Deployment and future of MPTCP

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MPTCP deployment

- Several deployments of MPTCP
  - Apple's Siri, GigaPath in Korea, several startups
- Mostly very smooth deployment
  - No middlebox issues
- Roughly 94% success-rate for MPTCP
- Deployment simplified thanks to a closed environment and small to medium-sized scale
MPTCP API

• MPTCP-spec leaves a lot of room for implementation-choices
  • When to create new subflows?
  • How to schedule the data?
  • …
• Need for a powerful API that allows Apps to steer these decisions, while staying within the boundaries of the system’s policies
• MPTCP is not a drop-in replacement for TCP

draft-hesmans-mptcp-socket
Large-scale deployment

- Deployment in large-scale server farms
  - Challenges due to layer-4 load balancers
  - Different TCP-subflows need to be steered to the same frontend server
- Need for either:
  - New load balancer design that takes MPTCP into account
  - Major changes to the infrastructure to accommodate MPTCP

draft-duchene-mptcp-add-addr
draft-olteanu-mptcp-loadbalance
draft-paasch-mptcp-loadbalancer
Proxy-extensions for MPTCP

- Emerging use-cases to deploy MPTCP-proxies (Tessares/Proximus, Nokia/Orange, …)

- Need to make MPTCP proxy-friendly

draft-boucadair-mptcp-plain-mode
draft-peirens-mptcp-transparent