Welcome to the SSAC 2020 Skills Survey
(Version 7 – 17 January 2020)

Introduction

The purpose of this survey is to gain an understanding of areas of expertise of SSAC members and SSAC applicants. The individual responses will be shared with the SSAC Membership Committee and, for SSAC members, the SSAC Administrative Committee but will not be published, distributed or shared outside those Committees without the express permission of the individual. The aggregated skills survey information, which details the collective skills set of all current SSAC members, will be published on the public SSAC website.

The survey should take 20-25 minutes to complete. The survey will not save draft responses and needs to be completed and submitted in one session. The 41 survey questions are divided into 9 categories, with some categories containing multiple subject areas. Each subject area is further defined by examples of the topics which it would comprise. The examples are not an exhaustive list for the subject area and your skills may cover some, but not necessarily all of the example topics. For each subject area, we ask you to indicate your familiarity with it and your level of expertise on the following scale:

1 – None; 2 – Low; 3 – Medium; 4 – High; 5 – Expert

The survey also includes 7 demographic questions which will assist the SSAC to gauge its diversity in those aspects. The last question of the survey asks you to indicate your participation in complementary volunteer organizations. Please answer all of the questions. For questions requiring a written response please answer 'None' if you do not have any response.

If you need to go backwards or forwards in the survey, ensure that you use the “BACK” or “NEXT” buttons. Please do NOT use the back arrow in your browser or you will be returned to the first page of the survey and all your entries will be wiped.

Expected Commitment

In completing this survey, you are making a commitment (within reason for a volunteer organization) that, for subject areas where your expertise is ‘5 - Expert’ or ‘4 - High’, you are willing to lead or actively participate in working parties in that subject area; where your expertise is ‘3 - Medium’, you are willing to participate in working parties in that subject area, and where your expertise is ‘2 - Low’ or ‘1 - None’, you may volunteer to participate in working parties in that subject area, but you would not be expected to do so.

Skills Categories:
1. DNS
2. Security
3. Abuse
4. Root Server System
5. IP Addressing/Routing
6. Registration Services
7. IDNs
8. IT
9. Non-Technical

Contact Information
Name: 
Email Address: 

Category 1: DNS

1.1 DNS PROTOCOL
Protocol & standards (IETF, other)

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

1.2 DNS DEVELOPMENT
Authoritative server development
Resolver development
Application Development using the DNS Protocol

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

1.3 DNS (NAME SERVICE) OPERATIONS
Operating authoritative servers
Operating full service resolvers
Operating zones, contact with registrants

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

1.4 LARGE SCALE DNS OPERATIONS
Large ISP
Major infrastructure operator

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

1.5 DNS MONITORING OR TRAFFIC ANALYSIS
Data gathering
Statistics evaluation
Development or deployment of monitoring systems
DNS Protocol Research, Analysis and Forensics

Category 2: Security

2.1 DNSSEC
DNSSEC protocol (IETF, other)
DNSSEC-aware DNS server software development
Deployment and operational experience
DNSSEC-aware applications development

2.2 SECURITY STANDARDS AND PROTOCOLS
Security policy and auditing
NIST, ISO and other international security standards

2.3 SECURITY SYSTEMS
Firewalls, Network Intrusion Detection Systems, Unified Threat Management
Application security gateways and security proxies
Endpoint and admission control (e.g., 802.1x, EAP variants)
Authentication and Identity Management

2.4 SECURITY ATTACKS & COUNTERMEASURES (DEFENDER)
DDOS mitigation/abatement
Network vulnerability assessment
Application vulnerability assessment
Malware detection and mitigation
Threat source investigation and intelligence
CERT experience and operation

2.5 SECURITY ASSESSMENT, ATTACK METHODS & COUNTERMEASURES (ATTACKER)
DDOS techniques
Network intrusion
Application reverse engineering
Attack tools
Reconnaissance

None □ Low □ Medium □ High □ Expert □

2.6 BUSINESS CONTINUITY AND DISASTER RECOVERY
Critical systems identification
Planning
Plan Implementation
Running exercises

None □ Low □ Medium □ High □ Expert □

2.7 CRYPTOGRAPHY
Cryptographical Standards
Deployment and operation
Key management

None □ Low □ Medium □ High □ Expert □

Category 3: Abuse

3.1 CYBERCRIME
Research and analysis
Policy creation/evolution
Enforcement
Investigation
Prosecution
Intelligence

None □ Low □ Medium □ High □ Expert □

3.2 DENIAL OF SERVICE
Research and analysis of attack vectors and infrastructure
Deployment and operation of mitigation technology
Attack traffic analysis

None □ Low □ Medium □ High □ Expert □

3.3 MALWARE
Botnets
Ransomware
Drive-by-download
Data exfiltration
Remote Access Tools
3.4 OTHER ABUSE
Click fraud
Potentially unwanted applications
Intellectual property theft
Spam
Scams

Category 4: Root Server System and Provisioning

4.1 ROOT ZONE PROVISIONING
Root zone administration
Working knowledge of IANA functions automation
Working knowledge of IANA functions operations

4.2 ROOT SERVER OPERATIONS
Support of one of the 13 Internet Root Servers

Category 5: IP Addressing/Routing

5.1 ISP, ACCESS PROVIDER
Global Service Provider (transit) routing, operation, peering
Global Service Provider (transit) business model experience
Customer connectivity
Network Operations Center
Operation of a content delivery network
Cloud services

5.2 NETWORK OPERATIONS
IETF routing protocol standards (BGP, ISIS, OSPF, etc)
IPv4 allocation, ASNs, RIR operations
IPv6 allocation, ASNs, RIR operations
BGP and global routing operations
5.3 LARGE SCALE NETWORK ARCHITECTURE AND DESIGN
Large ISP
Major infrastructure provider
Large multi-campus enterprise

5.4 IANA
Internet number resource management
IANA functions automation
IANA functions operations

Category 6: Registration Services

6.1 DOMAIN REGISTRY OPERATIONS
Business experience
Operational experience
EPP experience
cTLD experience
gTLD experience
ICANN Policy (e.g., PDP process, Registry Agreement)

6.2 DOMAIN REGISTRAR OPERATIONS
Business experience
cTLD experience
gTLD experience
ICANN policy (e.g., PDP process, Registrar Accreditation Agreement)
Mitigation of registration abuse, malicious registrations

6.3 REGISTRATION DATA SERVICES
Internationalized registration data issues
cTLD practices
Directory services standards and deployment (WHOIS, RDAP, others)
Registration data directory service operational experience
Category 7: IDNs

7.1 INTERNATIONALIZED DOMAIN NAMES
IDN protocol, standards, guidelines (IETF, ICANN, other)
Software development
Operational experience

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

Category 8: IT Skills

8.1 SOFTWARE ENGINEERING
Programming
Code specification and architecture
Software Development Life Cycle (SDLC)

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.2 SOFTWARE TEST ENGINEERING
Testing in development environment
Testing of fielded software systems

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.3 PC/LAPTOP OPERATING ENVIRONMENT SUPPORT
Desktop systems

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.4 MOBILE OPERATING ENVIRONMENT SUPPORT
Smart phones
Mobility, location and presence applications

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.5 RESOURCE CONSTRAINED OPERATING ENVIRONMENT SUPPORT
The Internet of Things (IoT)
Supervisory Control and Data Acquisition (SCADA)
Industrial Control Systems (ICS)
Operational Technology (OT)

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.6 CLOUD OPERATING ENVIRONMENT SUPPORT
Content and service distribution networks
Software as a Service (SaaS)
Infrastructure as a Service (IaaS)
Platform as a Service (PaaS)

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

8.7 HOSTING SERVICES
Hosting of web sites, mail or other services for customers

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

Category 9: Non-Technical

9.1 ICANN
ICANN Strategic plan
ICANN Operating plan and budget
ICANN security, stability and resiliency plan
ICANN Compliance
Policy Development Process experience

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

9.2 LEGAL EXPERTISE
Regulatory
Registry or Registrar
General contract law
Civil subpoena service
Criminal subpoena service/process
Data privacy regulations

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

9.3 LEADERSHIP
Leading moderate to large groups or organizations
Leading technical activities or functions
Decision-making
Planning
Financial control
Delegation

None ☐ Low ☐ Medium ☐ High ☐ Expert ☐

9.4 RISK MANAGEMENT
Risk Identification
Assessment
Evaluation
Mitigation planning and implementation

None □ Low □ Medium □ High □ Expert □

9.5 TECHNOLOGY WRITING
Academic research papers
Technical advice documents
Technical process or procedure documents

None □ Low □ Medium □ High □ Expert □

9.6 PUBLIC POLICY
Governmental or public institution policy development, implementation or audit

None □ Low □ Medium □ High □ Expert □

9.7 BUSINESS SKILLS
Business planning
Financial planning
Project management
Negotiation

None □ Low □ Medium □ High □ Expert □

9.8 COMMUNICATIONS
Product management
Marketing
External Communications
Public Relations
Customer support

None □ Low □ Medium □ High □ Expert □

10. DEMOGRAPHIC QUESTIONS

10.1 Country of Residence:

10.2 Nationality:

10.3 Primary language spoken:
10.4 Other languages - spoken (please indicate fluency in each using the Common European Framework of Reference for Languages scale as guidance):

10.5 Other languages - written (please indicate fluency in each using the Common European Framework of Reference for Languages scale as guidance):

10.6 Stakeholder background (please indicate all that apply): (e.g., registry, registrar, DNS operator, ISP, security professional or other)

10.7 Technology and work experience in/with other countries and cultures (please list):

**11. PARTICIPATION IN COMPLEMENTARY VOLUNTEER ORGANIZATIONS**

Please indicate complementary volunteer organizations in which you participate: