The global COVID-19 pandemic has had a huge impact on our lives and economic activity. Even now, local and national governments all over the world are engaged in crisis management, while medical professionals are making every effort to treat and prevent infections. Consumers are leading their own lives and corporations are conducting their business activities under numerous restrictions.

The status, values and behavior patterns of society have already changed, and new values are going to be created, forming a “new normal.” We must accept the new world and change our own behavior.

Since its foundation, the NEC Group has constantly acted as a Social Value Innovator, seeking through its actions to promote human safety and security, social fairness, and economic efficiency. In response to the current crisis, we will aspire to realize the “more sustainable world where everyone has the chance to reach their full potential” cited in the NEC Group’s Purpose, as we create new social value that corresponds to the new normal through digital transformation (DX), which is now more important than ever.

DX Initiatives in Response to the New Normal

The NEC Group is grasping the social issues and the changes required to respond to the new normal quickly and accurately, and providing the solutions for them. In this way, we will accelerate DX and create social value in the new normal.

To achieve these aims and to support an increasingly sophisticated digital society going forward, we will further refine the research, development, and implementation of the core technologies we have cultivated over many years and provide customers with end-to-end solutions such as NEC Safer Cities and NEC Value Chain Innovation.

The NEC Group has cultivated end-to-end capabilities over many years. These include network technologies such as local 5G, which is essential for realizing DX, as well as cutting-edge core technologies such as world-class biometrics technologies and various unique AI technologies. Through these technologies, we are providing solutions such as NEC Safer Cities, which realizes DX in the social and lifestyle domain, and NEC Value Chain Innovation, which brings DX to enterprise and industry, and we have already established a considerable track record.
DX for Society and Daily Life—NEC Safer Cities

NEC i:Delight - Providing a Unified Customer Experience across Multiple Touchpoints through a Biometric ID, Such as Face and Iris Recognition

NEC i:Delight revolutionizes the customer experience by streamlining physical and digital identities into a trusted ecosystem, creating a unified experience. With contactless solutions that make touchpoints touchless, NEC i:Delight shapes personalized experiences that are safe, secure, and hygienic, while being quarantine-proof. Each individual retains autonomous control over their own personal ID and data, while connecting to multiple corporate and local government services to access them.

Start of Trials for Next-Generation Online Medical Care at Saiseikai Central Hospital and Saiseikai Kumamoto Hospital

At Saiseikai Central Hospital, NEC is conducting trials of an operating system that provides integrated online medical services, from medical treatment, billing, and prescription issuance. The system makes use of existing electronic medical records, ordinary mail, and online medical information and online medical information to centrally manage medical examinations through a video telemedicine system.

At Saiseikai Kumamoto Hospital, which is a core regional hospital, NEC will conduct a trial with other relevant medical institutions of a system that links patients’ electronic medical records and uses a video telemedicine system to conduct consultations on admission preparation, hospital transfer, discharge, and on-line follow up.

DX for Enterprise and Industry—NEC Value Chain Innovation

Demand and Supply Optimization Platform - Reducing Food Loss with AI-Powered Demand Forecasting

The Supply and Demand Optimization Platform enables food manufacturers to optimize inventory and production, food wholesalers and distributors to optimize inventory and enhance resource efficiency, and food retailers to optimize order planning. The platform contributes to reducing food loss by optimizing demand and supply across the entire food value chain and resolving various issues, including excessive production, waste of expired food, surpluses, inventory, and unsold products.

Comprehensive Logistics Visualization Platform to Enable Real-Time Tracking of Containers in Transit

DIMEC* of India and NEC established a joint venture that provides logistics visualization services. The service works by affixing RFID tags to containers when they are unloaded or loaded at ports in Mumbai, reading their data through RFID readers/antennas, and transmitting the data to the cloud. It enables operators to grasp accurate positional information about containers in real-time by linking with other systems such as port container management information systems.

Networks Supporting the Realization of DX

Konica Minolta and NEC Strengthen Cooperation to Promote DX by Utilizing Local 5G

NEC will collaborate as a partner to promote DX utilizing 5G in the fields of imaging and IoT/AI technologies, working with Konica Minolta’s development areas, to continue its development of Compressed Digital Radiography. Konica Minolta will continue its imaging and IoT/AI technologies to develop a variety of systems, including office equipment and medical equipment, as well as NEC’s 5G and AI technologies. Through these efforts, they will be able to add value to industrial optical systems, medical equipment, and office equipment, thereby contributing to the achievement of Society 5.0 and SDGs.

Rakuten Mobile, Inc. - Supporting a Fully Virtualized Cloud Native Mobile Network

NEC is supporting Rakuten Mobile’s construction of the world’s first high-speed, virtually full-featured cloud native mobile network by providing 5G (Business Support System) and OSS (Operation Support System) solutions and 5G radio equipment compatible with open virtualized RAN (vRAN) technology. NEC and Rakuten Mobile will jointly develop a converged virtualized 5G core network based on NEC products for the Rakuten Communications Platform (RCP). Through this project, NEC will assist Rakuten Mobile’s agile roll-out of mobile carrier services.

Increased Capacity of Optical Submarine Cable

As society worldwide adopts various digital technologies, large volumes of data are being handled across national borders. Large capacity optical transmission technology using submarine cables is core infrastructure supporting the handling of large volumes of data. NEC has invested in optical submarine cable capacity by compensating for signal distortion using AI analysis methods. We are now moving our technology to achieve even greater capacity by applying optical AI processing, which is expected to enable the achievement of high-speed, low-power consumption, and low latency simultaneously in submarine cables for the first time.

Launch of Digital Office Project to Realize New Workstyles through DX

NEC has launched the Digital Office Project for realizing new workstyles for the new normal way through DX. Focusing on the type of offices required for the new normal era, we have launched trials of various systems within NEC’s head office building, such as a guidelines entry system that uses advanced 5G (Drones and image analysis), as well as a subsurface store that can recognize customers over wearing masks. We aim to begin providing solutions one by one during fiscal 2021.

Realizing Diverse Workstyles through Telework

NEC respects diverse workstyles as a means of realizing both the growth of the Company and personal growth and happiness. As part of this approach, we have introduced telework. Over 80% of NEC employees carried out telework under the state of emergency that was declared in Japan, preventing infection among employees and their families while enabling business continuity.

Looking ahead, we will continue to place top priority on personal safety and peace of mind, while appropriately combining onsite and remote workstyles to increase employees’ quality of life and achieve further growth in our business.

Drug Development Using Cutting-edge AI

NEC is focusing on realizing advanced immunotherapy targeting cancer, infectious diseases, and autoimmune diseases through a new type of drug development method that requires advanced AI analysis.

In January 2020, we initiated clinical trials of individualized cancer vaccines in Europe and the U.S. and in April 2020, we used the AI technology applied to cancer vaccine development to perform the genome analysis needed to design a vaccine for COVID-19 and published the results.