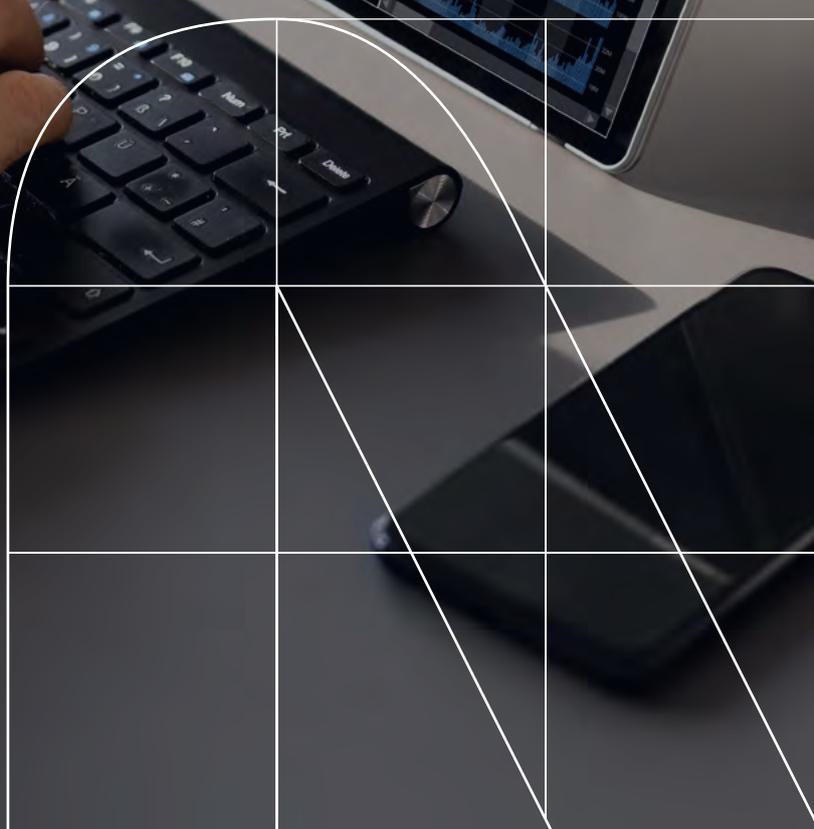


Unlocking the business value of your applications

Visibility and Performance
Management (VPM): the performance
backbone today's applications need





In a short period of time, customer experience (CX) has leapt to the top of the boardroom agenda. The software solutions and mobile apps we use on a daily basis are a crucial part of the CX picture.

In our 2020 Customer Experience Benchmarking Report¹ we found that:

“ 82% of organizations agree that CX offers a competitive advantage, with 58% considering it a primary differentiator.

Brands like Uber and Airbnb have raised the bar in terms of how customers perceive their interactions with a business. This also influences how employees rate their employers. From remote workers using collaboration platforms to consumers making more purchases and customer support queries online, applications have rapidly become an essential part of daily life.

The world is changing and software solutions have evolved from technologies that support business

objectives to core operational infrastructure. NTT research shows that more than 70% of organizations define improved CX as the top factor driving digital transformation.

Analysts say the rapid adoption of multi-cloud, cognitive, data-intensive applications is turbo-charging the pace of digital transformation². For organizations of all sizes and in all sectors, the ability to respond to changing market conditions and customer expectations at scale can determine success or failure.

The new operating model of virtual engagements is pushing applications to the limit. It is also highlighting some of the inevitable performance, availability, and security bottlenecks that organizations face due to the increasing number, complexity, and location of applications. These challenges are further compounded by a mix of on-premise and public-cloud environments.

In this e-brochure, we'll explain why Visibility and Performance Management (VPM) has become the vital backbone for managing complexity to ensure customers, partners, and employees get the user experience they expect.

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Applications don't just enhance the business anymore — they are the business.

¹NTT 2020 Global CX Benchmarking Report
²McKinsey: Digital strategy in a time of crisis, May 2020

Digital transformation is accelerating complexity

With reliance on applications ramping up exponentially across the business, IT teams face new and diverse management challenges.

In a recent survey by Cisco AppDynamics³, three quarters of technologists said digital transformation projects are being rushed, raising serious concerns about the stability, interoperability, and performance of applications. Nearly 60% said they are firefighting a storm of application issues and introducing short-term fixes and workarounds in order to cope.

To unravel the knots in application performance and avoid future entanglements, organizations are now seeking advice on how best to design and deploy VPM tools. They're also looking to obtain the skills needed to automate data flows and uncover the business insights needed to enhance visibility and control over their application estate in the midst of continuous digital transformation.

Improving application availability and efficiency

Applications now need to be more than just available. They must consistently provide positive experiences for employees, customers, and partners up and down the value chain. This requires innovation at the front end; but even more crucially, a greater focus on efficiency, service delivery and security by design at the back end.

Many application performance teams are eager to fine-tune the user experience in real time — to be able to adapt and make improvements without introducing risk or threatening performance and availability. To achieve this goal, they need to take some proactive steps⁵ to ensure world-class digital experiences for their customers:

Make decisions and provide proactive support based on real-time data by monitoring the end-to-end application delivery, from the customer's device, across any network, to the application itself.

Focus on application performance by implementing a robust performance management solution, encompassing the application and all extended delivery infrastructure to assure the user experience of mission-critical applications in production.

Align performance to business outcomes by measuring and analyzing the performance of applications and correlating this to business performance.

Supporting a data-driven cloud strategy

To maximize the long-term value of their application investment, organizations are looking to establish a center of monitoring excellence.

When refining your hybrid cloud strategy, it's vital that the decisions made around application migration and placement, are driven by reliability and performance data on the internet and cloud, SaaS or PaaS provider networks. Here are some critical questions to ask:

- Are all critical applications baselined for key performance metrics?
- Has end-to-end network performance been baselined?
- Has the performance of all cloud technologies been baselined?

There are many drivers for an organization to invest in application and digital experience monitoring for the cloud and often an immediate, tactical high-profile challenge with a specific application, quickly results in an understanding of the long-term business value of VPM.

“**Our research revealed a 55% increase in availability for businesses with proactively supported environments and a 10.5% decrease in critical outages through the use of automation⁴.**”

³AppDynamics Agents of Transformation Report 2020

⁴NTT 2020 Global Network Insights Report

⁵Cisco AppDynamics, The App Attention Index 2019

The power of intelligent Visibility and Performance Management

When applications are working at peak performance, they become an enabler for both employees and better customer experience (CX). For these organizations, visibility and performance monitoring is helping IT teams to see applications through the lens of the end-user.

Whether the objective is to speed application response, reduce security risks, ensure compliance, or all the above, being able to understand each customer journey supports better digital decision making.

Organizations that have implemented VPM can use this visual presentation of data about every application, its interdependencies and the end-to-end service delivery, to improve the quality and impact of the application conversation between stakeholders. Whether that is marketing, development, risk, or compliance, developing a common language about current or potential issues allows teams to share focus on customer outcomes and innovation.

With effective and efficient monitoring and management of their application estate, a business can visualize all their applications' components, dependencies and connectivity in one user interface. This enables IT teams to become more proactive and focus

on the customer experience, and also makes the use of technology across the organization frictionless.

Even during a period of uncertainty and rapidly changing priorities, by blending NTT Ltd.'s experience and expertise with AppDynamics and ThousandEyes, you can build the internal capability and confidence necessary to maintain world-class digital experiences both internally and externally.

By using visibility and performance management you can move from an isolated approach to application development, towards more effective and better integrated teams. Being able to visualize your applications' performance, and your extended ecosystem of partners in one place, empowers teams across all lines of business to better communicate with customers, internal stakeholders, and suppliers.

The future of application performance lies in automation

As applications evolve to containerized architectures, manually configuring installs, thresholds, data collection, and dashboards is no longer an option. In fact, doing things manually actually multiplies application complexity, rather than eliminating it.

Modern application architectures, microservices, and multicloud environments make it nearly

impossible to manage application and infrastructure complexity at scale. Manually deploying and operating functions such as configuring resources, setting up virtual machines and monitoring performance is inefficient and error-prone — putting application availability at risk.

Automation is essential to a successful transition to cloud infrastructure. Tasks can include storage and backups, network testing and alerting, changing configurations and settings, and deploying code. With automation, the bulk of the workload can be handled without manual intervention, ensuring application availability and performance, which allows the administrators to focus efforts elsewhere.

This automated monitoring, combined with a unified view of all applications, helps reduce mean time to repair (MTTR), and enhances application performance during periods of fluctuating demand.

Whether applications run on-premises or in the cloud, infrastructure diagnostics and immediate, proactive remediation help reduce the number of war room situations your IT team is likely to experience.

Artificial intelligence (AI) provides the real-time analytics and insights to inform resource decisions for application performance, and automatically allocate resources as demand requires.

Realize the full value of your business applications

At NTT Ltd., we work with clients across the entire application lifecycle to help maximize positive outcomes for customers and employees. By applying industry benchmarking, technology assessment, and risk management, we help organizations use technology to achieve strategic goals.

From simplifying online purchases to optimizing supply chains and improving collaboration, applications have the power to change things and move us towards a better world.

We empower our clients to make data-driven decisions, and remediate application issues in a repeatable, scalable and operationally consistent manner.

Competency Center for Visibility and Performance Management

To eliminate complexity, you need to focus on simplicity. The certified consultants and engineers at our VPM Competency Center provide full-service coverage to help you plan, build, and manage the applications you need. We'll provide you with the right intelligence to support informed infrastructure decisions, and work with you to pinpoint the primary causes of poor performance or poor user experience and challenges across hybrid IT environments.

We leverage strategic partnerships to provide organizations with visibility and performance management and automated issue identification.



This enables you to resolve network and application challenges more effectively, and ensure your application environments and underlying infrastructure are secure by design.

Access to real-time data and automation is the foundation of continuous application performance. With fully integrated monitoring from Cisco AppDynamics and ThousandEyes, clients can monitor business applications and identify customer-impacting issues quickly and precisely, with an end-to-end view of application performance and all the connectivity and services that application depends on.

When issues arise, our clients need to be able to resolve them quickly, efficiently, and ultimately with automation. We combine the power of the AppDynamics and ThousandEyes platforms with Cisco Workload Optimization to enable our clients to

make better decisions and optimize actions through AI and automation. Our Competency Center extends this to provide visibility into the performance of critical applications in SD-WAN environments both within and outside enterprise networks.

We tie all this together with advanced consulting and implementation services, as well as support on demand. With Application and Network Performance Management as a service, you can realize the benefits of the improved customer experience with a focus on business optimization and innovation.

Leverage the power of Visibility and Application Performance Management

Our Advisory workshop is the first step to understanding and improving your organization's applications and ensuring a prime customer experience.

To find out more about application optimization, please visit connect.

<https://hello.global.ntt/en-us/solutions/network-modernization/gain-visibility-and-manage-performance>



