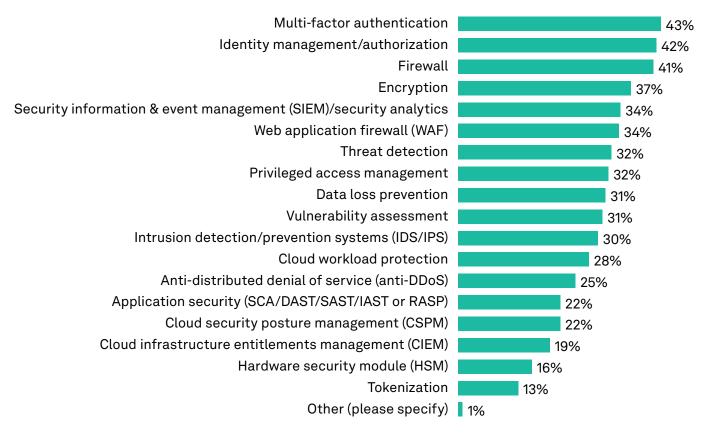
Cloud Migration's New Reality

The 451 Take

Cloud migration isn't what it used to be. Organizations have evolved from the simple "lift and shift" of the early days of cloud to transitioning more complex, multi-workload applications today. That requires greater visibility with more context to effectively manage cloud-based infrastructure. With more critical assets now being deployed to cloud, IT teams need tools that can help ensure that their cloud environments are compliant and secure. And they need to accomplish those tasks at cloud scale.

When moving to cloud, many organizations face urgent changes and focus on first-order actions to secure their environments, but they're not following through to address the operational needs of these new spheres. Respondents in a recent 451 Research Voice of the Enterprise: Information Security survey reported that identity and access management capabilities are being deployed to cloud environments, but critical operational security functions are lagging. Vulnerability assessment, for example, was tenth on the list of cloud security technologies in place. Short-term thinking can lead to gaps in compliance if businesses lose visibility into the state of their cloud-based workloads.

Security Technologies at Work in the Cloud



Q: Which of the following security technologies or capabilities – if any – have you implemented in your cloud (e.g., IaaS/PaaS)? Base: Respondents who use hosted cloud solutions (n=314)

Source: 451 Research's Voice of the Enterprise: Information Security, Budgets & Outlook 2021

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This problem can become acute as organizations move more sophisticated applications to cloud. They require greater visibility for compliance and governance, and also for resilience. In the most recent 451 Research Voice of the Enterprise survey on Cloud, Hosting and Managed Services, lift-and-shift cloud migrations were the least-popular option reported for moving mission-critical applications. That's an indication that the simple workload migrations are largely done, and enterprises are now grappling with moving more complex applications. And when looking at migrations, it's no longer just a single cloud. Organizations are reporting that multicloud is a reality today.

More complex applications have more complex interactions, and they require alignment to avoid delays in migration efforts. Compliance and governance in cloud requires new ways to achieve the visibility that organizations typically have in on-premises environments. Extending existing tools to cloud environments can be complex and costly – if it can be done at all – and often falls short. Cloud environments provide rich context, but traditional tools can't always put it to work, requiring extra effort to reestablish that context. Effective tools must be able to fully integrate with cloud data streams. Full integration also means that they will have the ability to efficiently find all cloud assets.

New operational patterns require visibility to reduce operational risk. They require tools that understand the application stack and are able to maintain context about application structures and workload interactions. These capabilities are key to preventing outages and enabling security operations. They can give operations teams the knowledge of what to patch and when to patch it, factoring in priorities and application dependencies. The security landscape in cloud requires the faster remediation that this level of visibility can enable. Running at cloud scale can be secure and compliant with the right tools. Such tools can also make operations teams more efficient and effective.

Business Impact

Cloud migrations can be compliant and secure. Organizations have to improve their operational maturity in cloud to ensure that they effectively manage risk. That means improving visibility to better understand their cloud security posture.

Complex applications can run successfully in cloud. The key is taming operational complexity by understanding relationships between workloads and maintaining sufficient context about them.

Cloud scale can be mastered. The benefits of cloud are many, but organizations must have the operational capabilities in place to run at cloud scale. That means leveraging consolidated sources of truth and raising efficiency by being able to prioritize administrative work.

Transformation can be driven by improved visibility. Better cloud operations pave the way for more cloud adoption. Putting visibility and compliance capabilities in place establishes a foundation on which cloud transformation can be built.

Looking Ahead

Cloud is a growing part of every infrastructure, and organizations must be able to put it to work effectively and efficiently in order to remain competitive. There are significant advantages to cloud use, and there are few businesses that can afford to ignore them. As cloud use grows, compliance and governance controls have to scale with that growth.

Organizations need to build foundations that support their growth and competitiveness. That means putting tools and capabilities in place to make operating in multicloud environments manageable for their teams. With the ability to ensure compliance no matter where a workload is deployed and no matter how complex the application it supports, they will be ready for whatever the future throws at them.

