

# CYBER SURVIVABILITY & SECURITY

## BACKGROUND

Cybersecurity is defined as the prevention of damage to, the protection of, and the restoration of computers, electronic communications systems, electronic communications services, wire communication, and electronic communication. This includes information contained therein to ensure their confidentiality, integrity, availability, authentication, and nonrepudiation.

Cybersecurity is defined by five basic principles: (1) confidentiality, (2) integrity, (3) availability, (4) authentication, and (5) nonrepudiation. Confidentiality is keeping information secret. Integrity is keeping information correct and reliable. Availability is keeping information available to the right people at the right time. Authentication is verifying access to information. Non-repudiation is validating the source of information.

Cyber survivability is the ability to prevent, mitigate, and recover from cyber attack.

## CYBER SURVIVABILITY

Cyber survivability, a subfield to cybersecurity, focuses on preventing the outcomes of cyber attacks affecting a mission. These outcomes generally fall into three categories: (1)

information theft, (2) denial of service, and (3) misinformation attacks. Cybersecurity focuses on preventing the attacks themselves and has been a less-than-perfect solution due the number of attacks occurring every day.

## CYBER SECURITY STATS

As the world becomes more digital, humans are a top target for hackers. Cyber attack damage is predicted to reach 6 trillion by 2021. Cybersecurity is becoming even more crucial as spending for it is expected to exceed \$1 trillion in the next few years.<sup>1</sup>

## SERVICES PROVIDED

- Cyber security Evaluations & Assessments
- Cyber survivability Analyses
- Cyber R&D
- Crypto Design and Implementation
- Offensive Cyber Operations (OCO)
- Defensive Cyber Operations (DCO)
- Cyber security Requirements Development
- Cyber Risk Planning

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## CURRENT PROJECTS

- Operational Evaluation Reports on Cyber Survivability
- Cyber Tabletop Exercises
- Supply Chain Risk Management Assessments
- Adversarial/Vulnerability Assessments
- Cybersecurity Risk Assessments for Analysis of Alternatives
- Quantitative Analysis of Cybersecurity Tools & Capabilities
- Multifactor Authentication Solution for Mobile Devices

## CUSTOMERS

As a key player at the U.S. Army Evaluation Center; Missile Defense Agency; Communications-Electronics Research, Development and Engineering Center; Army Materiel Systems Analysis Activity; and Navy and emerging in the Intel community and NAVAIR, SURVICE is a trusted advisor to the nation on cybersecurity and survivability matters throughout the federal government arena.