

# MULTIPATH TRANSMISSION FOR UDP OR IP TRAFFIC

## HotRFC

draft-amend-tsvwg-multipath-dccp-01

draft-amend-tsvwg-multipath-framework-mpdccp-00

draft-amend-tsvwg-dccp-udp-header-conversion-00

Markus Amend, March 24, 2019



LIFE IS FOR SHARING.

# MOTIVATION 1/2

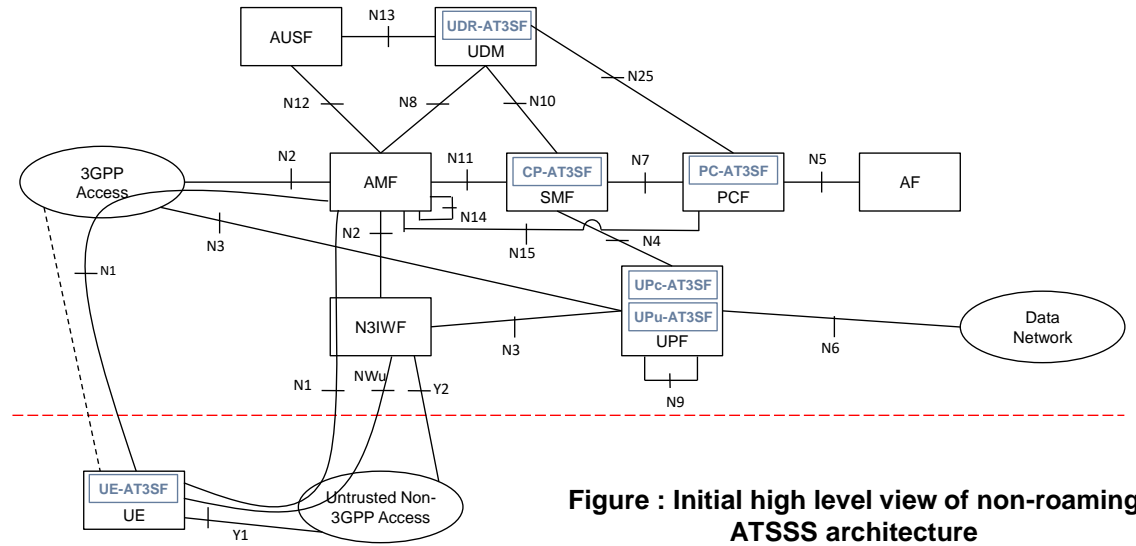
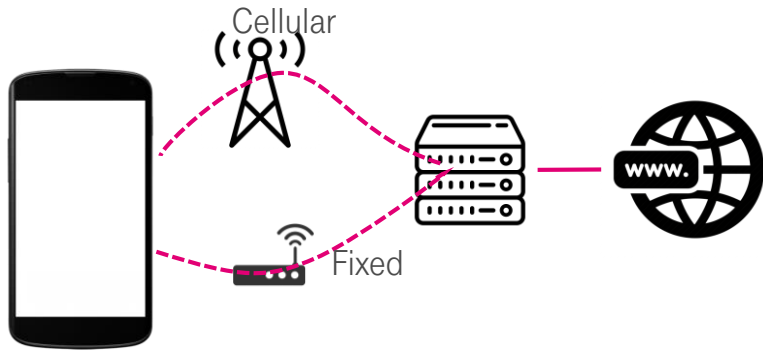
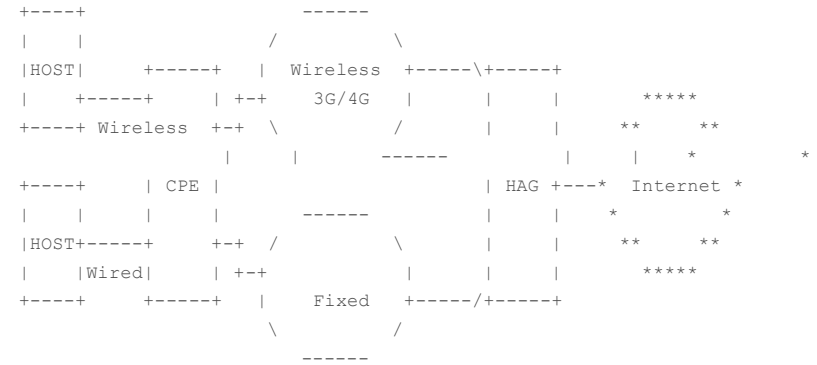
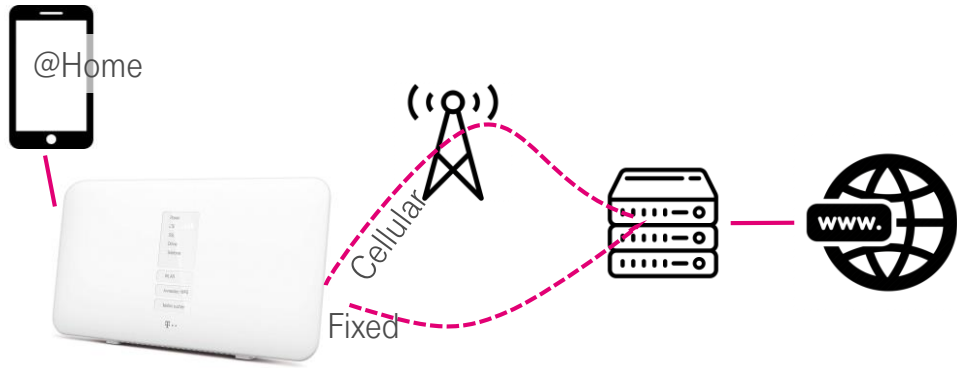


Figure : Initial high level view of non-roaming ATSSS architecture

Mobile device multi-connectivity based on expected 3GPP Rel. 16 ATSSS specification



Residential multi-connectivity based on Hybrid Access



LIFE IS FOR SHARING.

# MOTIVATION 2/2

140.000 residential customer of a European ISP over one week in August 2018

Layer3	Layer 4	>Layer 5	Share [%]
IPv4 and IPv6	TCP		82.77
	UDP	QUIC	11.76
		RTP	2.64
		Other	1.93
	Other		0.53
Other			0.37

A bracket groups the QUIC, RTP, and Other rows under the UDP category, with a total share of 16.33% indicated to the right.

## Demand

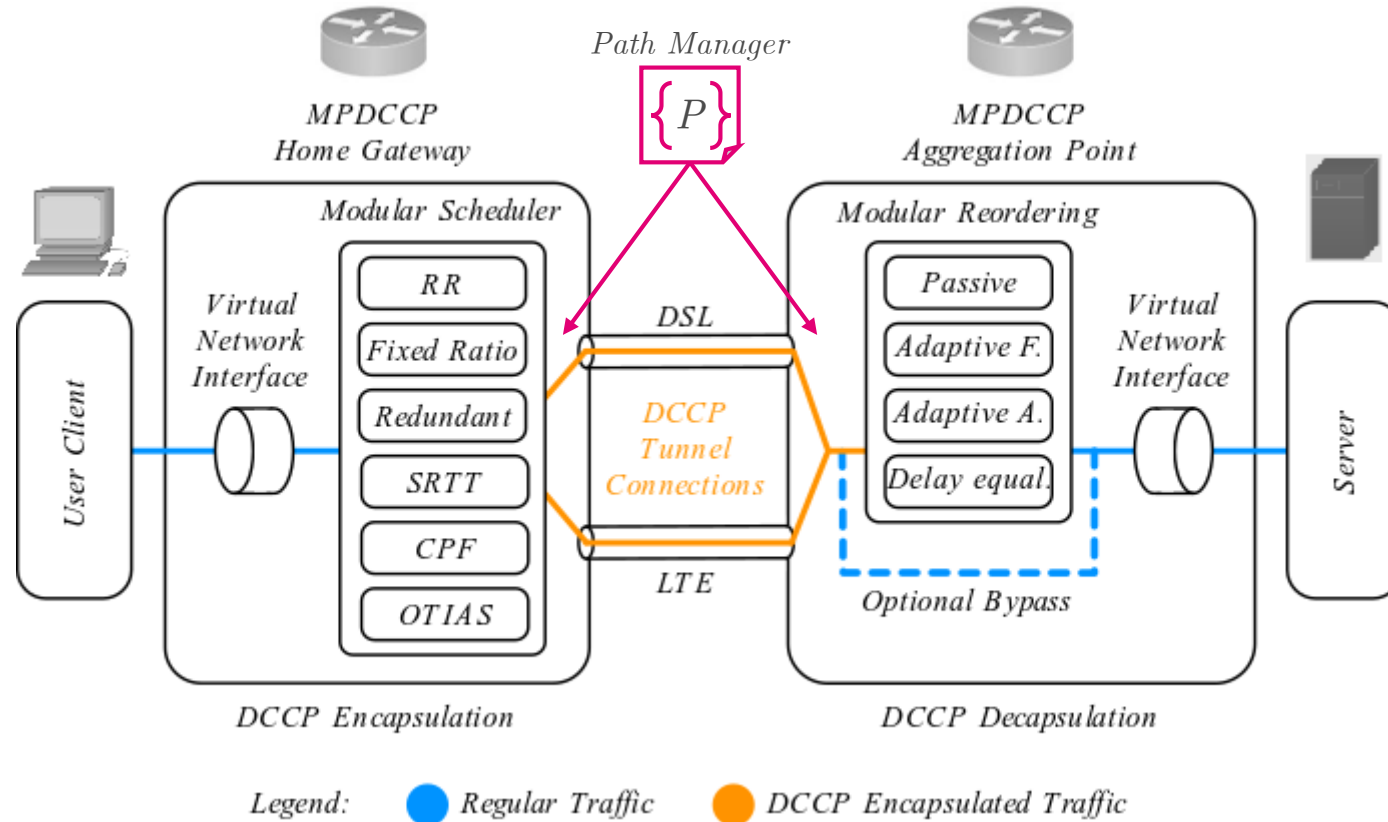
Non end-to-end multi-connectivity architectures like ATSSS and Hybrid Access are present and even deployed. They should cover the whole IP traffic mix in which TCP loses its dominating role because of UDP/QUIC.

## Findings

No satisfying solution exists so far, excepting MP-TCP limited to TCP traffic though.

MP-QUIC paradigms disqualify it to support at this point.

# SOLUTION: MP-DCCP AND AN IP COMPATIBLE FRAMEWORK



<https://tools.ietf.org/html/draft-amend-tsvwg-multipath-dccp-01>

<https://tools.ietf.org/html/draft-amend-tsvwg-multipath-framework-mpdccp-00>

<https://tools.ietf.org/html/draft-amend-tsvwg-dccp-udp-header-conversion-00>



# THANK YOU

For further discussion:

Catch me during the week

Email me at [markus.amend@telekom.de](mailto:markus.amend@telekom.de)

Join the discussion on the [tsvwg mailinglist](#)

Join the presentation on Monday's [tsvwg session](#)

