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Unified Observability Enables Actionable DOD Network Intelligence

Pairing full-fidelity telemetry with modeling and simulation allows IT teams to ensure the performance of mission-critical networks and applications

Mission Success Demands Agile Networks and Applications

One of the top priorities for the Department of Defense is modernizing its IT networks to meet the agility, speed, and capacity demands of global warfighters. Often operating in environments where milliseconds matter, military and intelligence IT teams must ensure that their networks and applications are operating at peak performance and are able to adapt to changing conditions and needs.

To do so requires end-to-end visibility from the tactical edge to all levels of command and control so that NetOps, SecOps and IT teams can extract actionable intelligence from their complex, hybrid network environments.

However, in most DOD network environments, data typically resides in silos, and to achieve actionable

intelligence, IT teams need to collect and analyze user, network, and app telemetry, from all domains, all the time.

Unified Observability Enables Broad, Deep and Scalable Data Collection

Riverbed's Alluvio[™] Unified Observability solutions aggregate telemetry throughout complex DOD network environments. By collecting all data—not just sampling from every layer of the Open Systems Interconnection (OSI) model, IT teams can gain unprecedented insights into how users, networks, and applications are performing, both in the present and past.

This unified view of the networks and applications offers the ability to drill down into all performance issues, both reactively and proactively, to conduct root-cause analysis and identify changes that may be needed to ensure performance and maximize mission success.

DRILL DOWN FROM PORTAL Aternity EUEM 7 APPLICATION LAYER End User Experience Monitoring. **Device Monitoring** ALLUVIO **6 PRESENTATION LAYER** Aternity APM App Transaction Tracing, by riverbed **5 SESSION LAYER** Code Level App Monitoring Alluvio Unified NetProfiler **TRANSPORT LAYER Observability Platform** Flow Collection & Dependency Mapping Collects and unifies data AppResponse **3 NETWORK LAYER** from networks, devices. Deep Packet Capture & Analysis NetPlanner apps and end users to Modeling & Simulation achieve actionable insights **DATA LINK LAYER** NetIM Network Infrastructure **1 PHYSICAL LAYER** Monitoring & Diagramming **Root Cause Analysis**

Actionable Insights from Every Layer of the OSI Model

Figure 1. Riverbed's Alluvio Unified Observability platform collects data from all layers of the OSI model.

Model and Simulate Survivability Analysis for Rapid Network Changes

Having access to such a broad collection of telemetry data offers a path forward, but it's critical to understand the implications of any changes to the network, application and operational environments. With Riverbed's Unified Observability tools, IT Teams can create an accurate full-fidelity model of their physical and logical networks. This provides critical insights into future network needs and how changes to the environment could affect network and end-user performance.

Traffic flow and routing can be modeled, and simulations can be run to provide break-fix analyses of any proposed network or application changes. This type of survivability analysis is critical before any changes or migrations are implemented.

Using Riverbed's tools, IT Teams can simulate how networks and applications will perform in the future without the delays and costs of setting up a lab test environment or make rapid network adjustment to meet changing conditions.

By pairing full-fidelity data with modeling and simulation, DOD IT teams can ensure the performance of the networks and applications needed to achieve mission success.



Figure 2. Riverbed's NetPlanner tool can simulate network changes like deploying a new application

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Riverbed – Empower the Experience

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 industryleading 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.

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