

# TWIGF

## TWIGF 2020 MAIN SESSION

<b>Theme</b>	<b>Critical Internet Resources</b>
<b>Topic</b>	Critical Internet Resources - Technical and operational issues
<b>Brief Overview</b>	<p>The Internet is about to become ubiquitous. Internet indeed be around us and reside into the background of our lives. The natural characteristics of the Internet may limit the potential growth of its expansion. The technical and operational challenges should be identified thus feasible solutions can be evaluated.</p> <p>Internet addresses, domain names and AS numbers are the finite virtual resources necessary for the Internet to remain operational. The technical design characteristics of domain names and Internet addresses have helped construct a certain form of governance.</p> <p>Internet identifiers require a certain degree of centralized coordination. The complex institutional relationship of Internet governance is not visible to users. They embed design decisions that shape social and economic structures ranging from individual freedom to global cyberspace policy.</p> <p>In this panel we will discuss the limitations of the hierarchical/client-server structure of the Domain Name System (DNS), and we will discuss proposals for mechanisms that enhance and/or are alternative to DNS. The session will also explore the potential trends in the Internet's technology and architecture, such as the rising use of encryption in the Internet's core protocols, the increasing consolidation across various providers and platforms.</p>
<b>Policy Questions to be Discussed</b>	<ol style="list-style-type: none"><li>1. The Internet has faced significant changes in the type and volume of traffic. Will Current Internet evolution in terms of scale and traffic volumes and in terms of cybersecurity threats demand an evolution of DNS ?</li><li>2. Internet protocols affect everyone's daily lives, something several other stakeholders were less aware of. What stakeholders should be involved in</li></ol>

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	<p>the protocol design process? How can they contribute in the IETF community?</p> <p>3. Firefox begins the rollout of encrypted DNS over HTTPS (DoH) by default for its US-based users. Some internet engineers warn that DoH is a threat not just to people's privacy, but the stability of the Internet itself.</p>
<b>Agenda</b>	<ol style="list-style-type: none"><li>1) A brief introduction that will illustrate the theme of the discussion. Panelist will be introduced, and the problem will be summarized. (5 minutes)</li><li>2) The speakers will provide insights on alternatives to DNS, and the potential trends in the Internet's technology and architecture (60 minutes)</li><li>3) Questions and Answers session, open to both the audience in the room and remotely (20 minutes)</li><li>4) The moderators will provide a summary of the discussion, highlighting insights and new directions that have emerged during the discussion. (5 minutes)</li></ol>
<b>Moderators</b>	Kenny Huang (CEO, TWNIC)
<b>Panelists</b>	<ul style="list-style-type: none"><li>● Paul Wilson (Director General, APNIC)</li><li>● Paul Vixie (CEO, Farsight Security ;Founder and Former Chairman, Internet System Consortium)</li><li>● Fred Baker (Board member, Internet System Consortium)</li></ul>
<b>Organizers</b>	Kenny Huang, TWNIC