

# Updates from the Network Team

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State of the Onion



# Network Team Summary of 2021

- Support the new **Network Health Team** on different projects.
- Support the **Anti-censorship Team** on Bridge and Pluggable Transport stability and usability issues in Tor.
- Work with friends that are integrating Tor into their applications.
- Ramping down on new client features in the C implementation of Tor.
- Ramping up on Rust development as part of the Arti project.

# UDP Support in the Tor Network

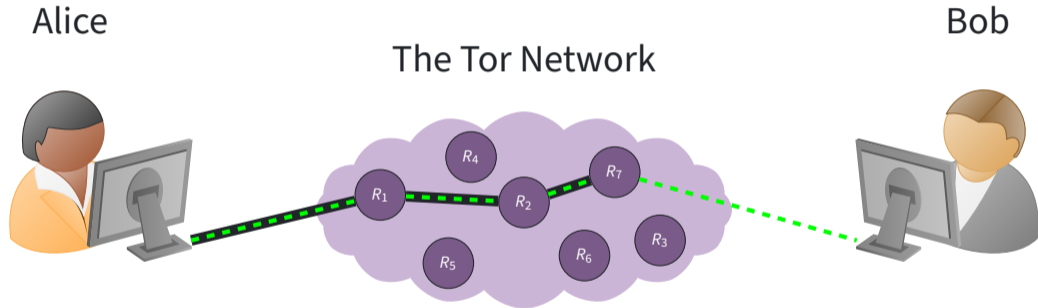
Support UDP for Tor clients and Exit nodes to allow support for modern internet applications such as: Crypto wallets, streaming, VoIP, and *hopefully* WebRTC-based applications.

Client and Exit nodes will require upgrades for deployment.

Use Tor's Congestion Control system to decide when to drop packets at the edges.

Specification work being tracked in [torspec#73](#) on [Tor's Gitlab](#).

# UDP Support in the Tor Network



The goal is to overcome Tor's network performance bottlenecks using **Traffic Splitting**.

Current work specified by David Goulet and Mike Perry in Tor's [Proposal #329](#).

Based on work by Mashaal AlSabah, Kevin Bauer, Tariq Elahi, and Ian Goldberg in the paper [The Path Less Travelled: Overcoming Tor's Bottlenecks with Traffic Splitting](#).

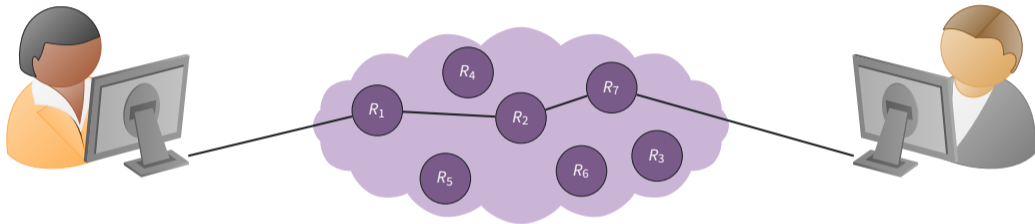
Prototyping and Shadow experimentation will begin in **early 2022**.

# Conflux

Alice

Bob

The Tor Network

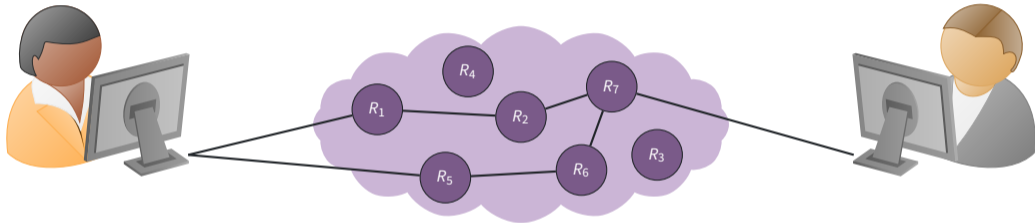


# Conflux

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Thanks to **Per Hurtig** for helping us with the framing of the MultiPath TCP (MPTCP) problem space.

Thanks to **Simone Ferlin** for clarifications on the **BLEST paper**, and for pointing us at the Linux kernel implementation.

Extreme thanks goes to **Toke Høiland-Jørgensen**, who helped immensely towards our understanding of how the BLEST condition relates to edge connection pushback, and for clearing up many other misconceptions we had.


Finally, thanks to **Mashaal AlSabah**, **Kevin Bauer**, **Tariq Elahi**, and **Ian Goldberg**, for the original Conflux paper.



Next up is **Nick Mathewson** who will give you an update on the **Arti** project.

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 OpenPGP:  
1C1B C007 A9F6 07AA 8152  
C040 BEA7 B180 B149 1921



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