

To: Members of the CA/Browser Forum and Whomever this May Concern

Date: January 12, 2024

Re: Ballot SC-067: "Require domain validation and CAA checks to be performed from multiple Network Perspectives" (including revisions thereto) (the "MPIC Guideline")

We, Princeton University, hereinafter referred to as "Princeton," wish to make available for public benefit any and all intellectual property rights, including but not limited to patents, copyrights, trademarks, and trade secrets, created, authored, invented, or developed by, or under the direction of, Professors Prateek Mittal and Jennifer Rexford at Princeton (the "Contributors") to the technology known as "**Multi-Perspective Issuance Corroboration**" or "MPIC" (as defined in Attachment A) and any contributions from the Contributors used in the formulation of the MPIC Guideline. We believe in the principles of open collaboration, innovation, and accessibility for the benefit of society as a whole.

By this declaration, Princeton hereby grants a CAB Forum RF License (as that term is defined in Section 5.1 of the CA/B Forum Intellectual Rights Policy, v1.3 (the "IPR Policy")) covering the MPIC Guideline limited to Essential Claims owned or controlled by Princeton that were created, authored, invented, or developed by, or under the direction of, the Contributors. Such license is made pursuant to the terms of Section 5 of the IPR Policy. To the extent that the MPIC Guideline includes Princeton copyrighted material that was created, authored, invented, or developed by, or under the direction of, the Contributors, Princeton grants a copyright license to such material owned or controlled by Princeton on the terms set forth in Section 6 of the IPR Policy.

Princeton also hereby grants to all individuals, organizations, and entities (hereinafter collectively referred to as "Implementers") a non-exclusive, worldwide, perpetual, irrevocable (except as specified herein), royalty-free, and fully paid-up license to make, have made, sell, offer to sell, import, use, reproduce, modify, distribute, display, perform, and create derivative works based on any intellectual property in MPIC owned or controlled by Princeton that was created, authored, invented, or developed by, or under the direction of, the Contributors for any lawful purpose. Additionally, Princeton agrees not to assert any intellectual property rights therein that was created, authored, invented, or developed by, or under the direction of, the Contributors against the Implementers. Princeton reserves the right to practice MPIC in its sole discretion for any and all purposes.

Princeton represents and warrants that neither the Contributors nor Princeton's Office of Technology Licensing currently has actual knowledge of any intellectual property owned or controlled by Princeton or Contributors that is required to practice the MPIC Guideline that is not included in the foregoing licenses.

The foregoing licenses are granted without any other representations or warranties, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose or any warranties of freedom from infringement including intellectual property of Princeton not created, authored, invented, or developed by, or under the direction of, the Contributors. **Any and all such warranties are hereby disclaimed.**

Under no circumstances shall Princeton be liable to any Implementer or any other person or entity for any damages, liabilities, or losses of any character arising from or related to MPIC, the MPIC Guideline, the foregoing licenses, or any acts or omissions of any Implementer. Any use, modification, or performance of MPIC or the MPIC Guideline is at the Implementers' own risk.

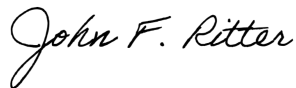
Nothing herein creates a joint venture, partnership, or agency relationship between Princeton and the Implementers or any other person or entity. Any dispute arising from or related to this document shall be resolved solely in the courts of New Jersey and under New Jersey law.

Notwithstanding anything herein or in the IPR Policy and for the purposes of clarity, it is expressly understood that no rights or licenses are granted to any Princeton intellectual property including but not limited to patents, copyrights, trademarks, and trade secrets:

- 1) not created, authored, invented, or developed by, or under the specific direction of, the Contributors; or
- 2) created, authored, invented, or developed by, or under the direction of, the Contributors after the earlier of the date that Ballot SC-067 is accepted as a Final Guideline by CAB Forum or December 31, 2024 unless such date is extended by Princeton in its sole discretion. .

We trust that MPIC will find valuable and diverse applications across various fields, and we look forward to witnessing the positive impact of open innovation.

Sincerely,

A handwritten signature in cursive script that reads "John F. Ritter".

John F. Ritter

Director OTL
Princeton University

ATTACHMENT A

“Multi-Perspective Issuance Corroboration” (“MPIC”), sometimes referred to as “Multi-Vantage-Point Domain Validation” (“Multi-VA”) or “Multi-Perspective Domain Validation” (“MPDV”) is defined as follows. MPIC is a promising technology that enhances domain validation methods by reducing the likelihood that routing attacks (e.g., BGP hijacking) can result in fraudulently issued TLS server authentication certificates. Rather than performing domain validation from a single geographic or routing vantage point, which an adversary could influence, MPIC implementations perform the same validation from multiple geographic locations or Internet Service Providers and have been observed as an effective countermeasure against ethically conducted, real-world BGP hijacks. MPIC is further described in the following papers:

<https://www.usenix.org/conference/usenixsecurity23/presentation/cimaszewski>

<https://www.princeton.edu/~pmittal/publications/bgp-tls-usenix18.pdf>

<https://www.usenix.org/conference/usenixsecurity21/presentation/birge-lee>