Special Edition: Key Points of Governance in Multicloud Utilization

Confronting Operational Challenges of Multicloud Solutions

-Integrated and Efficient Management Methods Leveraging Operations Management SaaS-





As the speed of business innovation accelerates in this multicloud era, today's systems development styles have likewise come to prioritize speed to keep up with these changes. With regard to systems operations as well, choosing an integrated and efficient management method tailored to your development style is key. In this article, I review the ideal operation styles suited to multicloud solutions.



Tomohiro Ishihara

Senior Technical Engineer at NRI Specializes in proposing systems operation solutions, deployment consultations

The Acceleration of Multicloud Use

In recent years, many companies have been utilizing public cloud environments, exemplified for instance by Amazon Web Services or Microsoft Azure, as a means of speeding up their business development and making their systems more flexible. Now, with these services enjoying even more widespread use, more companies have started moving away from public cloud utilization for their IaaS platforms and embracing proprietary cloud service technologies. Examples include use in processing of sudden, large-volume transactions, big data analysis, or other cases in which companies are using the strengths of cloud computing that offers flexible scalability.

It is easy to imagine that going forward, the use of multicloud solutions employing different cloud services for different purposes will become more prevalent and increase at companies making active use of cloud computing. Companies looking to boost their IT competitiveness will likely increasingly move to incorporate the latest technologies provided by cloud computing into their own services and systems as quickly as possible.

The acceleration of business development is also bringing about changes to system development styles. This includes not only the use of cloud services described earlier, but also the utilization of cloud-native technologies such as container virtualization and serverless architecture. When it comes to large-scale systems development, the waterfall model is still the mainstream, but for systems in which a certain level of business speed is required, conventional development styles are unable to handle changes in business. This is why we are inescapably seeing more instances of shorter development periods and system release cycles, with wider adoption of so-called agile development styles. In other words, it is no exaggeration to say that the business world is transitioning from traditional quality-centric development styles to ones that prize speed.



Greater Operational Sophistication in Demand

Amid this transition, innovation is also in demand at systems operation sites. As we once saw with the dawning of the server era, which marked a shift from the golden days of mainframes to the use of open systems, systems operation sections must also evolve together with the reforms of business or systems development sections. More specifically, the three points discussed below need to be considered.

The first has to do with tools. While the use of tools is indispensable to system operations management, if you want to keep up with the speed of business, going the traditional route of deploying individual operations management tools every time you pursue systems development will be too time-consuming. Plus, with existing on-premises environments and various cloud architectures creating a jumbled mix of systems, managing and visualizing your systems in an integrated fashion is a must.

The second involves personnel at your systems operation sites. Accommodating new systems and technologies while also following conventional operational methods requires personnel with extremely high proficiencies in a variety of skills. For companies struggling to secure the necessary staff, and in areas involving high levels of expertise, it becomes necessary to consider using outside services.

The third concerns IT cost management. For achieving business growth, managing your IT costs is even more important in this cloud computing era. One advantage of the cloud is that it makes it easy to add the resources or servers needed at business and development sections at times of their choosing. The flip side of this, however, is that the items falling under operations management can multiply seemingly in no time, resulting in increases in management burden and the time needed to handle it. As this also leads to enormous costs, the appropriate kind of supervision and management are required.

One means of meeting expectations for these systems operations sites would be using cloud services (operations management SaaS) for your operations management tools, and looking into combining multiple tools together. This challenge cannot be solved simply by switching to cloud-based systems. The key here is to set your sights on integrated operations that can handle the corporate shift toward bimodal IT and that are suited to the cloud computing era, so as to achieve an integrated and efficient management style utilizing operations management SaaS. In concrete terms, this could mean looking into frameworks that allow you to visualize which sections of your company are using which types of cloud computing and to what extent, and that enable you to ascertain where failures are occurring and which services are being affected. Being able to grasp the use status of your IT resources that support your business and to represent them using quantitative indicators would greatly bolster the role of IT sections, which are urgently expected to make "management contributions".



Approaches to Solving Operational Challenges

Every operational management site is rich with unique knowhow and knowledge specific to that company, and has a scale and operational style all its own. The systems of each company use a variety of operational management tools to manage their servers and network equipment. And every cloud environment has management features that are tailored to it. In order to solve the operational challenges discussed thus far, it is crucial to leverage the advantages of these management tools while also following an approach toward integration and efficient management.

An effective approach would involve using a platform that allows you to centrally gather and manage your operational management information on-premises and in a multicloud environment. NRI provides various solutions for solving these challenges, including assistance with improving your operational processes. Utilizing such outside organizations is also one way to solve your problems.

about NRI

Founded in 1965, Nomura Research Institute (NRI) is a leading global provider of system solutions and consulting services with annual sales above \$4.8 billion. NRI offers clients holistic support of all aspects of operations from back- to front-office, with NRI's research expertise and innovative solutions as well as understanding of operational challenges faced by financial services firms. The clients include brokerdealers, asset managers, banks and insurance providers. NRI has its offices globally including New York, London, Tokyo, Hong Kong and Singapore, and over 13,000 employees.

For more information, visit https://www.nri.com/en