draft-ietf-tls-dnssec-chain-extension

the past and the future

Sean Turner (WG Chair Hat On)

Questions

just to level set

Who is reading their email?

Who knows what DANE is? DNNSEC?

Who has read the draft?

Who has followed the list discussions?

Who read this presentation?

Who is planning to implement?

Who is planning to deploy?

20150630 Initial Posts: thread_1 & thread_2 (20)

Timeline

Agreed Use Case!

Primarily aimed at making DANE practical for HTTPS, where last-mile considerations on the client end are a significant part of the adoption barrier.

Think of it as “DANE stapling”.

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20170111	-02 Version
20170117	IETF 97 Presentation / Meetecho @ 0:32
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20170327	-03 Version
20170328	IETF 98 Presentation / Meetecho @ 1:28
20170601	-04 Version
20170621	WGLC comments: thread_1 & thread_2 (29)
20171029	-05 WG Version

Timeline

Pretty Normal

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20180123	-06 WG Version / Publication Requested / IETF LC (0)

Timeline

NO IETF LC Comments

Timeline

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20180207	GENART (3) / IESG: Adam (5 msgs), Mirja (15), Eric (52), Alexey (4), Ben (2)

"Downgrade" re-identified as an issue.

But, now it is a SHOWSTOPPER!

“Downgrade” Attack

tl;dr: DANE needs downgrade resistance against PKIX attacks.

Absent whitelists, a client misdirected to a server that has fraudulently acquired a public CA-issued certificate for the real server's name, could be induced to establish a PKIX verified connection to the rogue server that precluded DANE authentication.

Approved after resolving final DISCUSS point.

20180321 IETF 101 Presentation / Meetecho @ 0:44 / -07 WG Version / Proposed text (2) / Approved

Timeline

But, was the issued raised during the DISCUSS addressed properly?

Not Surprising.

20180321	IETF 101 Presentation / Meetecho @ 0:44 / -07 WG Version / Proposed text (2) / Approved
20180326	Offlist Appeal Threats

Timeline

Consensus to publish as-is or address issues in WG?

20180321	IETF 101 Presentation / Meetecho @ 0:44 / -07 WG Version / Proposed text (2) / Approved
20180326	Offlist Appeal Threats
20180404	Consensus Call (126)

Timeline

Consensus Call

Do you support publication of the document as is, leaving these two issues to potentially be addressed in follow-up work?

Issues:

1. Recommendation of adding denial of existence proofs in the chain provided by the extension
2. Adding signaling to require the use of this extension for a period of time (Pinning with TTL)

If no then what should the WG work on:

A) Recommendation of adding denial of existence proofs in the chain provided by the extension
B) Adding signaling to require the use of this extension for a period of time (Pinning with TTL)
C) Both

(added later)

D) Remove pinning paragraph from draft.

20

Participated in the thread.

10

Answered the 1st question directly.

10

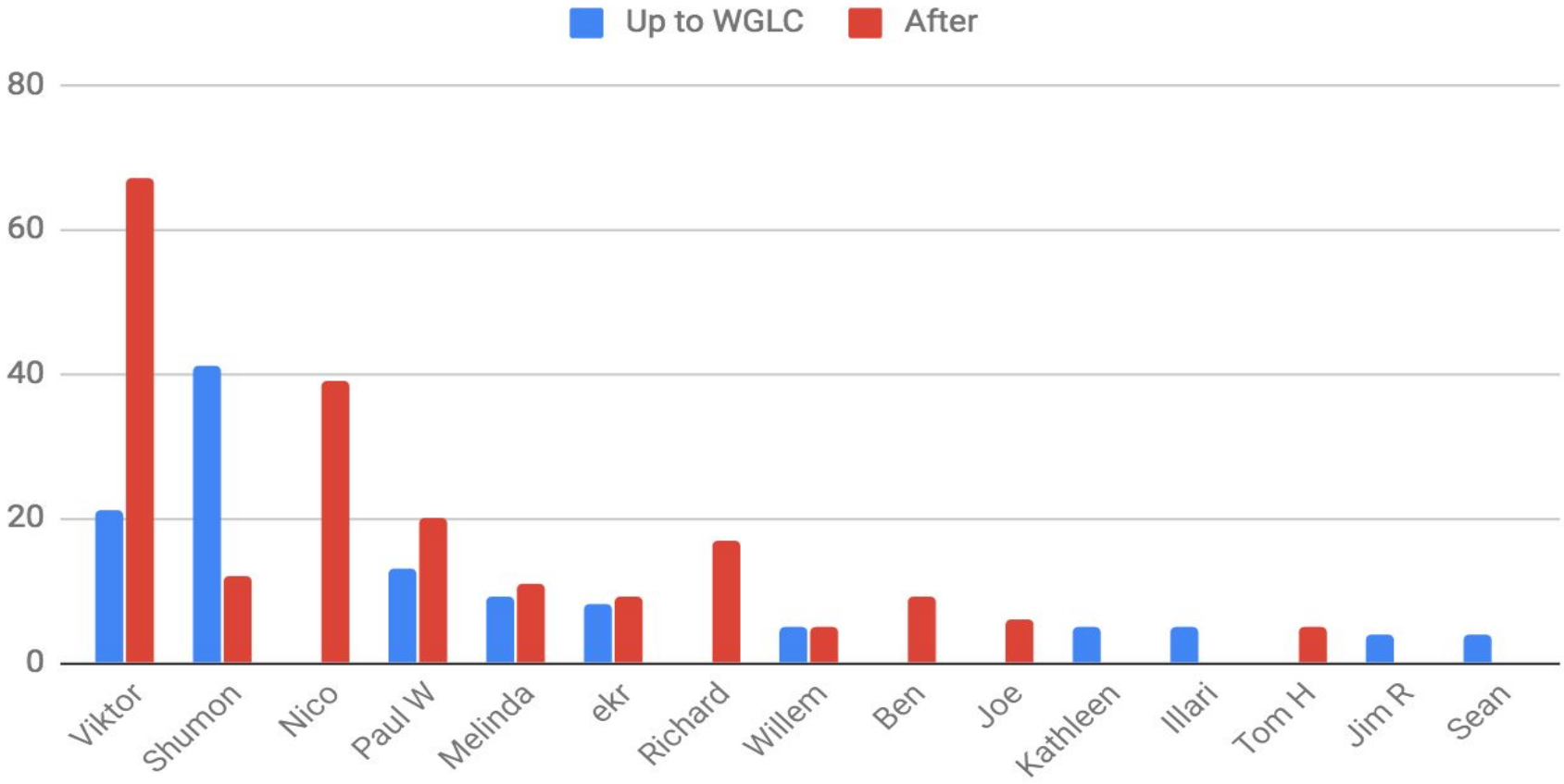
Answered the 2nd question.

(And, it wasn’t the same 10).

Split decision.
But, the chairs determined there was consensus for A) and enough discussion to recommend that the AD return the draft to the WG.

But, we never told the authors to merge text related to DoE. (more on this later)

Message Count



Text Proposals

(will come back to this)

Timeline

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!fun/!great/
!MIGA

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20181009	Notes and next steps (15)

Timeline

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20181107	IETF 103

You are here!

And now for some housekeeping (aka CYA for the chairs)

Consensus Call (during SecCon thread)

1. Do you support the working group taking on future work on a pinning mechanism (based on the modifications or another approach)?

2. Do you support the reserved bytes in the revision for a future pinning mechanism?

3. Do you support the proof of denial of existence text in the revision?

4. Do you support the new and improved security considerations?

7

Participated in the thread.

Consensus Call (during SecCon thread)

1. Do you support the working group taking on future work on a pinning mechanism (based on the modifications or another approach)?

2. Do you support the reserved bytes in the revision for a future pinning mechanism?

YES

NO

3. Do you support the proof of denial of existence text in the revision?

4. Do you support the new and improved security considerations?

Direction

Direction for 24-part commit

Merge:

- Editorial commits
- DoE-related commits:*
  - Reconfirmed consensus to adopt DoE text.
  - Authors to identify which commits* are DoE related.
  - Merge text.
- Security Considerations related:*
  - Confirmed consensus to adopt updated Security Considerations.
  - Authors to identify which commits are Security Considerations related.
  - Merge text.

Publish new version.

Observation

So now what!?

We have been circling for a while.

Fewer participants.

So, we can:

a) Publish the consensus document, i.e., without pinning or reserved field.
b) Have it gracefully die because there is no consensus to add pinning or reserved bytes.

backup slides

Timeline

Agreed use case!

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