

# Security Area Advisory Group

CodiMD for notes: <https://codimd.ietf.org/notes-ietf-109-saag>

Meetecho link:

<https://meetings.conf.meetecho.com/ietf109/?group=saag&short=&item=1>

Benjamin Kaduk

Roman Danyliw

IETF 109

# 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.

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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)

# Agenda

1. Welcome, Administrivia, and Agenda Bashing (5 mins)
2. WG Reports (10 mins)
3. AD Reports (5 mins)
4. Terminology: "on path" and "MITM" (10 mins)
5. Requirements for building a PKI (30 mins, Ryan Sleevi)
6. Open mic (remaining)

# Remembering Jim Schaad



<https://www.oregonwinepress.com/jim-schaad-1959-ndash-2020>

# Working Group Summaries

# ACE

## Chairs

- Daniel Migault
- Jim Schaad

## Report

<https://mailarchive.ietf.org/arch/msg/saag/wBn5Z0OE99M4P4dcMQG1S84dWgc/>

# ACME

## Chairs

- Rich Salz
- Yoav Nir

## Report

<https://mailarchive.ietf.org/arch/msg/saag/o5uBwlcuBd8rdISv4QC-kFP3QRQ/>

# COSE

## Chairs

- Matthew Miller
- Ivaylo Petrov

## Report

<https://mailarchive.ietf.org/arch/msg/saag/ipXwBOGtmDgiEnrIPXDpNnh1FxU/>



# CURDLE

## Chairs

- Daniel Migault
- Rich Salz

## Report

Did not meet

[https://mailarchive.ietf.org/arch/msg/saag/fordawH-SNFERzDOohuNGS2u\\_Ic/](https://mailarchive.ietf.org/arch/msg/saag/fordawH-SNFERzDOohuNGS2u_Ic/)

# DOTS

## Chairs

- Valery Smyslov
- Liang Xia (Frank)

## Report

Did not meet

<https://mailarchive.ietf.org/arch/msg/saag/2gZV-tOv0mgCpUoHAI1nBQtJ6HU/>

# EMU

## Chairs

- Joe Salowey
- Mohit Sethi

## Report

Meets tomorrow

# GNAP

## Chairs

- Leif Johansson
- Yaron Sheffer

## Report

<https://mailarchive.ietf.org/arch/msg/saag/5FnU9JqndqQ-iF--BjRkQTU3Wa4/>

# I2NSF

## Chairs

- Linda Dunbar
- Yoav Nir

## Report

Did not meet

<https://mailarchive.ietf.org/arch/msg/saag/czdc7ODQftB5ao-vD8UVqk38PVw/>

# IPSECME

## Chairs

- Tero Kivinen
- Yoav Nir

## Report

[https://mailarchive.ietf.org/arch/msg/saag/US1NUa02529\\_BdRlp3zskYb9J58/](https://mailarchive.ietf.org/arch/msg/saag/US1NUa02529_BdRlp3zskYb9J58/)

# KITTEN

## Chairs

- Robbie Harwood

## Report

Not meeting

<https://mailarchive.ietf.org/arch/msg/saag/5QDGzIIEdA4VPUEWtusTu3hQEmE/>

# LAKE

## Chairs

- Stephen Farrell
- Mališa Vučinić

## Report

[https://mailarchive.ietf.org/arch/msg/saag/UVeGQpLNnzRs7X4bRAbjb\\_brXxQ/](https://mailarchive.ietf.org/arch/msg/saag/UVeGQpLNnzRs7X4bRAbjb_brXxQ/)



# LAMPS

## Chairs

- Russ Housley
- Tim Hollebeek

## Report

<https://mailarchive.ietf.org/arch/msg/saag/HUFFIM68OO9j558dRBwqR1OyFOc/>

# MILE

## Chairs

- Nancy Cam-Winget
- Takeshi Takahashi

## Report

Did not meet

# MLS

## Chairs

- Nick Sullivan
- Sean Turner

## Report

Meets later today

# OAUTH

## Chairs

- Hannes Tschofenig
- Rifaat Shekh-Yusef

## Report

Did not meet

# PrivacyPass

## Chairs

- Benjamin Schwartz
- Joseph Salowey

## Report

Did not meet

# RATS

## Chairs

- Nancy Cam-Winget
- Ned Smith
- Kathleen Moriarty

## Report

<https://mailarchive.ietf.org/arch/msg/saag/LaBfnRQj9kSxijrZvRj1Cc27rDI/>

# SACM

## Chairs

- Chris Inacio
- Karen O'Donoghue

## Report

[https://mailarchive.ietf.org/arch/msg/saag/NQHqnarwozXYOs\\_4hHr8dcRBXII/](https://mailarchive.ietf.org/arch/msg/saag/NQHqnarwozXYOs_4hHr8dcRBXII/)

# SecDispatch

## Chairs

- Richard Barnes
- Francesca Palombini
- Kathleen Moriarty

## Report

XXX



# SecEvent

## Chairs

- Dick Hardt
- Yaron Sheffer

## Report

Did not meet

# SUIT

## Chairs

- Russ Housley
- Dave Thaler
- David Waltermire

## Report

Meets tomorrow

# TEEP

## Chairs

- Nancy Cam-Winget
- Tirumaleswar Reddy

## Report

<https://mailarchive.ietf.org/arch/msg/saag/ChVmM48WLCqZWesHgHLYysW27sc/>

# TLS

## Chairs

- Joe Salowey
- Sean Turner
- Chris Wood

## Report

<https://mailarchive.ietf.org/arch/msg/saag/wNyzlu73FBS5i5RM0kz6yeIZW0U/>

# TOKBIND

## Chairs

- John Bradley
- Leif Johansson

## Report

Did not meet

# TRANS

## Chairs

- Melinda Shore
- Paul Wouters

## Report

Did not meet

<https://mailarchive.ietf.org/arch/msg/saag/bdfLMSur5sNPU36fID3bYqE-YgQ/>

# Related Non-SEC Area Activities

## Security Topics in Related WGs

- ADD
- ANIMA
- DIME
- DISPATCH
- DMARC
- DPRIVE
- DRIP
- HIP
- HTTPBIS
- QUIC
- NETCONF
- NTP
- OPSEC
- PERC
- RADext
- SFRAME
- SIDROPS
- STIR
- UTA
- TAPS

## BoFs

- MADINAS

## Security Related IRTF

- CFRG
- PEARG

## IAB Programs

- model-t

## External related

- W3C
- IEEE
- ITU

# Other SEC Area Highlights

## AD Sponsored Drafts

- draft-foudil-securitytxt
- draft-gont-numeric-ids-sec-considerations

## New Work

- Re-open OPENPGP

Looking for WG Chairs for ACE



# SEC Area Highlights (2)

## Vulnerability Disclosure Guidance

- For IETF LLC

<https://www.ietf.org/about/administration/policies-procedures/vulnerability-disclosure>

- For IETF

<https://github.com/ietf/vul-reporting-guidance/blob/main/vul-reporting-guidance.md>

## Common SEC AD DISCUSS items

- <https://trac.ietf.org/trac/sec/wiki/TypicalSECArealIssues>

# SEC Document Pipeline

## Documents for Roman Danyliw

| Document  | Date       | Status   | IPR |
|---|------------|--|-----|
| <b>I-D Exists Internet-Draft (1 hit)</b>  |            |  |     |
| <a href="#">draft-ietf-i2nsf-capability-data-model-13</a><br>I2NSF Capability YANG Data Model                                   | 2020-11-02 | I-D Exists<br>WG Document: Proposed Standard<br>Reviews: genart, opsdir, secdir, tsvart, yangdoctors | 2   |
| <b>AD Evaluation Internet-Drafts (6 hits)</b>   |            |  |     |
| <a href="#">draft-ietf-sacm-coswid-16</a><br>Concise Software Identification Tags   | 2020-11-02 | AD Evaluation::Revised I-D Needed for 2 days<br>Submitted to IESG for Publication: Proposed Standard |     |
| <a href="#">draft-ietf-oauth-access-token-jwt-10</a><br>JSON Web Token (JWT) Profile for OAuth 2.0 Access Tokens                | 2020-09-23 |  |     |
| <a href="#">draft-ietf-i2nsf-nsf-facing-interface-dm-10</a><br>I2NSF Network Security Function-Facing Interface YANG Data Model | 2020-08-28 |  |     |
| <a href="#">draft-ietf-acme-authority-token-tnauthlist-06</a><br>TNAuthList profile of ACME Authority Token                     | 2020-03-09 |  |     |
| <a href="#">draft-ietf-acme-authority-token-05</a><br>ACME Challenges Using an Authority Token                                  | 2020-03-09 |  |     |
| <a href="#">draft-ietf-sacm-epcp-01</a><br>Endpoint Posture Collection Profile  | 2020-02-25 |  |     |

## Documents for Benjamin Kaduk

| Document  | Date       | Status  | IPR |
|---|------------|---|-----|
| <b>I-D Exists Internet-Draft (1 hit)</b>  |            |   |     |
| <a href="#">draft-ietf-secevent-subject-identifiers-06</a><br>Subject Identifiers for Security Event Tokens                       | 2020-09-04 | I-D Exists Proposed Standard  |     |
| <b>AD Evaluation Internet-Drafts (5 hits)</b>   |            |   |     |
| <a href="#">draft-ietf-tls-dtls-connection-id-08</a><br>Connection Identifiers for DTLS 1.2                                       | 2020-11-02 | AD Evaluation::AD Followup for 63 days<br>Submitted to IESG for Publication: Proposed Standard                    |     |
| <a href="#">draft-ietf-curdle-ssh-kex-sha2-11</a><br>Key Exchange (KEX) Method Updates and Recommendations for Secure Shell (SSH) | 2020-07-13 | AD Evaluation::AD Followup for 997 days<br>Submitted to IESG for Publication: Proposed Standard                   |     |
| <a href="#">draft-ietf-tls-dtls13-39</a><br>The Datagram Transport Layer Security (DTLS) Protocol Version 1.3                     | 2020-11-02 | AD Evaluation::Revised I-D Needed for 4 days<br>Submitted to IESG for Publication: Proposed Standard              |     |
| <a href="#">draft-ietf-tls-ticketrequests-05</a><br>TLS Ticket Requests   | 2020-04-24 | AD Evaluation::Revised I-D Needed for 20 days<br>Submitted to IESG for Publication: Proposed Standard<br>Nov 2020 |     |
| <a href="#">draft-ietf-kitten-sasl-saml-ec-19</a><br>SAML Enhanced Client SASL and GSS-API Mechanisms                             | 2019-08-28 | AD Evaluation::Revised I-D Needed for 76 days<br>Submitted to IESG for Publication: Proposed Standard             |     |

# Thanks to the SECDIR Reviewers since IETF 108

- Derek Atkins
- Nancy Cam-Winget
- Linda Dunbar
- Donald Eastlake
- Shawn Emery
- Stephen Farrell
- Phillip Hallam-Baker
- Russ Housley
- Christian Huitema
- Charlie Kaufman
- Watson Ladd
- Chris Lonvick
- David Mandelberg
- Daniel Migault

- Yoav Nir
- Hilarie Orman
- Derrell Piper
- Radia Perlman
- Derrell Piper
- Tirumaleswar Reddy
- Vincent Roca
- Kyle Rose
- Stefan Santesson
- Joseph Salowey
- Rich Salz
- Yaron Sheffer
- Rifaat Shekh-Yusef
- Valery Smyslov

- Robert Sparks
- Takeshi Takahashi
- Sean Turner
- Mališa Vučinić
- Carl Wallace
- Samuel Weiler
- Brian Weis
- Klaas Wierenga
- Christopher Wood
- Liang Xia

# Terminology: "on path" and "MITM"

## Previous list discussion

- Thread started at <https://mailarchive.ietf.org/arch/msg/saag/FR9WP9Y-73QZVX6Org-ciNDwM0w/>
- Michael did some summarizing at <https://mailarchive.ietf.org/arch/msg/saag/m1r9uo4xYznOcf85EyK0Rhut598/>

## Observations from the list

- Existing terminology is ambiguous/imprecise!
- “MITM” predates well-understood analysis of attacker capabilities and characterization of attacks
- Even “on path” can mean different things at different times
- “on path” and “MITM” presume a path; some attacks can change the path, too
- We aim to protect against Dolev-Yao attackers when possible, but other attackers exist and we need terms to talk about them and distinguish classes of attacks

## Taxonomy from QUIC

- on-path
- limited on path (cannot delete)
- off-path

## Taxonomy from Huitema

- M in the middle
- M on the side
- M in the rough

## Taxonomy from DeKok

- malicious messenger
- oppressive observer
- chaos creator

# Questions

- Are any of these terms fully unambiguous?
- Is the three-tiered taxonomy useful?



# Future work?

Is a strict hierarchical taxonomy valid/useful (vs. distinct capabilities)? Do we want to cover capabilities, attacks, or both? Some candidates:

- read legitimate traffic
- send spoofed traffic
- send spoofed traffic that arrives before legitimate traffic
- suppress legitimate traffic
- [alter legitimate traffic is a combination of the above]
- how much of the network is attackable (from single node to “all”)
- change the path taken by legitimate traffic
- physical/network/transport/application/etc.-layer access
- [please join the mic queue]

# Requirements for building a PKI

# Open Mic