Microsoft

VIA EMAIL

August 12, 2013

Mr. Cherine Chalaby
Chairman of New gTLD Program Committee
ICANN
12025 Waterfront Drive
Suite 300
Los Angeles, CA 90094-2536

Re: NGPC Consideration of Dotless Domains

Dear Mr. Chalaby:

The ICANN Board New gTLD Program Committee (NGPC) has been tasked with considering dotless domains and appropriate risk mitigation approaches. With the conclusion of the public consultation on dotless domains, Microsoft Corporation ("Microsoft") respectfully requests that ICANN act on the SAC053 report and contractually prohibit use of DNS resource records such as A, AAAA, and MX in the apex of a TLD. As you know, this matter has festered for some time and it is now appropriate for ICANN to provide this level of clarity to all parties. Doing so will avoid time-consuming and unnecessary case-by-case reviews and honor ICANN's core value of "preserving and enhancing the operational stability, reliability, security, and global interoperability of the Internet."[1]

This contractual approach is justified because the risks associated with dotless domains are inherent in their operation, rather than arising from considerations specific to a given dotless domain application. Since they cannot be mitigated either in the large or on a case-by-case basis, we do not believe there are any circumstances in which ICANN may safely permit new gTLD registry operators to operate their applied-for gTLDs as dotless domains.

In support of this position, I append extracts from the relevant SAC053, Carve Systems and IAB documents. While the Carve Systems report sketches some hypothetical mitigation schemes,[2] the IAB Statement is clear that the lack of universal reachability of dotless domains is a consequence of the design of the DNS as specified in numerous Standards-Track IETF RFCs, and implemented by hundreds of millions of diverse Internet hosts.   Therefore not

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[1]   [Bylaws for Internet Corporation for Assigned Names and Numbers](), Art. I, Sec. 2.1 (Apr. 11, 2013).
[2]   The Carve Systems mitigation recommendations are so broad in scope as to be infeasible. The report identifies a wide range of mitigation recommendations including UI/UX enhancements and improvements to common clients, certificate-issuing practices changes, changes in configurations of home networks and proxy servers, DNS server code development process changes, upgrading mail servers, testing URI processing code, improving systems administrator enforcement of information security policies, and web server administrator education. *See* Carve Systems Report at 15-27.
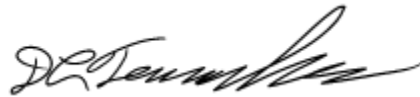
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only would mitigation be impractical, but the IAB statement makes it clear that for Internet users this would represent an unexpected change in behavior that would have undesirable consequences.

Microsoft is supportive of ICANN's role and has participated actively in both the GNSO and the SSAC, and as a new gTLD applicant. Microsoft wants to work with ICANN for the benefit of Internet security and stability. As offered in Microsoft's comments on SAC053, Microsoft staff remain available for further discussion of these issues with ICANN.

Thank you for your consideration. If you have any questions or wish to discuss any of the points raised herein, please feel free to contact me.

Respectfully submitted,

David Tennenhouse
Corporate Vice President, Technology Policy
Microsoft Corporation

cc:

Dr. Stephen D. Crocker, Chairman of the Board of Directors
Mr. Fadi Chehadé, President and CEO
The Honorable Lawrence E. Strickling, Assistant Secretary for Communications & Information,
	National Telecommunications & Information Administration
Ms. Heather Dryden, Chair, Governmental Advisory Committee
Mr. Cyrus Namazi, Vice President, DNS Industry Engagement

Appendix

        The NGPC now has three expert body statements about the impact of dotless domains. The SAC053 report, the Carve Systems report, and the IAB Statement on dotless domains are consistent in their assessment of the potential impact of dotless domains on the security and stability of the DNS. For example, SAC053 states:

> Dotless domains will not be universally reachable and the SSAC recommends strongly against their use. As a result, the SSAC also recommends that the use of DNS resource records such as A, AAAA, and MX in the apex of a Top-Level Domain (TLD) be contractually prohibited where appropriate and strongly discouraged in all cases. SAC053 at 7 (Feb. 23, 2012).

Similarly, Carve Systems reports:

> The study suggests that this inherent trust in dotless names, by users and software, may lead to confusion when handling new Internet facing dotless domains. This confusion can result in unexpected behavior and a misappropriation of trust, ultimately degrading the stability and security of the Internet. Carve Systems, "Dotless Domain Name Security and Stability Study," at 6 (July 29, 2013).

Finally, the IAB statement indicates:

> The IAB therefore feels compelled to state the following: (1) The IAB strongly recommends against considering, implementing, or deploying dotless domains; (2) The IAB believes that dotless domains are inherently harmful to Internet security; (3) Applications and platforms that apply a suffix search list to a single-label name are in conformance with IETF standards track RFCs. Furthermore, applications and platforms that do not query DNS for a TLD are in conformance with IETF standards track recommendations intended to minimize security vulnerabilities and reduce load on the root servers. . . The IAB believes that the current IETF recommendations against the use of dotless domains are important to the

continued viability and success of the Internet, and strongly recommends that the Internet community strictly adhere to them. IAB, IAB Statement: Dotless Domains Considered Harmful (July 10, 2013), available at http://www.iab.org/2013/07/10/iab-statement-dotless-domains-considered-harmful/.