

CFRG Research Group Status

IETF 112 Online

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Administrative

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

Jabber: xmpp:cfrg@jabber.ietf.org?join

- * For the virtual microphone queue, you may want to say "help q"
- * To add yourself to the queue send "q+" in Jabber
- * To remove yourself from the queue send "q-" in Jabber

Participant guide:

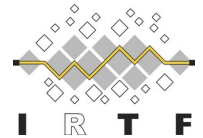
<https://www.ietf.org/how/meetings/technology/meetecho-guide-participant/>

Request assistance and report issues via: <http://www.ietf.org/how/meetings/issues/>

Bluesheets are automatically generated based on IETF Datatracker information

Minutes: <https://codimd.ietf.org/notes-ietf-112-cfrg>

Note Well – Intellectual Property



- The IRTF follows the IETF Intellectual Property Rights (IPR) disclosure rules
- By participating in the IRTF, you agree to follow IRTF processes and policies:
 - If you are aware that any IRTF contribution is covered by patents or patent applications that are owned or controlled by you or your sponsor, you must disclose that fact, or not participate in the discussion
 - The IRTF expects that you file such IPR disclosures in a timely manner – in a period measured in days or weeks, not months
 - The IRTF prefers that the most liberal licensing terms possible are made available for IRTF Stream documents – see [RFC 5743](#)
 - Definitive information is in [RFC 5378](#) (Copyright) and [RFC 8179](#) (Patents, Participation), substituting IRTF for IETF, and at <https://irtf.org/policies/ipr>

Note Well – Privacy & Code of Conduct



- As a participant in, or attendee to, any IRTF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public
- Personal information that you provide to IRTF will be handled in accordance with the Privacy Policy at <https://www.ietf.org/privacy-policy/>
- As a participant or attendee, you agree to work respectfully with other participants; please contact the ombudsteam (<https://www.ietf.org/contact/ombudsteam/>) if you have questions or concerns about this
- 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/112/session/cfrg>

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

Agenda

<https://datatracker.ietf.org/meeting/112/session/cfrg>

12:00 CFRG Update
(10 mins, CFRG chairs)

12:10 Verifiable Distributed Aggregation Functions
(10+5, Chris Patton)

12:25 CPace
(15+5, Bjoern Haase)

12:45 VOPRF
(10+5, Chris Wood)

13:00 'Short' hash and KMAC as a KDF
(15+5, Bob Moskowitz)

13:20 Private Access Tokens
(10+5, Chris Wood)

13:35 AOB

RG Document Status

Document Status

- New RFC (since July)
 - RFC 9106: Argon2 Memory-Hard Function for Password Hashing and Proof-of-Work Applications
- In RFC Editor's queue (since November)
 - None
- In IESG review
 - draft-irtf-cfrg-hpke-12 (**updated, IRSG Review done, In IESG Review**): Hybrid Public Key Encryption
- In IRSG review
 - draft-irtf-cfrg-spake2-23 (**updated, In IRSG Poll**): SPAKE2, a PAKE
- Waiting for IRTF Chair
 - None
- Active CFRG drafts
 - draft-irtf-cfrg-hash-to-curve-12 (**updated, Waiting for Document Shepherd**): Hashing to Elliptic Curves
 - draft-irtf-cfrg-vrf-09 (unchanged, **in RGLC**): Verifiable Random Functions (VRFs)
 - draft-irtf-cfrg-kangarootwelve-06 (**updated, Second RGLC**): KangarooTwelve eXtendable Output Function
 - draft-irtf-cfrg-voprf-08 (**updated**): Oblivious Pseudorandom Functions (OPRFs) using Prime-Order Groups
 - draft-irtf-cfrg-pairing-friendly-curves-10 (**updated**): Pairing-Friendly Curves
 - draft-irtf-cfrg-ristretto255-decaf448-01 (**updated**): The ristretto255 and decaf448 Groups
 - draft-irtf-cfrg-aead-limits-03: (unchanged): Usage Limits on AEAD Algorithms
 - draft-irtf-cfrg-opaque-07 (**updated**): The OPAQUE Asymmetric PAKE Protocol
 - draft-irtf-cfrg-pace-02 (**updated**): CPace, a balanced composable PAKE
 - draft-irtf-cfrg-frost-01 (**updated**): FROST: Flexible Round-Optimized Schnorr Threshold Signatures
 - draft-irtf-cfrg-rsa-blind-signatures-02 (**updated**): RSA Blind Signatures
- Expired
 - draft-irtf-cfrg-bls-signature-04: BLS Signature Scheme
 - draft-irtf-cfrg-cipher-catalog-01: Ciphers in Use in the Internet
 - draft-irtf-cfrg-webcrypto-algorithms-00: Security Guidelines for Cryptographic Algorithms in the W3C Web Cryptography AP
 - 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-mattsson-cfrg-det-sigs-with-noise-02: Deterministic ECDSA and EdDSA Signatures with Additional Randomness
 - draft-hoffman-c2pq-07: The Transition from Classical to Post-Quantum Cryptography

Crypto Review Panel

- Formed in September 2016
 - Wiki page for the team: <
<https://trac.ietf.org/trac/irtf/wiki/Crypto%20Review%20Panel>>
- May be used to review documents coming to CFRG, Security Area or Independent Stream.
- CFRG chairs ask for reviews from Crypto Review Panel before RGLC for CFRG documents.
- **Current members (January 2020 – December 2021):**
 - Scott Fluhrer, Russ Housley, Yaron Sheffer, Bjoern Tackmann, Chloe Martindale, Julia Hesse, Karthikeyan Bhargavan, Thomas Pornin, Jean-Philippe Aumasson, Jon Callas
- **Rotation of Crypto Review Panel in December 2021: call for nominations (cfrg-chairs@ietf.org).**

AOB