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Federal Communications Commission
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Federal Communications Commission
Office of the Secretary

April 29, 2010

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Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

EX PARTE OR LATE FILED

Re: Notice of Ex Parte Communication, GN Docket No. 09-191, WC Docket No. 07-52

Dear Ms. Dortch:

On April 8, 2010 Lauren Van Wazer, Cox Enterprises; Jay Rolls, Cox Communications; Richard Woundy, Comcast; David E. Young, Verizon; David Reed, MIT; Scott Jordan, UC Irvine; Robb Topolski and Dan Meredith, New America; Fred Baker, Cisco; Paul Mankiewich Juniper; Tom Anschutz, AT&T, met to discuss issues associated with the open Internet, and reasonable network management practices with members of the Commission as part of the Commission's Technical Advisory Process for an Open Internet. The TAP meetings provide an opportunity for a discussion on topics related to reasonable network management practices. Views expressed in these discussions focus on technical matters and do not necessarily represent the positions of each company or organization. For this reason, and because this discussion was intended to be a preliminary "brainstorming" session, this notice does not attribute specific views to specific participants. (A full list of meeting attendees is attached). The meeting focused on expansion of the discussions on the topics covered in past meetings.

Participants discussed whether there are any particular kinds of traffic that are prioritized in current networks. It was noted that a variety of control traffic, such as BGP, OAM, SNMP and other vendor specific protocols for capacity management, is labeled and managed in ways that are different from standard packets in the core network. Other than this, the participants suggested that prioritization of certain classes of traffic is not generally done today. The group specifically discussed whether such techniques were used relative to the treatment of traffic in buffers and there was general agreement that this does not occur. The group also discussed whether any techniques are used to differentiate routing based on the type or class of traffic. Queuing theory and routing algorithms such as random early detection (RED), tail drop, and head drop, were discussed as fundamental features of Internet functionality that differentiate traffic based on the amount of traffic stored in buffer and technical considerations for discarding traffic that exhausts the buffer capacity. Participants shared views on the economic and technical tradeoffs of leveraging these technologies to support SIP peering for VOIP services in order to avoid converting out of network VOIP calls to the PSTN.

Participants discussed whether there are any technical reasons that would justify prioritization for certain classes or types of traffic that may have a critical time element such as alarm services, telemedicine, or public safety applications. The participants generally did not see a need for prioritization of such traffic over the public Internet and expressed the view that such traffic would be more appropriately handled as managed services.

The meeting addressed the role of storage in the network and how the ability to position content "closer" to users relates to various business considerations of the relative costs of network connectivity and hardware capital expenses. The technical merits of pre-positioning large files expected to drive large

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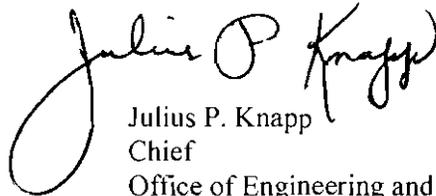
flows of traffic was discussed and participants shared views on various technical solutions for prepositioning content. The relative costs of solutions weighed against the technical complexity of implementing systems were discussed as important considerations in the choice and development of emerging caching solutions. The state of standards development in the area of distributed network caching solutions was also reviewed.

Participants compared views on technical concerns related to techniques of redirecting Internet traffic. Providers' uses of redirection in the provisioning process of new subscribers, and cybersecurity detection and response to subscribers infected by malware or other nefarious software, were compared to use of redirection by certain ISPs and its impact on non-web based Internet devices. Participants expressed the view that while many useful applications for redirection exist, disclosure was an important part of ensuring the reasonableness of network management practices.

The use of multicasting across providers' networks was also discussed. It was noted that little multicast support exists across networks, but some niche use by providers to support certain video applications was recognized. Business Ethernet or other ISP tunneling services can support such features across networks.

The group plans to meet again on Wednesday, May 19, 2010, when participants will share thoughts on new topics and areas of interest the Commission may consider in the future.

Sincerely,

A handwritten signature in black ink that reads "Julius P. Knapp". The signature is written in a cursive style with a large, looping initial "J".

Julius P. Knapp
Chief
Office of Engineering and Technology

Attendees

Name	Organization
Tom Anschutz	AT&T Labs
Fred Baker	Cisco
Saurbh Chhabra	FCC
Michael Goldstein	FCC
Tim Hilfiger	FCC
Walter Johnston	FCC
Scott Jordan	UC Irvine
Paul Mankiewich	Juniper Networks
Zac Katz	FCC
John Kiefer	FCC
Julius Knapp	FCC
James Miller	FCC
Alison Neplokh	FCC
Stagg Newman	FCC
Jon Peha	FCC
Jay Rolls	Cox Communications
David Reed	MIT
Dan Meredith	New America Foundation
Robb Topolski	New America Foundation
Lauren Van Wazer	Cox Enterprises
Richard Woundy	Comcast
David Young	Verizon
Vint Cerf	Google