

Which Managed Hosting And Private Hosted Cloud Option Is Right For You?

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Executive Summary

In an increasingly complex world, the realm of IT services is expanding both in terms of breadth and total time required to maintain ongoing operations and resources. Rather than getting bogged down with supporting commodity applications or running diverse infrastructure environments, enterprises turn to outsourcing to leverage the support and expertise of third parties.

Whether you're outsourcing a small set of applications or your entire IT infrastructure, navigating the options available isn't easy. Although some of the more traditional models and older cloud models are more familiar, the newer emerging models that sit between multitenancy and complete dedication aren't clearly defined in today's market in terms of baseline capabilities and differentiation from other market segments.

In January 2014, AT&T commissioned Forrester Consulting to evaluate the hosted private and managed services markets to provide some clarity within these two newer deployment markets. As the cornerstone for this research, Forrester Consulting conducted online surveys of 165 North American and European IT infrastructure outsourcing decision-makers from firms with 1,000 or more employees.

This report provides an overview of the infrastructure and applications outsourcing options within the market and a basic framework of identifying the best sourcing option given an infrastructure, specific application or portfolio of applications.

KEY FINDINGS

Forrester's study yielded four key findings:

- › **Infrastructure outsourcing should focus on the application, not the infrastructure.** Your applications, not your existing infrastructure, determines the basis for deciding the best sourcing assortment. Current infrastructure may influence vendor selection or adoption plans, but it does not dictate the best fit deployment option for your resources. In this regard, it's all about the app.
- › **Define the options.** Understand the baseline difference and key attributes of a particular deployment model before choosing or eliminating any options. Establishing this upfront knowledge will help eliminate vendors that fall short of the market definitions while providing you the

guidance about which models align your enterprise's requirements.

- › **Profile your application portfolio.** Taking a one-size-fits-all approach to outsourcing will quickly lead to cost, performance, or compliance issues. Most enterprises have an assortment of applications that differ in priority, design, customization, dependencies, license models, and fluctuation in resource requirements. You'll likely be looking for multiple outsourcing options through a single management portal.
- › **Identify challenges and cost escalators.** Hidden costs come with the territory of outsourcing and change. Your specific application may require redesign in order to scale and achieve high performance in a particular environment. Otherwise, every data call back to your on-premises database may cost a fortune in data transfer fees or significantly slow the performance of the application. In some cases, your software licensing model may even increase in a horizontally scaling environment versus a vertically scaling environment. Identify the challenges upfront as much as possible to avoid hidden costs later in the deployment process.

Select The Best Assortment Of Outsourcing Solutions

Enterprise application portfolios rarely match a one-size-fits-all approach to sourcing. Using a single sourcing model can lead to overpaying, both over- and underperformance, and misusing the time of your IT team such that they are focused on workloads not critical or directly tied to revenue. It will be a mix of sourcing solutions that will optimize your application portfolio. But this can't be an endless list of best-fit infrastructure sourcing options. Each deployment option added to the list will mean procurement and selection costs, as well as additional vendor and SLA management. Consolidating your workloads can also mean more purchasing power or increased discounting through a single vendor. Finding the right mix of options is what Forrester calls strategic rightsourcing.

DEFINE THE DEPLOYMENT OPTIONS

Allowing hearsay to dictate your sourcing solution can quickly lead to buyer's remorse. Our custom survey indicated that 53% of hosted private cloud adopters and 52% of managed services adopters wish that they had selected a different hosting option. More than half of each group would have shifted its selection across virtual private, managed hosting services and hosted private cloud given better insight about their options and needs before they made a selection. Before going through your application portfolio, first look to understand the core functionality and structure of the infrastructure outsourcing options available today.

- › **Public cloud (cloud platforms).** A publicly available cloud platform for building, hosting, and launching customer-created applications. A cloud platform must be a standardized IT service that serves up an application runtime platform and/or set of virtual infrastructure resources that is then delivered in a pay-per-use, self-service way. These environments are multitenant and provision virtual resources within 15 minutes with no contract on an hourly rate. Cloud developers select providers based on fastest time-to-deliver results and increasingly use net-new code.
- › **Virtual private cloud.** Virtual private cloud is a virtually isolated set of IaaS resources that is often hosted within a larger public cloud environment. Unlike hosted private cloud, virtually isolated resources are typically billed on an hourly consumption model with no long-term commitment.
- › **Hosted private cloud.** Hosted private cloud is an externally hosted private IaaS cloud that provides semi-dedicated infrastructure through a self-service portal for requesting, managing, and monitoring its virtual resources. Typically, hosted private cloud vendors manage up to the hypervisor level, although it may expand to the OS layer in certain domains. Compute resources are physically isolated from other customers and dedicated to that customer, but storage resources can either be multitenant or dedicated to that customer. Customers request additional virtual and physical resources through a self-service portal. Deployment of virtual resources typically is fulfilled in under 15 minutes, and physical resource expansion can take up to five days. In the custom survey, the top drivers for hosted private cloud were lower cost, security/compliance requirements, and provided SLAs — although some mentioned that it eliminated the need for complex capacity planning exercises.
- › **Traditional dedicated hosting.** The classic managed hosting model at the enterprise level typically entails a dedicated server infrastructure platform. Dedicated hosting is a time-tested approach and is suitable for a wide range of workloads that do not require scalability. Contracts typically are three to five years in length. Customers pay for reservation and dedication of a specific set of resources regardless of whether these resources are in use. Vendors commit to higher levels of SLAs than available through cloud-based infrastructure services.

FIGURE 1
Which Hosting Option Is Right For You?

	Public cloud (cloud platforms)	Virtual private cloud	Hosted private cloud	Traditional dedicated hosting	Managed hosting
Contract length	Hourly	Hourly	Monthly, yearly	Multiyear	Multiyear
Tenancy	Multitenant	Virtually isolated compute, multitenant storage	Compute dedicated, storage multitenant or dedicated	Fully dedicated	Fully dedicated, sometimes multitenant
Layers managed	Infrastructure, hypervisor	Infrastructure, hypervisor	Infrastructure, hypervisor, sometimes OS	Infrastructure, hypervisor, OS, sometimes apps	Infrastructure, hypervisor, OS, sometimes apps
Speed of provisioning	>15 minutes for virtual resources	>15 minutes for virtual resources	>15 minutes for virtual resources, 3 to 5 days for physical resource expansion	Weeks, sometimes requires contract renegotiation	Days, occasionally hours

Base: 165 North American and European IT infrastructure outsourcing decision-makers from firms with 1,000 or more employees

Source: A commissioned study conducted by Forrester Consulting on behalf of AT&T, January 2014

› **Managed hosting.** Managed hosting is a general-purpose delivery model involving third-party administration of conventional (not cloud-optimized) server infrastructure on the client's behalf either remotely (usually) or on-site. Typically, managed hosting manages up to the OS level, although it may expand to the application layer in certain domains. Managed hosting initially embraced a dedicated environment for both

compute and storage. Today, managed clouds can either be hosted in a traditional virtual environment or through a dedicated IaaS environment. In the custom survey, the top drivers for managed hosting adoption were the ability to shift management to focus on business-critical workloads, met SLA requirements, and security/compliance.

- Predictability of traffic increases.
- Scalability of the application.
- Dependencies.
- Criticality.
- Business continuity coverage.
- Tie to direct revenue.
- Customization.
- Total number of users.
- Variability in functionality required by each user.
- Compliance requirements.

ALIGN YOUR REQUIREMENTS

An important piece of strategic rightsourcing is a portfolio assessment that is both thorough and objective. Application owners take pride in the configurations and customizations made to a particular app. However, the associated cost of maintaining this system and focusing your IT staff on applications that aren't core to business users or directly tie to revenue can be an ineffective use of time. A strategic rightsourcing assessment should include the following stages:

- › Identify your requirements and priorities by workload. Identify the following for each of your applications:
- Internal SLAs.
 - Average traffic.
 - Frequency and level of traffic spikes.

- › **Eliminate customization where not necessary.** If an application is done the same way by every organization and isn't tied to your company's revenue — it's a key candidate for application outsourcing (i.e., SaaS, ASP, or

application hosting). These applications might be better fit for outside of your infrastructure sourcing plans since availability, performance, and maintenance could be shifted outside your organization entirely. A service provider specializing in a particular workload type will likely be able to deliver higher performance than achievable in-house. Even if an application is unique by design and a differentiator for your organization, try to eliminate the configuration customizations to reduce complexity and maximize your consolidation and reuse. If an application must be customized, you are officially looking at infrastructure outsourcing rather than a specific application sourcing solution.

- › **Navigating compliance regulations.** Compliance is a moving target, always subject to evolving interpretation, and this is true in the cloud as in other domains. Data location and residency requirement are significant challenges, particularly in Europe, where providers just cannot afford to place data centers in every target market. In some circumstances, compliance requirements can dictate that individual data packets are tracked and monitored to disclose each VM that the data packet lived on and to ensure it has not been accessed by any third parties. Although this can be achieved in some multitenant models, it can dramatically escalate price. Be sure to address these requirements while sourcing for cloud services while not over-securing resources that don't need the same level of isolation and monitoring.
- › **Match your requirements to deployment options.** Using the standardized information on each application, look to map your portfolio to various deployment types. Once you've determined that an application isn't a good fit for an application sourcing solution (i.e., SaaS, ASP, or application hosting), start with public cloud and work your way backward. If you immediately eliminate public cloud across the board due to security or compliance, you're likely not opening up to an application-by-application approach. Regardless of your industry, every enterprise has workloads that are best fit to public cloud. Navigating the security and selecting the right application can take creativity and new ways to problem-solve.
- › **Consolidate your deployment environments into a manageable selection.** At a certain point, the complexity of managing multiple vendors and multiple infrastructure outsourcing environments is overwhelming and unmanageable. Once you've objectively found the best sourcing fit for your entire application portfolio, look to

consolidate on two to four major infrastructure sourcing types. Using a single vendor across multiple solutions, especially if the same management portal is used, can increase your price negotiation power, decrease cost, and minimize sourcing and vendor management efforts. For your SaaS portfolio, look to use a SaaS cloud broker/catalog to tie these solutions together for an improved end user experience.

ASSESS THE CHALLENGES AHEAD

Before finalizing your draft mapping of your application portfolio, it's important to investigate where your initial assessment might fall short. Don't oversimplify the move to the "best fit" deployment model. Just because the variability, customization, and/or criticality might align to a specific deployment model, there might be critical challenges that will incur significant unplanned costs or fall short of internal SLAs. Before finalizing the right deployment model, consider some of these common challenges and "gotchas":

- › **Application design.** Although the economics and security requirements may align with a more flexible public cloud environment, you may also face application design challenges. Applications that weren't built for the cloud often require significant adjustments and redesign. Cloud developers state that 60% of the code in its public cloud environment of choice is net-new code. Simply moving an existing application into a horizontally scaling cloud environment based on infrastructure built to fail can be a challenge for applications that aren't truly scalable. Some observers have also been disappointed by the pace of migration of application workloads to cloud models, especially for multitiered, database-intensive applications. This has sparked a new market for consultancies that evaluate the estimated cost of application redesign in developer hours relative to the potential cost savings achieved once moved.
- › **Performance variability.** SLAs around performance and availability aren't entirely accurate. These guarantees include a long list of caveats around force majeure and hackers, along with portions that aren't in their control (i.e., the public network). Some vendors don't count down time unless it's 15 minutes of consecutive downtime. Even within its SLAs, few vendors provide performance guarantees that set sufficient response times. Although a service might be available, the performance could be severely compromised. When you're selecting a solution, don't just look at the number of 9s guaranteed. Look at

the clauses, third-party-reported cost/performance ratios, your own network bandwidth, and your business continuity strategy for each of your workloads. It's unlikely that a cloud provider will customize your service, and if they do, it likely isn't in their sweet spot.

- › **Cost savings less than expected.** The most frequently cited complaint from outsourcing customers is that they did not save as much money as they had anticipated. Of course, this begs the question: Were expectations rational or based on fantasy? In any event, it has become proverbial in outsourcing that providers win the business by lowballing competitors but make it up and then some with changes to scope. Emphasize effective demand control to fight this risk. Also look at hidden costs in cloud pricing figures such as data-out fees, cost of adding

security tools, or if you're incentivized to use resources in a specific way that might not match your specific use case.

- › **Sourcing and vendor management overload.** Don't fall into application and infrastructure sourcing overload. Managing the procurement and SLAs of all of your services can be time intensive. Look to consolidate your on-premises and SaaS applications into a single app access portal to improve end user experience. For infrastructure outsourcing, consolidate total options based on similar requirements and scenarios. Large enterprises should look to keep supported public or virtual private cloud vendors between three and five while keeping a single dedicated solution, whether that be hosted private, managed services, traditional hosting, or colocation.

Appendix A: Methodology

In this study, Forrester interviewed 165 North American and European IT infrastructure outsourcing decision-makers from firms with 1,000 or more employees to evaluate the hosted private and managed services markets to provide clarity within these two newer deployment markets. Survey participants included decision-makers in IT, vendor management, and IT procurement. Topics explored with participants included drivers, inhibitors, benefits and challenges of current hosting solution, importance of specific selection criteria, and future plans. The study was conducted in January 2014.