Dell CloudIQ: Using AIOps to Make Digital Transformation and Multicloud Journeys Smarter

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DANIEL NEWMAN  
Principal Analyst + Founding Partner

RON WESTFALL  
Senior Analyst + Research Director

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Introduction: The Warrant for Rapid AIOps Adoption & Integration Expansion

Organizations are always looking to advance their digital transformations across their core, edge, and cloud environments. More businesses are identifying data itself as their main business asset and are establishing company-wide imperatives to accelerate their IT operations and business processes to make better use of that data.

However, it’s not always an easy process. We find that moving digital transformation missions forward also drives IT scale, geo-distribution, and complexity. As a result, greater complexity drives more integration and administration demands on IT teams, which can result in slower operations and delayed transformation journeys. More than ever, solutions that enable IT teams to more efficiently and effectively address these major challenges are thrust into the spotlight.

One of the new solutions in the spotlight is AIOps, SaaS-based tools that monitor and manage multiple types of infrastructure from one location. The infrastructure could be in the form of hardware on-premises, infrastructure services in public clouds, and/or various forms of modern as-a-service private clouds. And compared to monitoring systems for individual systems or groups of one type of system at a single location, it provides a consolidated dashboard for IT administrators to view their organization’s entire estate of IT assets. Think of it like a health tracker for all of your IT equipment.

We believe AIOps is a technology solution well suited for meeting the demands of today’s complex IT environments and accelerating organization-wide digital transformation goals. AIOps can fulfill the need for speed at scale by easing automation of operations across swiftly evolving IT environments, including multi-cloud journeys. By automating and easing integration of machine learning and predictive analytics engines, we see organizations expanding their use of AIOps to attain new positive outcomes. These include AIOps’ recommendations for remediation and integration with other IT tools to speed IT service management processes.

Cloud AIOps: Meeting Fast-Expanding IT Challenges with AI/ML Derived Insights

Dell CloudIQ delivers a wide range of AIOps capabilities essential to meeting the growing challenges of complex digital transformation. From our view, CloudIQ AIOps provides the three key priorities that organizations place on using AIOps: Risk Reduction, Planning Foresight, and Improved Productivity – allowing ITOps and DevOps to save time and money, and lower the chance of running out of capacity or performance.

CloudIQ AIOps can simplify monitoring and analytics across your core and secondary data centers and edge locations, as well as data protection in public clouds by providing a single, unified view of them all. In addition, the use of proactive health scores, notifications, and recommendations speeds up resolution of issues throughout Dell infrastructure systems. CloudIQ’s performance forecasting, anomaly detection and impact analysis in accord with virtualization awareness and workload contention identification provide insights for more efficiently and proactively managing IT infrastructure to fulfill business priorities. CloudIQ planning foresight capabilities include capacity forecasting, reclaimable storage identification, and capacity anomaly detection associated with out-of-control processes and cyber attacks.
CloudIQ’s Webhook and REST API enable users to integrate health issue notifications and other information with ticketing, communications, and automation/orchestration tools to accelerate IT processes. Integrating these insights with pre-defined workflows will enable administrators to review, approve, and execute them to automate remediation.

Other features aimed at organizational productivity include customizable and scheduled reports, which like dashboards, can be shared with co-workers, business stakeholders as well as Dell employees and partners, who, as trusted advisors, can provide technical guidance.

**CloudIQ Cybersecurity: Automated Infrastructure Security Monitoring**

CloudIQ Cybersecurity allows Dell customers to perform automated assessments of their infrastructure security settings, leveraging National Institute of Standards and Technology (NIST) and Dell Engineering best practices, and swiftly receive notifications and recommendations for remediation. Such cybersecurity capabilities are critical to enabling organizations to lock down systems to help safeguard all types of their data against theft and loss.

CloudIQ also provides security advisories for newly discovered vulnerabilities and hyperlinks to a support site for accessing direct links to download system software/firmware patches to remediate risk.

Including cybersecurity risk monitoring and remediation in the same tool used for daily system health monitoring and remediation offers system administrators a more efficient way to address their growing responsibility for basic infrastructure security.

**CloudIQ AIOps: Quantifiable Benefits for ITOps/DevOps**

We have seen CloudIQ’s value validated by Dell’s survey of CloudIQ users, which shows that the solution’s machine learning, predictive analysis, proactive monitoring, and recommendations save operations one workday per week on average and speed time-to-resolution by 2X to 10X.

As confirmed by Dell lab testing, CloudIQ also eliminates hours of manual security configuration checks by requiring less than three minutes on average to set policy and automate security checking for up to 1,000 systems — a clear gain over the average six minutes required to manually check each system’s security configuration.

**CloudIQ AIOps: Fast Time to Value, Solution Security and Zero Administration**

We find that CloudIQ delivers immediate time-to-value by initiating systems’ telemetry with a few clicks through Dell’s trusted Secure Remote Services, SupportAssist, and Secure Gateway conduits to CloudIQ hosted in Dell’s secure private cloud. CloudIQ uses role-based access control to further assure security. Ready to benefit all Dell infrastructure customers, CloudIQ is a standard offering with Dell’s ProSupport and ProSupport Plus service agreements.

Being cloud based, users have no need to install or maintain CloudIQ software on their premises. Users simply enter their credentials to access CloudIQ through a browser or the CloudIQ mobile app.
Conclusions and Takeaways

We find that CloudIQ AIOps provides intelligent infrastructure insights faster and analytically deeper than traditional monitoring and management methods. These benefits are palpable, as evidenced by Dell research that shows users who adopt CloudIQ save up to one workday per week on average, speed resolution of infrastructure health issues 2X to 10X, and eliminate manual infrastructure security configuration monitoring.

Overall, we believe that CloudIQ excels at giving organizations peace of mind in the monitoring and resolution of infrastructure operational issues and should be high on IT decision makers’ consideration list. With hundreds of software engineers, customer service specialists, and IT infrastructure and operations experts across 17 product teams, Dell is impressively and continuously delivering new innovative AIOps capabilities to CloudIQ users, especially in meeting top priority risk reduction, planning foresight, and productivity improvement objectives.

For more CloudIQ information, including demos, visit www.dell.com/cloudiq.