CLOUD SPECIAL

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TRANSITIONAL DATA SERVICES

ORCHESTRATING COMPLEX MIGRATIONS TO HYBRID CLOUD



IN MY OPINION

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COVER STORY

TRANSITIONAL DATA SERVICES ORCHESTRATING COMPLEX MIGRATIONS TO HYBRID CLOUD

By Syed Haseeb Ahmed

hen discussing cloud migrations, most people focus on the common use cases of new software deployments or moving a single virtual server from the data center to the cloud. These basic types of cloud deployments are well understood and supported by niche migration vendors and tools. However, for many IT organizations now pursuing massive cloud migrations for existing apps, they recognize

that new approaches are required to successfully orchestrate, plan, and execute these large and complex migrations.

In large scale cloud migrations, organizations quickly realize that only a small portion of applications are truly cloud-ready, and careful planning and execution is required to assure success. For example, when multiple apps share infrastructure (i.e. servers, storage and database), they either must be moved together or some additional effort will be required to decouple and resolve these critical interdependencies. Additionally, integrated applications may have connectivity and latency requirements between them that need to be preserved once the migration is complete. And in many cases, there can be significant application rework necessary to become cloud "ready". Consequently, you cannot move a workload until you identify and address all these interdependencies at the application level and ensure the end-state achieves the target objectives (ROI/payback, performance, and end-user functionality). And this is precisely the problem that TransitionManager from Transitional Data Services (TDS) addresses—the ability to accelerate and orchestrate complex migrations to hybrid environments.



Eric Kraieski, Vice President, Software Business Unit 12

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"While the technical considerations alone are daunting, there are additional factors to consider when planning complex application migrations to a hybrid cloud that often blocks organizations from getting started," Eric Kraieski, VP Enterprise Applications at TDS noted. "To increase project velocity, first, you need to combine the information in the various silo systems of record, complement this with new discovery and human knowledge to create actionable intelligence about your software deployments. You also need to foster cross-silo collaboration, while taking into account risk management issues such as compliance, resiliency, and information security (for example, PCI, HIPAA, and internal security controls)."

Perpetual Change in Hybrid IT

Most IT organizations realize their infrastructure and operations must become more agile and fluid to keep pace with the ever-changing business and technical requirements. Running applications in the cloud is certainly a popular option for IT to achieve this greater flexibility, provided it can meet the requirements of the application users. Ultimately, the end-state must also provide an acceptable ROI once all costs and risks are evaluated.

Hybrid Cloud (or more precisely, hybrid IT) is about taking an all-of-the-above approach to application hosting. Sometimes the optimum approach is to simply let the application remain in a conventional data center/colocation facility when appropriate factors are considered. In other cases, re-hosting in a public or private cloud may be optimal. In other cases, full outsourced options may end up being the best option—which could include a migration to a SaaS alternative or leverage a managed services provider for infrastructure and facilities maintenance.

"Hybrid IT and perpetual change are the new normal," said Kraieski. "In many cases, this is driven by IT to improve operational performance and efficiencies (for example, hardware refresh, facility consolidation, and cloud migration). Sometimes it is necessary to support new digital business initiatives, and it may be necessary to address the evolving demands of risk management, resiliency, and compliance. Regardless of the ultimate path, TDS recommends a comprehensive, application-centric approach to discovery, analysis, planning, and execution," he concluded.

The TDS approach is centered on TransitionManager as the comprehensive orchestration framework—used to understand, analyze, plan, and ultimately accelerate the migration strategy. The TransitionManager software is used to analyze, plan, and execute these migrations and optional TDS professional services may be used to assist the end customer or migration partner with their overall project.



While niche migration tools are focused on straightforward migration challenges that can be automated—like moving virtual images to the cloud, automatically provisioning services or optimizing cloud deployment servers, these systems presume the tough decisions have already been answered. Questions that must first be answered include which applications should go to cloud, which cloud and for what benefit? And what will it cost? This is part of the analysis role of TransitionManager.



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Mitigating Cross-Silo Complexity

According to Kraieski, there are four primary steps to any transition process: establishment of goals, environment discovery (and data normalization), analysis/planning, and execution. With clear goals and objectives, the discovery process can be streamlined and focused toward the highest impact areas.

The first step in any migration, transition or transformation is to develop a comprehensive, cross-silo view of the environment, consolidating information available from all sources. This may include ITSM systems, niche tools, existing databases and autodiscovery systems, and human intelligence. This information is normalized to be made consistent. These "IT facts" may be augmented with business requirements around performance, resiliency, and information security. TransitionManager allows businesses to visualize their cross-silo environment through a single system—the consolidated "Vault of Truth."

TransitionManager's Vault of Truth empowers users with the ability to recognize blind spots and factor out the risk. This Vault of Truth presents a consolidated map where the users can see the entire IT infrastructure along with the relationships between the various entities. Before planning any project, Kraieski says, "It really helps when you can have a complete visual mapping of the environment where you can drill down into the various relationships from different perspectives to assist with the decision making and planning process."

Once you select the appropriate migration method for each application (and groups of related applications), the real action begins with the execution of these migrations. With TransitionManager, a "runbook" is automatically generated based on reusable migration "recipes" which are templated migration workflows to assure all steps are executed in the proper sequence. "Using the orchestration power of TransitionManager, recipes and runbooks virtually eliminate sequence and dependency errors during cloud migration," says Kraieski.

In one recent project (with a top 3 global auto manufacturer), the challenge was to consolidate three distinct data centers into a single private cloud environment. With hundreds of applications running across several thousand servers, the client completed the project in 18 months from inception using TransitionManager and TDS professional services.

Another aspect of TransitionManager is in its flexibility to adapt to unique custom requirements of the organization



Using the orchestration power of TransitionManager recipes and runbooks virtually eliminate sequence and dependency errors during cloud migration



or that which are required for the vertical market. TransitionManager can he extended to track additional information customizable fields that may be in required based on unique requirements or decision factors. For instance, in a hospital environment, TransitionManager can be used to account for HIPAA impact throughout the migration event. For an eCommerce or financial services company, TransitionManager can be used to account for PCI or personal data compliance requirements through the migration process. "The flexibility built into the TransitionManager allows it to be adaptable to hybrid IT environments across industry verticals and to account for organization specific needs," highlights Kraieski.

Organically Developed by IT Migration Specialists

"TransitionManager was developed based on a decade of complex migration experience with some of the largest companies on the planet," Kraieski says. "As consultants and practitioners, we found existing tools unsuitable to address the complexities of large scale enterprise application migrations—so we created TransitionManager to fill the void."

TransitionManager is available as SaaS or can be deployed on the customer's premise (or cloud). Customers can deploy TransitionManager to manage their own hybrid evolution or leverage TDS (or TDS partner) migration services as appropriate. As for integration, TDS can connect to existing systems and tools in the enterprise. "We have built a robust integration layer to interoperate with information source systems (like ITSMs and auto-discovery tools), and to automate downstream execution by integrating with the appropriate silo execution tools using TransitionManager recipes and tasks."

With more than a decade of experience in complex IT migrations, combined with the orchestration power of TransitionManager, TDS is empowering the wave of mass hybrid cloud IT migrations. **(R**

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20 Most Promising Cloud Solution Providers - 2017

onsidering the growing acceptance of cloud migration across large and small enterprises, it is a given that cloud computing is here to stay. The security aspect alone is enough to convince large enterprises and SMBs alike that cloud computing paradigms offer ironclad protection to mission-critical data. In addition to the bread and butter features of unlimited storage and scalability, cheap upfront payments, and ease of deployment, the cloud also adds value to up-and-coming networking technologies. Container technology is one such example, where the cloud can catalyze viable means for initiating and deploying micro-services as well as applications.

A powerful synergy is envisioned in the convergence of machine learning with cloud computing, both deriving from the other to help organizations develop a competitive edge across verticals. On the other hand, serverless computing is on the rise with its ability to automatically execute code snippets upon request, thereby easing the burden on developers. What's more, most companies are now on the run to leverage multi-cloud strategies while moving toward a 'lift and shift' framework, by which they can select and combine optimal services from multiple providers. As hybrid cloud continues to gain more limelight, enterprises are steadily gravitating toward Cloud Monitoring as a Service (CMaaS) to keep track of performance across multiple suppliers. With major players tapping into cloud services, the technology is transforming the face of business.

The market today abounds in a bevy of cloud solution providers armed with state-of-the-art technologies that can help companies mitigate the possibility of threats and gain proactive ideas to deal with the burning challenges. A distinguished panel comprising CEOs, CIOs, VCs, industry analysts, and CIOReview's editorial board has reviewed the top cloud solution providers and shortlisted the ones that are at the forefront of this competitive industry.

We present to you CIOReview's 20 Most Promising Cloud Solution Providers 2017.



Company: Transitional Data Services

Description:

Provides TransitionManager software and professional services to orchestrate the endto-end process for hybrid IT transitions and mass cloud migrations

Key Person: Eric Kraieski VP, Enterprise Applications

Website: transitionaldata.com