DISPATCH WG - IETF 94 - November 2015

Wednesday, July 22, 2015
Location: Room 502

Chairs: Mary Barnes, Cullen Jennings, Murray Kucherawy

Note takers: Jean Mahoney
Jabber Scribe: Jonathan Lennox
Jabber log: http://www.ietf.org/jabber/logs/dispatch/2015-11-04.html

Meet echo Recording: http://recs.conf.meetecho.com/Playout/watch.jsp?
recording=IETF94_DISPATCH&chapter=chapter_1

13:00-13:10 Agenda and Status
Presenter: Mary Barnes
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-1.pdf

Mary announced that DISPATCH now has three chairs. Murray Kucherawy has
joined from the former Apps area.

The agenda was updated with the removal of the HTTP problem statement
presentation.

Mark Nottingham announced that he was updating RFC 5988, Web Linking
(draft-nottingham-rfc5988bis), and would bring it to the list when it was ready.

ACTION: Mark Nottingham to bring RFC5988bis to the list when ready.
DONE: https://mailarchive.ietf.org/arch/msg/dispatch/
t7M03TQsr8qScwkxxkY9sTirwnc

Mary reminded the room that Dispatch has earlier deadlines for IETF meetings.
However work can be dispatched on list, and doesn't have to wait for a meeting.

13:10-13:25 *Updated* DISPATCH WG charter (chairs, WG)
https://mailarchive.ietf.org/arch/msg/dispatch/BhiAC1FENumiAa9NKpNxiB1Fwdk
Presenter: Mary Barnes
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-1.pdf

Robert Sparks pointed out that red text in otherwise black text was not an effective highlighting mechanism for people with colorblindness.

Barry Leiba emphasized that DISPATCH would not do any standards work. The only work would be simple administrative tasks like creating drafts for IANA registration.

Alissa Cooper thought the wording "The privacy of the network" was strange and will send text.

ACTION: Alissa Cooper to send feedback on the Charter to the list.
DONE: https://mailarchive.ietf.org/arch/msg/dispatch/ldp8MwSy6NOoEafVOs3YbXautO0

Murray said that people liked the Monday appsawg meeting when WGs gave status, and that there will be an ART area general meeting to summarize wg status in Buenos Aires. Ben Campbell clarified that the summaries will cover new work and highlights, not everything worked on since the last meeting.

No one else had comments on the charter.

13:25-13:55 An Opportunistic Approach for Secure Real-time Transport Protocol
Presenter: Alan Johnston
Document: http://datatracker.ietf.org/doc/draft-johnston-dispatch-osrtp/
charter proposal: https://mailarchive.ietf.org/arch/msg/dispatch/u4-gTan844X8_Vs0JVLWGbIg47g
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-0.pdf

Martin Thomson had a correction for slide 8: Approach Continued, saying that we rely on authenticated signaling channel for DTLS-SRTP.

Jonathan Lennox said that the point of opportunistic security was that, although it might allow MITM, it was better than nothing.

Magnus Westerlund wasn't sure if MIKEY would work.

ACTION: Verify which, if any, MIKEY modes work.

Jon said that the weakest security option could be picked and it could be problematic. Alan said the draft could use feedback on the security options and it

listed alternatives, not preferences. Jon wanted to ensure all options listed were appropriate.

Jonathan requested that the motivational text include why no one uses Cap-Neg, which had the same goal as this draft, and asked if this document would obsolete Cap-Neg.

Cullen, as chair, said that the draft would be dispatched, and although a charter was included in the presentation, a working group was not going to be created.

Alan asked for solid reviews.

Roni Even said that RFC 5763 would need to be updated.

Christer Holmberg supported this work, saying that it goes hand-in-hand with DTLS-SDP.

Richard Barnes was uncomfortable with including SDES in the options and would prefer it removed. He did not believe the draft should be a BCP since anything in the middle could downgrade the security. He also felt that, due to differences between AVP and SAVP, complexity would be introduced.

Alan pointed out that most secure devices use SDES and that restricting SDES would leave them out.

Jonathan Lennox pointed out a limitation with early media.

ACTION: Alan to document the early media limitation.

A participant from Deutsche Telekom supported this work, and spoke against Cap-Neg.

Jonathan and Christer said that the work should be done in MMUSIC. Cullen didn't want the room to focus on where the work should be done, but on whether the work should be done.

Charles Eckel supported this work, and said that he had an implementation.

Mary, as chair, took a hum:

Should we do the work in the ART area? many hums and hums in the Jabber room.

Should we not work on this problem? one hum

RESULTS of hum: strong consensus for the ART area doing the work.

Richard reiterated that the middle could force security down and said allowing calls to go through can create barriers to implementing security since it doesn't motivate people to fix the security issue. Richard recommended creating minimum security requirements.

Jon wanted the ability to vote security options "off the island", but understood Alan's response to SDES. Jon said that the negotiation mechanism could be separate from a security BCP.

Richard did not want the draft to be considered a BCP, and wanted caveats that it was a transition technology.

Charles said that causing calls to fail will cause security not to be turned on. When both sides can support it, it can be turned on without disrupting calls.

Alan Ford supported this work.

Jonathan mentioned an extension [ajm: that I missed], but Alan said that it didn't solve the problem.

Richard pointed out that web browsers show open or closed lock icons to indicate the security state; phones don't have those icons. Cullen and Mary said some do. Richard wanted it to be clear that the user may not receive indication of the security state.

13:55-14:10 HTTP problem statement
Presenter: Mark Nottingham
Document: https://www.ietf.org/archive/id/draft-nottingham-http-problem-07.txt

Not covered

14:10-14:25 The font Primary Content type
Presenter: Mark Nottingham on behalf of W3C
Document: https://tools.ietf.org/html/draft-lilley-font-toplevel-00
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-3.pdf

Mark said that there was support in apps-discuss, but no one wrote the draft, but W3C wants it to happen now and they wrote the draft.

John Levine, Sean Leonard, Tony Hansen asked if there was a community that wanted it and would implement it. Wendy Seltzer said there was an active web fonts group in W3C that want to use this and was working on drafts.

Martin said that fonts were approaching Turing complete and suspicion was warranted. Richard said that browsers determine if content is safe based on media type, and that it may not be safe to put fonts in a primary content type.

Barry said that fonts fit the model of a top level type. Barry supported the work and it would go to a new working group. The work had to be standards track.

Murray and Cullen, as chairs, said that the next step is for people interested in the work to create a charter. Then the chairs would look at the charter. Mark was happy with the plan.

ACTION: People interested in font Primary Content type to create a charter for the work.

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draft-west-webappsec-csp-reg

Mark asked if draft-west-webappsec-csp-reg, which is requesting a registry for CSP directives, could be AD sponsored.

Murray, as chair, felt that the draft fell under house-keeping and could be done in DISPATCH. Barry, as AD, said that he would let the chairs decide, and would AD-sponsor if they decided not to handle it in DISPATCH. Alissa, as AD, saw no reason to do the work in the independent stream. Richard was fine with doing the work in DISPATCH.

ACTION: WG to review draft-west-webappsec-csp-reg and send comments to the list.

ACTION: Mark to send a pointer to the list.
DONE: https://mailarchive.ietf.org/arch/msg/dispatch/SOfXJMCaId3kg2GfSIpoCR8IQe0

14:25-14:40 Ultra Low Latency for realtime applications
Presenter: Koen De Schepper
Proposal (including related drafts):
https://mailarchive.ietf.org/arch/msg/dispatch/vn2Ew1MsmvnCeizFVx5dBoYS0z8
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-2.pdf

Mary, as chair, pointed out that the presentation was informational, and a decision was not needed.

Richard asked if the application needed to do anything. Koen said only TCP stacks needed to be updated to support scalable TCP.

Ben thought it was interesting, but that the room could not determine cost or implications. He felt it was a TSV topic. Koen agreed.

Bob Briscoe clarified that scalable TCP can only be used in a data center, since it's too aggressive, and pushes other traffic out of the way. The queuing system would enable use outside of the data center.

ACTION: Bob Briscoe to send pointers to the list.
DONE: http://riteproject.eu/dctth/

Wrap-up

Cullen announced that draft-west-webappsec-csp-reg, which was just dispatched, was already in LC.

Richard said that the work was dispatched with dispatch.

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Raw notes by Jean Mahoney:
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13:00-13:10 Agenda and Status
Presenter: Mary Barnes
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-1.pdf

slide 1: Title

Mary - We now have three Chairs. Murray has joined since we've added Apps.

slide 2: Note well

slide 3: Agenda

Mary - the agenda has been updated. HTTP problem statement will not be presented.

slide 4: Other topics

Cullen - Mark Nottingham to talk about a W3C/IETF joint doc.

Mark Nottingham - I'm updating RFC 5988, Web Linking (draft-nottingham-rfc5988bis), I will bring to dispatch when ready.

slide 5: Deadlines

Mary - Note that Dispatch has earlier deadlines for meetings. However we can dispatch on the list, and don't have to wait for a meeting.

13:10-13:25 *Updated* DISPATCH WG charter (chairs, WG)
https://mailarchive.ietf.org/arch/msg/dispatch/BhiAC1FENumiAa9NKpNxiB1Fwdk
Presenter: Mary Barnes
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-1.pdf

slide 6: Updated DISPATCH WG Charter

Mary - New items highlighted in red.

Robert Sparks - don't use red to highlight text.

Mary - why?

Cullen - doesn't work with colorblindness.

Barry Leiba - To be clear, we will not do any standards work here, just simple admin stuff like putting out docs to get IANA registration. No standards work.

Alissa Cooper - on the guiding principles, "The privacy of the network"? That's

kinda weird. I may suggest an editorial change.

Murray - Appsawg isn't meeting this time. There are 3 docs left and then we close down the wg. Feedback received on appsawg - people liked the monday meeting. We'll reinstate that in Buenos Aires - there will be an ART area general meeting to summarize wg status.

Ben Campbell - the summaries will over new work and highlights, not summarizing everything worked on since the last meeting.

Mary - any other comments on the charter?

No other comments on charter.

13:25-13:55 An Opportunistic Approach for Secure Real-time Transport Protocol
Presenter: Alan Johnston
Document: http://datatracker.ietf.org/doc/draft-johnston-dispatch-osrtp/
charter proposal: https://mailarchive.ietf.org/arch/msg/dispatch/u4-gTan844X8_Vs0JVLWGbIg47g
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-0.pdf

slide 1: Title

slide 2: Opportunistic Security (OS)

slide 3: History of this Topic

slide 4: Acknowledgement

slide 5: Why now?

slide 6: Why not just publish draft-kaplan-mmusic-best-effort-srtp?

slide 7: Approach

slide 8: Approach Continued

Martin Thomson - a correction: we rely on authenticated signaling channel for DTLS-SRTP.

Jonathan Lennox - the point of opportunistic security, it might allow MITM but better than nothing.

Jon - they could still sign if they resurrected ...

Magnus Westerlund - I don't know if MIKEY works. It's listed in the draft.

Alan Johnston - some MIKEY modes may work, maybe not all.

Magnus - that needs to be checked.

Jon - something can get to pick the weakest security, this is problematic.

Alan - could use feedback on that option. The draft just lists alternatives, not preferences.

Jon - need to make sure that all 4 options are appropriate, then. Or vote them off the island.

Alan - or let the implementors pick.

slide 9: Example: Success

slide 10: Example: Failure

Jonathan - everyone hates cap-neg. You could solve this problem with cap-neg, but no one does. This was the original motivation for cap-neg. Provide some history on it, add to motivation text.

Cullen as chair - We will dispatch the draft, not create a wg. The key question is, do we want to proceed with something of this shape? Can we not discuss the details of the charter, just talk about whether we work on this? Then can discuss details. Skip to slide 15.

slide 11: Charter Text 1/4

slide 12: Charter Text 2/4

slide 13: Charter Text 3/4

slide 14: Charter Text 4/4

slide 15: Needed Next Steps

Alan - the draft needs solid reviews.

Roni Even - We'll need to update 5763 - best effort with cap-neg.

Christer Holmberg - I support this. We'll need to connect it to DTLS-SDP, they go hand in hand.

Richard Barnes - I tried to get some security guys here. We missed the opportunity to call security recommendations downgradable security. Anyone in the middle can force things to the weakest security, which should not be best practice. In the security considerations, we should capture that you should be ok with weakest option. It makes me uncomfortable to include SDES in here. I would feel better if it removed. I'm concerned - there's a diff between AVP and SAVP - we may adopt complexity.

Alan - Most secure devices out there use SDES. Restricting SDES would leave them out.

Jonathan Lennox - second best current practice. early media - can't distinguish between SDP .... With DTLS - you can tell.

Alan - We need to document the early media limitation.

Jonathan Lennox - probably best wg for this is mmusic. ...

??? from DT - we support this work. We have some use cases where it's more important to get the call through than to secure it. cap-neg is additional work. We don't want cap-neg. It's easier to support this.

Christer - The work should be done in mmusic. It's offer/answer for opportunistic security.

Cullen as chair - Don't focus on where it gets done. Should we do it?

Jonathan Lennox - Can this draft obsolete cap-neg?

Cullen - cap-neg can be obsoleted all by itself. It doesn't need another draft to obsolete it.

Charles Eckel - I would like to see this work happen. It has worked well for us. We didn't want to bring it to the IETF.

Mary as chair - Let's take a hum:

Should we do the work in the ART area? many hums

Should we not work on this problem? one hum

Cullen - strong consensus for: we should be doing this work.

RESULTS of hum: strong consensus for the ART area doing the work.

Richard - In the middle they can force things down. It creates barriers to implementing security. In the community that wants to move to a secure state, create minimum security requirements. We don't treat HTTPS as mixed content - we want people to fix them. If the call completes even if security doesn't' happen, no motivation to fix.

Jon - If we can vote somethings off the island. I understand your response to SDES. That will be the tough discussion. We can create a negotiation mechanism that is different from a BCP.

Richard - This should not be considered a BCP. This should be heavily caveated as a transition tech.

Charles - Securing the media won't be turned on because calls will fail because the security fails. You can turn it on and it will work sometimes, in the future you can turn it on. Both sides support it, and turn it on and it never comes into play.

Alan Ford - I support this work

Jonathan Lennox - seems like an easy extension. ...

Alan - that's different and doesn't solve our problem.

Richard - we've had opportunistic security proposals for web. Browsers show lock icons. Do you get the lock icon if it's secured? Phones don't have such icons.

Cullen / Mary - some do.

Alan - you give no indications to the user.

Richard - maybe we can be clear about that.

Jonathan Lennox - there were hums for doing the work in the jabber room

slide 16: Path Forward

13:55-14:10 HTTP problem statement
Presenter: Mark Nottingham
Document: https://www.ietf.org/archive/id/draft-nottingham-http-problem-07.txt

Not covered

14:10-14:25 The font Primary Content type
Presenter: Mark Nottingham on behalf of W3C
Document: https://tools.ietf.org/html/draft-lilley-font-toplevel-00
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-3.pdf

slide 1: Title

Font media type - top level

slide 2:

Formats for fonts

slide 3:

Martin - on the first point, fonts are approaching turing complete. Suspicion is warranted.

slide 4:

Mark - There was support in apps-discuss, but no one wrote the draft. W3C wants it to happen and they wrote the draft.

John Levine - media types need someone to implement them. What's their plan?

Mark - W3C community seems keen. They want a unique place for font formats.

Levine - If no one has an implementation plan, it won't be used. Here's an example. application/gzip didn't exist until a few months ago when someone needed. If there are people ready to implement it - that 's great.

Mark - i's my impression but don't know.

Sean Leonard - I've had to implement a top level media type. This is the 3rd attempt for font media type. I question the interest to get it all the way to though to publishing. The barrier to register top level media type is too high. Need to think about it before issuing the registration. For example text/plain. Have a short draft about it first.

Richard - about who wants this, mixed content specs, active and passive content is based on top level media type. Browsers determine if its safe based on media type. This may not be a safe thing to put in there.

Look forward to the media session.

Wendy Seltzer - there's an active web fonts wg. They would like to use this. They have been working on drafts.

Tony Hansen - It does need the relevant community to actually finish the work. If they don't, then it doesn't happen, plain and simple.

Barry - the model for when you want a top level type. There's something common with some subtype. Fonts fit in that model. The fact is that people are looking at this, then let's do this.

Mark - so the W3C needs to participate.

Sean Leander - where does this work fit?

Barry - AD sponsored or WG. Since nothing fits, it would go to a new working group. Has to be standards track.

Murray - next step is to work on the charter.

Cullen - forming a working group shouldn't be hard or complicated. Need people interested in the work and working on the charter. Then the chairs will look at the charter. Then get the draft going forward. Happy? You don't look happy.

Mark - I'm happy.

Cullen - For the minutes: Mark's happy.

ACTION: People interested in font Primary Content type to create a charter for the work.

Mark - there's another draft by Mike West (draft-west-webappsec-csp-reg) requesting a registry for CSP directives. Very simple and straightforward. W3C doesn't have a registry capability. Can that be AD sponsored?

Murray - I think that falls under house keeping and can be done in DISPATCH.

Barry - I'll let the chairs decide and I'll AD sponsor if not.

Alissa - I just opened the draft, I see no reason to do this in independent stream.

Cullen - read and send comments to the list.

Richard - seems fine to me.

Mary - Mark, send mail to the list point to the draft.

ACTION: Mark to send a pointer to the list.
DONE: https://mailarchive.ietf.org/arch/msg/dispatch/SOfXJMCaId3kg2GfSIpoCR8IQe0

ACTION: WG to review and send comments to the list.

14:25-14:40 Ultra Low Latency for realtime applications
Presenter: Koen De Schepper
Proposal (including related drafts):
https://mailarchive.ietf.org/arch/msg/dispatch/vn2Ew1MsmvnCeizFVx5dBoYS0z8
Presentation: https://www.ietf.org/proceedings/94/slides/slides-94-dispatch-2.pdf

slide 1: Title

slide 2: Super Fast Internet?

slide 3: Super Fast User Experience

slide 4: Better TCP Exists, but is not compatible with the current Internet

slide 5: Comparison of Classic TCP and Scalable TCP Cloud Hosted Interactive

Panoramic Video

slide 6: Comparison of Classic TCP and Scalable TCP Cloud Hosted Interactive Panoramic Video

slide 7: Comparison of Classic TCP and Scalable TCP Cloud Hosted Interactive Panoramic Video

slide 8: Why Dispatch?

slide 9: Simple Solution in the network: DualQ AQM provides low latency marking and Compatibility

slide 10: Demo on a Real BB Residential Testbed

slide 11: Demo on a Real BB Residential Testbed

slide 12: Improved Web browsing Experience

slide 13: HTTP Adaptive Streaming (HAS) Experiments

slide 14: HTTP Adaptive Streaming (HAS) Experiments

slide 15: Using Just a Scalable TCP connection for Realtime and interactive services?

slide 16: Questions

Mary - this is just a informational thing, not a decision.

Richard - what does this look like from an app point of view?

Koen - TCP stacks are upgraded to support this. The Windows data center server does this. Only a change in the operating system, apps don't have to set anything. It's easy.

Ben - it's interesting. This room can't just the cost or implications, though. This is a TSV thing.

Koen - it's a transport area decision. Agree.

Andrew Allen - Does it require support at both ends?

Koen - Yes

Andrew - You were talking about other improvements that can't be used? Are there other solutions?

Koen - I was talking about this - scalable TCP, but it can't be used yet.

Bob Briscoe - you missed this point - this can only be used in a data center, they are too aggressive, they push other traffic out of the way. With the queueing system, you would be able to use it.

Cullen - send the pointers to the list so people can learn more.

ACTION: Bob Briscoe to send pointers to the list.
DONE: http://riteproject.eu/dctth/

Wrap-up

Cullen - draft-west-webappsec-csp-reg, which was just dispatched, is already in LC.

Murray - wrote the draft, put in LC, dispatched in less than 2 weeks.

Richard - dispatched with dispatch