

DX Offerings to Accelerate the Digital Transformation of Society

Against the backdrop of the current, highly uncertain business environment coupled with advances in digital technology, many of our customers are turning to digital transformation (DX) to create corporate value and transform their businesses to achieve new business growth. This requires developing a DX strategy in collaboration with experts. The DX offerings menu described in this paper feature various services to help solve issues in DX advancement, such as DX strategy formulation, implementation of technology, as well as talent reinforcement and organizational development. These are bundled assets so they can be provided to customers in a prompt and speedy manner. The DX offerings, based on a value proposition model leveraging NEC's accumulated experience in resolving management challenges for customers and NEC's best practices for handling DX proposals, provides a suite of services that customers can use with confidence.

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1. Introduction

The spread of the digital transformation has fundamentally changed people's lifestyles, communication styles, social norms, and values. At the same time, companies and industries are placing greater emphasis on adopting digital technology to fundamentally change existing business practices and create better value for customers.

To respond promptly and flexibly to change, the need has been growing to accelerate the advancement of digital transformation (DX) by shifting to a way of thinking that discards conventional values and business models.

In recent years, the advancement of digital transformation has shifted from the level of technical concept to actual usage and enhancements in DX applications. Many of our current customers who are engaged in digital transformation are beginning to focus their attention on the selection of which external experts they should collaborate with to solve the challenges ahead as their most important management strategy.

In this context, NEC has prepared a suite of DX offerings as an approach to aid customers in selecting a DX expert.

2. Approaches to Digital Business Transformation

In addition to skills in the formulation of DX strategies, technologies as well as talent reinforcement and organizational transformation, a sense of speed when making proposals as well as a successful track record and accumulated experience in DX implementation like NEC has are essential for creating value and providing support for our customers.

In the IT industry to date, vendors have sold a variety of systems that meet customers' needs and requirements, and customers in turn have purchased those systems. With digital transformation, a partner approach with customers is required rather than a focus on simply selling systems. In other words, we believe it is important to be selected as a partner who walks alongside our customers while contributing to their business growth.

2.1 NEC's DX approach

What are NEC's strengths in relation to the DX approach? Our strengths lie in the fact that we can provide end-to-end services, from upstream consulting on

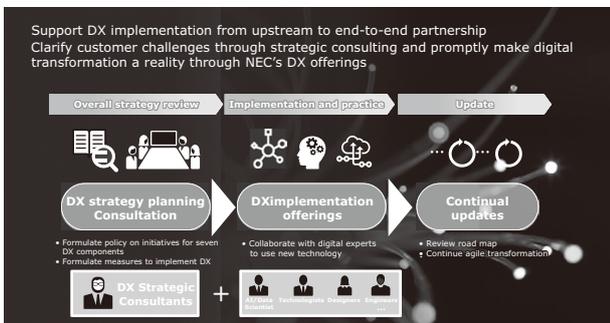


Fig. 1 NEC's DX approach.

the formulation of DX strategies to better understand a customer's business environment and management challenges to DX implementation that includes system development, operation, and maintenance services using digital technology (Fig. 1).

Next, NEC's DX business know-how and knowledge can be integrated, and we can propose the most suitable DX business to our customers through the implementation of digital transformation at our own company and experiencing the benefits.

In addition, we can combine multiple IT environments — cloud, data center, and on-premise — to provide our customers with hybrid IT services that are seamless, agile, and continuously updated.

The concrete realization of the DX concept is our DX offerings, which will be discussed in this paper as a solution that enables customers to quickly respond to constant business changes.

2.2 Purpose of digital transformation and perspectives on problem solving

First, we clarify the customer's management issues through the DX Strategy Concept Development Consultation, develop the customer's business roadmap and growth scenario, and propose specific measures to resolve the issues through the DX offerings (Fig. 2).

The customer's DX objectives are organized in five perspectives.

(1) Innovation generation

To maximize long-term value-added creation in an uncertain business environment, we propose the creation of new markets and business opportunities, focusing on management-level and line-of-business (business unit) customers.

(2) Customer touchpoint transformation

With companies and industries affected by the novel coronavirus infection (COVID-19), we will provide



Fig. 2 Purpose of digital transformation and perspectives on problem solving.

a safe and secure environment and enable business continuity through the provision of online, touchless, and other services.

(3) Business transformation

By utilizing digital technology, we propose the business process transformations that have not been possible up to now, such as reviewing SCM, automating and streamlining operations, and reforming work styles.

(4) Human capital and organization

One of the biggest challenges in promoting digital transformation is the shortage of DX talent. NEC will provide one-stop support for customers' DX human resource development by bringing together the digital human resource development know-how that NEC itself has put into practice.

(5) Technology and DX platform

To speed up the advancement of digital transformation described in (1) to (4) above, the digital technology and DX platform supporting them are important, and NEC will make ready-made DX proposals using its core technologies.

3. NEC's DX Offerings

To realize concrete digital transformation advances, we have prepared a DX offerings menu as proposals to support the realization of optimal digital transformation for resolving the various issues and meeting the business needs of our customers.

3.1 DX offerings menu system

As mentioned earlier, the DX offerings menu focuses on achieving digital transformation from five perspectives: innovation generation, customer touchpoint transformation, businesses transformation, human capital and organization, and technology, and the DX offerings

is structured around this DX framework (Fig. 3).

The system is further divided into industry-common DX offerings and industry-specific DX offerings, with both backed by technologies supporting digital transformation.

The industry-common DX offerings is based on a value proposition model that brings together the digital expertise of NEC's entire company as DX offerings in areas that are common to specific industries and business categories or that transcend industry boundaries.

The industry-specific DX offerings support the digital transformation of companies and industries. The offerings are designed to provide DX solutions tailored to each of the five sectors of manufacturing, retail, logistics & mobility, hotel/leisure/real estate, and finance through the concept of NEC Value Chain Innovation (VCI), which is aimed primarily at the enterprise market.

In addition, we are developing and providing DX solutions for society and daily living that leverage the unique characteristics of five sectors — digital government, smart city, transportation, city safety and disaster management, and digital health care — that underlie NEC Safer Cities (NSC), a business concept mainly for the public market.

3.2 Advantages of introducing DX offerings

Here are some of the benefits for customers when adopting DX offerings.

First, we prepare ready-made solutions in advance to meet your DX promotion challenges.

Based on NEC's own experience and track record of implementation and operation, NEC has created a DX offerings menu that includes internal digital transformation, work style reform/new work styles, and successful models common to all industries and operations, allow-

ing customers to choose from a wide variety of solutions.

In addition, these have been prepared as a series of products, services, and knowledge for solving customers' issues that have been standardized, formalized, and compiled into a collection of repeatable best practices. Furthermore, NEC provides support from DX consulting to implementation, construction, and operation, so customers can implement digital transformation with confidence.

3.3 Technology to support digital transformation and DX offerings

The DX offerings in the technology sector are located at the lower level of the menu system and serve the role and function of supporting all industry-specific and industry-common DX offerings (Fig. 3).

The DX offerings for the technology sector is positioned not as NEC recommended packaged products but as best practices that are preset with NEC's DX experience and knowledge to solve customer issues. The offerings are organized by competency in the areas of consulting, AI & data utilization, biometric authentication and video analytics, cloud services, modernization, security, networking, and VCI.

As of January 2022, 68 DX offerings are available, and including future plans, the company plans to release over 100 DX offerings (Fig. 4).

3.4 DX offerings suite

From a medium- to long-term perspective, we offer the most appropriate combination of multiple DX offerings for our customers' larger business challenges (Fig. 5).

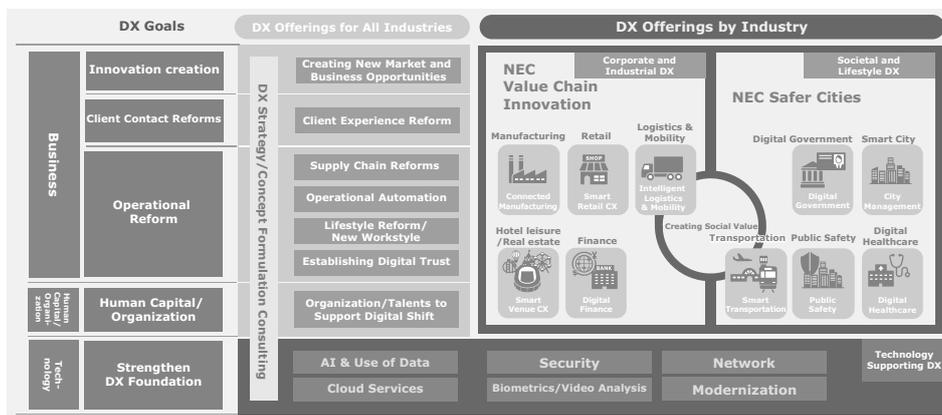


Fig. 3 Menu of DX offerings.

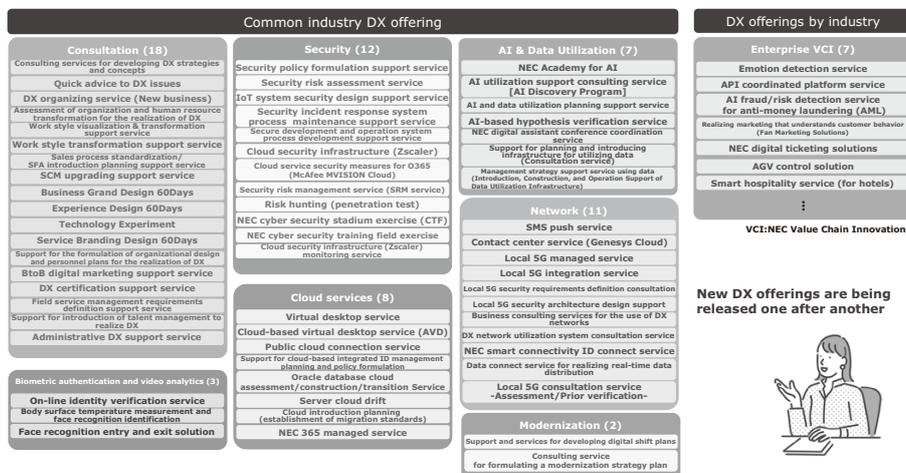


Fig. 4 List of DX offerings.

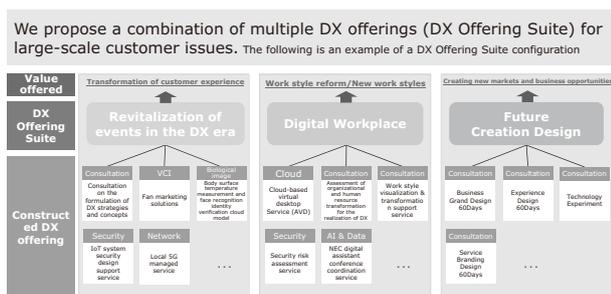


Fig. 5 DX Offering Suite.

3.4.1 Example 1: Event activation in the DX era to transform customer experiences

Customer:

- Operators, including overseas operators, of facilities such as theme parks, museums, and movie theaters, in addition to stadiums and arenas that serve as venues for large-scale events such as baseball, soccer, and other sporting events, concerts, and other musical events

Challenges and business needs:

- Attract customers to events during and after the COVID-19 era
- Contribute to the revitalization of the local economy centered on event venue

Provided value:

- Safety and security at facilities through measures to mitigate the spread of infections, such as touchless systems, body surface temperature detection, and crowding and unmasked individual detection, as well as security measures, such as suspicious object detection

- Strengthened marketing to increase not only the number of visitors, but also the number of core fans, thereby increasing the repeat rate and sales per capita

3.4.2 Example 2: Digital Workplace to change the way people work

Customer:

- Management, administration and IT departments of companies and organizations aiming to achieve safe and secure business continuity and maximize use of human capital during and after the COVID 19 era

Challenges and business needs:

- Telework is implemented, but there are challenges in security enhancement, management, and communication

Provided value:

- Achieve the same work style whether working remotely or at the office
- Enjoy services anytime, anywhere through online customer touchpoints
- Safety and security achieved through touchless services
- Improved efficiency by using AI and robotics to achieve automation and labor saving
- Building trust through transparency and visualization in the digital society

3.5 DX offerings and research themes

The following table shows the relationship between the DX offerings and each of the topics introduced in this issue (Fig. 6).

	DX Goals	Value	DX Offerings		
Business	Formulation of DX strategy concept	Formulation of DX Strategy	Formulation of DX strategy	DX Strategic Consulting Service Develops Strategies and Roadmap for Enterprise Digital Transformation	
	Innovation creation	Creating new market and Business opportunities	Future Creation Design Data-driven management	NEC's Design Thinking to Accelerate Transformation with Future Creation Design NEC's DX Offerings for Data-Driven Management and a Use Case	
	Client Contact Reforms	Transformation of customer experience	Touchless customer service Hospitality experience DX-era event activation Urban and real estate DX <small>DX Example: Ministry of Health, Labor and Welfare P3/BPO</small>	Community Revitalization Centered on Safety, Security and Event Facilities 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	
	Operational Reform	Transformation of supply chains	Sophistication of Supply Chains	Advanced Support for Supply Chain Management (SCM)	
		Automation of operations	Automation of operations Use of AI operations (Consulting)		
		Work style reform/ New work styles	Digital Workplace Field service management Local 5G-based industry/local government DX	NEC's Digital Workplace – Where New Workstyles and Businesses Are Created DX Initiatives in Field Service Management Local 5G to Accelerate Digital Transformation in Industry for a Prosperous Society	
		Establishing digital trust	Safe and secure commercial trading Safety & Security/ Infectious disease countermeasures	Safe and Secure Management of Airports Achieved by NEC's Biometric Technology	
	Human Capital/Organization	Organization/talent to support digital shift	Transformation of human capital and organizations to realize DX NEC Academy for DX	DX Offerings to Support Transformation of Organizations and Human Capital DX Human Resource Development in the Digital Age	
	Technology	Strengthen DX Foundation	Technology supporting DX	Zero-trust Security	Total Cybersecurity in the DX Era
				Modernization	
Cloud-based operation NEC Digital Platform				NEC Cloud IaaS Supports DX Offerings DX-based IT Service Management Initiative NEC's Digital Platform Underlying DX Offerings	

Fig. 6 DX offerings and research themes.

4. Conclusion

The DX approach we propose to our customers is based on pinpointing the areas that require transformation. The first step is to change the customer's vision on the way business is conducted, and then change the digital platforms, human capital, and organizations to put this vision into practice.

The goal is not to promote digitization, but to consider what value is provided to customers (users) and what operations and tasks are necessary to achieve this. The key to success in digital transformation is to simultaneously determine the delivery system and organizational development to realize and deliver the value to be provided.

These DX offerings are based on a value proposition model leveraging NEC's track record in resolving management issues for customers. It incorporates the expertise possessed by NEC as a whole and best practices for DX proposals as a reference, and is constantly being updated.

NEC will continue to contribute to the growth of our customers' businesses and strive to remain an important partner in their long journey.

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Related URL:

DX Offerings (Japanese)
<https://jpn.nec.com/dx/offering/index.html>

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DX Offerings to Accelerate the Digital Transformation of Society

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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
DX Initiatives in Field Service Management
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
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