In March 2020, the World Health Organization (WHO) officially declared the novel coronavirus infection (COVID-19) a pandemic. Today that pandemic continues to hold the world in its grip. Efforts to mitigate the virulence of COVID-19 continue to be implemented by a collaboration between industry, academia, and government.

The response to this pandemic has dramatically transformed our lives, inflicting upon us a wide range of unprecedented measures including restrictions on our movements in everyday life. The impact on the world of business has been equally transformative. Changes include the review of business continuity plans, reconstruction of supply chains, popularization of remote workstyles, and improvement of non-contact or traceless processes. In many ways, the pandemic has accelerated background trends that were already underway, pushing them front and center.

Digitalization in general has been advanced rapidly across the full spectrum of industries, helping to create digital shifts in the broader society. To take advantage of this opportunity, the Japanese government launched the Digital Agency in September 2021. This agency is focused on five digital principles: end-to-end digital execution and automation, agile governance, public-private partnership, interoperability, and infrastructure sharing. These principles can be viewed as setting the parameters for the digital society Japan aspires to create.

As a company committed to social value creation, NEC is drawing on its expertise in technology and business
to support and promote the digital shift throughout all industries, businesses, and society. That transition starts at NEC itself, where we are now accelerating digitalization on a corporate-wide scale with full implementation of digital workplaces as well as active utilization of online meetings and co-creation spaces — all of which is leading to reform of our employees’ workstyles.

To facilitate the digital transformation of our customers, we have since 2019 implemented three frameworks that are cross-functional and coherent as our principles of action. These frameworks are comprised of: (1) business processes — clarification of the purposes of digital transformation (DX) and specification of where and how this change is to be done; (2) technology — further emphasis on technology and efficient achievement of results; and finally (3) human capital and competencies — how to reinforce specialized skills and behavioral characteristics and how to improve them.

The DX offerings featured in this special issue of the NEC Technical Journal are positioned as a crucial initiative in the aforementioned first framework of business processes. In our DX offerings, NEC products and services as well as our knowledge and experience are packaged into assets and delivered quickly to the customer, allowing them to better respond to the whirlwind of changes transforming the market, customer, and society. As we continue to improve and implement these packages in different settings, we will continue to accumulate our know-how, thus enabling us to provide even better services.

In addition to — or rather transitioning from — the solely product-oriented concept we have traditionally embraced, we are now aiming to help our customers draw up scenarios to materialize their big ideas by providing them with access to our R&D expertise, product prowess, and service savvy while comprehensively analyzing market and customer trends. This makes it possible for us to support our customers with our excellence in information and network technology together with our roadmaps for future technology.

This special issue contains a variety of articles written by various specialists in their fields who are driving forward NEC’s DX offerings — which include purposes, approaches, methodologies, content, and training programs. What you will read here is critical, it is important, it is ground-breaking. It is, however, by no means the last word. We are constantly iterating the development process every day, refining and improving our products and processes. This is then an interim compilation of all that we have achieved so far, our successes and failures, and our responses to the comments and feedback from our customers and on-site personnel.

Nothing would make us happier than if the material contained in this special issue were to deepen your insight into the revolutionary transformations occurring today, helping you to deal with your customers and show them what the in-house processes of their companies should be and how this can be achieved. In a more general sense, we would like this material to serve as a reference for how to bring genuine reform and growth to Japan and in turn to other countries around the world.
Thank you for reading the paper. If you are interested in the NEC Technical Journal, you can also read other papers on our website.

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Vol.16 No.2 Special Issue on DX Offerings to Accelerate the Digital Transformation of Society

Remarks for Special Issue on DX Offerings to Accelerate the Digital Transformation of Society
NEC Working to Accelerate the Digital Transformation with DX Offerings
DX Offerings to Accelerate the Digital Transformation of Society

Papers for Special Issue

DX Offerings to Drive Business Transformation and Innovation
DX Strategy Consulting Service Develops Strategies and Roadmap for Enterprise Digital Transformation
NEC’s Design Thinking to Accelerate Transformation with Future Creation Design

DX Offerings to Improve Customer Touchpoints
Community Revitalization Centered on Safety, Security and Event Facilities
Safe and Secure Management of Airports Achieved by NEC’s Biometric Technology
Where We Are Now in Digital Transformation of Cities and Real Estate — New Ways of Value Creation Using Data Platforms
User Support to Maximize DX Effectiveness — Considerations in the MHLW Project

DX Offerings to Promote Business Innovation
NEC’s Digital Workplace — Where New Workstyles and Businesses Are Created
Local 5G to Accelerate Digital Transformation in Industry for a Prosperous Society
Advanced Support for Supply Chain Management (SCM)
NEC’s DX Offerings for Data-Driven Management and a Use Case

DX Human Resource Development in the Digital Age
DX Human Resource Development in the Digital Age
DX Offerings to Support Transformation of Organizations and Human Capital

IT Infrastructure Supporting DX
Total Cybersecurity in the DX Era
DX-based IT Service Management Initiative
NEC’s Digital Platform Underlying DX Offerings

Advanced Technologies and Methodologies Supporting DX Offerings
NEC Cloud IaaS Supports DX Offerings
Biometric Authentication Leading the Way to the Future
Composable Management and Digital Transformation to Achieve Accelerated Growth

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