The Future With QUIC

Jana Iyengar

Fastly

Agenda

1. What is QUIC?
2. What is QUIC's immediate value proposition?
3. What does QUIC enable?

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1. **What is QUIC?**
   A short primer on QUIC

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   How did we get the world interested in QUIC?

3. **What does QUIC enable?**
   What was the real goal of getting QUIC deployed?

Who am I?

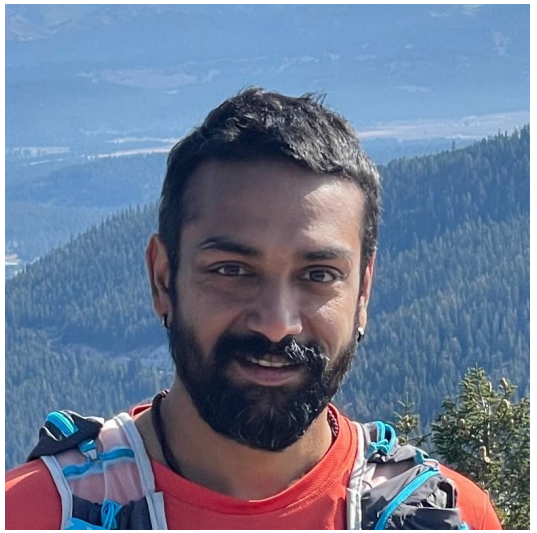
Jana Iyengar

VP, Infrastructure and Network Services, Fastly

Editor of IETF QUIC specs

Chair of IRTF Internet Congestion Control research group

Working on transport since ~2000, on QUIC for 9 years



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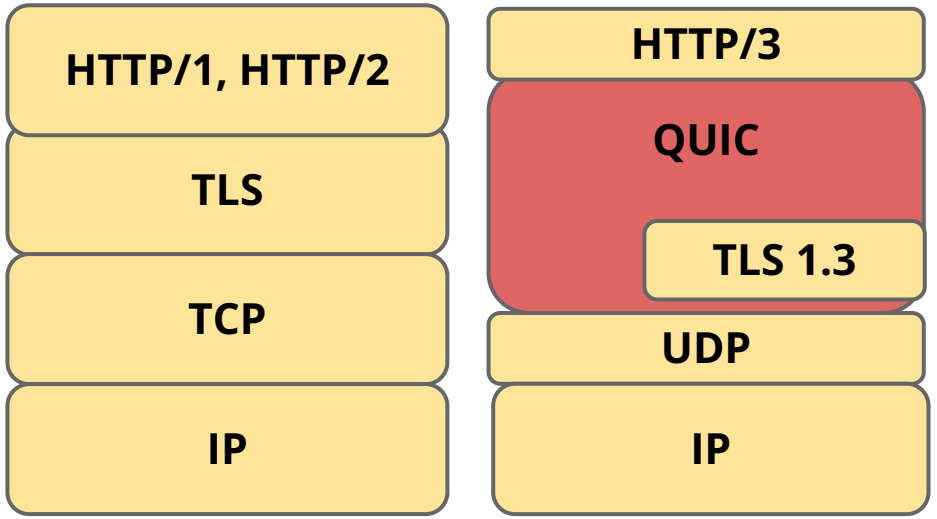

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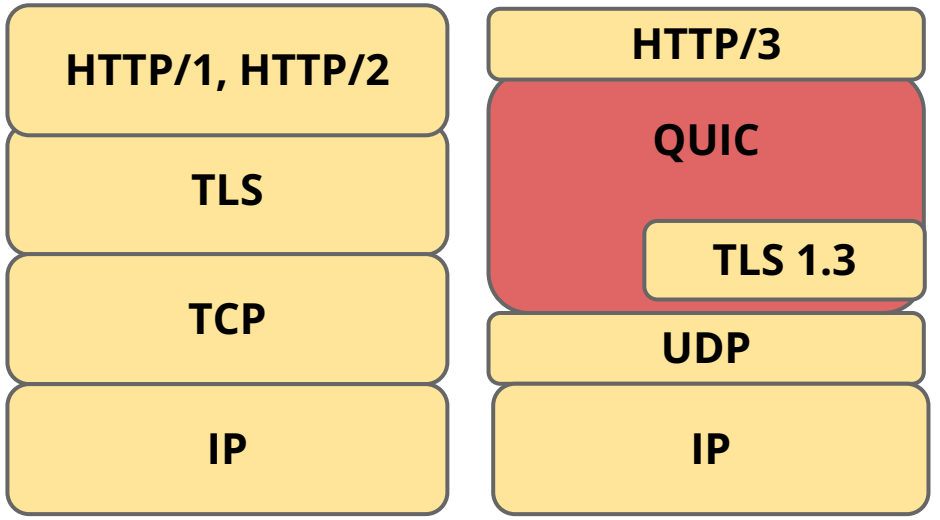

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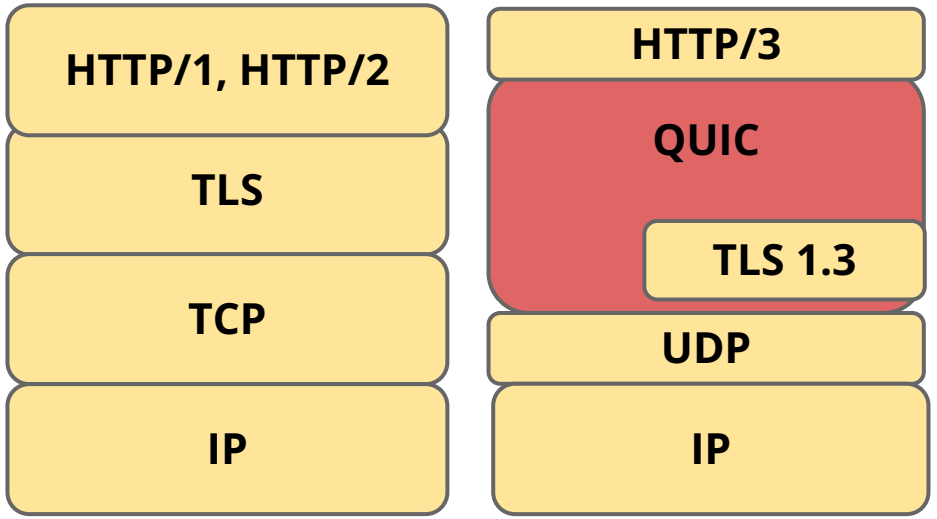

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  - multi-streamed, for today's Internet and the modern web
- Is UDP-based, because UDP gets through most networks
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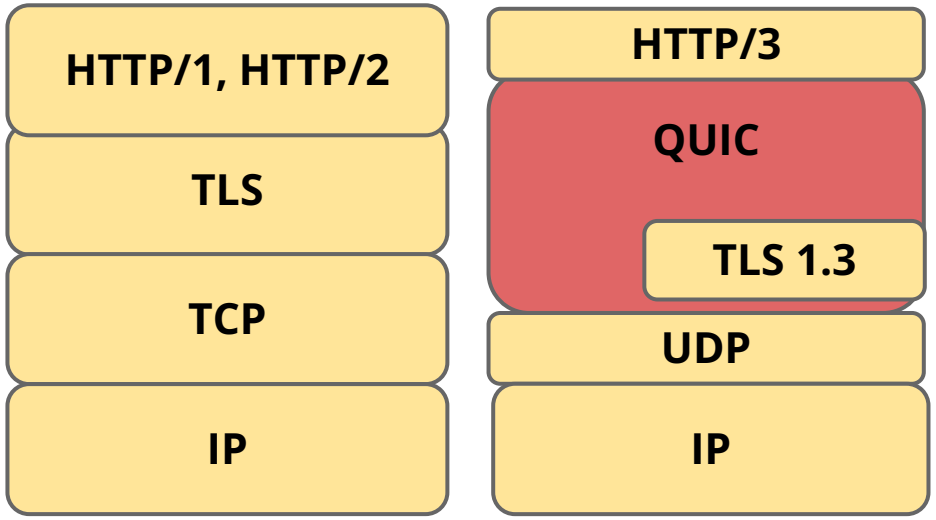
- Has encryption baked in, data/metadata are protected
  - uses TLS/1.3 for key negotiation



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- Troubleshooting and debugging
  - significantly richer capabilities

Self trace demo

- Video: https://ora1.kazuhooku.com/test/self-trace/video-only.html
- Trace: https://ora1.kazuhooku.com/.well-known/self-trace

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  - (self trace demo)
- Transforming server architecture
  - Direct Server Return (DSR)

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QUIC as an enabler

- New technologies within QUIC
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- MOQ (Media Over QUIC)
  - the New World for WebRTC refugees

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- QUIC makes the web faster, more resilient, more responsive
  - but this is just the beginning
- QUIC enables new technologies above
  - it is a platform
- QUIC is a transport technology that can actually be evolved on the Internet
  - it is a continuously evolving, and multiple versions exist in parallel today

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We used HTTP and the web as the vehicle to deploy QUIC into almost all server and client environments.

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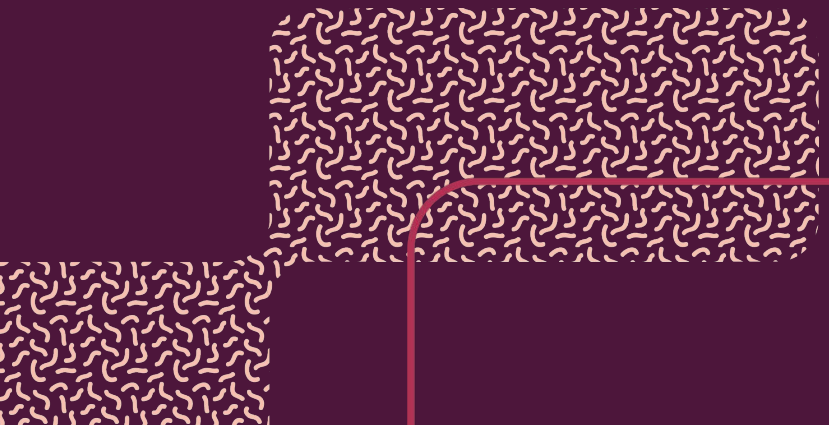
We used HTTP and the web as the vehicle to deploy QUIC into almost all server and client environments.

In doing this, we created a path through an ossified Internet for new end-to-end transports and technologies to thrive.

Thank you!



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