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Choosing Your Path to Become a Smart Enterprise

An Evaluation of NEC's Differentiated Solutions Approach

An Executive Brief Sponsored by NEC

Robert Arnold, Principal Analyst

Information and Communications Technology

50 Years of Growth, Innovation and Leadership

INTRODUCTION

Organizations of all sizes are facing an ever-changing set of challenges, from network security threats, to reliability and performance concerns, to fast-evolving business and user requirements to support new applications.

Adapt or be left behind—that's the stark reality organizations of all types and sizes operate within today. Surviving requires the ability to be less reactive. Thriving requires becoming smarter about anticipating and capturing opportunities as well as proactively taking on challenges.

Smart enterprises are leveraging technology to optimize the business, increase visibility and control, improve safety and security, and drive competitive advantages.

Frost & Sullivan has evaluated NEC's approach to the smart enterprise at great depth and has determined that NEC solutions are tightly aligned with Frost & Sullivan's vision of how technology can address evolving challenges. This brief highlights NEC's capabilities to create a smarter enterprise in four critical areas: architecture flexibility, software-defined anything, business continuity, and the Internet of Things (IoT).

ARCHITECTURE FLEXIBILITY

End-user organizations today have many choices in technology and providers. Of all the technology providers in the market, NEC understands the necessity of flexible architecture in optimizing an organization's resources and services for business performance. Key NEC value points that stand out from the crowd of potential providers include:
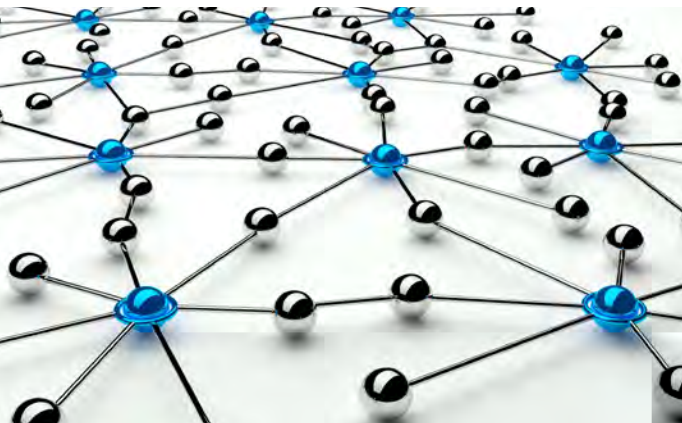
Hybrid: NEC can effectively deliver hybrid solutions by mixing cloud, premises, and managed solutions that best fit the need. NEC ranks among a select class of technology vendors that isn't forcing customers to adopt hosted solutions. NEC understands that migrations to the cloud may take time or existing infrastructure assets may still have good value, making hybrid architectures the right option for most businesses.

Verticals: NEC has excellent alignment to vertical market needs, fully understanding regulatory and compliance challenges may require certain aspects of an organization's operations to have heightened security and information assurance. NEC delivers both on-premises and cloud capabilities that satisfy the most demanding customers, including certifications from the US Department of Defense (DoD) and healthcare and financial institutions, ensuring that information and services are consistently secured.

SOFTWARE-DEFINED ANYTHING

NEC is an industry leader in the area of software-defined initiatives, including the virtualization of infrastructure with Software-defined Networking (SDN). The abstraction of the network control layer from the physical layer of the hardware infrastructure delivers efficiencies and simplification of network design not possible with the limited legacy functionality provided by the aging routing and switching technologies deployed today.

NEC clearly understands the value of driving application-aware services. The company is demonstrating innovation through a software-defined approach that prepares an organization for the onslaught of digital transformation. For example, this approach permits the network and associated software systems to correspond, allowing for dynamic quality of service (QoS) to efficiently and securely move large amounts of real-time or latency-sensitive data (voice, video) and non-real-time data (i.e., presentations, IoT information) that optimizes performance while maximizing the utilization of the underlying physical infrastructure. There's no longer a need to set up static bandwidth reservations or have idle resources held aside for peak capacity moments.

NEC's approach embraces an unadulterated implementation of standards with an open architecture. A full set of features and services are delivered without any proprietary overlay that locks an organization into a single-vendor solution, allowing for a best-of-breed approach and the flexibility to leverage existing assets to their fullest extent. NEC acknowledges one of the strongest benefits of the software-defined revolution is the ability to play in a rich ecosystem through tight interoperability supported by industry standards.

Overall, NEC's software-defined solutions provide business agility that speeds time to market and implementation of system changes that drive industry-leading performance for customers.

BUSINESS CONTINUITY

Business continuity and high availability (BCHA) should be an expectation from all organizations. Even the most humble of businesses today cannot afford disruption to their operations and loss of goodwill from their customers. Accordingly, NEC provides BCHA solutions for any size business—not just for the biggest and wealthiest organizations.

While NEC provides high-availability software solutions that are comparable to many popular options, such as VMware, NEC also offers flexible options where complex and expensive software solutions may not be appropriate:

Fault-tolerant Servers: NEC fault-tolerant servers are unique in their lock-step information exchange capability that keeps all data current in real time. Failure of one asset does not lead to downtime or data loss with this design—a vast improvement from the time-delayed buffering method most fault-tolerant manufacturers employ. When regulatory and compliance needs drive data and services management, NEC fault-tolerant servers provide an optimal solution for business continuity. For example, access control systems at airports must be available 7x24x365 and financial services companies cannot afford even a small loss from a buffered data scenario, yet most software high-availability solutions still require time to "fail over" to the other "standby" instance, resulting in business disruption.

Active-Active Communications: NEC is the only manufacturer offering a US DoD-certified communications platform that provides its own business continuity capability with an Active-Active session manager. Multiple instances of the session manager (call manager) will work with each other in real time to load balance and monitor the health and performance of all communications services. If one server instance should fail, the others retain services in real time without any disruption.

Better still, NEC does not charge a server license, which encourages customers to install, distribute and virtualize multiple instances for the most flexible and reliable communications platform on the market, and one that offers the additional advantage of US DoD certification for security, information assurance and reliable performance.

NEC can design comprehensive solutions that provide true business continuity or high availability in hybrid environments, incorporating on-premises assets with cloud solutions. NEC will sell these solutions under traditional capital expenditure (CAPEX) arrangements, as an operational expense (OPEX), or any combination of the two balanced to an organization's specific needs.

INTERNET OF THINGS

NEC maintains a rich portfolio of traditional IoT technologies with sensors and data analytics, but also has a practical approach to keeping the human in the loop. While many manufacturers look to RFID or capturing data from individuals' mobile devices, NEC had developed a rich biometrics solutions portfolio that is friendlier and more informative for IoT strategies involving humans.

NEC's facial recognition has been rated as the #1 performer worldwide in a series of evaluations by the National Institute of Science and Technology (NIST). This unbiased, third-party evaluation organization has recognized that NEC leads in speed and accuracy of facial recognition.

NEC biometrics additionally provide behavioral analytics, anonymously capturing activities such as crowd formation, dwell time, object left behind, a fall and other behavior. This can be paired with demographic information (i.e., age, gender) captured from the same video sources in real time and offline. These human actions are not captured by sensors or gathering mobile device information, providing greater insight for businesses to assess performance and create better experiences for their customers.

NEC's approach, particularly with respect to real-time facial recognition and biometrics analytics, is non-invasive and leverages the proliferation of surveillance cameras already deployed. While safety and security are certainly addressed with these technologies, the ability to gain business intelligence (BI) from these solutions opens new and forward-thinking possibilities for enriching society, consistent with NEC's corporate vision of "Orchestrating a Brighter World."

THE LAST WORD

All organizations must modernize how they operate in today's hyper-connected world. To become a smart enterprise is to become more agile and proactive in addressing both adversity and opportunities. There is a lot to consider when laying the necessary foundation to become a smart enterprise. A trusted provider can put you on a successful path.

NEC can help your organization effectively leverage next-generation technology to:

✓ Increase agility	✓ Streamline operations	✓ Reduce costs	✓ Ensure compliance
✓ Drive employee engagement and productivity	✓ Assure BCHA	✓ Improve customer satisfaction	✓ Enhance security

With its expertise and portfolio focused on enabling the smart enterprise, Frost & Sullivan contends that NEC is ideally positioned as a technology and service provider to ease the burden on your IT group and allow the workforce to focus on core business competencies.

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NEXT STEPS ⊙

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> Interested in learning more about the topics covered in this white paper? Call us at 877.GoFrost and reference the paper you're interested in. We'll have an analyst get in touch with you.

> Visit our **Digital Transformation** web page.

> Attend one of our **Growth Innovation & Leadership (GIL)** events to unearth hidden growth opportunities.

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Frost & Sullivan
3211 Scott Blvd
Santa Clara CA, 95054