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EMPOWER THE EXPERIENCE

MISSION IMPACT SUMMARY

MilCIS 2024

Unified Observability of Enterprise Defence Networks

Learn How Riverbed:

- Unifies Data, Insights, and Actions at Mission Speed
- Ensures Command and Control (C2) from the Enterprise to the Tactical Edge
- Drives Mission Success for Global Defence Organisations

Unifying Data, Insights and Actions

The depth, breadth, and complexity of the Defence missions presents significant challenges to align IT in support of global defenders.

The need? Bold and decisive action to ensure that mission-critical networks, communications, applications, and devices are readily available and operationally sound—anywhere, anytime, for any mission.

For 20 years, Riverbed has partnered with Defence customers to optimise distributed network environments, speed applications, unify data, and gain actionable insights from across IT ecosystems. The result is improved user experiences and mission outcomes.

With Riverbed's Unified Observability solution portfolio, Riverbed cuts through complexity and uncovers valuable insights that that improve digital performance across Command and Control, speeding decision making across complex hybrid IT environments.

What Does Riverbed Unify?

Data: Capture full-fidelity telemetry across the IT ecosystem, without sampling.

Insights: Deliver context-rich, filtered and prioritised insights from all domains.

Actions: Replicate and automate IT best practices to empower staff at all levels.

Value Proposition

Riverbed enables Defence organisations to ***maximise visibility and performance across networks, mission-critical applications, and end-user devices***. Our solutions visualise, optimise, remediate, and accelerate the performance of any network, application, or device—anytime, anywhere—while achieving actionable insights that mitigate risk and ***enhance the digital experience for all warfighters and their missions***.

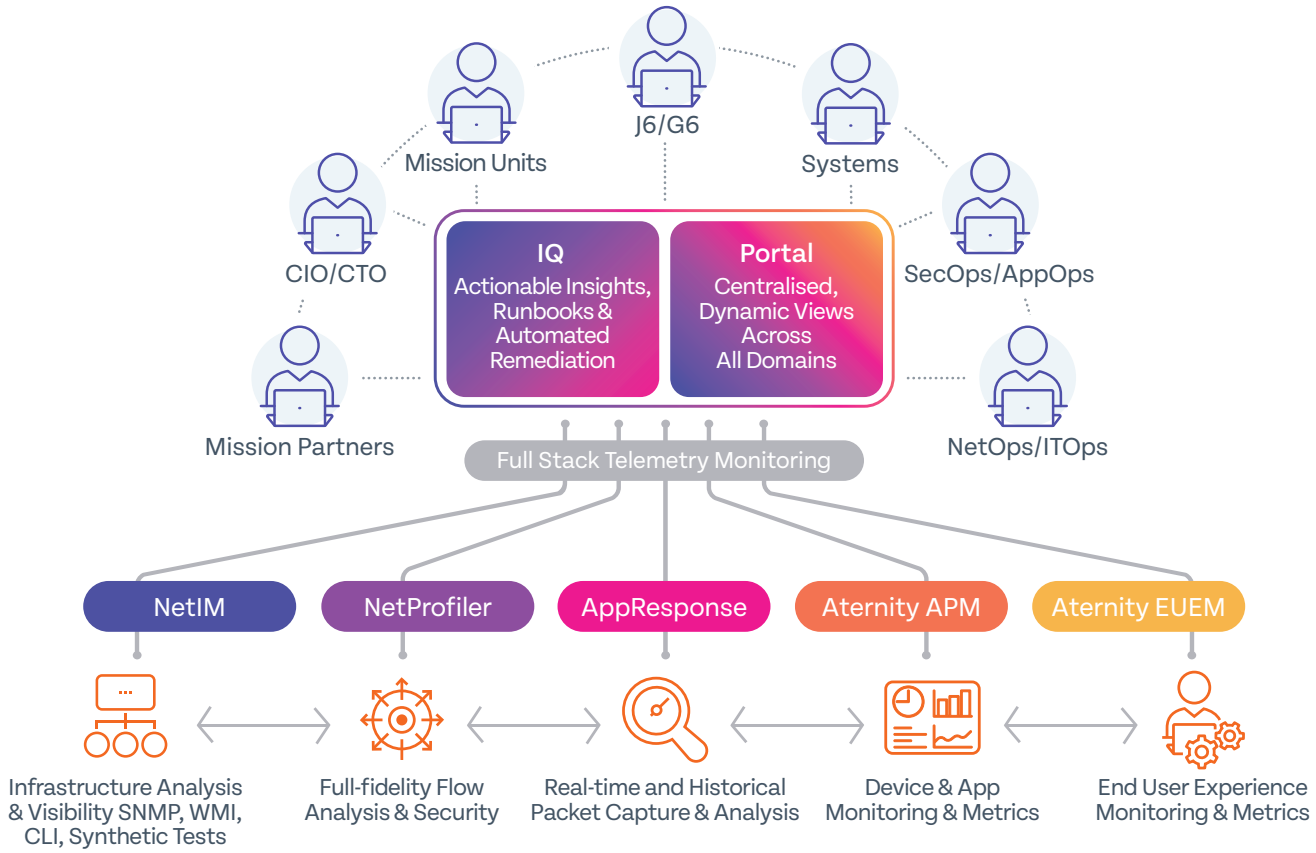
A Differentiated Approach

Riverbed's Unified Observability portfolio transforms data into actionable insights and accelerates performance for a seamless digital experience that contributes to mission success.

Mission Impact with Riverbed

- Drive mission assurance and enable decision dominance
- Mitigate risk that jeopardises mission success
- Transform network postures from reactive to proactive
- Enhance experiences for end users and improve warfighter productivity
- Achieve faster resolution of network issues
- Eliminate the need for war rooms to respond to every issue
- Understand the implications of migrations and changes to IT environments
- Reduce IT costs and maximise budgets
- Conduct smart device and application refreshes

Riverbed Unified Observability Platform Ensures Mission Success from the Enterprise to the Tactical Edge

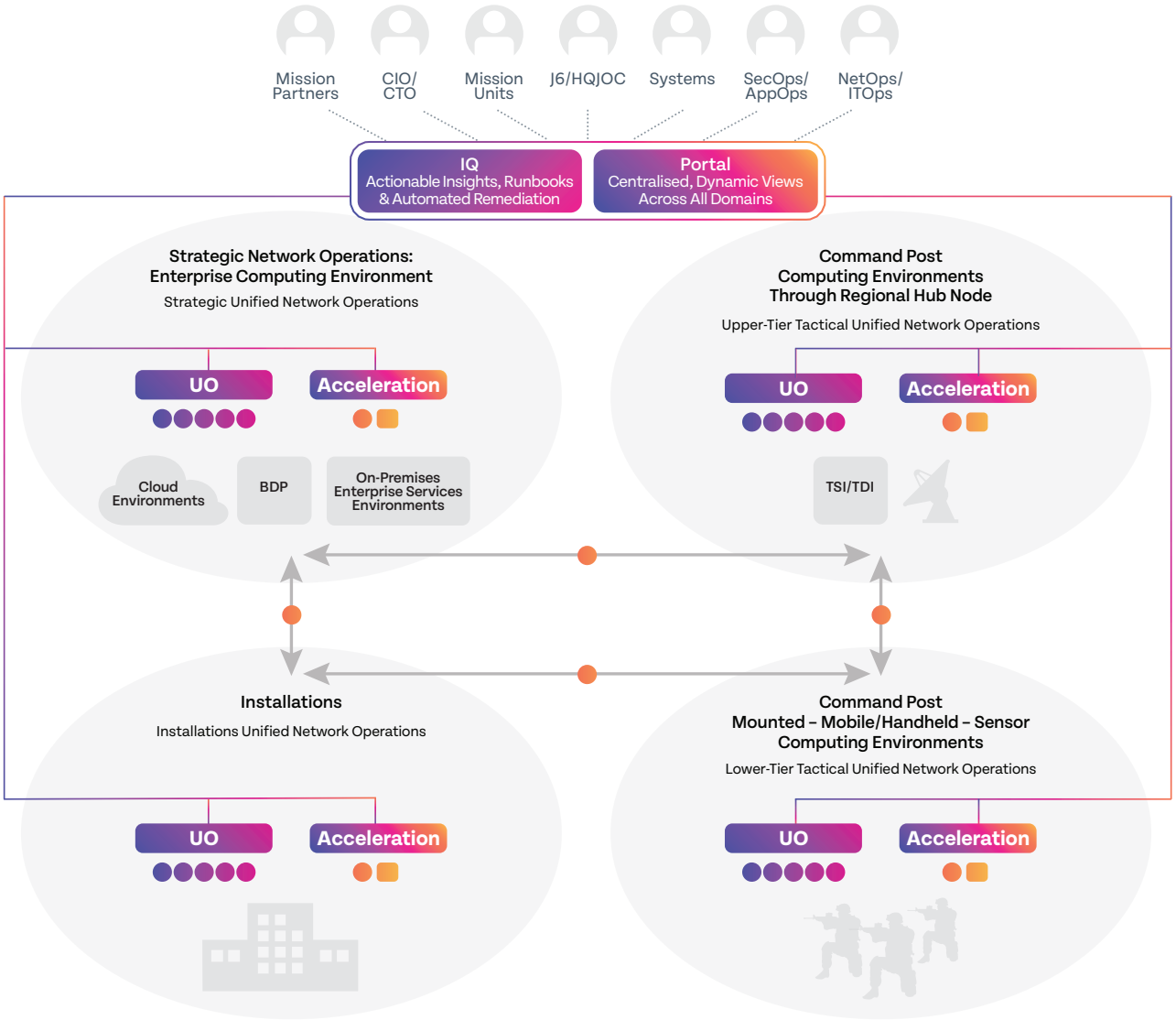


Unified Network Operations – C2 of the Unified Network

Riverbed's Unified Observability Solutions achieve actionable insights and accelerate decision making across every enclave of enterprise and tactical defence networks

Because they operate in environments where milliseconds matter, military and intelligence IT teams need their networks and applications to operate at peak performance and to easily adapt to changing conditions and needs. To do so requires end-to-end visibility across all levels of command and control so that NetOps, SecOps, IT teams and others can extract actionable intelligence from their complex, hybrid network environments.

Riverbed's Unified Observability and Acceleration solutions provide unmatched capabilities across all major enclaves of defence network environments—from installations to the enterprise to the tactical edge.



Unified Observability (UO) Solutions

- Aternity EUEM: End-User Experience Monitoring & Metrics
- Aternity APM: Device & App Management & Metrics
- NetProfiler: Full Fidelity Flow Analysis & Security
- AppResponse: Real-Time & Historical Packet Capture & Analysis
- NetIM: Infrastructure Analysis & Visibility
- Portal: Data Aggregator, Orchestrator & User Interface

Acceleration Solutions

- SteelHead: WAN/Application Optimization & Acceleration
- Virtual SteelHead: Virtualized WAN/Application Optimization & Acceleration

Operational Use Case: Unified Observability Portfolio

Evolving from Reactive to Proactive Network Visibility

United States Special Operations Command

The United States Special Operations Command (USSOCOM) needed a robust network monitoring solution to support the SOF Information Enterprise (SIE) network. The continued growth and maturity of the USSOCOM SIE created the need for world class monitoring and alerting that is fast, accurate and actionable.

USSOCOM needed to expand its ability to utilise cutting-edge advancements in monitoring and alerting in order to provide analytics on inventory, topology, device metrics, faults and flow and packet analysis that are both comprehensive and scalable for Traditional, Mobile, Cloud and Software-Defined Networks in a consolidated, logical view.

Challenges

- Siloed visibility into the global Special Operations Forces (SOF) Information Enterprise (SIE) network
- Lack of alerting and contextual capabilities which slowed decision making and affected mission outcomes
- Inability to build compliance into network actions heightened by unknown network dependencies

Solutions

- Unified Observability Portfolio:
  - → Aternity EUEM & APM
  - → AppResponse (Packet Analyzer & Transaction Analyzer)
  - → NetProfiler
  - → NetIM
  - → NetPlanner
  - → Portal
- Riverbed Professional Services
  - → Coverage for training, support and integration

Benefits

- Comprehensive operational view of performance for mission critical applications and an understanding of how they are consumed by end users
- Granular perspective of application inter-dependencies to allow for dashboard customisation for various stakeholders (HQ J6 Command, TSOCS, Execs, etc.)
- Alerting and mitigation on NIPR and SIPR enclaves for blue-screen of death (BSOD) issues
- Root-cause-analysis around poor performance across O365, DMDC, Oracle and other applications

Operational Use Case: Unified Observability Portfolio

Improving End-User Experience Across the Enterprise

United States Air Force
#DAFUX

In 2021, a social media post titled “Fix Our Computers” started a viral movement across the DOD to address longstanding IT issues. Aging hardware, long login and boot times, poor application performance, chronic network latency and other issues hampered users’ ability to leverage IT in support of the mission. The United States Air Force heeded the call and stood up the Department of Air Force User Experience (DAFUX) program.

The Air Force turned to Riverbed’s Aternity End-User Experience Monitoring (EUEM) solution and rapidly deployed across 20,000 network endpoints to monitor, measure and score end-user experiences. The Air Force quickly identified that aging hardware, specific applications, and other issues were impacting computer boot time, resulting in nearly 8 hours of loss productivity *per week, per user*. Armed with this data, the Air Force began making changes to the IT environment to alleviate and improve these experiences resulting in a 72% increase in productivity.

Challenges

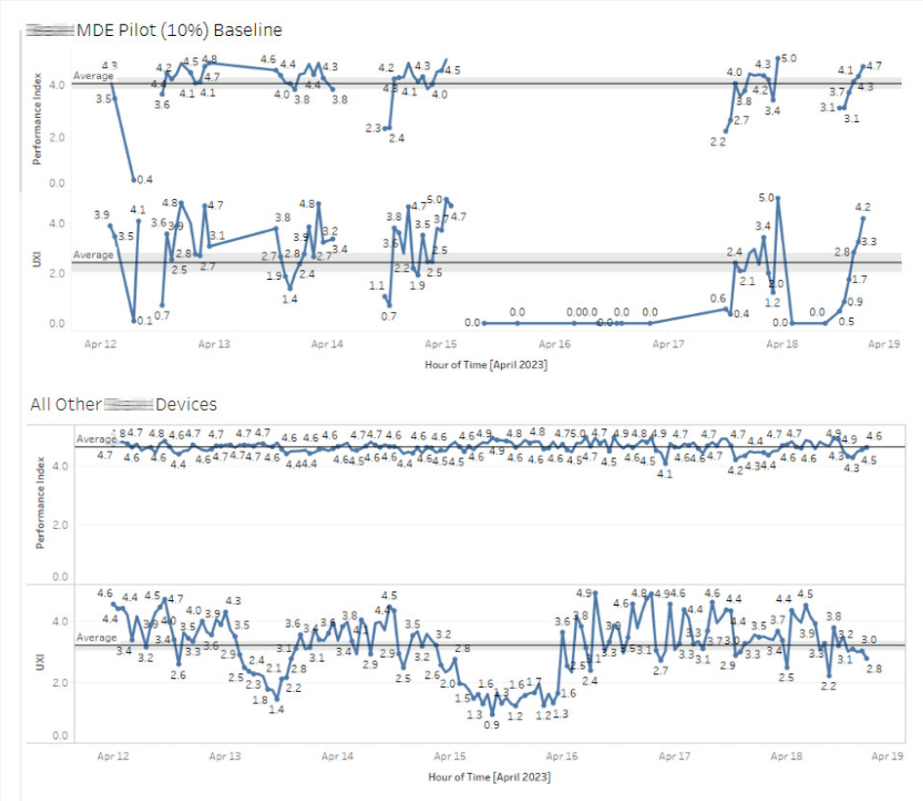
- Long boot times averaging 30 minutes a day
- Network and application latency
- Slow computers as a result of antiquated hardware
- Decreased productivity
- Reduced mission readiness

Solutions

- Unified Observability Portfolio:
  - → Aternity EUEM
- Riverbed Professional Services
  - → Coverage for training, support and integration

Benefits

- More cost-effective spending by pinpointing IT issues quickly
- Real-time UX visibility
- Auditing of vendor agreements to ensure the impact of solutions
- 34% increase in positive UX score
- 72% improved productivity



Operational Use Case: Unified Observability Portfolio

Application Virtual Hosting Environment (AVHE)

Walter Reed National Military Medical Center

DHA and WRNMMC needed to improve visibility into AVHE, which is used to connect critical clinical, coding and other applications, such as AHLTA, CHCS, Essentris, 3M, Abacus and the migration to the next-generation EHR system GENESIS. WRNMMC needed to support the GENESIS rollout and more quickly identify outages, performance degradation, configuration changes and resultant issues to improve patient care outcomes and provider and end-user experience. At the same time, management needed improved metrics and reporting to enable better decision-making.

DHA turned to its Riverbed solutions to monitor, report and detect operational issues across the WRNMMC GENESIS application access and use. Aternity APM, NetProfiler, and AppResponse were used to ensure fidelity across the hospital areas using GENESIS and other DHA migrated applications.

Challenges

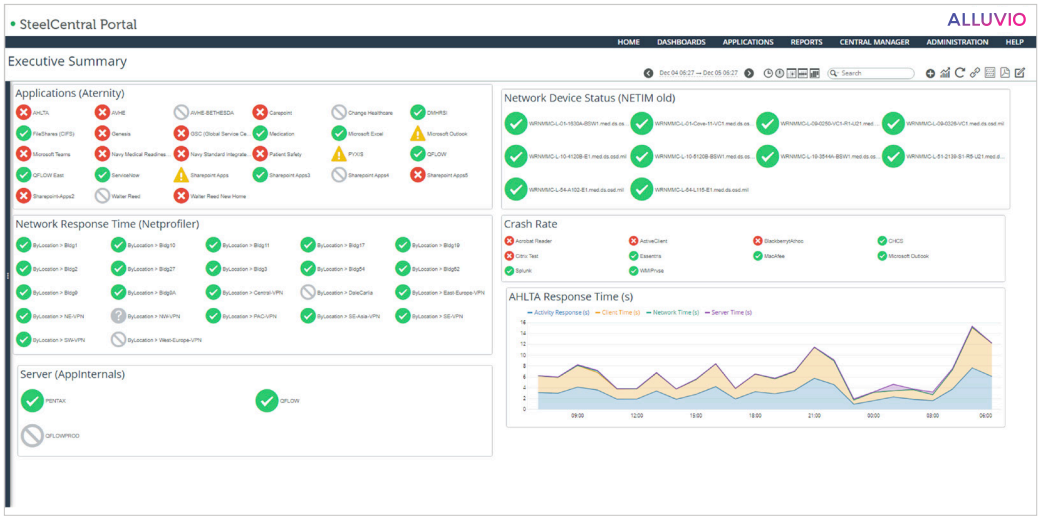
- Identify users of the AVHE systems and the paths they used (VPN, Local, etc.)
- Detect operational issues with virtual applications and machines utilised by Walter Reed staff (Abacus, 3M, etc.)
- Drive adoption of tools that provide a clearer picture of availability, reliability, capacity, performance, and security
- Eliminate recurring outages in applications used for medical coding and virtualised access to systems
- Report on and improve end-user experiences with GENESIS post-migration

Solutions

- Unified Observability Portfolio:
  - → Aternity APM
  - → AppResponse (Packet Analyzer & Transaction Analyzer)
  - → NetProfiler
  - → Portal
- Riverbed Professional Services
  - → Coverage for training, support and integration

Benefits

- Identified improper URL usage from Local and VPN
- Identified workstations with poor performance
- Provided insight into application behaviors specific to workstations or building locations
- Discovered server-level resource constraints affecting performance
- Identified workstations needing additional resources to perform adequately and scheduled replacement



Connect with the team today

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Riverbed is the only company with the collective richness of telemetry from network to app to end user that illuminates and then accelerates every interaction so that users get the flawless digital experience they expect across the entire digital ecosystem. Riverbed provides two industry-leading solutions: the Riverbed Unified Observability portfolio, which integrates data, insights, and actions across IT to enable customers to deliver seamless digital experiences; and Riverbed Acceleration, which offers fast, agile, and secure acceleration of any application over any network to users, whether they are mobile, remote, or on-premises. Together with our thousands of partners, and market-leading customers across the world, we empower every click, every digital experience. Learn more at riverbed.com.