iOS & Linux
Implementation Updates

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MPTCP at Apple

- Implemented since iOS 7 for Siri

User-feedback (Time-to-First-Word) 20% faster in the 95th percentile

5x reduction of network failures
Wi-Fi Assist

- Triggered by:
  - Marginal Wi-Fi

- “Fittest Wins Out” contest between Wi-Fi and Cell
  - Wi-Fi has head-start over Cell

- On a flow by flow basis, at flow setup time
MPTCP in iOS 11

- Open MPTCP API to third party developers
  - Handover Mode
  - Interactive Mode
  - Aggregation Mode (only for developers)
- Part of Wi-Fi Assist triggers
Handover Mode

- Minimizes cell usage
- Provides reliability
- For persistent connections
Interactive Mode

- Wi-Fi and cell
- Minimizes latency
- For latency-sensitive, low-volume flows
Aggregation Mode

• Resource pooling
• Only for developers
• Looking for good use-cases
Exposed as URLSessionConfiguration property

```swift
var multipathServiceType: URLSessionConfiguration.MultipathServiceType

none = 0,  /* None - no multipath (default) */
handover = 1,  /* Handover */
interactive = 2,  /* Interactive */
aggregate = 3,  /* Aggregation */
```
Linux implementation

- MPTCP v0.92 (released June 4th)
  - Based on v4.4.x
  - New socket-options
    - MPTCP_SCHEDULER, MPTCP_PATH_MANAGER
  - Recover timed-out subflows
  - MPTCP_INFO for details about subflows
- Visit https://multipath-tcp.org