zenoss

Key Trends in

Machine Learning, AI and Cloud

How the Adoption of New Technologies Impacts Your Monitoring Environment

451 Research®

During our recent webinar, Key Trends in Machine Learning, AI and Cloud, 451 Research Senior Analyst Nancy Gohring shared her insights about big trends impacting the monitoring environments in large organizations, the pressures that they face to move faster, and how organizations are adopting machine learning in IT Ops to solve some of the problems they're facing. Here are key excerpts from the webinar.

1. Speed and Agility

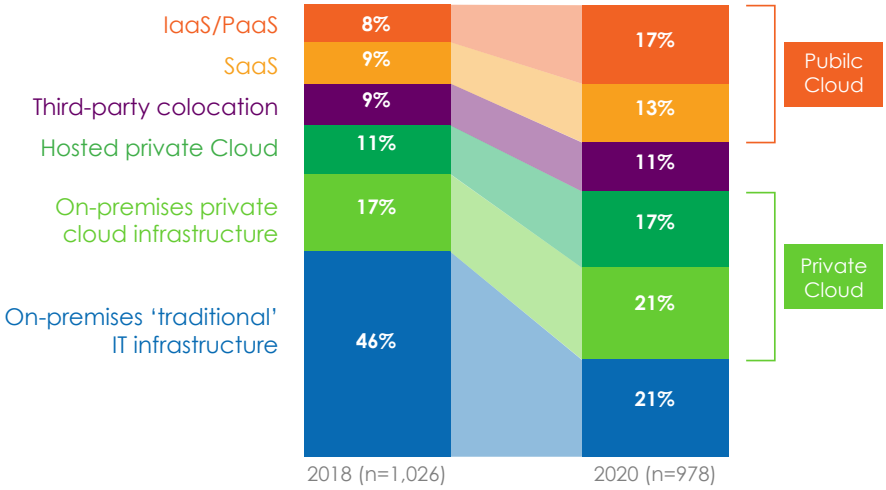
Many organizations are feeling a lot of pressure to move faster along two vectors. First is in terms of agility — the ability to quickly push new updates, new features, new capabilities to services and applications, in order to serve customer needs but also to face the competition. Second is in regard to the application performance and latency, which makes a big difference in terms of business. These dual pressures for speed have a real impact in terms of technology adoption today — specifically in terms of cloud adoption. A recent 451 Research survey found that 37 percent of organizations are planning to move the majority of their workloads to a cloud or hosted environment. The top reasons were to enhance IT systems agility and deploy new applications faster.

37% cite IT agility as the top driver for off-premises deployments.

2. Hybrid Cloud Adoption Will Be a Norm

Today, we see different types of clouds adopted and working together. According to the 451 survey, 46 percent of workloads are running on traditional on-premises infrastructure — and in two years, only 21 percent will have their workloads running on premises. Organizations are embracing cloud technologies rapidly in order to move faster and meet demands.

47% say using multiple cloud infrastructure environments helps them to improve performance and availability.



3. Containers and Microservices

People are increasingly turning to containers and microservices architectures. Application environments today are more complex and dynamic, and adoption of containers has made an impact on today's IT Ops effectiveness. For instance, Google is launching four billion new containers every week. Netflix is launching three billion containers every week. PayPal converted 700 applications to 150,000 containers. The amount of change that's going on in these environments requires mass quantities of data to be collected in order to get good visibility and insight to ensure that performance stays optimal. But collecting this amount of data can cause an overload problem. The answer isn't just collect more data — IT teams need to think about what kind of data should be collected in order to get the best insight possible into performance in a complex environment.

---

4. Machine Learning

As adoption of modern technologies increases with new applications and services deployed, the volume of data collected taxes traditional monitoring systems. 451 Research found that almost 50 percent of organizations have either deployed or are developing machine learning solutions, yet 30 percent said that machine learning solutions have no impact on their organizations. Only 11 percent of respondents think that machine learning will have no impact on their industry. Some the key drivers for adopting machine learning were improving customer experience and lower cost of IT operations. Many companies embrace tools that enable machine learning to automate incident response and improve application performance, with these benefits helping them gain competitive advantages.

50% said they have gained or expect to gain competitive advantage by adopting machine learning.

---

5. Benefits of AI and Machine Learning

Machine learning capabilities provided by monitoring solutions can be used for enhanced root-cause analysis. Using sophisticated analytics to crunch the growing volume of data that organizations collect helps IT Ops understand anomalies in application or system performance. For instance, when a group of alerts related to one incident is created, machine learning capabilities help IT teams quickly find root causes and enable them to fix issues before they impact user experience. It also addresses the data overload problem by correlating IT and business data generated, allowing IT teams to better prioritize their incident responses. This ability to analyze data across domains and potentially uncover trends can provide predictive benefits for companies that deploy machine learning across their entire environment.

Summary

Machine learning is becoming a key factor in taming today's dynamic IT environments. Organizations need to carefully plan what data can be leveraged by machine learning to provide the greatest benefits to IT Ops and DevOps teams.

ZENOSS CLOUD

Zenoss works with the world's largest organizations to ensure their IT services and applications are always on. As the leader in software-defined IT operations, Zenoss uniquely collects all types of machine data to build real-time IT service models that train machine learning algorithms to predict and eliminate outages in hybrid IT environments, dramatically reducing downtime and IT spend.

Zenoss Cloud is the first SaaS-based intelligent IT operations management platform that streams and normalizes all machine data, uniquely enabling the emergence of context for preventing service disruptions in complex modern IT environments. Zenoss Cloud builds the most granular and intelligent infrastructure relationship models possible at any scale and proactively provides unparalleled holistic health and deep performance insights to optimize any IT environment.

Technology vendors have taken many different approaches over the years to help prevent IT service outages and improve overall IT performance. These approaches include infrastructure monitoring, artificial intelligence for IT operations (AIOps), application performance monitoring (APM), log analytics and more. Some approaches collect performance data from systems directly, some rely on logs, some rely on events, while others rely on data sent from agents. Zenoss Cloud is the unique platform that combines all of these approaches.

ZENOSS CLOUD HELPS CUSTOMERS:

Increase Operational Agility

- Automate processes and streamline collaboration to enable faster service delivery
- Support new business models at the speed of demand
- Deliver management as a service for DevOps teams

Accelerate Technology Adoption

- Simplify cloud migrations and adoption of software-defined and converged technologies
- Eliminate risk associated with digital transformation
- Apply consistent monitoring policies across all cloud and on-premises systems

Ensure Service Reliability

- Identify issues, isolate root cause and accelerate resolution before disruptions impact users or business
- Evolve from availability and performance to capacity and optimization
- Transition IT to event-driven outcomes

Consolidate Monitoring Tools

- Increase IT visibility and eliminate silos while reducing overhead and spend
- Streamline across teams with collaboration workflows (ChatOps)
- Drive new efficiencies with Smart View, the machine learning–powered dynamic user interface

zenoss

For more information or to request a Zenoss Cloud trial, please **visit https://www.zenoss.com.**

www.zenoss.com

1-512-687-6854 (direct) | 1-888-936-6770 (toll free)

twitter.com/zenoss

www.linkedin.com/company/zenoss-inc-