

RADIUS EXTensions (RADEXT)

IETF 116

March 28, 2023

Note Well

This is a reminder of IETF policies in effect on various topics such as patents or code of conduct. It is only meant to point you in the right direction. Exceptions may apply. The IETF's patent policy and the definition of an IETF "contribution" and "participation" are set forth in BCP 79; please read it carefully.

As a reminder:

- By participating in the IETF, you agree to follow IETF processes and policies.
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- As a participant in or attendee to any IETF activity you acknowledge that written, audio, video, and photographic records of meetings may be made public.
- Personal information that you provide to IETF will be handled in accordance with the IETF Privacy Statement.
- 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.

Definitive information is in the documents listed below and other IETF BCPs. For advice, please talk to WG chairs or ADs:

- [BCP 9](#) (Internet Standards Process)
- [BCP 25](#) (Working Group processes)
- [BCP 25](#) (Anti-Harassment Procedures)
- [BCP 54](#) (Code of Conduct)
- [BCP 78](#) (Copyright)
- [BCP 79](#) (Patents, Participation)
- <https://www.ietf.org/privacy-policy/> (Privacy Policy)

Living the IETF Code of Conduct

Reminder of key points of the Code of Conduct
[RFC 7154]:

1. IETF participants extend respect and courtesy to their colleagues at all times.
2. IETF participants have impersonal discussions.
3. IETF participants devise solutions for the global Internet that meet the needs of diverse technical and operational environments.
4. Individuals are prepared to contribute to the ongoing work of the group.

Meeting Details

- Chairs:
 - Margaret Cullen
 - Valery Smyslov
- Responsible AD:
 - Paul Wouters
- Meeting Slides: <https://datatracker.ietf.org/meeting/116/session/radext>
- MeetEcho:
<https://meetings.conf.meetecho.com/ietf116/?group=radext&short=radext&item=1>
- Notes: <https://notes.ietf.org/notes-ietf-116-radext>
- Zulip: <https://zulip.ietf.org/#narrow/stream/radext>

Administrative Tasks

- Bluesheets (collected automatically)
- We need volunteers:
 - one Zulip Scribe
 - two Note Takers

Agenda

- 3 min **Administrivia and Agenda Bashing** (chairs)
- 10 min **WG Charter & Milestones Review** (chairs)
<https://datatracker.ietf.org/doc/charter-ietf-radext>
- 5 min **Reverse CoA** (Alan)
[draft-dekok-radext-reverse-coa](#)
- 10 min **ALPN for RADIUS** (Alan)
[draft-dekok-radext-radiusv11](#)
- 5 min **TLS-PSK** (Alan)
[draft-dekok-radext-tls-psk](#)
- 5 min **TLS (and DTLS) to Standards Track** (Jan-Frederik)
[draft-rieckers-radext-rfc6614bis](#)
- 5 min **Deprecate Insecure uses of RADIUS** (Alan)
[draft-dekok-radext-deprecating-radius](#)
- 5 min **Status-Realm/Loop Prevention** (Margaret)
[draft-cullen-radextra-status-realm](#)
- 10 min **8-bit ID Space** (Alan)

Time permits:

RADIUS profile for Bonded Bluetooth Low Energy peripherals (Mark)
[draft-grayson-radext-rabble](#)

Charter

The RADIUS Extensions Working Group will focus on extensions to the RADIUS protocol. To ensure backward compatibility with existing RADIUS implementations, as well as compatibility between RADIUS and Diameter, all documents produced must specify means of interoperation with legacy

RADIUS. Any non-backwards compatibility changes with existing RADIUS RFCs, including RFCs 2865-2869, 3162, 3575, 3579, 3580, 4668-4673, 4675,

5080, 5090, 5176 and 6158 must be justified. Transport profiles should be compatible with RFC 3539, with any non-backwards compatibility changes justified.

The WG will review its existing RFCs' document track categories and where necessary or useful change document tracks, with minor changes in the documents if needed.

Charter (continued 1)

Work Items

The immediate goals of the RADEXT working group are:

- Deprecating the use of insecure transports outside of secure networks. This work updates RFC 6421.
- Bring RFC 6614 (RADIUS/TLS), and RFC 7360 (RADIUS/DTLS) to Standards track.
- Define best practices for using TLS-PSK with TLS-based transport.
- Define best practices for RADIUS roaming, and roaming consortia based on experience with RADIUS/TLS.
- Improve operations for multi-hop RADIUS networks: e.g. loop detection and prevention, a multi-hop Status-Server equivalent with ability to Trace the proxy steps a RADIUS message will follow.

Charter (continued 2)

Work Items

The immediate goals of the RADEXT working group are:

- Extend the 8-bit RADIUS ID space to allow more than 256 "in flight" packets across one connection.
- Allow for CoA / Disconnect packets to be sent in "reverse" down a RADIUS/TLS or RADIUS/DTLS connection. This functionality assists with transit of NATs.
- Defining Application-Layer Protocol Negotiation (ALPN) extensions for RADIUS/TLS and RADIUS/DTLS which allow the use of those transports in a FIPS-140 compliant environment.

Timeline:

Much of this work should be completed by 2024 in order to be part of the Wi-Fi 8 release, with products in 2026.

Milestones

- 08/2023 ALPN Negotiation to IESG
[draft-dekok-radext-radiusv11](#)
- 08/2023 Reverse COA to IESG
[draft-dekok-radext-reverse-coa](#)
- 09/2023 TLS-PSK Best Practices to IESG
[draft-dekok-radext-tls-psk](#)
- 01/2024 6614bis to IESG
[draft-rieckers-radext-rfc6614bis](#)
- 01/2024 7360bis to IESG
<none>
- 01/2024 Deprecating Insecure Uses of RADIUS to IESG
[draft-dekok-radext-deprecating-radius](#)
- 05/2024 Multi-hop Status/Loop Prevention to IESG
[draft-cullen-radextra-status-realm](#)
- 05/2024 Extend 8-bit ID Space to IESG
<none>