

Mythbuster-ing P2P Traffic Localization

draft-irtf-p2prg-mythbustering-01

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draft-* -mythbusting

- A container for discussions of possible effects of P2P traffic localization
 - Source: various meetings and mailing lists
- A collection of relevant references
- Relation with the ALTO WG
 - IETF defines a protocol for imparting preferences
 - IRTF investigates how to make the best use of it
 - Both on the provider and on the application side

draft-*^{*}-mythbustering

- Organized as a collection of:
 - Myth
 - Facts
 - Discussion
 - Conclusions
- Intended as a community effort
- Intention was to keep it alive for a while and track discussions/advances in the field

Progress since Stockholm

- Adopted by the RG
 - draft-irtf-p2prg-mythbusting
- Good feedback from the group:
 - Fixed several errors/imprecisions (there are certainly still many)
 - Aligned with updates from INRIA
 - Those folks are pretty active, if you are aware of others please point them here
 - Added a fact/reference matrix

Way forward

- Research-wise editors of the draft are at mediocre at best
 - Substantial improvements are totally in your hands
- We'll update the document as long as we get input
- Then?
 - Publish, as state-of-the-art
 - Forget

How can you contribute?

- Suggesting new Myths
- Suggesting new Facts (and references)
- Bug-fixing

Myths (to date)

- Reduced Cross-domain Traffic
- Increased Application Performance
- Increased Uplink Bandwidth Usage
- Impacts on Peering Agreements
- Impacts on Transit
- Swarm Weakening
- Improved P2P Caching

Facts (to date)

[Xie] Xie, H., Yang, Y., Krishnamurthy, A., Liu, Y., and A. Silberschatz, "P4P: Explicit Communications for Cooperative Control Between P2P and Network Providers"

[RFC5632] Griffiths, C., Livingood, J., Popkin, L., Woundy, R., and Y. Yang, "Comcast's ISP Experiences in a Proactive Network Provider Participation for P2P (P4P) Technical Trial"

[Aggarwal] Aggarwal, V., Feldmann, A., and C. Scheidler, "Can ISPs and P2P systems co-operate for improved performance?"

[LeBlond] Le Blond, S., Legout, A., and W. Dabbous, "Pushing BitTorrent Locality to the Limit"

[Choffnes] Choffnes, D. and F. Bustamante, "Taming the Torrent: A practical approach to reducing cross-ISP traffic in P2P systems"

[Seetharaman] Seetharaman, S., Hilt, V., Rimal, I., and M. Ammar, "Applicability and Limitations of Locality-Awareness in BitTorrent File-Sharing"

[Leibowitz] Leibowitz, N., Bergman, A., Ben-Shaul, R., and A. Shavit, "Are file swapping networks cacheable? Characterizing p2p traffic"

Myths/References/Facts Matrix

	[Xie]	[RFC5632]	[Aggarwal]	[LeBlond]	[Choffnes]	[Seetharaman]	[Leibowitz]
Cross-domain Traffic	X	X	X	X			
Application Performance	X	X	X	X	X	X	X
Uplink Bandwidth		X					
Impacts on Peering							
Impacts on Transit							
Swarm Weakening				X		X	
Improved P2P Caching							X