Remarks for Special Issue on NEC Value Chain Innovation

Organizations and industries today face a growing number of challenges, including food loss and waste, labor shortages, changes in consumption, and the increasingly complex threats both in the real world and in cyberspace.

At the same time, digital technology is penetrating every aspect of daily life at an accelerating pace. Changing modes of communication, facilitated by social media, are creating rapid shifts in demand, while also bringing about diversified and varied sense of values, occasioning a paradigm shift in the style of consumption, from a focus on goods to a focus on experience. Meanwhile, new services—including on-demand sharing services and services that utilize various data and functions such as payment processing—have emerged to jumpstart momentous changes in individual lifestyles.

Many of these changes have been accelerated with the arrival of the novel coronavirus (COVID-19) pandemic. Society is now moving to a "new normal" which calls for the need to bring about a fundamental transformation to our sense of values and the state of society.

In this new world, digital technology has been pushed front and center, leaving organizations and industries with no choice but to leverage that power if they are to continue to prosper in the new era. At NEC, we believe it is imperative to leverage cutting-edge technologies and co-creation with customers to achieve digital transformation (DX) that creates new values by connecting people, things, processes and data across organizational and industrial boundaries.

NEC has been approaching its commitment to DX since 2014 in the shape of NEC Value Chain Innovation (VCI)—a concept that seeks to integrate a broad sweep of knowledge and research from all industries.

SAKAI Kazuhiro
Executive Vice President

Specifically, we are doubling down on our efforts to devote more resources to in-house manufacturing and also to the creation of an environment available to other manufacturers—for example, smart factories that can be rapidly adapted to volatile market demands, new business models to address online systematization and smartification of products, and so forth. As well as supporting operations on the production side, we are helping improve the efficiency of retail businesses suffering from labor shortages by fostering the creation of a smooth, hands-free shopping experience, while also contributing to the establishment of a pleasant, touchless customer experience at hotels and entertainment facilities. Behind the scenes, we are building a nonstop logistics infrastructure as well as providing technologies to facilitate the safe and secure movement of people and things, thereby achieving a more flexible, mobile society. Finally, we are also helping financial services attain digital linkage and digital reform, while providing them with the solutions they need to manage the proliferating risks and burdensome regulations.

For more than 121 years, NEC has been steadily developing technologies, while refining its expertise, enhancing its knowledge, and building its experience. All of that helps drive and sustain our commitment to VCI, which transcends traditional boundaries and operates in all five primary business domains—manufacturing, logistics, retail, service, and finance.

Our commitment is reflected in a supply and demand optimization platform that aims to deliver in-demand social values—such as the reduction of food loss and waste, and the improvement of labor and energy efficiency—through our co-creation efforts with manufacturers, logistics providers, wholesalers, and retailers. In addition, we are also working to put data at the center of social value creation. These efforts include a multi-bank identification platform and also NEC I:Delight. The former uses open APIs to securely build linkages between the enterprises involved and bank-owned user identification data so that the user identification can be completed via an online process. The latter uses biometrics—including face and iris recognition—to provide a common ID to assure customers a consistent, coherent experience.

NEC VCI is supported by our own proprietary cutting-edge technologies. These include biometrics that are already being utilized in various usage scenarios such as facility entry/exit, payment for goods and services, AI technology that is being rapidly implemented in fields such as demand forecasting for products and defect detection in manufacturing processes, and network technology such as 5G which is now being tested at smart factories and in construction machinery. There's more too—including IoT, cybersecurity, and cloud technology, all supported by a wealth of industry-specific know-how and system construction achievements accumulated over the years.

In this special issue on NEC Value Chain Innovation, we introduce representative case studies which showcase values made possible by DX and achieved through co-creation with customers. We also highlight the NEC digital technologies implemented in these cases and outline various other technologies that form the foundation for those values.

We hope you enjoy reading this issue, and we look forward to continuing our collaborative work with you to further expand your business.

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— Shaping the Future of Organizations and Industries through Digital Transformation

Remarks for Special Issue on NEC Value Chain Innovation
NEC Value Chain Innovation — The Future Created by Digital Technology

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Multi-Bank Identity Confirmation Platform — A New Way to Verify User Identity Using Digital Technology
NEC I:Delight — Personalized Adventures Unified by Trust

Connected Manufacturing
Connected Manufacturing — Innovating Manufacturing by Integrating On-site Know-how and Digital Technology
Smart Factory Enabled by Local 5G

Intelligent Logistics & Mobility
Intelligent Logistics and Mobility — Intelligent ICT to Optimize the Movement of People and Goods
Fast Travel: Using Face Recognition to Improve Airport Services with a View towards Wide scale Implementation
Public Transport Smart Card/Mobile Ticketing Solutions That Support Safe, Reliable Movement of People
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NEC's Vision of Retail and Smart Retail CX
A Relaxed and Enjoyable Customer Experience, More Efficient Store Management — The Cashierless Future is Here
OMO Solutions that Provide a Unique Shopping Experience for Only Now, Only Here and Only Me
Digital Store Platform, an Information System Platform for Smart Retail CX

Smart VenueCX
Smart VenueCX — Linking Inspiring Spaces to Deepen Bonds between People, Communities and Societies
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