CFRG
Research Group Status

IETF 118 Prague

Chairs:
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Administrative

- This session is being recorded
- Minute taker in HedgeDoc
- Jabber comment relay

Participant guide: https://www.ietf.org/how/meetings/technology/meetecho-guide-participant/
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Bluesheets are automatically generated based on IETF Datatracker information

Minutes: https://notes.ietf.org/notes-ietf-118-cfrg
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118th IETF CFRG Research Group
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• See RFC 7154 (Code of Conduct) and RFC 7776 (Anti-Harassment Procedures), which also apply to IRTF.
Goals of the IRTF

- The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organisation, the IETF, focuses on shorter term issues of engineering and standards making.

- The IRTF conducts research; it is not a standards development organisation.

- While the IRTF can publish informational or experimental documents in the RFC series, its primary goal is to promote development of research collaboration and teamwork in exploring research issues related to Internet protocols, applications, architecture, and technology.

- See “An IRTF Primer for IETF Participants” – RFC 7418.
CFRG Research Group

Online Agenda and Slides at:
https://datatracker.ietf.org/meeting/118/session/cfrg

Data tracker: https://datatracker.ietf.org/rg/cfrg/documents
Agenda

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15:00 - Chairs' update (5 mins).

15:05 - Chris Patton, "VDAF" (10+5 mins)

15:20 - Vasilis Kalos, "The BBS Signature Scheme" (10+5 mins)

15:35 - Andrey Bozhko, "Properties of AEAD algorithms" (5+5 mins)

15:45 - Alexander Dax, "How Subtle AEAD Differences can Impact Protocol Security" (10+5 mins)

16:00 - Dimitris Mouris, "The Mastic VDAF" (10+3 mins)

16:13 - Hubert Kario, "Implementation Guidance for the PKCS #1 RSA Cryptography Specification" (10+3 mins)

16:26 - David Joseph, "Batched Signatures" (4 mins)
RG Document Status
Document Status (1 of 3)

- New RFC (since July)
  - RFC 9380 (draft-irtf-cfrg-hash-to-curve): Hashing to Elliptic Curves
  - RFC 9381 (draft-irtf-cfrg-vrf): Verifiable Random Functions (VRFs)
  - RFC 9382 (draft-irtf-cfrg-spake2): SPAKE2, a Password-Authenticated Key Exchange
  - RFC 9474 (draft-irtf-cfrg-rsa-blind-signatures): RSA Blind Signatures
- In RFC Editor's queue
  - draft-irtf-cfrg-voprf-21 (AUTH48): Oblivious Pseudorandom Functions (OPRFs) using Prime-Order Groups
  - draft-irtf-cfrg-ristretto255-decaf448-08 (AUTH48): The ristretto255 and decaf448 Groups
- In IESG review
- In IRSG review
  - None
  - Waiting for IRTF Chair
  - None
Document Status (2 of 3)

- Active CFRG drafts
  - draft-irtf-cfrg-kangarootwelve-11 (**waiting for chairs to review second RGLC outcome**): KangarooTwelve eXtendable Output Function
  - draft-irtf-aegis-aead-06 (**updated**): The AEGIS family of authenticated encryption algorithms
  - draft-irtf-cfrg-bbs-signatures-04 (**updated**): The BBS Signature Scheme
  - draft-irtf-cfrg-dnhpke-03 (**updated**): Deterministic Nonce-less Hybrid Public Key Encryption
  - draft-irtf-cfrg-aead-properties-02 (**updated**): Properties of AEAD algorithms
  - draft-irtf-cfrg-aead-limits-07: Usage Limits on AEAD Algorithms
  - draft-irtf-cfrg-opaque-12 (**updated**): The OPAQUE Asymmetric PAKE Protocol
  - draft-irtf-cfrg-cpace-10 (**updated**): CPace, a balanced composable PAKE
  - draft-fluhrer-lms-more-parm-sets-11 (**updated**): Additional Parameter sets for LMS Hash-Based Signatures
  - draft-irtf-cfrg-vdaf-07 (**updated**): Verifiable Distributed Aggregation Functions
  - draft-irtf-cfrg-signature-key-blinding-04 (**updated**): Key Blinding for Signature Schemes
Document Status (3 of 3)

• Recently adopted documents
  • draft-irtf-cfrg-cryptography-specification-00: Guidelines for Writing Cryptography Specifications
• Documents in adoption call
  • None
• Expired
  – draft-irtf-cfrg-cipher-catalog-01: Ciphers in Use in the Internet
  – draft-irtf-cfrg-augpake-09: Augmented Password-Authenticated Key Exchange (AugPAKE)
  – draft-hoffman-rfc6090bis-02: Fundamental Elliptic Curve Cryptography Algorithms
  – draft-irtf-cfrg-xchacha-03: XChaCha: eXtended-nonce ChaCha and AEAD_XChaCha20_Poly1305
  – draft-irtf-cfrg-bls-signature-05: BLS Signatures
  – draft-irtf-cfrg-det-sigs-with-noise-00: Deterministic ECDSA and EdDSA Signatures with Additional Randomness
  – draft-hoffman-c2pq-07: The Transition from Classical to Post-Quantum Cryptography
AOB