Security Area Advisory Group

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IETF-99

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agenda

1. WG/BoF Reports and administrivia (10 mins)
2. Invited/offered talks
    1. Post-Quantum Crypto, Kenny Paterson (30 minutes)
    2. Pretty Easy Privacy (pEp), Volker Birk (15 minutes)
    3. Certificate Limitation Profile, Dmitry Belyavsky (5 minutes)
3. open-mic (60 mins)

WGs

ace

- Chairs
  - Kepeng Li
  - Hannes Tschofenig

ACME

- Chairs
  - Ted Hardie
  - Rich Salz
  - Yoav Nir

CURDLE

1. Chairs
   1. Daniel Migault
   2. Rich Salz

DOTS

- Chairs
  - Roman Danyliw
  - Tobias Gondrom

I2NSF

- Chairs
  - Adrian Farrel
  - Linda Dunbar

ipsecme

- Chairs
  - Tero Kivinen
  - David Waltermire

kitten

- Chairs
  - Matt Miller
  - Benjamin Kaduk
- Not meeting

LAMPS

- Russ Housley

MILE

- Chairs
  - Nancy Cam-Winget
  - Takeshi Takahashi

oauth

- Chairs
  - Hannes Tschofenig
  - Rifaat Shekh-Yusef

openPGP

- Chairs
  - Daniel Kahn Gillmor
  - Barry Leiba

sacm

- Chairs
  - Adam Montville
  - Karen O’ Donoghue

SecEvent

- Chairs
  - Dick Hardt
  - Yaron Sheffer

tls

- Chairs
  - Joe Salowey
  - Sean Turner

tokbind

- Chairs
  - John Bradley
  - Leif Johansson

trans

- Chairs
  - Melinda Shore
  - Paul Wouters

Related WGs

© Brian Campbell

Prague, Czech republic

SAAG WG
IETF 99

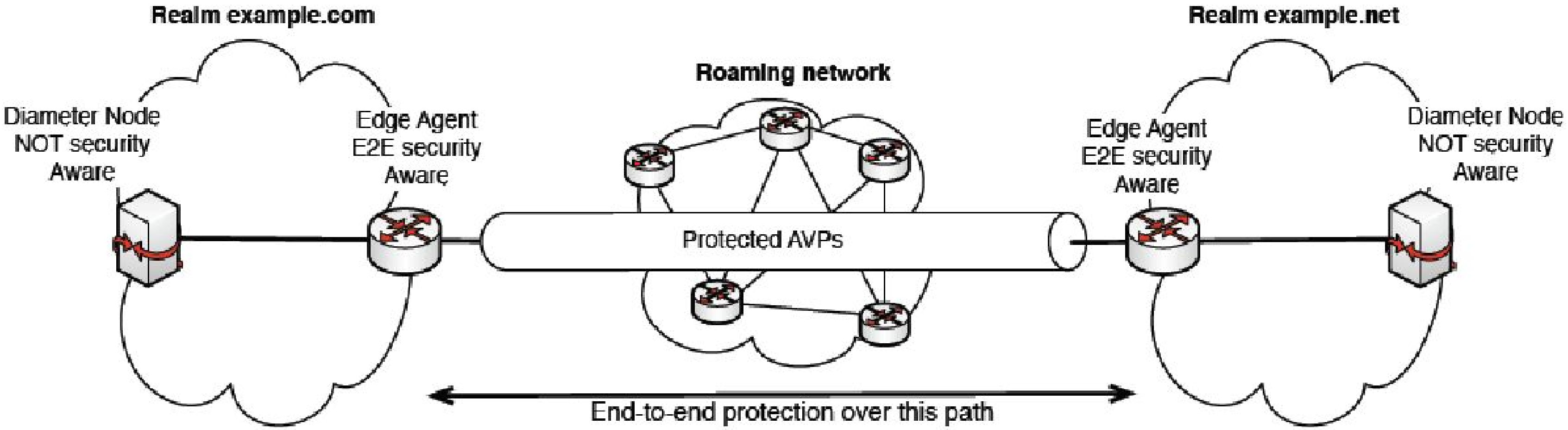
Diameter E2E security

Thursday, July 20th 2017

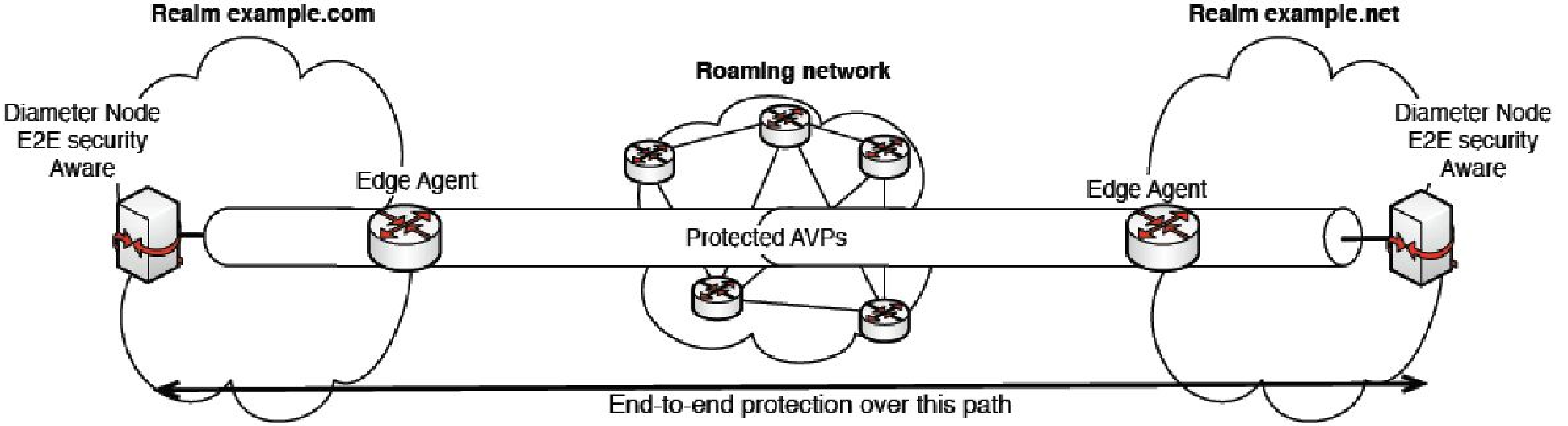
Victim: Lionel Morand

Diameter E2E security

Site-to-site


Realm example.com
Realm example.net
Roaming network
Diameter Node NOT security Aware
Edge Agent E2E security Aware
Protected AVPs
Edge Agent E2E security Aware
Diameter Node NOT security Aware
End-to-end protection over this path

End-to-end


Realm example.com
Realm example.net
Roaming network
Diameter Node E2E security Aware
Edge Agent
Protected AVPs
Edge Agent
Diameter Node E2E security Aware
End-to-end protection over this path

Status

- E2E sec requirement published in 2016 (RFC7966)
- Operational requirements:
  - Required by GSMA (roaming)
  - Required by operators
- Resurrecting old work in this area:
  - draft-korhonen-dime-e2e-security-02
  - AVP integrity and confidentiality protection.
- No progress on this work
  - -03 expired
  - Lack of resources
  - Lack of expertise

Strawman solution proposal

- Two new AVPs are defined for protecting other AVPs:
  - Signed-Data (octet string) for integrity protection of one or more AVPs.
  - Encrypted-Data (octet string) for confidentiality protection of one or more AVPs.
- Original proposal selected JSON-based approach:
  - JSON Web signature (JWS) for integrity protection.
  - JSON Web Encryption (JWE) for confidentiality protection.
- **New thinking:**
  - What about CBOR/COSE instead of Diameterified use of JSON??
  - Alternative?

HELP!!!!!!!!!!!!!!!!!!!!!!!

- Question?
- Note: hop-to-hop encryption is provided with TLS, but not necessarily well-deployed. The request for help is with E2E encryption.

wg/rg

- Security Related WGs/Topics
  - ANIMA
  - DBOUND
  - DIME
  - DISPATCH
  - DMARC
  - DPRIVE
  - HTTPBIS
  - QUIC
  - NETCONF
  - NTP
  - PERC
  - RADext
  - SIDR
  - TCPINC
  - UTA

- Security Related IRTF
  - CFRG
  - IRTFOpen
- IAB Programs
  - PrivSec
- External related
  - W3C

BoFs

Presentations

Presentations

1. Post-Quantum Crypto, Kenny Paterson (30 Minutes)
2. Pretty Easy Privacy (pEp), Volker Birk (15 minutes)
3. Certificate Limitation Profile, Dmitry Belyavsky (5 minutes)

OPEN MIC