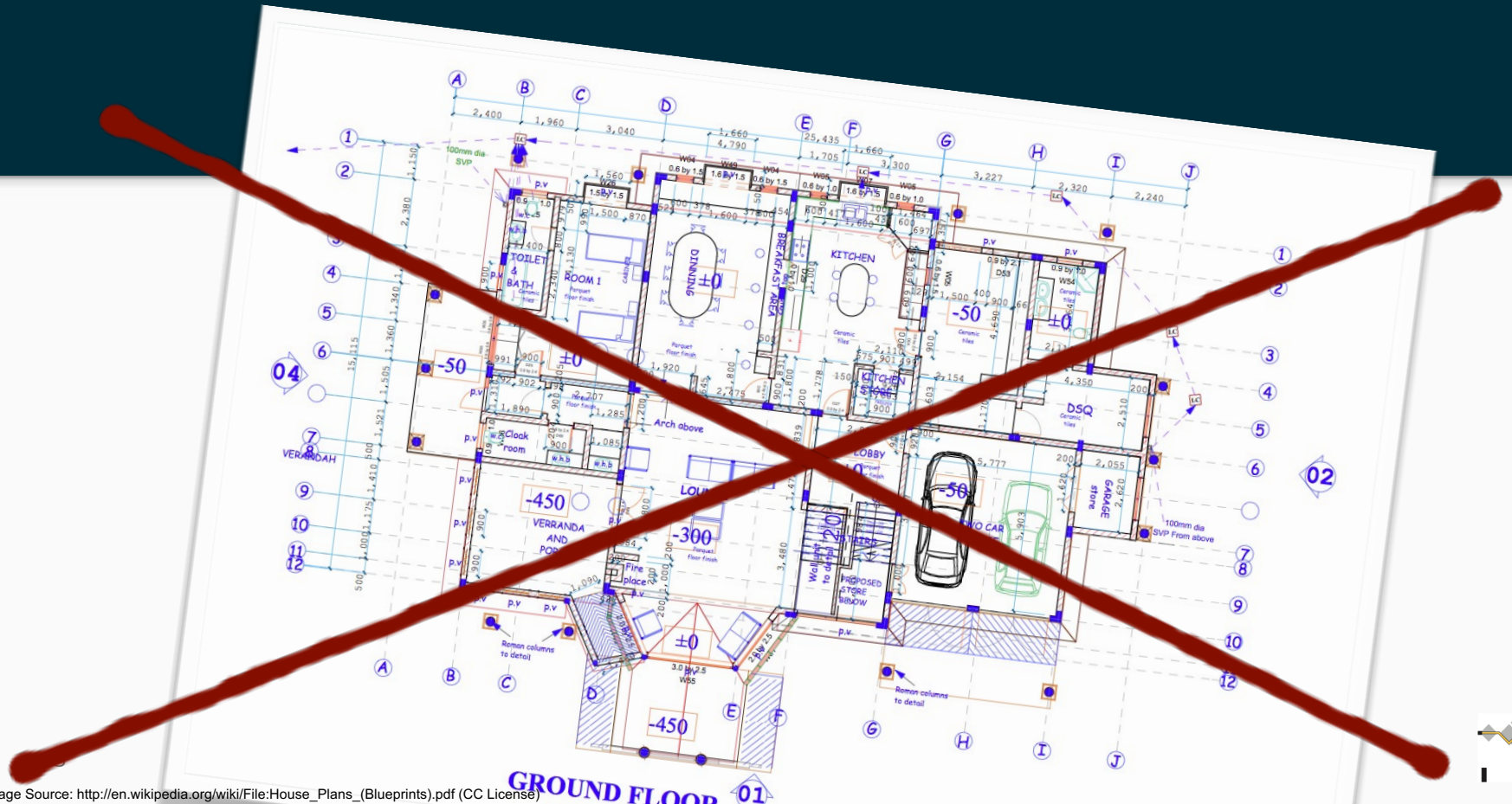


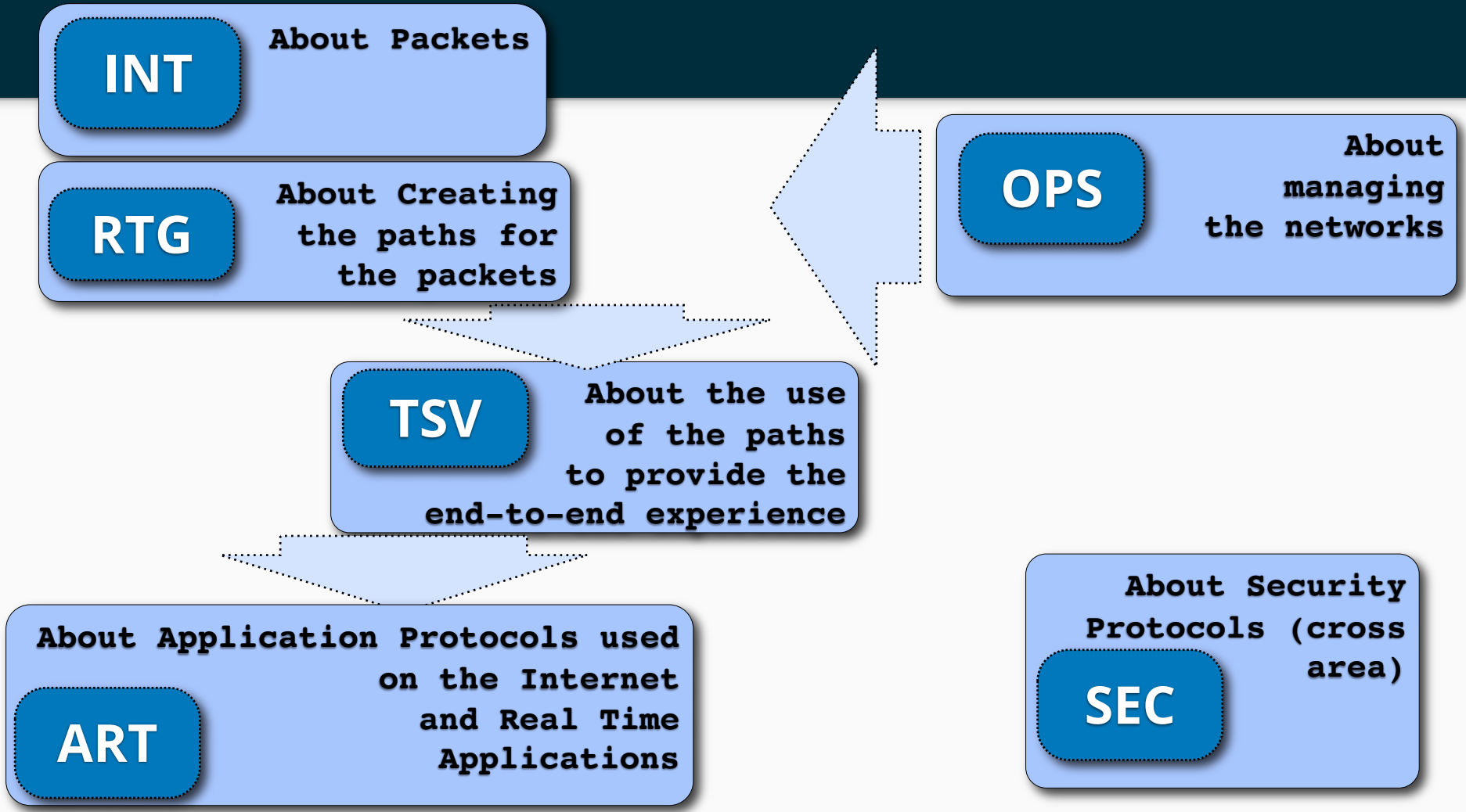
Image Source: http://en.wikipedia.org/wiki/File:House_Plans_(Blueprints).pdf (CC License)

Open Architecture of Interoperable and reusable building blocks

Image Source: NLnet Labs Blender model based on http://en.wikipedia.org/wiki/File:House_Plans_(Blueprints).pdf (CC License)

Ethos of the IETF

- Everyone may participate
- Keep participation threshold low
- Make all work freely available
- Judge contributions on technical merits
- Determine protocol success by voluntary deployment


INT
About Packets
RTG
About Creating the paths for the packets
OPS
About managing the networks
TSV
About the use of the paths to provide the end-to-end experience
ART
About Application Protocols used on the Internet and Real Time Applications
SEC
About Security Protocols (cross area)

IETF Areas: ~120 Working Groups

Applications and Real-Time (ART)	• Application protocols and architectures • Real-time (communication) and non-real-time
Transport (TSV)	• Mechanisms related to data transport on the Internet • Includes congestion control
Routing (RTG)	• Routing and signaling protocols
Internet (INT)	• IPv4/IPv6, DNS, DHCP, VPNs, mobility
Operations and Management (OPS)	• Network management • Operations: IPv6, DNS, security, routing
Security (SEC)	• Security protocols and mechanisms, including cryptography
General (GEN)	• Activities focused on supporting and updating IETF processes

GEN
Eggert

- gendispatch
- shmoo

INT
Vyncke, Kline

- 6lo
- 6man
- 6tisch
- dhc
- dmm
- dnssd
- dprive
- drip
- hip
- homenet
- intarea
- ipwave
- lpwan
- lwig
- ntp
- tictoc

OPS
Wilton, Kumari

- anima
- bmwg
- dime
- dnsop
- grow
- iotpops
- mboned
- mops
- netconf
- netmod
- opsawg
- opsec
- radext
- sidrops
- v6ops

RTG
Retana, Scudder, Vigoreux

- babel
- bess
- bfd
- bier
- ccamp
- detnet
- idr
- lisp
- lsr
- lsvr
- manet
- mpls
- nvo3
- pals
- pce
- pim
- raw
- rift
- roll
- rtgwg
- sfc
- spring
- teas

SEC
Danyliw, Kaduk

- ace
- acme
- cose
- curdle
- dots
- emu
- gnap
- i2nsf
- ipsecme
- kitten
- lake
- lamps
- mls
- oauth
- openpgp
- privacypath
- rats
- sacm
- secdispatch
- secevent
- suit
- teep
- tls
- trans

TSV
Sarker,Duke

- alto
- dtn
- ippm
- masque
- nfsv4
- quic
- rmcat
- taps
- tcpm
- tram
- tsvwg

ART
Palombini, Kucherawy

- asap
- asdf
- avtcore
- calext
- cbor
- cdni
- cellar
- core
- dispatch
- dmarc
- ecrit
- emailcore
- extra
- httpapi
- httpbis
- Jmap
- jsonpath
- mmusic
- perc
- regext
- rtcweb
- rum
- sframe
- sipcore
- stir
- uta
- webtrans
- wish
- wpack

Last update June 28, 2021

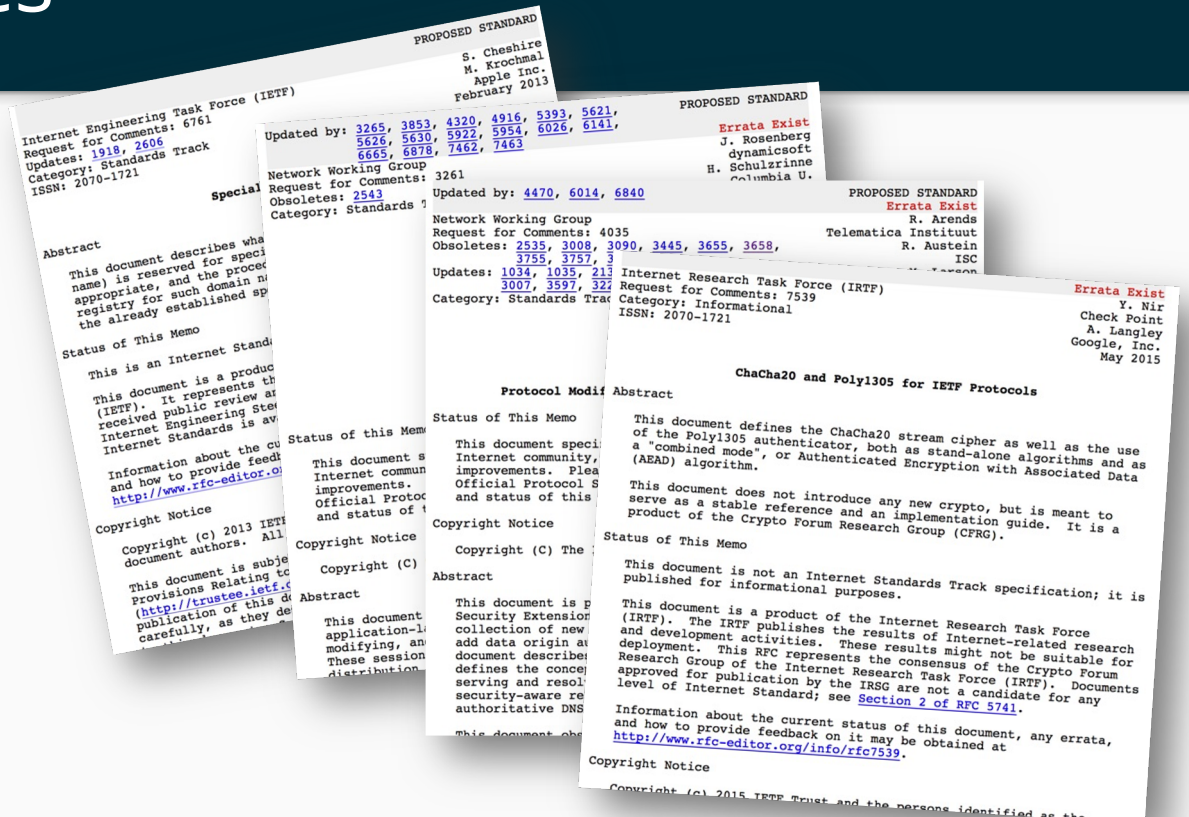
Current IETF work

- **Automating network management** to improve the efficiency of operating networks that are increasingly large and complex
- **Enabling the Internet of Things** by infusing connectivity among objects, sensors, and other devices with constrained capabilities
- **Developing new transport technology** to enhance the ability of applications to send data across a growing and diverse Internet
- **Improving security and privacy** to ensure the Internet is trusted as a medium for communications and collaboration

IETF Universe

Recent IETF protocol development efforts

RFCs


PROPOSED STANDARD
S. Cheshire
M. Krochmal
Apple Inc.
February 2013
Internet Engineering Task Force (IETF)
Request for Comments: 6761
Updates: 1918, 2606
Category: Standards Track
ISSN: 2070-1721
Abstract
Status of This Memo
Copyright Notice
PROPOSED STANDARD
Errata Exist
J. Rosenberg
dynamicsoft
H. Schulzrinne
Network Working Group
Request for Comments: 3261
Obsoletes: 2543
Updated by: 3265, 3853, 4320, 4916, 5393, 5621, 5626, 5630, 5922, 5954, 6026, 6141, 6665, 6878, 7462, 7463
PROPOSED STANDARD
Errata Exist
R. Arends
Telematica Instituut
R. Austein
ISC
Network Working Group
Request for Comments: 4035
Obsoletes: 2535, 3008, 3090, 3445, 3655, 3658, 3755, 3757,
Updates: 1034, 1035, 213 3007, 3597, 322
Updated by: 4470, 6014, 6840
Category: Standards Trac
Errata Exist
Y. Nir
Check Point
A. Langley
Google, Inc.
May 2015
Internet Research Task Force (IRTF)
Request for Comments: 7539
Category: Informational
ISSN: 2070-1721
ChaCha20 and Poly1305 for IETF Protocols
Abstract
This document defines the ChaCha20 stream cipher as well as the use of the Poly1305 authenticator, both as stand-alone algorithms and as a "combined mode", or Authenticated Encryption with Associated Data (AEAD) algorithm.
This document does not introduce any new crypto, but is meant to serve as a stable reference and an implementation guide. It is a product of the Crypto Forum Research Group (CFRG).
Status of This Memo
This document is not an Internet Standards Track specification; it is published for informational purposes.
This document is a product of the Internet Research Task Force (IRTF). The IRTF publishes the results of Internet-related research and development activities. These results might not be suitable for deployment. This RFC represents the consensus of the Crypto Forum Research Group of the Internet Research Task Force (IRTF). Documents approved for publication by the IRSG are not a candidate for any level of Internet Standard; see Section 2 of RFC 5741.
Information about the current status of this document, any errata, and how to provide feedback on it may be obtained at http://www.rfc-editor.org/info/rfc7539.
Copyright Notice

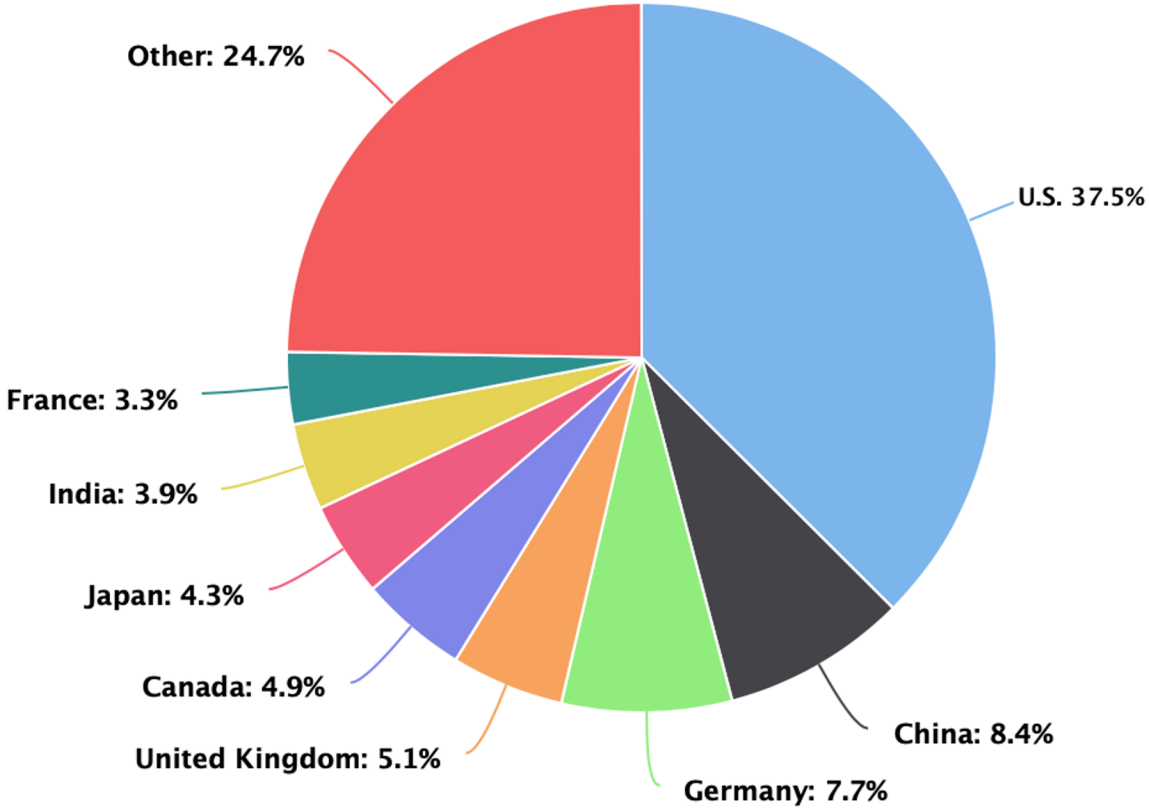
IETF Hackathons

Global IETF Community

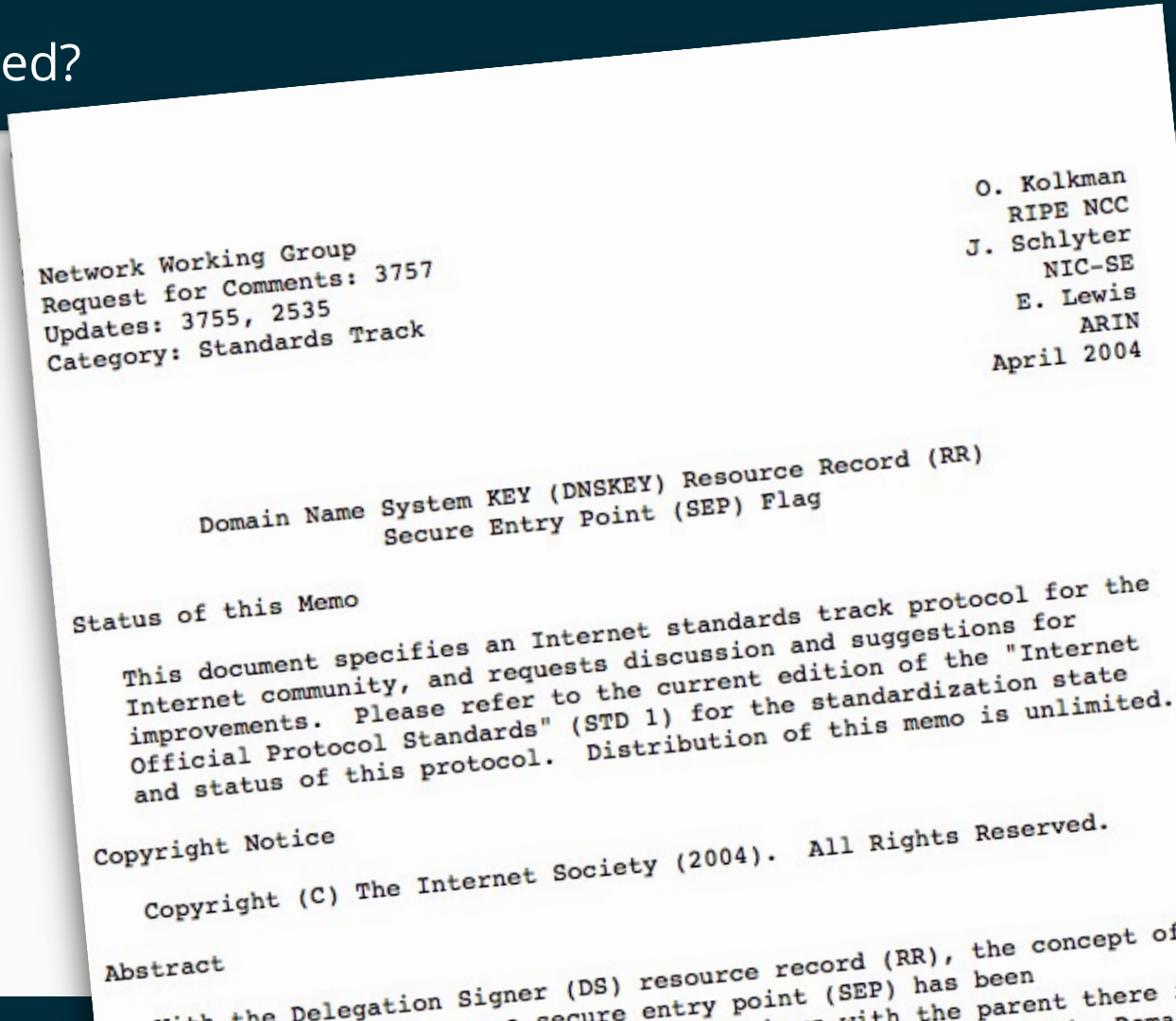
Process safeguards

- Open participation, transparent processes, and distributed decisionmaking
- Rough consensus, no voting
- Judgments on the basis of technical merit and architectural alignment
  - Leadership judges consensus rather than offering personal opinions
- Leadership nominations committee
  - Randomized selection of committee members from pool of active IETF volunteers
  - Two-per-company limit on committee members
  - Decisions on the basis of community feedback
- Leadership diversity norms; soft per-company limits

1518 Total Participants



Getting involved?



Network Working Group
Request for Comments: 3757
Updates: 3755, 2535
Category: Standards Track

O. Kolkman
RIPE NCC
J. Schlyter
NIC-SE
E. Lewis
ARIN
April 2004

Domain Name System KEY (DNSKEY) Resource Record (RR)
Secure Entry Point (SEP) Flag

Status of this Memo

This document specifies an Internet standards track protocol for the Internet community, and requests discussion and suggestions for improvements. Please refer to the current edition of the "Internet Official Protocol Standards" (STD 1) for the standardization state and status of this protocol. Distribution of this memo is unlimited.

Copyright Notice

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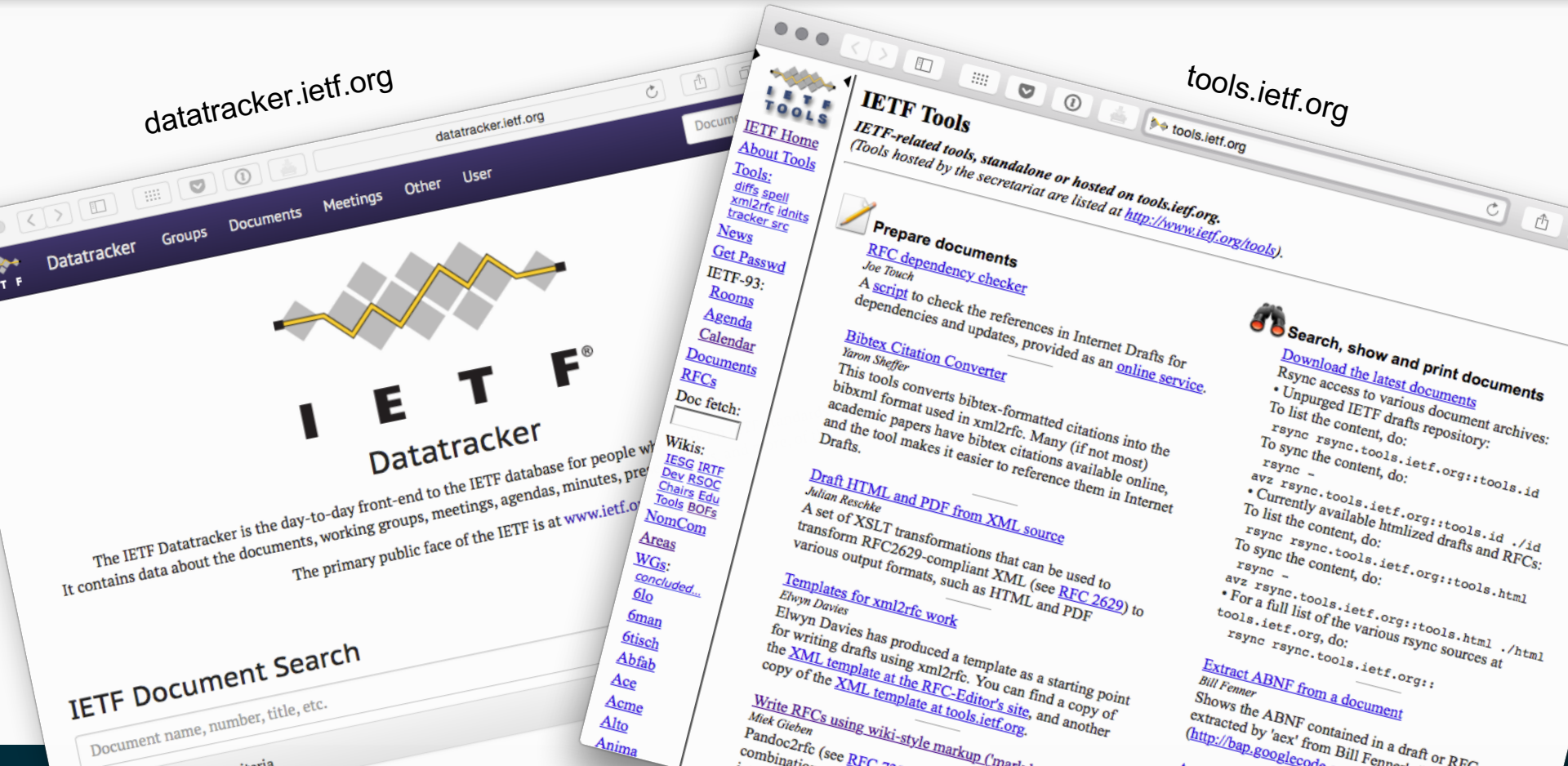
Abstract

...with the Delegation Signer (DS) resource record (RR), the concept of ...secure entry point (SEP) has been ...with the parent there is ...Domain

Tools


datatracker.ietf.org
tools.ietf.org
Datatracker
Groups
Documents
Meetings
Other
User
IETF
Datatracker
The IETF Datatracker is the day-to-day front-end to the IETF database for people wi
It contains data about the documents, working groups, meetings, agendas, minutes, pre
The primary public face of the IETF is at www.ietf.o
IETF Document Search
Document name, number, title, etc.
IETF Home
About Tools
Tools:
diffs spell
xml2rfc idnits
tracker src
News
Get Passwd
IETF-93:
Rooms
Agenda
Calendar
Documents
RFCs
Doc fetch:
Wikis:
IESG IRTF
Dev RSOC
Chairs Edu
Tools BOFs
NomCom
Areas
WGs:
concluded...
6lo
6man
6tisch
Abfab
Ace
Acme
Alto
Anima
IETF Tools
IETF-related tools, standalone or hosted on tools.ietf.org.
(Tools hosted by the secretariat are listed at http://www.ietf.org/tools).
Prepare documents
RFC dependency checker
Joe Touch
A script to check the references in Internet Drafts for dependencies and updates, provided as an online service.
Bibtex Citation Converter
Yaron Sheffer
This tools converts bibtex-formatted citations into the bibxml format used in xml2rfc. Many (if not most) academic papers have bibtex citations available online, and the tool makes it easier to reference them in Internet Drafts.
Draft HTML and PDF from XML source
Julian Reschke
A set of XSLT transformations that can be used to transform RFC2629-compliant XML (see RFC 2629) to various output formats, such as HTML and PDF
Templates for xml2rfc work
Elwyn Davies
Elwyn Davies has produced a template as a starting point for writing drafts using xml2rfc. You can find a copy of the XML template at the RFC-Editor's site, and another copy of the XML template at tools.ietf.org.
Write RFCs using wiki-style markup ('mark
Miek Gieben
Pandoc2rfc (see RFC 7
combinatio
Search, show and print documents
Download the latest documents
Rsync access to various document archives:
• Unpurged IETF drafts repository:
To list the content, do:
rsync rsync.tools.ietf.org::tools.id
To sync the content, do:
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avz rsync.tools.ietf.org::tools.id ./id
• Currently available htmlized drafts and RFCs:
To list the content, do:
rsync rsync.tools.ietf.org::tools.html
To sync the content, do:
rsync -
avz rsync.tools.ietf.org::tools.html ./html
• For a full list of the various rsync sources at tools.ietf.org, do:
rsync rsync.tools.ietf.org::
Extract ABNF from a document
Bill Fenner
Shows the ABNF contained in a draft or RFC extracted by 'aex' from Bill Fenner
(http://bap.googlecode

Thank you!

Making the Internet work better

Back-up

Permissionless innovation

IETF