Support of fragmentation of RADIUS packets <u>in authorization exchanges</u>

draft-perez-radext-radius-fragmentation

IETF87 – RADEXT

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Status

- -06 submitted for WG adoption
- Comments received during -05 WG adoption discussions
    - Comments to the fragmentation mechanism description
    - Clearer discussion on the addressed use cases and alternatives in the introduction
    - Satisfy ABFAB requirements on supporting chunked data transfer prior to the authentication flow
- New introductory sections emphasizing the scope of the document
    - The introduction itself
    - A new section (2, "Scope of this document") delimiting the scenarios where the document is intended to be applied
- Focused on authorization exchanges
    - Considering a title and filename change
    - Along with adoption
    - "Support of fragmentation of RADIUS packets in authorization exchanges"
    - …-radext-radius-authz-fragment

WG Adoption

- Comments received addressed in -06
  - Including a solution acceptable to ABFAB on pre-authentication exchanges
  - And a clearer scoping
- So here we go again

AuthN and AuthZ

- A RADIUS conversation is decomposed in three phases:
  1. RADIUS pre-authorization (like a SAML request expressing a required LoA)
  2. RADIUS authentication (like standard RADIUS-EAP)
  3. RADIUS post-authorization (like a SAML response)
- Phases are bound through *references* (e.g. State attribute).
- Phase (1) finishes with a token which is used in the `Access-Request` for phase (2).
- Phase (2) finishes with a token in the `Access-Accept`, which provides a link to phase (3).
- Fragmentation is supported in phases 1 and 3
  - Phase 2 is unaltered
- Fragmentation is based on `Access-Request/Access-Accept` rounds

Implementation Goals

- Implement draft-perez-radext-radius-fragmentation
  - Serve as a proof of feasibility
  - Provide on-the-wire feedback for the specification
- Proof of concept
  - Intended for validating the fragmentation mechanism
- Work through out-of-the-box FreeRadius proxies
  - No need of RADIUS fragmentation support on existing/deployed proxies
- Open source
  - Source code contributed to FreeRADIUS available

Implementation Details

- Based on FreeRadius 2.1.12
  - Client based on FreeRadius `radeapclient`
- Currently implements -04
  - Will be updated accordingly once consensus is reached

https://libra.inf.um.es/~alex/freeradius-server-2.1.12-fragmentation-support.tar.gz

https://libra.inf.um.es/~alex/fragmentation-support-2.1.12.diff