

## **Strawman**

### **Future Challenges**

This work stream relates to Bylaw 4.6(c) (iii) and focused on two key areas: 1. Potential threats to the secure and resilient operations of the unique identifiers systems ICANN coordinates; and 2. Long term strategy of ICANN to anticipate and mitigate these threats.

### **Methodology Statement**

To assess the future challenges to the security and stability of the DNS, the Review Team considered current research on DNS abuse, the impact of the continued evolution of the types and volume of devices in the DNS, emerging technology, areas of concern identified in other work streams that may have future implications and ICANN institutionalized methodologies for threat analysis and mitigation.

The Review Team then identified key areas of focus that could pose a future challenge and investigated these areas specifically:

- Coalescence of registry/backend operators for multiple TLDs
- Identifier Hijacking
- Crypto-systems in DNSSEC
- New uses for DNS (e.g. IoT)
- Alternative naming systems (e.g. interactions, conflicts, etc.)

The Review Team recognized that this work stream was dependent on the emerging themes from the other dependent areas. More specifically, in addition to commonly identified challenges the stability and resilience of the DNS may face, other specific challenges under the work stream as related to ICANN SSR and DNS SSR may be identified.

The steps undertaken to affirm the findings and develop recommendations for consideration of ICANN included:

- Review, analyze and summarize relevant documentation and consult with other work stream to track progress and identification of future challenges identified
- Conduct investigation of identified areas of identified
- Conduct relevant interviews as appropriate
- Draft summary of key findings.

### **Chronology for the topics of focus**

In May 2017, the Review Team identified topics and then went through several rounds of review and validation. In July 2017, the work stream was renamed from Future Threats to Future challenges. In August 2018, next steps were identified.