

Defense Information Systems Agency

Achieving Velocity of Action
Through Unified Observability



Velocity of Action

The depth, breadth, and complexity of the Defense Information Systems Agency’s mission offer a window into the art of the possible.

While many government organizations are trapped in stovepipes and information silos, DISA’s strategic plan emphasizes the urgent need for bold and decisive action to ensure that the mission-critical IT needed to support warfighters is readily available and operationally sound—anywhere, anytime, for any mission.

The Lines of Effort (LOE) aim to leverage modern approaches and capabilities to bridge the gap between security and end-user experience, and achieve an optimized enterprise IT environment.

“We must evolve our organizational design and operating processes to align with next generation capabilities...”

DISA 2022-2024 Strategic Plan

To do this, many of the goals outlined in the LOEs can be achieved by unifying data, insights, and actions across DISA, 4th Estate agencies, as well as Mission and Alliance Partners.



Data, End Users, and the Mission

Achieving a velocity of action across DISA's LOEs requires harmonizing IT, data, end users and agency missions.

To accomplish this, DISA needs to have visibility into its data across the enterprise. That means collecting telemetry from network infrastructure, topology, application, faults, flow and packet data, as well as end-user experiences. It's then critical for that data to be aggregated under a single pane of glass so that management, program stakeholders, IT Teams such as NetOps, SecOps, GSD, and other decision-makers can interact and engage with it, and inform decision-making.

This holistic view represents the power of unified observability. When armed with these insights, it's possible to realize the promise of DISA's LOEs and reduce costs, improve productivity, eliminate risk, and drive mission assurance.

Value Proposition

Riverbed enables DISA to **maximize visibility and performance across networks, mission-critical applications, and end-user devices**. Our solutions visualize, optimize, 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.

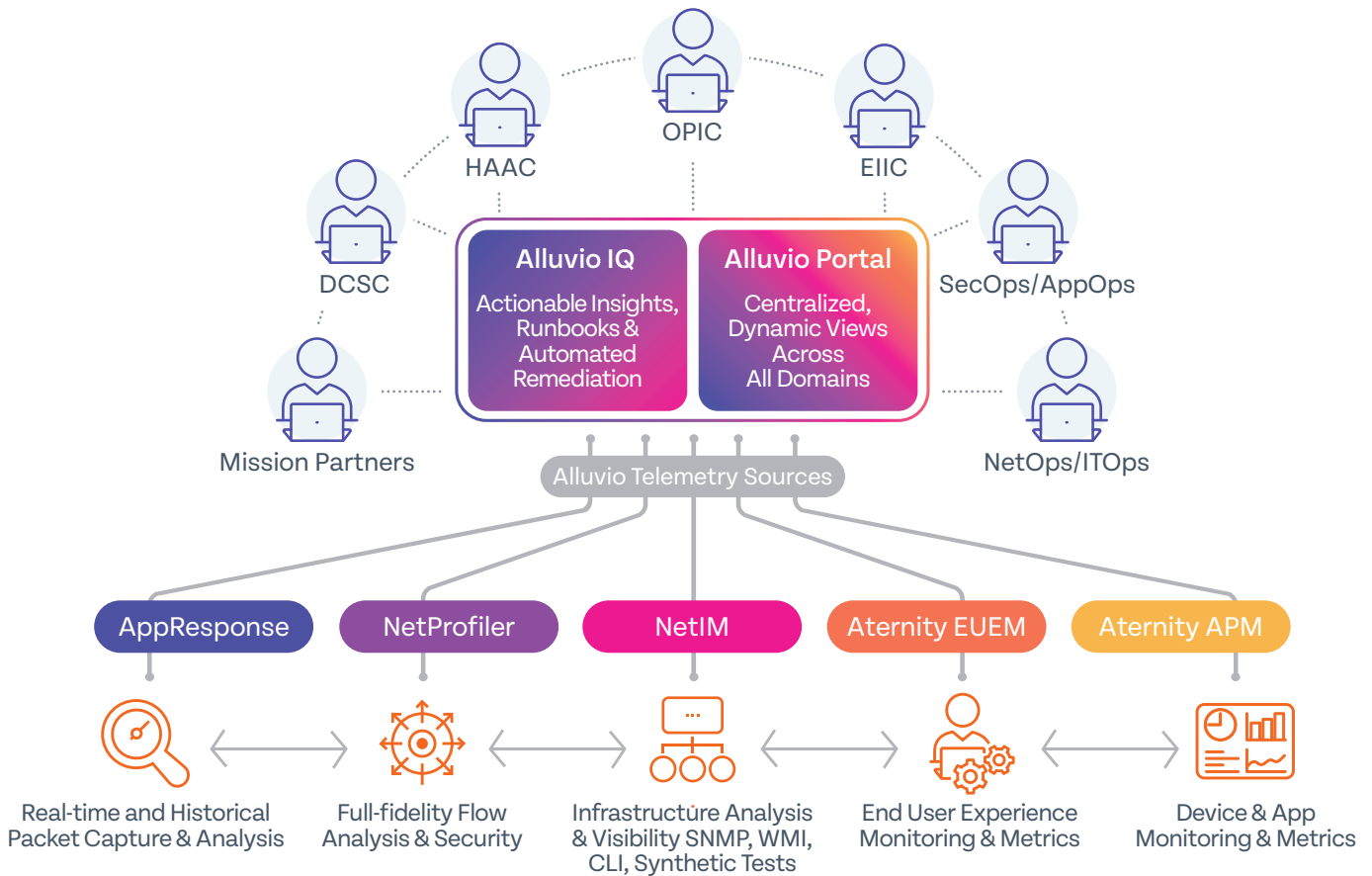
This holistic view represents the power of unified observability

With unified observability, DISA can eliminate IT silos, resource-intensive troubleshooting, and alert fatigue. It can also provide the intelligence needed to effectively migrate 4th Estate agencies to DODNet. By having real-time insights, the agency can establish baseline performance of networks, applications, devices, and end users, while improving productivity throughout. It allows the organization to shift service desks to the left and integrate 3rd party data such as ServiceNow, improve end-user experiences, and enable more effective decision-making across the enterprise.

The visibility offered by unified observability is key to velocity of action.



Alluvio Platform: Unified Observability Ensures Mission Success



Alluvio Unified Observability

The IT services that DISA provides to support and enable the warfighter must ensure the highest fidelity of service delivery – from the drone at the tactical edge all the way back to the enterprise data center. Alluvio by Riverbed is the only unified observability solution capable of achieving actionable insights that will enhance mission success by:

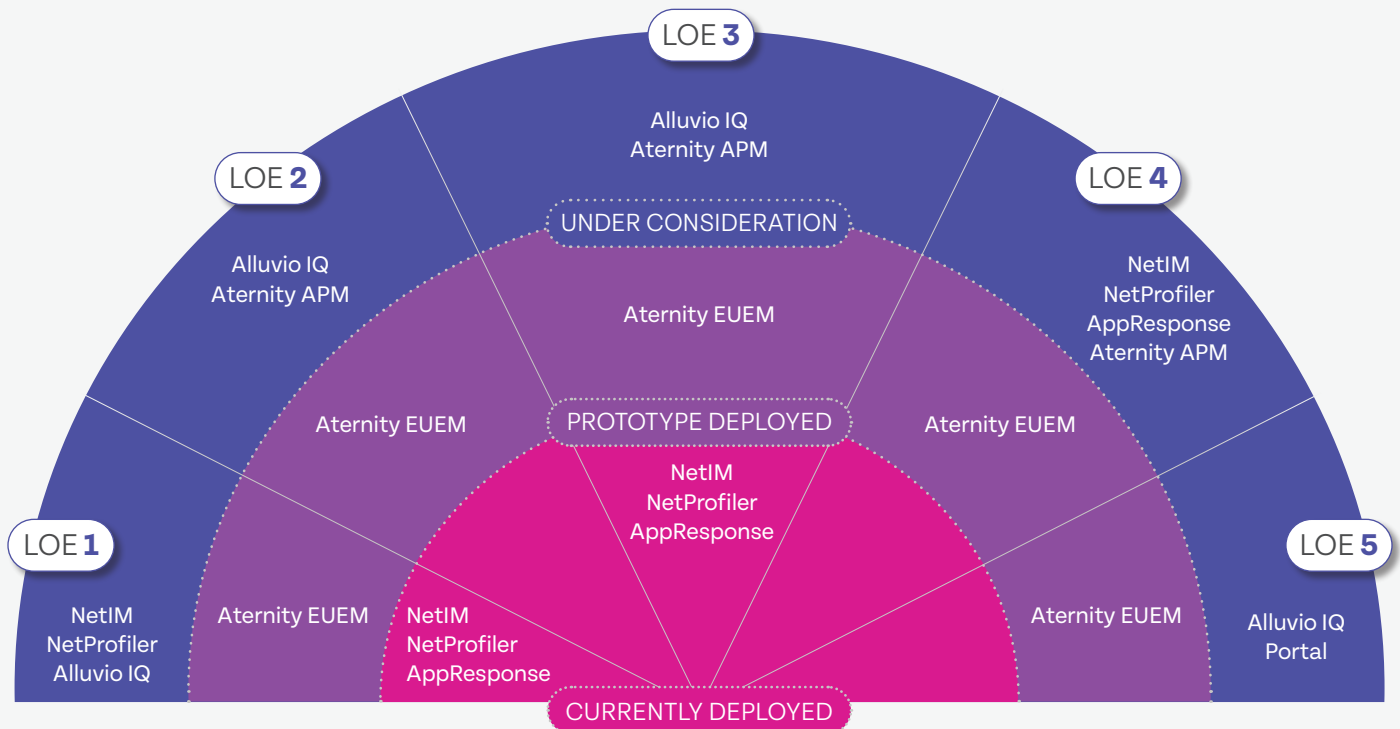
- Providing a comprehensive operational view of performance for critical applications and how they are consumed by end users
- Reducing costs by identifying data that drives opportunities for savings such as smart device refreshes and software license renewals
- Creating operational actionable responses that can reduce troubleshooting time and prevent downtime by identifying issues before they become critical
- Offering a granular view of network and application migration workflow interdependencies, the context and correlation that exists, and a proactive capacity to remediate issues before they impact the enterprise or end users

DISA Mission Impact with Alluvio

- Drive mission assurance
- Mitigate risk that jeopardizes mission success
- Enable decision dominance
- 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 maximize budgets
- Conduct smart device and application refreshes



Current Riverbed DISA Engagements and LOEs that Can Be Influenced



Empower the End User. Empower the Mission.

Zeroing in on LOE 4 with Unified Observability

To successfully achieve LOE 4, end users, devices, applications, and networks must seamlessly integrate and interoperate to drive missions forward. Poor application performance, unreliable devices at the edge, host nation network transport, and other digital factors can all slow decision-making. The result is often the difference between life and death, mission success or mission failure.

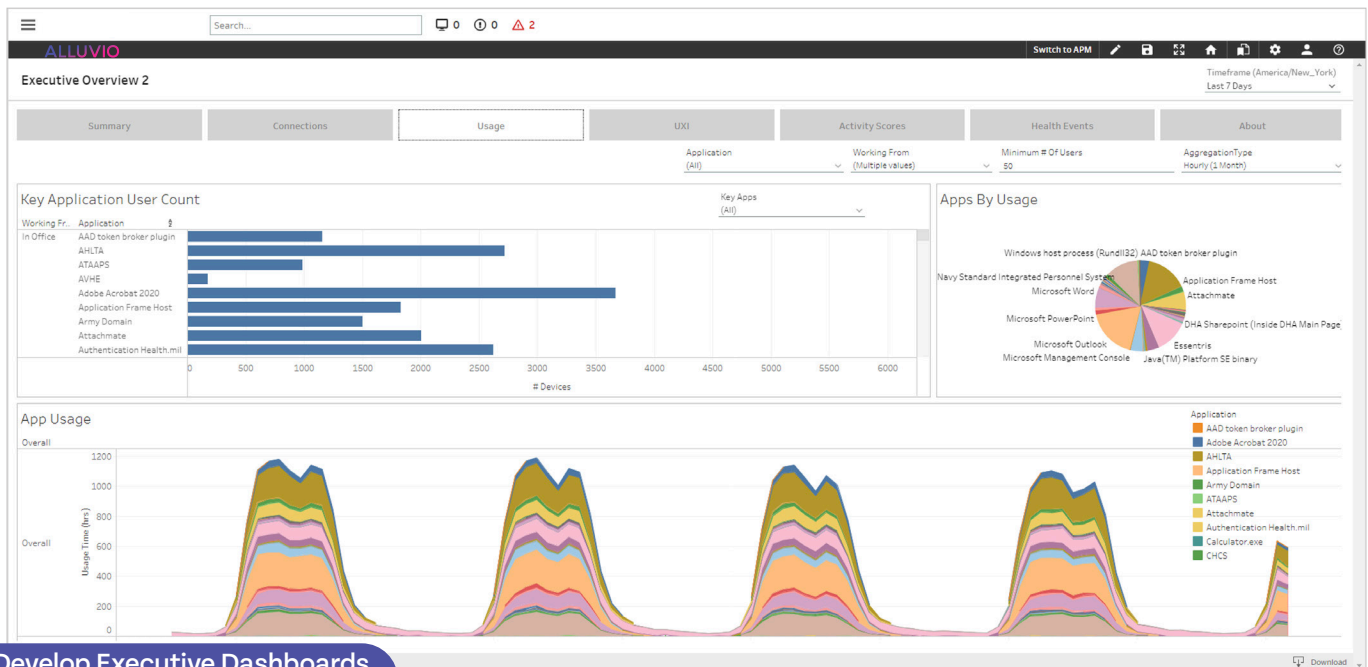
To accelerate the efforts to connect and protect the warfighter, it's not just about "fixing the computers" but improving digital experiences for all end users throughout DISA, 4th Estate, Mission and Alliance Partners, from the edge, all the way back to the enterprise.

Improving end-user digital experiences is at the core of Riverbed's promise to our mission partners. That's why the Air Force, Special Operations Command and Walter Reed all rely on Riverbed's Aternity End-User

LOE 4: End-User Experience
 Deliver modernized IT solutions that enhance security protections and increase endpoint performance

Experience (EUEM) solution to monitor and measure real-time end-user insights to improve digital experiences.

Measuring end-user insights with Aternity can not only help DISA and the 4th Estate agencies transform employee and end-user experiences, but also help to optimize performance, increase productivity, evaluate changes to the enterprise or SLAs post-migration, and maximize investments in mission-critical business applications and infrastructure.

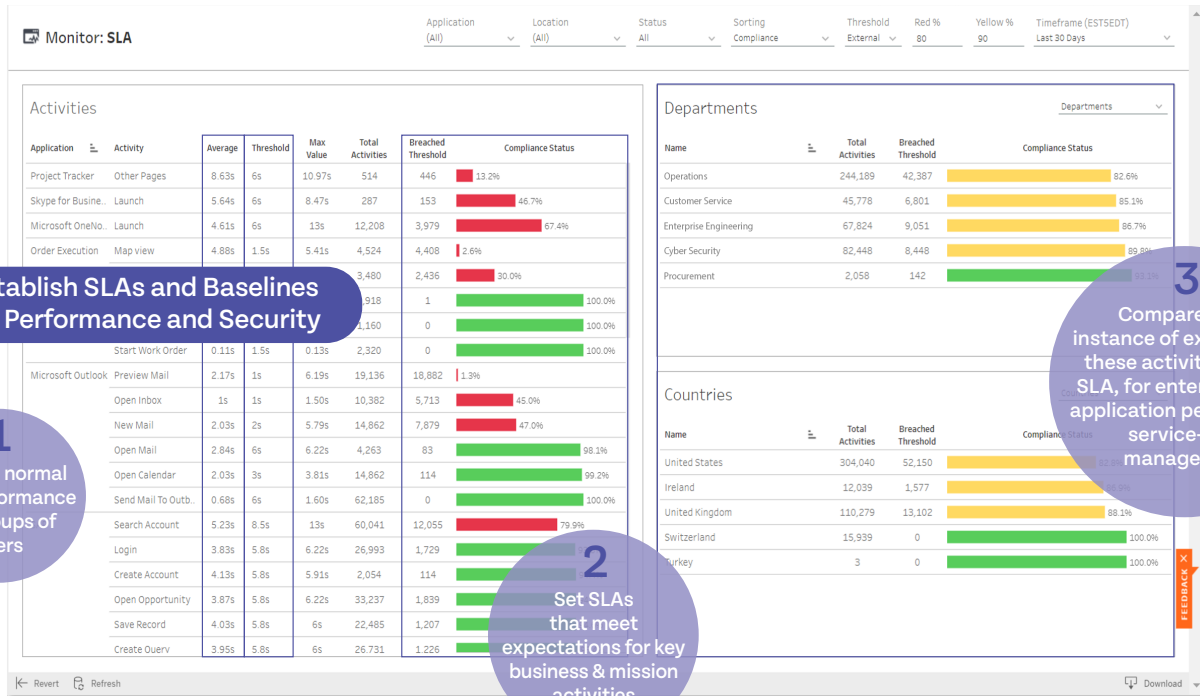


Develop Executive Dashboards for Cross-Domain Insights

Zeroing in on LOE 4 with Unified Observability

Understanding the Impact of Change

Integrating, migrating, maintaining, and securing agency IT environments is extremely challenging, and growing more so with every passing day. With the migration to DODNet and the move to Thunderdome, DISA and the 4th Estate agencies can't afford reduced performance and network blind spots, particularly when it comes to end users and their devices. It's critical to understand end-user experiences as well as application performance before and after migrations in order to develop accurate baseline SLAs. When it comes to mission-critical digital transformation, guessing is not an option; Aternity offers answers.



1 Establish SLAs and Baselines for Performance and Security

1 Identify normal app performance for groups of users

2 Set SLAs that meet expectations for key business & mission activities

3 Compare each instance of execution of these activities to the SLA, for enterprise-wide application performance service-level management



2 Assess response time relative to SLA targets, before/after change or migration

1 Identify timeframe of the change/analysis window

3 Assess the Impact of Change or Migrations on Performance

3 Use response time, per end user, to quantify the impact by location, server, or device type

Operational Use Case: Alluvio 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 Alluvio 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

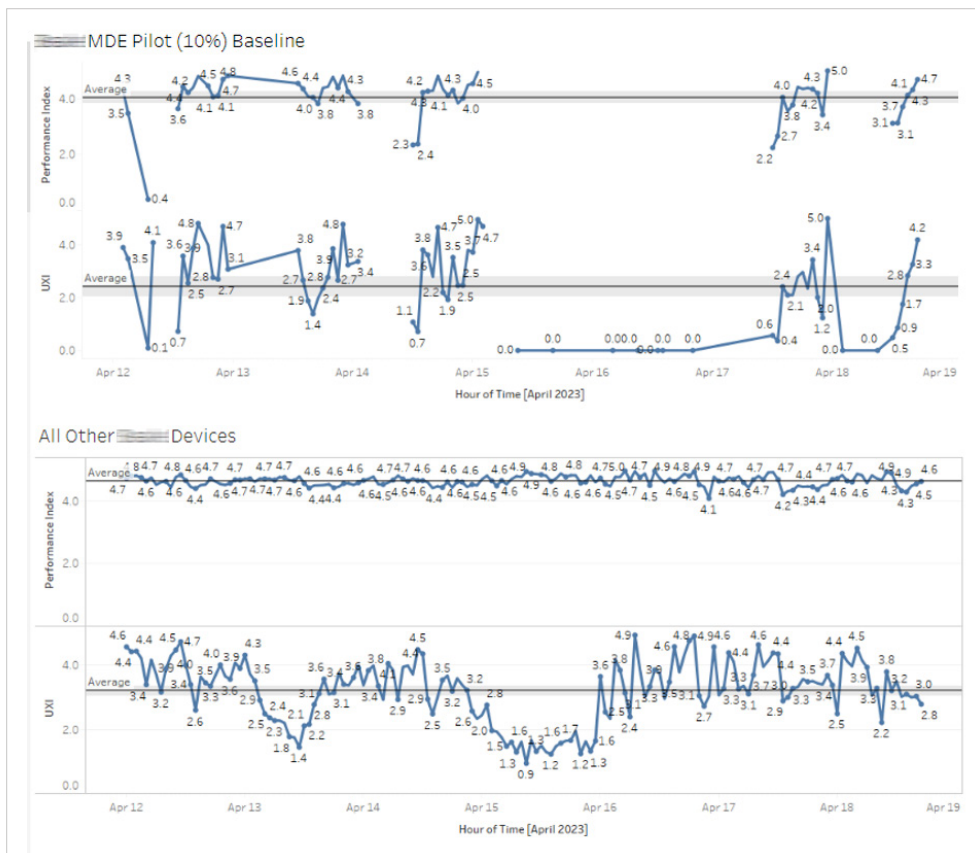
- Long boot times averaging 30 minutes a day
- Network and application latency
- Slow computers as a result of antiquated hardware
- Decreased productivity
- Reduced mission readiness

Solutions

- Alluvio 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: Alluvio 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 utilize 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

- Alluvio 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 customization 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: Alluvio 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

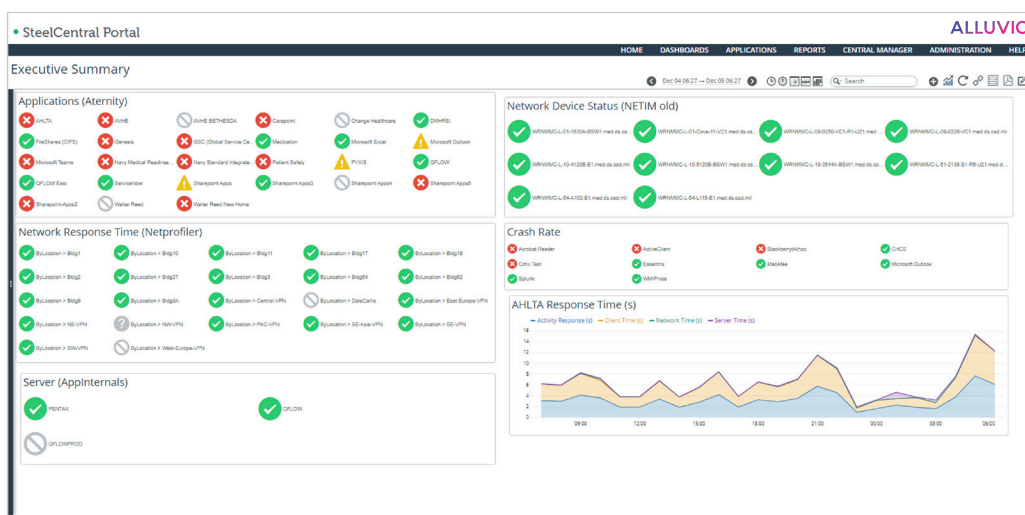
- Identify users of the AVHE systems and the paths they used (VPN, Local, etc.)
- Detect operational issues with virtual applications and machines utilized by Walter Reed staff (Abacus, 3M, etc.)
- Drive adoption of tools that provide a clearer picture of availability, reliability, capacity, performance,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

Solutions

- Alluvio 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





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 offers two industry-leading solution areas – Alluvio by Riverbed, an innovative and differentiated Unified Observability portfolio that unifies data, insights, and actions across IT, so customers can deliver seamless digital experiences; and Riverbed Acceleration, providing fast, agile, secure acceleration of any app over any network to users, whether mobile, remote, or on-prem. 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.