**Summary of the Japan’s Cybersecurity Strategy** (July 27, 2018 Cabinet Decision)

- New Cybersecurity Strategy is the second “basic plan for Cybersecurity” under the Basic Act of Cybersecurity. Far-seeing 2020, the Strategy shows basic position and vision on Cybersecurity, and objectives and implementation policies in next 3 years (2018~2021) domestically and internationally.

### 1 Introduction

- A paradigm shift brought about by cyberspace which no human have experienced before (Society 5.0)
- Increasing seriousness of threats with cyberspace and real space unification, necessity of new strategy far-seeing the Tokyo 2020 Games

### 2 Understanding on Cyberspace

- Knowledge, technologies, and services in cyberspace, such as Artificial Intelligence (AI) and Internet of Things (IoT) are becoming adopted in society and bring about abundance for humanity.
- There is always the latent risk that the providers of these technologies will lose the ability to control them. Attacks directed at IoT, critical infrastructure, supply chains, as well as incidents suspected to have been state-sponsored will increase socio-economic losses exponentially.

### 3 Visions and Objective of this Strategy

- Adherence to the Basic Position on Cybersecurity (Objectives of the Basic Act on Cybersecurity; Basic Ideals (“free, fair and secure cyberspace”); Basic Principles)

### 4 Policy Approaches towards Achieving the Objective

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**Cross-cutting Approaches to Cybersecurity**

- Development and Assurance of Cybersecurity Human Resource
- Advancement of Research and Development
- Cooperation by Everyone who is the Main Player in Cybersecurity

### 5 Promotion and Implementation of Cybersecurity

The related government bodies will keep working on improving their cybersecurity capabilities under the leadership of National center of Incident readiness and Strategy for Cybersecurity (NISC), and NISC will play its leading role as the focal point in coordinating intra-government collaboration and promoting partnerships between industry, academia, and the public and private sectors.
The Current Understanding and the Future Image
(Increasing Seriousness of Threats with Cyberspace and Real Space Unification)

Shift from as of Formulating Current Strategy (Sept. 2015) to Present

As of formulating the strategy, 2015
Emergence of Interconnected and Converged Information Society
- People and things in real space have become interconnected to the network, and cyberspace and real space have become highly integrated.

Real Space (Physical Space)
Cyberspace
- Smartphone
- Vehicle
- Appliance
- Robot

Cyberspace
- E-Gov. (Utilization of Social Security and Tax Number System)
- Healthcare/Caregiving (Data Utilization)
- Manufacturing (Connected Industries)
- Transport (Self-driving automobiles)
- Finance (FinTech)
- Infrastructure (Smart City)

Understanding on Cyberspace

While knowledge, technologies, and services in cyberspace, such as AI, IoT, Fintech, robotics, 3D printers, and AR/VR, are becoming established in society and leading innovations that are transforming the existing structures in socio-economic activities and the daily lives of Japanese people, there are always the latent uncertainties.

Benefits of Cyberspace
- Technologies and services in cyberspace are controlled and gaining routine use in numerous domains. They bring about abundance for humanity.
- The evolution of AI based on deep learning is bringing about changes, it is beginning to be adopted in a wide range of industries.
- New businesses and services are being created to utilize the data obtained from IoT devices.

Increasing Threats in Cyberspace
- There is always the latent risk that the providers of technologies and services in cyberspace will lose the ability to control them, in which case they can cause immeasurable economic and social loss or damage.
- Society will be significantly affected when interruptions occur to numerous businesses, functions, and services due to the interruption of important infrastructural services or unintended behavior by IoT devices, and situations could even develop to the point of becoming national security issues.
- Inadequacies in cybersecurity measures are predicted to directly cause and expand financial damages and losses.
Points of [3. Visions and Objectives of This Strategy]

**Basic Vision and Approaches for Cybersecurity**
*(Cybersecurity for Sustainable Development – Promotion of “Cybersecurity Ecosystem” –)*

- Japan will aim for **sustainable development of cyberspace** (Realizing “Cybersecurity Ecosystem”) to realize a society (Society 5.0) where new values and services are generated continuously, bringing abundance to the people.
- Japan will adhere to its basic position on cybersecurity presented in the Strategy 2015 and **promote public and private sector initiatives on cybersecurity** based on **three approaches** (1. mission assurance for service providers; 2. risk management; and 3. participation, coordination and collaboration).

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### 1. Mission Assurance

**Reliable Execution of Operations & Services**

- Understand the operations or services that should be carried out as “missions,” and ensure capabilities and resources* to execute such “missions.”
- Each organization should proactively work towards securing cybersecurity to conduct its “missions,” without just relying on some experts.

### 2. Risk Management

**Assessment of Uncertainty & Appropriate Response**

- Minimizing risks to an acceptable level by identifying, analyzing, and evaluating them associated with “missions” assigned to organizations.

### 3. Participation, Coordination, and Collaboration

*(New Cyber Hygiene)*

- **Fundamental initiatives** implemented by individuals or organizations from peacetime to prevent damages or its escalation possibly caused by threats in cyberspace.
- Sharing information and mutually coordination and collaboration between each other regardless of peacetime or emergency situations should be regarded as **new cyber hygiene**.

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* The fifth society in human history following hunting, agriculture, industry and information. New value or service emerge one after another and generate wealth to subjective people of the society (from Future Investment Strategy 2017)
1. Advancing Cybersecurity as Value Creation Driver

- Raising executive awareness (from “cost” to “investment”)
- Promote companies to actively disseminate and disclose information regarding their cybersecurity initiatives
- Promoting the use of insurance in cybersecurity in cooperation with private sectors
- Preparing guidelines to support the challenges towards new value creation, risk analysis, and research & development

2. Achieving a Supply Chain that Creates Values through Diverse Connections

- Clarifying threats in the supply chain and formulating as well as disseminate frameworks that cut across industrial categories for implementing operational-level measures
- Offering specific measures of each sector
- Promoting initiatives by small and medium-sized enterprises

3. Building Secure IoT Systems

- Improving structural framework for IoT systems and international standard
- Establishing models regarding measures for vulnerable IoT devices and expanding them overseas through international coordination and standardization

It is necessary in all industrial sectors that consistent cybersecurity measures are carried out to ensure corporate business continuity and create new value. In doing so, it is important for the companies to implement the measures for which should be handled as part of risk management.
Mission Assurance for Protecting People and Society

For the realization of society in which the people can live safely and securely, it is important to ensure multi-layered cybersecurity, through the coordination of multi-stakeholders, including governmental bodies, local governments, cyber-related enterprises, critical infrastructure operators, educational and research institutions, and every people themselves. The government will promote initiatives based on the “mission assurance” approach in order to reduce risks to an acceptable level and ensure that these operations and services are provided safely and continuously.

1. Measures for the Protection of the People and Society
   - Promoting the policy of “Proactive Cyber Defense” (Promoting the sharing and utilization of threat information, Providing information of vulnerabilities)
   - Enhancing measures against cybercrimes

2. Protection of Critical Infrastructure through Public and Private Sector Cooperation
   - Promoting initiatives based on the Cybersecurity Policy for Critical Infrastructure Protection
   - Strengthening security in local governments

3. Strengthening and Improving Security in Governmental Bodies and Government-Related Entities
   - Managing the state of information systems in real-time (Measures based on new common standards)

4. Ensuring a Safe and Secure Educational and Research Environment at Universities etc.
   - Implementing practice for each level, and practical training and exercises

5. Initiatives for the Tokyo 2020 Games and Beyond
   - Promoting the development of the Cyber Security Incident Response Coordination Center

6. Building an Information Sharing/Collaboration Framework that Extends beyond Traditional Frameworks
   - Promoting information sharing/collaboration between multi-stakeholders

7. Strengthening the Incident Readiness Against Massive Cyberattacks
   - Strengthening the incident readiness against massive cyberattacks in order to work on risk management for both cyberspace and real space

Mission Assurance (to provide critical infrastructure services safely and continuously)
A free, fair, and secure cyberspace is essential to contribute to the peace and stability of the international community and to Japan’s national security. In order to safeguard a free, fair, and secure cyberspace, Japan will communicate its position in the international fora, ensure international security and promote international collaboration.

1. Commitment to a Free, Fair, and Secure Cyberspace

- Communicating the ideas of a free, fair and secure cyberspace
  (Communicating basic approach to cybersecurity, Thwart any efforts that aim to inhibit the development of cyberspace)
- Promoting the rule of law in cyberspace
  (Application of existing international law to cyberspace, Contribution to the development and universalization of norms)

2. Strengthening Capabilities for Defense, Deterrence, and Situational Awareness

- Ensuring national resilience
  (Mission assurance, Defending Japan’s advanced technologies and defense related technologies)
- Enhancing deterrence capabilities
  (Measures for effective deterrence, Confidence building measures)
- Strengthening cyber situational awareness
  (Increasing the capabilities of relevant governmental bodies, Threat information sharing)

3. International Cooperation and Collaboration

- Sharing expertise and coordinating policy
- International collaboration for incident response
- Cooperating for capacity building
It is important to work on human resource development and research and development as a foundation for the policy goals from both a cross-cutting and mid- and long-term perspective. Simultaneously, it is also crucial to promote a cooperative approach in which everyone plays a role in working on cybersecurity as an active agent in cyberspace.

1. Development and Assurance of Cybersecurity Human Resource
   - Training and adoption at the “strategic management level”
   - Training for the operational and expert level
   - Preparing a foundation for development of cybersecurity human resource, Promoting international partnership
   - Strengthening the assurance and development of cybersecurity human resource at agencies

2. Advancement of Research and Development
   - Promoting practical R&D (Increasing ability to detect and analyze cyberattacks, and developing a system for carrying out the necessary technical inspections of malicious programs)
   - Responses with a view to the mid- and long-term evolution of technology and society

3. Collaboration by Everyone who is the Main Player in Cybersecurity
   - Developing action plan for public awareness on cybersecurity and coordination/collaboration
   - Disseminating necessary information (enhancing Cybersecurity Awareness Month)
The Government has been promoting a policy of improving cybersecurity measures to secure the use and application of information and communications technologies and data as the socio-economic foundation of society and to ensure Japan’s national security. The related government bodies will keep working on improving their cybersecurity capabilities under the leadership of NISC, secretariat of the Cybersecurity Strategy Headquarters, and NISC will play its leading role as the focal point in coordinating intra-government collaboration and promoting partnerships between industry, academia, and the public and private sectors.

The Headquarter will seek to secure and execute the budget necessary for the government so that the measures are steadily and effectively executed. The Cybersecurity Strategic Headquarters will set forth annual plans including the list of Agencies in charge.

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**Cybersecurity Strategic Headquarters**

- **Chair:** Chief Cabinet Secretary
- **Deputy Chair:** Minister in charge of the Tokyo Olympic and Paralympic Games
- **Members:**
  - Chairman of the National Public Safety Commission
  - Minister for Internal Affairs and Communications
  - Minister for Foreign Affairs
  - Minister of Economy, Trade and Industry
  - Minister of Defense
  - Minister in charge of Information Technology Policy

**Experts (7 persons)**

- Critical Infrastructure Expert Panel
- Technological Strategy Expert Panel
- Human Resources Expert Panel for Dissemination and Enlightenment
- Cybersecurity Measures Promotion Committee

**Secretariat**

- **Director-General**
- **Deputy Director-General**

**National Center of Incident Readiness and Strategy for Cybersecurity (NISC)**

- **Director-General**
- **Deputy Director-General**

**Competent Ministries of Critical Infrastructures**

- Financial Services Agency
- Ministry of Internal Affairs and Communications
- Ministry of Health, Labour and Welfare
- Ministry of Economy, Trade and Industry
- Ministry of Land, Infra, Transport and Tourism

**Relevant Ministries**

- Ministry of Education, Culture, Sports, Science and Technology (Security education)

**Ministries under HQ Members**

- National Police Agency
- Ministry of Internal Affairs and Communications
- Ministry of Foreign Affairs
- Ministry of Economy, Trade and Industry
- Ministry of Defense

**Government organizations (Ministries, IAAs, Designated Special Corporations)**

**Critical infrastructure businesses, etc.**

**Companies**

**Individuals**

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The National Security Council (NSC) deliberates on important issues regarding national defense.