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Six Secrets for Building a Great Hybrid IT Integration Architecture

WHITE PAPER

About this Paper

Abstract

Speed of innovation is the new benchmark for modern Information Technology (IT) teams; otherwise, enterprises are at risk of becoming obsolete. With a view to move IT with the pace of business, increase the agility of teams and processes, organizations are moving from on-premise to cloud platforms and creating a complex hybrid IT landscape.

To support this strategy, enterprises are using hybrid integration frameworks to connect processes, applications, and people. However, even after heavy investment, organizations are failing to leverage their domain expertise, deploy products, and build offerings on time.

Hybrid IT is an approach to enterprise computing in which an organization provides and manages some IT resources in-house but uses cloud-based services for others. Hybrid IT is the result of combining internal and external services, usually from a combination of internal and public clouds, in support of a business outcome.

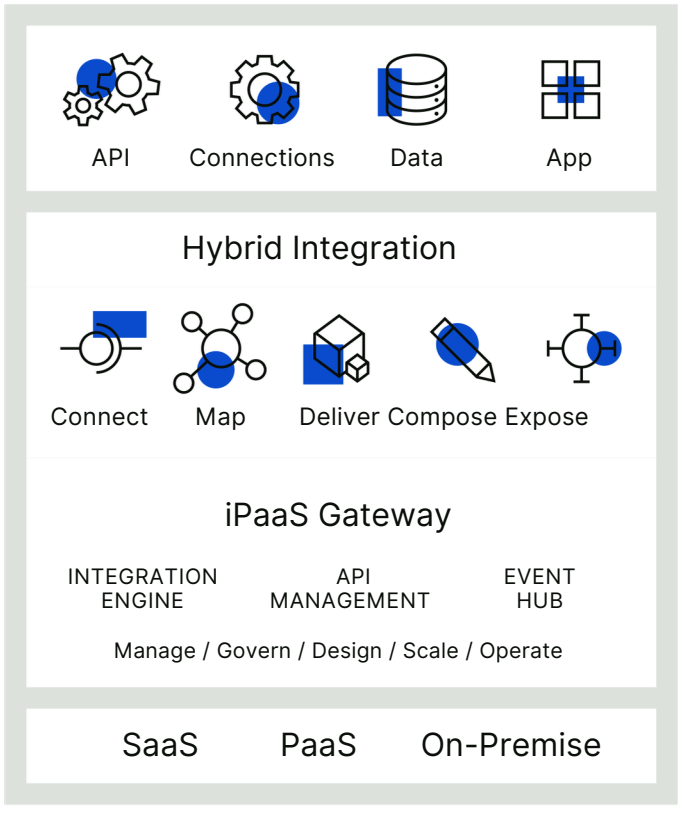
Integrating hybrid IT networks requires a systematic, planned, and focused approach. Here we present a checklist to help companies in future-proofing their hybrid integration framework.

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An Introduction



As cloud computing moves into the second decade, Gartner believes 40% of enterprises will be using hybrid IT by 2018 as part of their business strategy. According to a recent research by Vanson Bourne on behalf of Sungard Availability Services, 88 percent of US companies believe that integrated Hybrid IT is a competitive advantage. However, the execution is a challenge, i.e., the Vanson Bourne survey which studied 700 IT organizations in US and Europe across different sectors found that respondents IT expenditure increased drastically.

Many of these organizations need help managing their Hybrid IT. Some 41 percent of respondents rated their organization's current IT estate as "very complex" or "extremely complex." Only 3 percent said their environment was "not at all complex." More than a third (34 percent) admitted they don't fully understand their firm's IT architecture. One reason for the complexity might be that businesses lack the skills needed for Hybrid IT success. A full 89 percent of global respondents said their team lacks at least one skill, and two in five feel their organization isn't up to managing the complexity of their Hybrid IT.

When an organization adopts cloud computing then it automatically adopts hybrid IT computing as well. As a result applications using different components float between the public cloud and data center. This makes a complex hybrid IT infrastructure where IT teams need alignment tools for focusing on integration issues. For such scenarios, the answer lies in the Hybrid Integration Model.



Why Hybrid Integration?

Organizations across the globe are reshaping their integration strategy to bridge the divide between transformational cloud technologies and legacy systems. The integration framework is enabling entities to take care of pervasive integration needs and driving business forward. The reference capability framework is allowing businesses to leverage on-premise and cloud platforms in their best of interests. Adopting cloud computing poses various challenges and here is how a hybrid integration approach addresses them:

Ensures Regulatory Requirements and Compliance: Regulatory compliance prevents businesses to adopt full cloud Integration. For example, certain confidential data must remain behind the enterprise firewall. Also, there are data protection laws that forbid data to leave the country where it has generated. A hybrid integration solution addresses these pervasive integration needs by delivering the convenience of centralized and granular access to cloud and on-premise data.

Fosters Innovation with Low Risk: Industry experts recommend businesses to adopt cloud computing incrementally by first deploying small chunks of applications on cloud and testing the waters. This approach helps business to innovate with reduced risk. Hybrid integration delivers rich differentiated features and vision to adapt cloud based technologies at an incremental pace and reduce the business risk. Moreover, businesses can use the platform to move applications at their own pace.

Maximizes Your Investment: It is important to combine cloud and on-premise applications to maximize investment. Hybrid integration enables businesses to work with new applications in cloud while continue to drive value from their older applications.

Bolsters Security: Businesses are very apprehensive about putting their sensitive data on cloud. Hybrid integration allows businesses to keep sensitive data on-premise and insensitive data on cloud. It also helps businesses to segregate and track every moment of their data.

Best Practices Checklist for Hybrid IT Integration

Hybrid integration is not only a business imperative, but also a long-term, and high impact decision. While integrating the IT with hybrid integration approach, enterprises must focus on a long range strategy to future proof their IT assets. Here is a hybrid integration checklist that can help enterprises in making the most of their integrated architecture:



SECRET 1

Plan Where to Host Your Integration Tools

The first thing to do is preparing a plan to find a strategic place from where the integration tools can be hosted. Strategic positioning of integration tool enables enterprises to expand its IT applications, business networks, and projects while moving applications to cloud.



A best practice recommended by experts is to host integration tools within the vicinity of applications for comprehensively covering the surface area of IT architecture. This improves the agility of applications and prevents network breakdowns.

As a part of the plan, a System Architecture Skeleton (SAS) must be prepared for Subsystem IT integration for integrating components and expanding networks. Also, organizations must focus on orchestrating different systems and organizing them in a comprehensive and logical way.

SECRET 2

Decide on Authorization and Access Management



Greater control and responsibility remains a core driving factor behind most of the cloud adoption projects. Greater authorization reduces maintenance cost, faster integration, and ensures authorization.

The key to get more control and responsibility in hybrid integration scenarios is simplified tooling. Therefore, organizations must look for a simplified approach that delivers full control over IT and enables simple ways for integrating different applications.

An integration solution must enable the actual business users to create workflows, manage connections, and maneuvering IT towards the stream of opportunities.

For effective authorization and control, an integration solution must pack configuration management mechanism for exercising greater control over hardware and software configurations. A configuration management process helps in defining subsystem verification procedures and component checkout.

SECRET 3

Analyze Who is Going to Be the End User



Conventional systems were primarily built for IT developers who were entrusted for executing the integration projects. But in the current scenario, organizations want normal business users to create workflows and connections and drive productivity.

Gartner has coined the term ‘Citizen Integrator’ to define this new breed of business users.

The Citizen Integrator can be a business Analyst, Salesperson, or Customer Relationship Manager who can quickly build integrations to map data, export information, and load incidents without any IT intervention and complex coding.

To support Citizen Integrators, experts recommend a bimodal approach which offers user friendly interface as well as advanced architectural capabilities to support faster integration and business network expansions.

SECRET 4

Consider Growing Line of Business Needs



Can the current state of technologies sustain and provide the same throughput if there is a sudden increase in partner networks? This is the question that businesses need to ask themselves while integrating the hybrid application network. A good way to understand the performance of processor and storage measurement is stress testing. It checks systems in rigorous conditions and beyond capacities to expose their weak areas. Some other relevant tests are Endurance Testing, Long Mission Thread Testing and User Testing.

Smarter commerce is more than just speed; it involves harnessing components for adapting large volume of business needs. There cannot be a static unification strategy as the line of business needs continue to expand over a period of time.

Organizations planning for digital transformation initiatives or mergers and acquisitions where cloud and on-premise integration is a priority must look for an integration tool that has acquired credible reputation in swiftly expanding IT capabilities.

SECRET 5

Provides Bi-Modal Integration Modes



Every integration projects is different and has different requirements. For example, some integration projects need to be provisioned rapidly as compared to other integration projects that have a shorter lifespan. Experts recommend enterprises to deploy a bi-modal integration scenario that supports all kinds of mission critical development projects. A bi-modal approach maintains a fine equilibrium between agility and control to support traditional and emerging integration needs.

Growing number of APIs, business systems, and digitalization overburden the network of applications. An adaptive and federated approach well positions organizations to face high velocity integration projects.

SECRET 6

Ensure Data Governance

Precious business centric data can be vulnerable to integration specific changes. An organization can zero down the risks to organizational data with better planning and data governance strategies. Moreover, an organization should give data access to only authorized users for limiting the access to organizational data.

Training and development is another measure to reduce the threats hovering over data. To safeguards organizational data, a hybrid integration solution must provide controls like dynamic task distribution and rules execution principles. More importantly, an integration solution must enable some easy ways to control and manage the flow of organizational data.



Another exercise to ensure data governance is conducting a deeper probe into the data sources. It is necessary as organizations are referring to different kinds of data to support new decisions. Data sources generate different varieties of structured and unstructured data include spreadsheets, social media, application databases, etc. By leveraging these cloud and on-premise sources, organizations can derive valuable insights and make better decisions.



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Deepak has more than 16 years of experience in the application connectivity, data integration, middleware, and business process management technologies.

Prior to starting Adeptia, Deepak was Director of Product Management at 3Com Corporation, where he was responsible for all aspects of product management and marketing for the Cable Modem Termination Systems (CMTS) business line. He worked with the initial team that started this new product line and saw the business grow to $40M annual revenue and 60+ employees. Deepak also worked at Netscape Communications as product manager.

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