

REFERENCE MATERIALS - BOARD PAPER NO. 2015-04.26.2g – Rev 1

TITLE: **Funding for Digital Services platforms and code-base review**

Background: ICANN has a history of delivering digital services to its served communities. These digital assets have been deployed over the last 15+ years, leveraging a variety of application software technologies.

Key statistics: ICANN's digital services address the needs of ICANN's Stakeholders, the Board and the Staff. The portfolio size is 85 services. ICANN has code-control over ~60 of these services. The underlying application software technology (software plus database or content management systems) platforms number in the 10+ range.

Key issue(s): In the early days of delivering Internet-based services (@2001), ICANN's services were primarily for community-interaction, using relatively static web-content. This has changed in the last three years or so. A variety of net-new digital interactions with Contracted Parties is one effect of the New gTLD program.

In total, during this timeframe, many additional (~50) digital services have been added to the ICANN portfolio, with a wider variety of data capture. The nature of this data is considerably more sensitive than the prior static web-page data. Simultaneously, Cyber Security breaches in organizations world-wide have become a daily news item. Following the US Government's decision to transition its responsibilities in relation to ICANN's performance of the IANA functions, ICANN's profile has steadily risen, as has the profile of our digital assets.

Given this combination of circumstances, it is time for us to take a stem-to-stern look at ALL of our digital services.

Consultations undertaken/results: In mid-2014, ICANN retained the services of an organization with a focused-practice and a global reputation, to assess ICANN's overall IT Security, using the SANS Institute 20-factor framework. In this framework, one of the 20 factors

assessed is Application Software Security. Of ICANN's scores across these 20 factors, Application Software Security scored lower than we would have liked to have seen.

Steps already undertaken: Data pertaining to Applicants for the New gTLD Program and Contracted Parties is of a relatively higher sensitivity. To ensure that we have appropriate controls in place, ICANN retained the services of a widely respected specialist firm to review that segment of our portfolio that deals with the new gTLD area. Their preliminary report was presented on 25 February 2015.

Potential next steps: A similar assessment warranted is warranted for the other ~10 software technology platforms. ICANN needs to use as many third-party agencies as are needed, that can dive deep into our code-base and render a knowledge-based opinion.

Resource: ICANN staff will source and contract with the right few agencies. Such assessment services are typically provided by relatively small, subject matter experts (SMEs) centred organizations. Our experience with the contractor(s) referenced above could be used as a yardstick to estimate the quantum of work and likely expense.

Estimated cost and "ask" of the Board: Our estimate is that this will cost ICANN over \$500K in the remainder of FY15, which is above and beyond what is currently in the FY15 budget for IT Operating Expenses.

Sensitivity analysis related to the "ask": This work is for a comprehensive platforms vulnerability assessment - foundational to remediation. Given this, delay would have a knock-on effect – in that, the remaining work will have to be addressed as a priority in early FY16, causing further delays to any recommended remediation.

Other justifications for recommended action: Robust IT Security is an increasing need for ICANN's portfolio of digital services. As a central player in the field of the Internet, the ICANN community expects our digital services to be exemplars of "how it should be done". This proposal – to engage knowledgeable SMEs to provide a third-party assessment of the robustness of our digital services portfolio – is a traditional "best-practice".

Exhibit A: Powerpoint presentation to the BRC at ICANN52

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