

riverbed®

Unified NPM for Post-Covid Government IT Operations

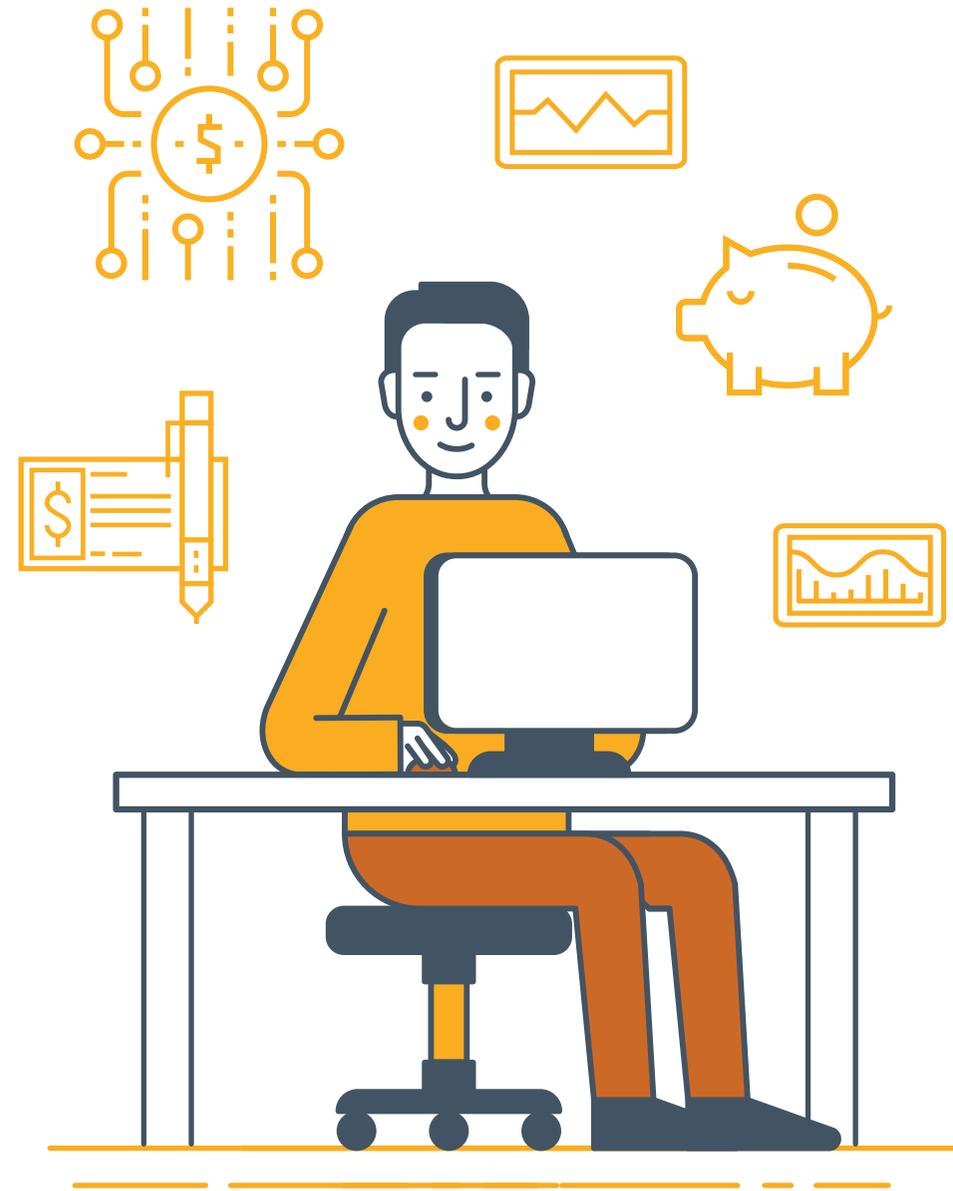


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2020: A Year of Change

With the pandemic highlighting the risks of owned technology and infrastructure, research shows that



46%

are prioritising investment in core operations upgrades and resiliency measures, up from 43% in June 2020



46%

are making greater use of managed services and cloud



66%

are focused on cyber security tools, compared to 49% in June 2020

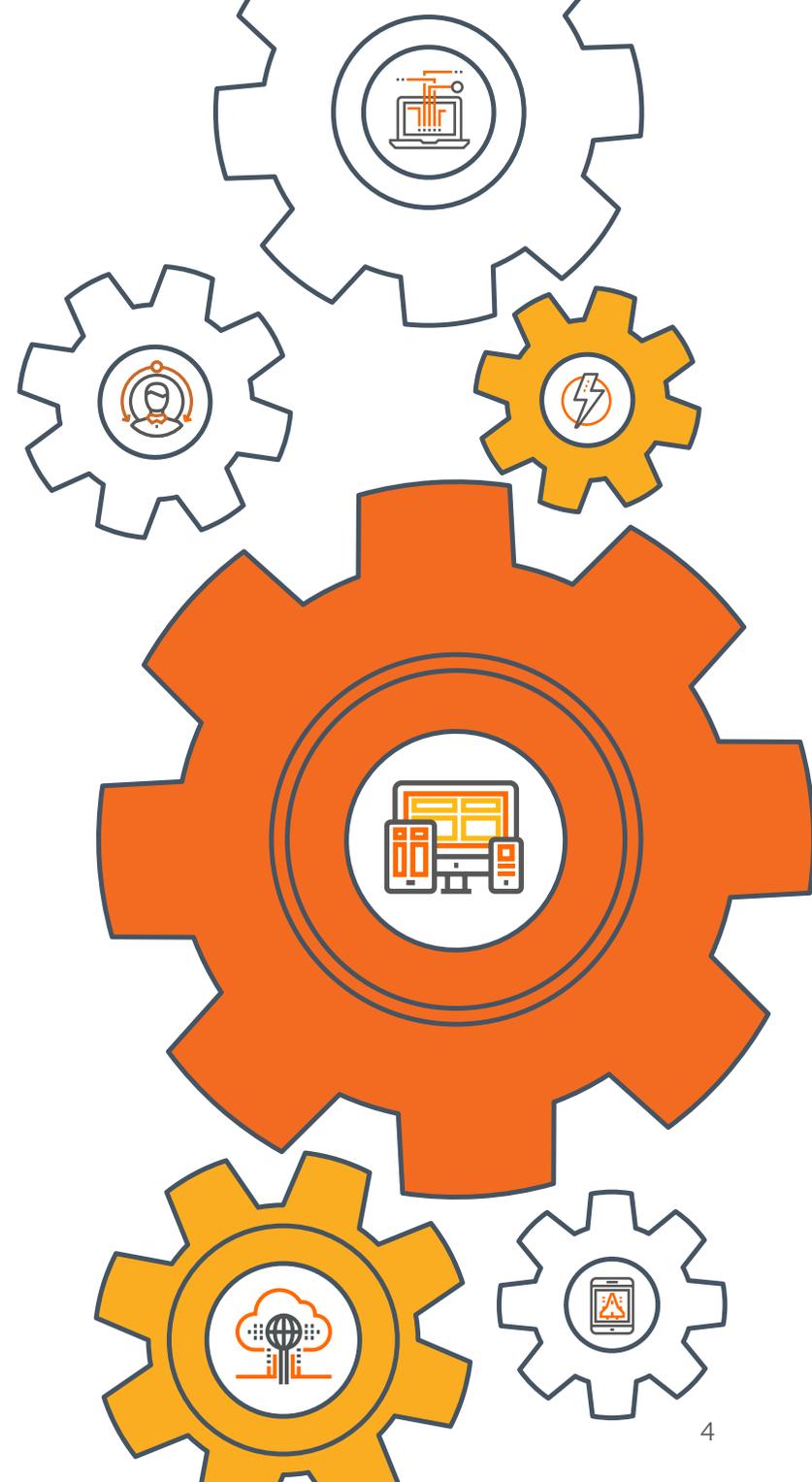


Remote Work Drives Digital Transformation

COVID-19 represents an opportunity to foster greater use of digital capabilities and is driving digital transformation. Whenever there is investment in digital transformation there is an increased need for monitoring to ensure smooth operation throughout the transition and to objectively demonstrate that the intended ROI and business outcomes are being delivered – on an ongoing basis.

Customers want seamless experiences. The eGovernment is no exception. Omni-channel platforms allow agencies to deliver seamless, end-to-end digital experiences and capture a 360-degree view of citizen behavior across multiple channels.

The public sector also needs to drive operations efficiency through digitisation, and one of the proven methods for doing so is by leveraging the cloud to gain infrastructure resiliency and efficacy.



Full-Fidelity Visibility Supports Digital Transformation

Digital innovation is a top emphasis for all levels of government, but a staggering 70% of digital transformations fail.¹ Even as you make widespread upgrades to improve agility, flexibility, speed, and scalability, one flaw can undermine all your investments—a lack of network and application visibility. How do you achieve end-to-end visibility, and why is it important?

A lack of hybrid visibility can slow or undermine your success, especially blind spots that can hinder cloud migrations and your hybrid infrastructure. As you transform your ability to support digital onboarding, cloud adoption, etc, you need full-fidelity visibility and analytics that provide the holistic insights across the organisation to understand how apps are performing and where they are going wrong. Without it, you are running blind.



Example Use Cases

The right visibility solution can solve many problems for you. Here are just a few examples:

Cloud Migration

Agencies acknowledge the need to adopt cloud, so the next logical step is to migrate your applications from their existing data centre to the cloud. The right NPM solution will help you:

- Establish a network baseline
- Project traffic patterns and determine latency for mission-critical apps before migration
- Map your application dependencies
- Use quantitative analytics to predict post-migration performance
- Monitor post-migration application behaviour on the network on an on-going basis and flag outliers

Troubleshoot Digital Banking Apps

A Unified NPM solution can decrypt web traffic to provide visibility into the underlying services and help you understand how your digital applications are performing.

- Response time composition charts immediately highlight whether an issue is network or application based
- Waterfall charts map out performance, isolating the individual object performance on the page and overall end user experience for the page
- TruePlot visualisations analyse every transaction to highlight performance outliers and patterns
- TLS Analysis lets you know where your SSL/TLS certificates are valid and when they expire to keep your data secure

"50% of the time, it is not a network issue. Riverbed Unified NPM helps us to have a more productive conversation with others supporting servers, storage, or applications to pinpoint exactly what is wrong."

Senior Network Tools Architect,
Private financial services holding company



Example Use Cases

Monitor Global Network Segments

The internet segment, commonly known as the DMZ, typically spans multiple regions and data centres and hosts multiple load balancers, firewalls, VPNs, etc. It is very difficult to troubleshoot all of this efficiently – especially if you are not seeing an end-to-end view of your network.

By using packet visibility with virtual interface groups (VIFG) at the internet entry/exit points, you can understand performance at multiple points along a path. This is critical for helping you monitor traffic before and after a firewall, the load balancer, etc, and identifying root cause issues if/when problems occur.

“During the pandemic we were able to quickly and easily generate a dashboard showing VPN and internet capacity as well as concurrent VPN sessions on a daily basis to our management team. Without Riverbed we would have been scrambling to pull these reports together manually and email them to all interested parties.”

Principal Engineer, large US-based airline

Security Analytics

Riverbed Unified NPM gathers and analyses full-fidelity flow and packet data to address the issue of a lack of a fixed security perimeter. It delivers the crucial insights needed to detect and investigate advanced threats that bypass typical preventative measures, as well as those that originate inside the network.

Security teams leverage end-to-end visibility from Riverbed Unified NPM solutions for threat hunting and to proactively detect and address security threats such as malware, blacklisted sites, data exfiltration, brute force activity, DDoS, and more.

“Just yesterday, we found that someone was attacking a Skype server. If it were not for Riverbed Unified NPM, we would not have been able to narrow down the culprit. We found the exact IP that was attacking us from the outside. Otherwise, security was just going to start blocking IP addresses.”

Senior Network Tools Architect, private financial services holding company

How to Assess Which NPM Solution Works for You

The right visibility solution can ensure network resiliency and security whether your users are in the office, on-the-go, or at home. There are four core requirements:

- 1. Comprehensive visibility.**
We're not talking about visibility of *some* locations or sampling of just some data. Providing *full* transparency across every packet, flow and device metric for on-premises, cloud, multi-cloud, and edge environments, leveraging physical, virtual, and/or cloud appliances, to support work from anywhere teams. In addition, the solution should have the capability to leverage data feeds from existing disparate tools, while still providing the ability to recognise and understand application paths and dependencies.
- 2. Security forensics.**
Analyse packet and flow data to detect security threats, including malware, blacklisted sites, and DDoS attacks. This is even more important as the number of endpoints increases due to remote work and the number of cyberattacks grows as well.
- 3. Artificial intelligence (AI) and machine learning.**
Apply analytics across domains to detect anomalies and patterns that indicate performance issues and security threats, as well as to reduce time to diagnose and resolve problems and improve event noise reduction.
- 4. Deep integration.**
In a highly complex, distributed environment, modern solutions need to have tight integration within their product portfolios or families. They must also connect just as effectively with multiple cloud services, third-party software via open APIs, and existing tools (e.g., application performance management, logging, and workflow).

Standalone vs Unified NPM

Integrated platforms are more effective at performance monitoring than standalone, best-of-breed tools.²



Improve Network Resiliency and Security with Riverbed

Riverbed's Unified NPM platform helps government agencies and departments improve network resiliency and security. Unlike disparate tools, Riverbed combines cross-domain data, including all packets, flows, and device metrics with machine learning and advanced analytics to provide you with deep visibility and insights across your hybrid environment.

To learn more about how Riverbed's unified NPM platform can provide visibility across cloud, virtual, and on prem networks to support your employees and citizens: riverbed.com/npm

¹ <https://www.mckinsey.com/industries/retail/our-insights/the-how-of-transformation>

² EMA, NETWORK PERFORMANCE MANAGEMENT FOR TODAY'S DIGITAL ENTERPRISE, May 2019