Infrastructure Economics: Five Things to Consider When Comparing Costs for Composable Infrastructure versus Traditional IT

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Practical spenders often pride themselves on their ability to "make do" with what they already have, rather than make new purchases—for example, putting new heels on that old pair of shoes, or keeping that 10-year-old car on the road. But there comes a point where that 10-year-old car becomes less cost-effective, and even poses a liability. It might still run; but it is likely missing critical features that can make a difference to your safety and comfort. Furthermore, the basic functionality that met your needs a decade ago likely no longer fits your current priorities; for example, transporting a family. Is it time to finally invest in a newer model with the features you need?

Budget-constrained IT organizations may face a similar decision regarding infrastructure options: should they continue to "make do" with the equipment on the floor, or modernize the data center with a next-generation solution, such as Composable Infrastructure? Leveraging existing traditional infrastructure may require less capital, but may not be the fiscally prudent choice when compared with Composable Infrastructure.

Composable Infrastructure is an on-premises platform that delivers cloud-like speed and flexibility, enabling IT to deliver value rapidly and cost-effectively. Composable Infrastructure is built on three architectural principles: fluid pools of compute, storage and network fabric; software-defined intelligence; and the unified Application Programming Interface (API). It supports a broad range of applications and operational models such as virtualization, hybrid cloud, and DevOps. By deploying Composable Infrastructure, IT organizations can deliver business benefits such as agility, consistency, and speed to market. In fact, when all capex and opex costs are considered, and when all value-creation capabilities are factored in, enterprises may find that an investment in Composable Infrastructure offers business value that traditional IT infrastructures are unable to deliver.

As you assess infrastructure options, are you considering all the direct and indirect costs, as well as value drivers? Here are five cost and value considerations that may help shape the way you think about Composable Infrastructure versus traditional IT.

1. "Speed to market" advantages

In the hypercompetitive global market, enterprises need to protect and grow revenue by moving quickly, to respond to market conditions or competitive moves, or to be first-to-market with innovative and disruptive solutions. But traditional infrastructure may not support your business' needs for speed and agility. Siloed application configurations, inflexible deployment, limited scalability all require manual workarounds that take time . . . perhaps a long time.

Composable Infrastructure may be the ideal platform for an agile, responsive environment. Composable Infrastructure enables rapid deployment of applications, and supports DevOps processes for continuous integration, test, and provisioning. As a result, the business can respond quickly to market shifts and competitors' actions.

The bottom line: Compared with traditional IT, Composable Infrastructure significantly reduces time-to-market, enabling innovative new revenue streams, and protecting existing revenue from competitive actions.

2. Management and administrative burden

The top data center challenge named by IT executives in a Frost & Sullivan survey is "high maintenance costs," cited by 27% of respondents.[1] A heterogeneous environment, comprised of multiple vendors and models, each with its own management tools, is costly to run. Each system generally requires specialized labor resources, as well as fees for separate maintenance contracts, software licenses, and so on.

Composable infrastructure enables IT organizations to reduce the maintenance burden and costs through a single infrastructure and single management platform. Automated functions, such as frictionless updates, enable organizations to perform required maintenance without disruption.

The bottom line: Composable infrastructure simplifies and reduces the maintenance burden when compared to traditional IT, representing significant savings for labor and management tools.

3. Infrastructure utilization

The easiest way to minimize additional capital expenditures is to optimize utilization of your current infrastructure. In a traditional data center configuration, this optimization is difficult, especially in a dynamic environment in which workload capacity needs vary. In the traditional workload-specific model, infrastructure is provisioned to handle peak load, which, for many applications, means that provisioned capacity goes unused for much of the time. Server virtualization allows for greater utilization of existing processing capacity because virtualized applications share physical servers. However, to avoid resource contention for latency-sensitive applications, IT operations teams may place a light load on physical servers.

Composable Infrastructure makes it easier to align infrastructure to actual usage. Composable Infrastructure utilizes fluid pools of compute, storage and network resources that can be precisely composed and recomposed, as needed, to maximize efficiency.

The bottom line: Composable Infrastructure optimizes infrastructure utilization, thus maximizing the "yield" per dollar invested compared to traditional IT.

4. "Shadow IT" management

To keep up with the escalating pace of business, Line of Business (LoB) executives are demanding more and faster solutions from IT. If they are not satisfied with the response, LoB employees are increasingly willing to "go rogue." In a Frost & Sullivan survey, more than 80% of LoB respondents worldwide said they had circumvented company processes to acquire software without IT approval.[2] Traditional data center configurations often exacerbate the shadow IT problem. Thirty-five percent of LoB managers surveyed by Frost & Sullivan say they use unapproved software because "IT processes are too slow or cumbersome."[3] Lengthy approval timeframes for capital purchases,

[1] 2015 Frost & Sullivan Cloud User Survey. For information on Frost & Sullivan surveys, visit www.frost.com.

[2] 2013 Frost & Sullivan Shadow IT Survey.

[3] Ibid.

manual installation and provisioning of equipment, and custom integration requirements negate LoB needs for agility and market responsiveness. The result is a decision to look elsewhere.

Although LoB employees may believe that their decision benefits the business, in fact, such behavior can present security and compliance risks to the business. This behavior also increases IT costs by not leveraging efficiencies gained from multi-user licenses or companywide maintenance contracts.

Composable Infrastructure supports LoB needs by speeding time-to-market, while protecting company data assets. Composable Infrastructure also enables IT's transition to a "service broker" model, to provide the LoB services on demand.

The bottom line: Composable Infrastructure supports LoB needs better by reducing shadow IT and ensuring consistent application of corporate security policies—minimizing business risks (security and compliance), and enabling cost efficiencies when compared to traditional IT.

5. System integration

Stemming from a time when the applications they supported were built to perform a prescribed set of stand-alone functions, traditional IT configurations are not designed to "play well with others." That limitation gave rise to an entire market of Systems Integrators, who create custom configurations that enable applications and databases to communicate. But in an increasingly hybrid world, "one-off" and non-replicable integration solutions cost too much (in budget and time) to be sustainable.

Composable Infrastructure is designed to deploy applications and services that can be assembled, replicated, and shared quickly and in repeatable fashion. With Composable Infrastructure, "integration" is not a custom effort; you get software-defined intelligence, fluid pools of compute, storage and networking, and a unified API in one solution.

The bottom line: Composable Infrastructure reduces time and cost for development, integration, and deployment throughout the application's lifecycle when compared to traditional IT.

The Last Word

When it comes to retiring that 10-year-old jalopy, you may get a clear sign—like the mechanic's diagnosis that it needs a $1500 transmission. Data centers don't send out such clear cost messages. That's why IT executives need to understand all the direct and indirect costs associated with maintaining your traditional IT infrastructure versus implementing Composable Infrastructure. A full accounting should compare not just IT costs associated with initial investment and maintenance, but also savings associated with streamlined business processes. In addition, the analysis must recognize and quantify business benefits associated with speed to market and reduced risk.

As you ready your business to meet the escalating pace of the digital economy, be sure you are making smart and timely investments to transform your IT infrastructure. Consider how Composable Infrastructure fits into your strategy.

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