draft-ietf-perc-private-media-framework-02

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Differences in -02

Administrative/Editorial end of spectrum:

- To Do List moved to https://github.com/ietf/perc-wg/issues
  - All were closed due to completion (subsequent slides) or addressed in one of the other WG I-Ds
- “Attacks on PERC” section renamed “Security Considerations”

Differences in -02 (cont.)

Per action items from IETF 96 WG meeting:

- MD added that it operates as SFM with the PERC systems constraints, including limits on what RTP headers cannot be altered
  - E.g., Single, common SSRC space option

- Removed To Do for investigation in to enabling one-way media injection (eg, announcements)
  - No interest in room to pursue and likely modern conferences will use OOB means instead

Differences in -02 (cont.)

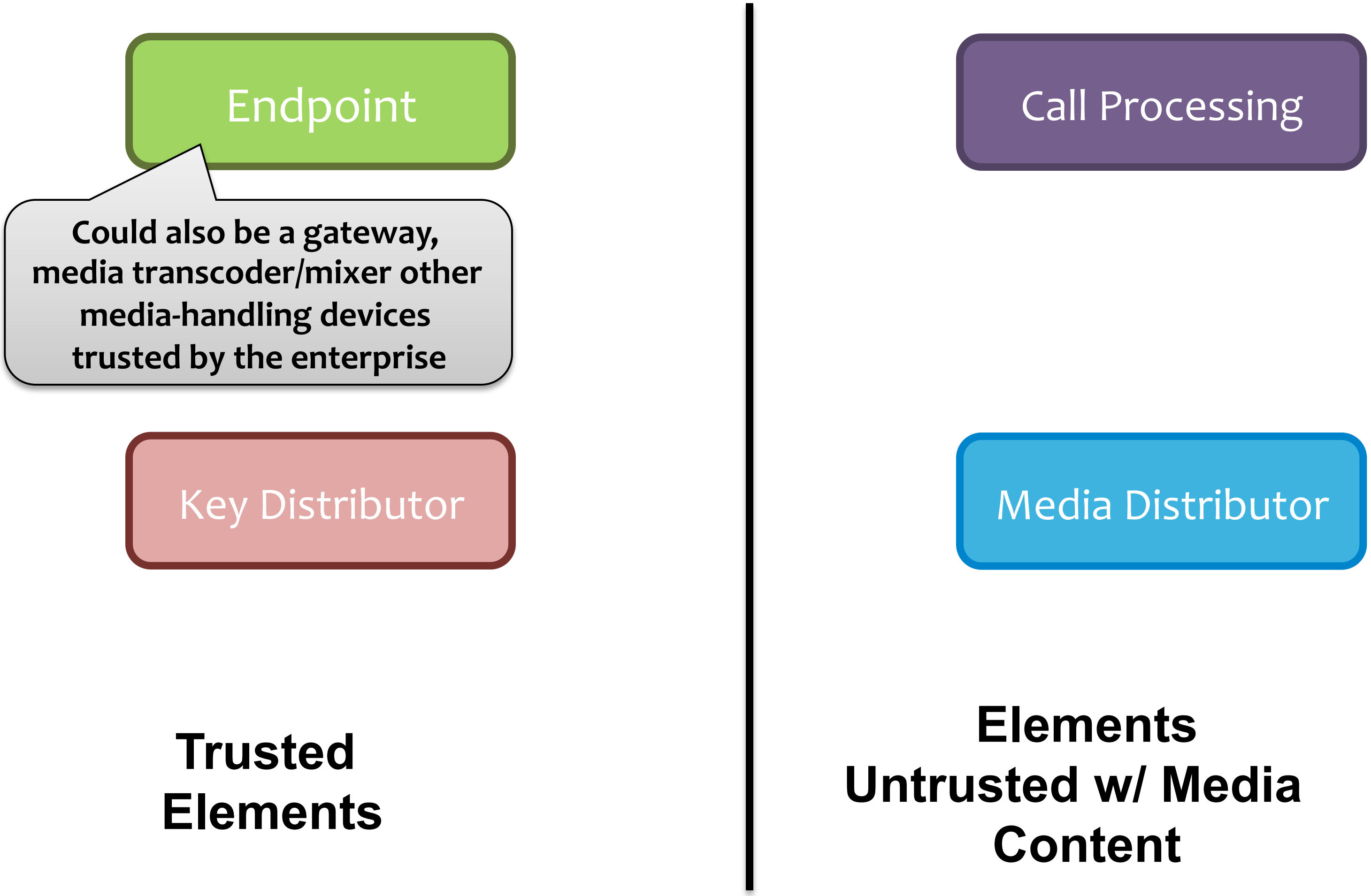
Per action items from IETF 96:

- Mapping of endpoints-to-a-given-conference may need to be conveyed.
  - Sect 5.3 summarizes, then points to Tunnel draft for operational details
- Added to Entity Trust section
  - Pointers to rtcweb-security-arch on identity assertions
- List of RTP header extensions that should/must not be E2E encrypted?
  - If ever listed, would appear in Double WG draft

PERC Framework Refresher

Back-up slides

Entities and Trust with Media



Endpoint

Could also be a gateway, media transcoder/mixer other media-handling devices trusted by the enterprise

Key Distributor

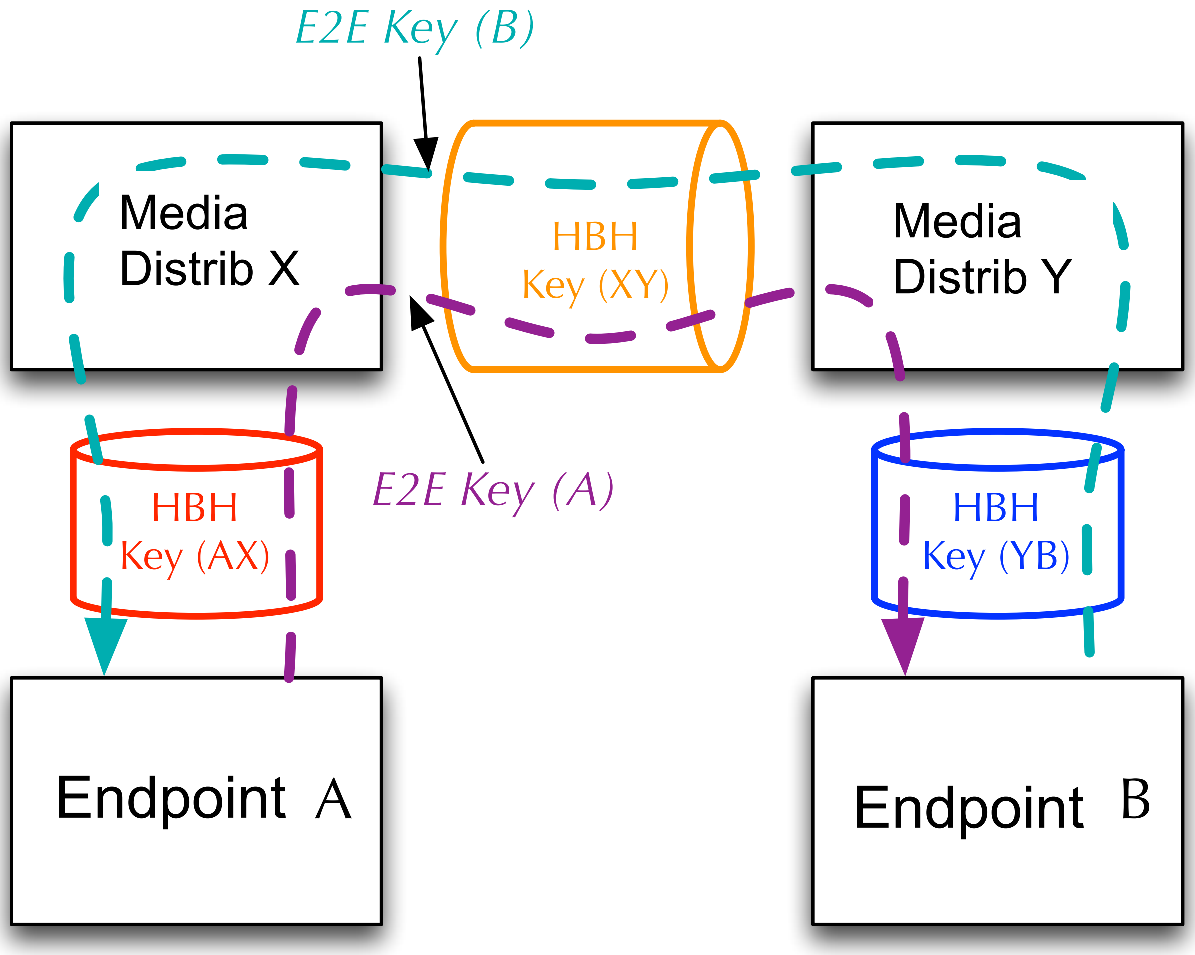
Trusted
Elements

Call Processing

Media Distributor

Elements
Untrusted w/ Media
Content

“Outer” (HBH) and “Inner” (E2E) Authenticated Encryption



Operational Details: draft-ietf-perc-double

E2E Keys

Generation

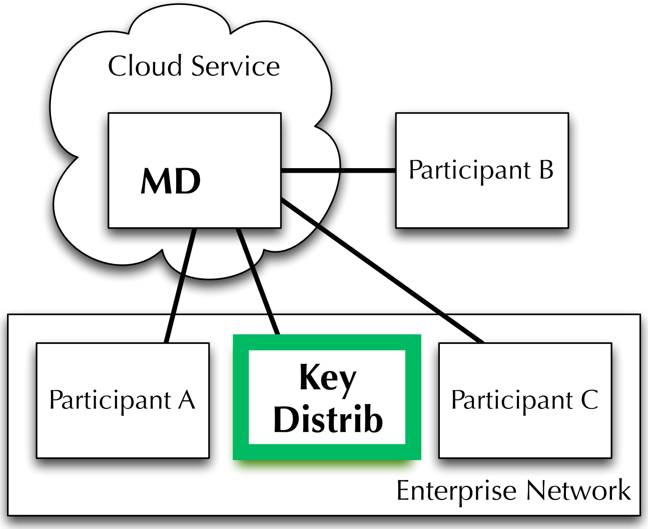
- An ~~“Outer”~~ “Inner” SRTP master key is created by each endpoint, E2E Key(i), for media it transmits.

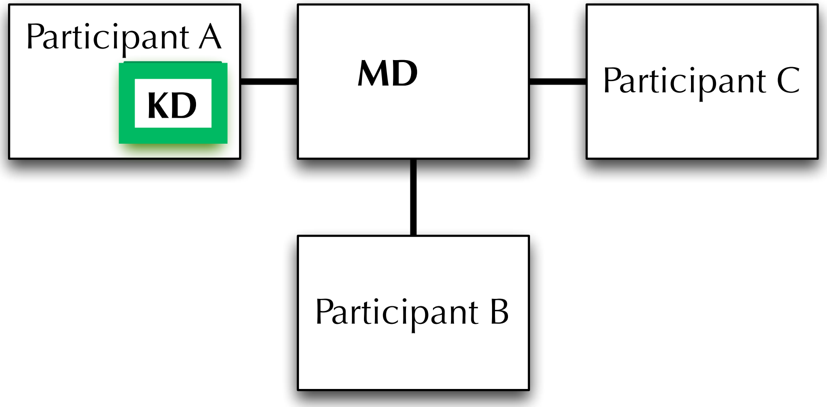
Confidentiality thereof

- A conference-wide key encryption key (ie, EKT Key) is used to encrypt an endpoint’s “Outer” ~~“Inner”~~ master key for sharing with all the (valid) endpoints in a conference.
- Conference-wide key encryption key can change during the life of conference, such as triggered by an event.
- More Operational Details: draft-ietf-perc-srtp-ekt-diet

Where Keys Come From

- Key Distributor
  - Conference-wide key encryption key (EKT Key)
  - HBH Keys between Endpoints and Media Distributors (AX, BY)
- Endpoints, Media Distributors generate the others





More Operational Details: draft-jones-perc-dtls-tunnel