ORACLE

Infrastructure that adapts with your business

Three primary considerations to measure your modernization progress against

Note to reader

Geographically distributed workforces are now commonplace and becoming normal as we adjust to the rapidly changing world around us. This is putting pressure on organizations to quickly deploy increasingly complex digital environments. But seamless digital experiences rely on high-performing and reliable infrastructure.

Herein lies the challenge. Under the hood of each “digitally transformed” enterprise lies a complex mix of point solutions – a combination of modern software-as-a-service (SaaS) solutions, public cloud infrastructure services, legacy closer-to-metal systems and of course, the metal itself. Rust is optional.

For organizations already sold on the benefits of cloud, questions about cloud-first or hybrid cloud models remain. And for those still reliant on legacy systems, the need for agility and performance in infrastructure must be balanced with reliability and security. All these are part of modernization conversations that need to be had.

This report covers foundational infrastructure modernization – your database and the hardware that runs it, and how the benefits of modernization can be tracked based on three primary considerations.

Track your modernization progress

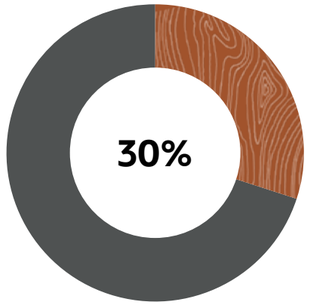
Simplicity, automation, and cost-effectiveness are often dreams that remain unfulfilled by organizations, even those in advanced stages of digital transformation. Key to this is IT complexity. According to a recent survey, 64% of IT organizations believe that IT is more complex than it was two years ago. Part of the reason is a shortfall of IT architecture and planning specialists to simplify vendor complexity. [1]

1 ESG Master Survey Results, 2020 Technology Spending Intentions Survey, January 2020. Also see the following ESG White Paper for analysis of the results: Beyond the limitations of HCI: Oracle Private Cloud Appliance X8, The Enterprise Strategy Group, March 2020.

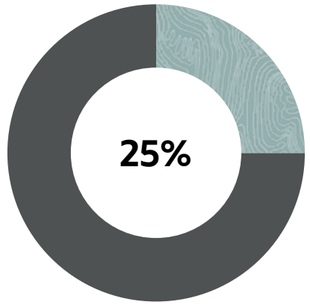
Top Four Areas of Data Center Modernization

Question: In which of the following areas of data center modernization will your organization make the most significant investments over the next 12-18 months?

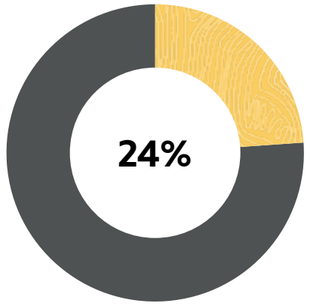
(Percent of respondents, N=658, five responses accepted)



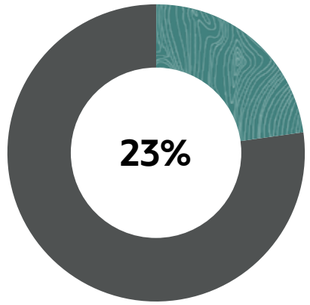
Improving data backup and recovery



Increasing use of IT infrastructure orchestration/ automation tools



Deploying hyperconverged infrastructure



Leveraging AI/ML to help with systems management tasks (e.g. detecting anomalous resource utilization and proactive failure alerts)

Source: Enterprise Strategy Group

Suffice to say, many business leaders now have realized that their IT teams do not have the time or personnel for a DIY approach to their core infrastructure systems. Thus, the push for “data center modernization”, which incorporates managed services, cutting-edge automation, and Artificial Intelligence & Machine Learning (AI/ML) at the very foundation of the infrastructure stack.

But modernization is more than a lift and shift of existing workloads to a new platform. Done well, an optimized infrastructure can propel your business towards success.

There are three key principles to keep in mind when designing a modernization strategy:

Data(base)

Going digital requires having data-centric architecture as the baseline to enable further data-driven solutions such as advanced analytics to enable business insights. But getting a comprehensive handle on data collection, storage, analysis, and protection, can be elusive.

Productivity

The goal of modernization is to increase the agility and therefore the productivity of your IT operations. These recovered man-hours can then be used for strategic initiatives like adopting Cloud Native and DevOps or given back to staff to improve the employee experience.

Customer

With a better hold of data and increased productivity, IT teams can then be tuned to elevate customer experiences, rather than keeping the lights on.

In addition to the above core principles, it is crucial to measure any data center modernization progress against these three primary considerations.

1 Resilience at the foundation

2 Rapid response capabilities

3 Future-readiness

Consideration 1:

Resilience at the foundation

As businesses dive deeper into the digital space for operational simplicity and to drive new revenue streams, the importance of data to critical decision-making will only increase. Core infrastructure must, therefore, cater to this crucial business need – ensuring that data is always available and with complete integrity.

There are a variety of solutions in the market which involve re-architecting infrastructure from the bottom-up. But before making any commitment, decision makers should use the following questions as guidance:

- Does the solution incorporate **data defense and integrated security** across multiple layers whilst staying compliant with the latest privacy regulations?
- Will the solution boost **resilience** by reducing downtime due to compatibility issues or human errors?
- Has the solution been **validated and tested** to facilitate future infrastructure growth?

Quantify your uptime

Oracle's Maximum Availability Architecture (MAA) allows services to be categorized based on their Service Level Agreement (SLA).

Read the brochure here

Consideration 2:

Rapid response capabilities

These are unpredictable times; enterprises that wish to survive and then thrive must respond quickly to rapidly changing business needs. But agility is easier said than done. Cloud-ready architectures enable agility by allowing for burstable workloads and rapid deployment of new services with minimal disruption to existing workloads.

Of course, cloud architectures come in many varieties and key differences exist even within the hybrid cloud spectrum. Before deciding on a specific cloud model, business leaders can consider using the following criteria as guidance:

- Does the cloud model **optimize existing applications and connect legacy systems** while empowering modern application development?
- How **automated** is that cloud solution?
- How critical is **strategic vendor support** to your business?

Self-driving databases

Description: Enable agile development with autonomous databases that require almost no human intervention.

Explore Oracle Autonomous Database here

Consideration 3:

Future-readiness

Invest in the data-driven future by optimizing the infrastructure supporting your digital environments. Start small and scale out with a highly adaptable core. Businesses that can unlock the value of their data at scale, should expect to glean an exponential business advantage. But questions remain at the execution level – what comprises a truly future-ready infrastructure solution?

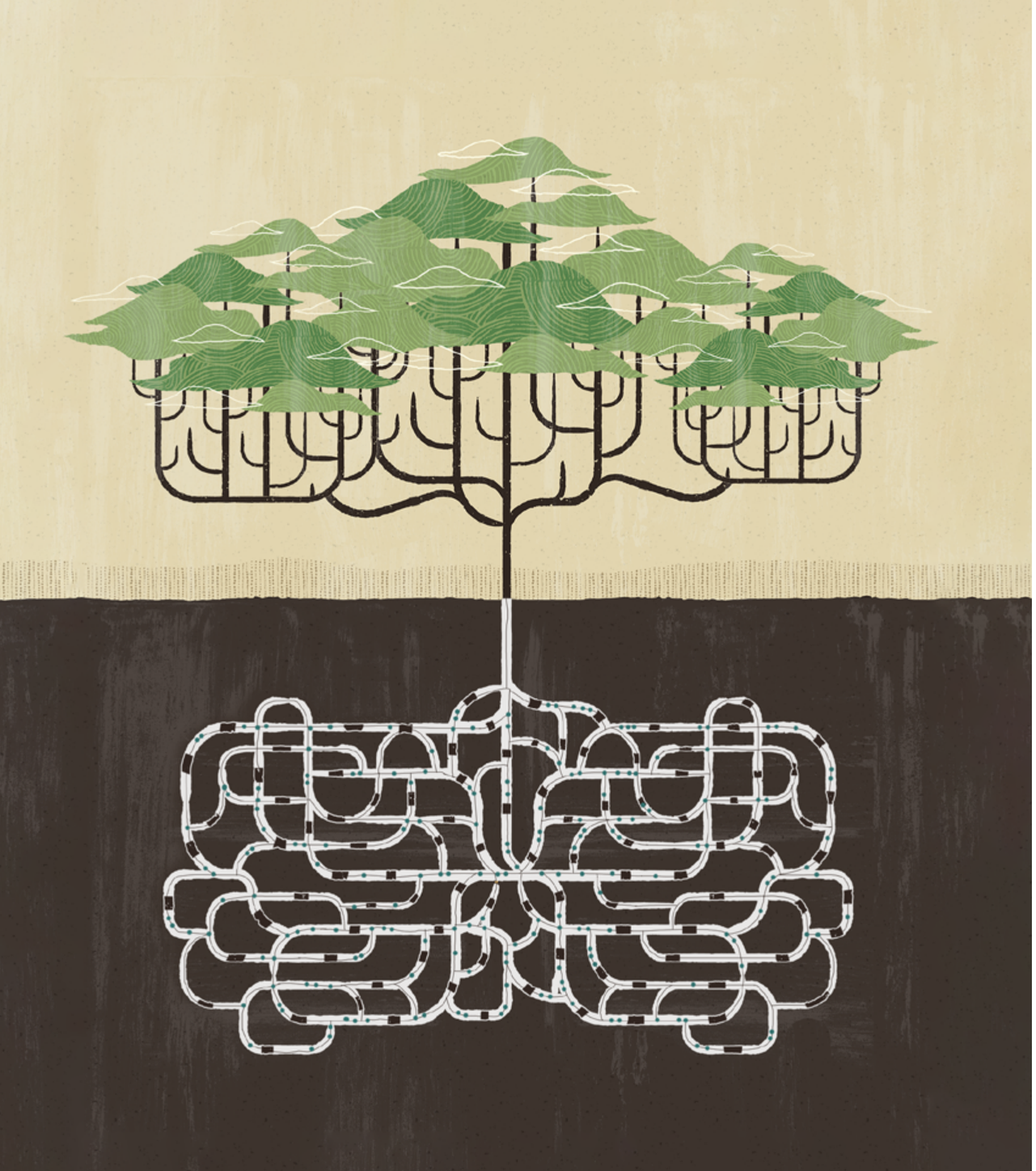
Here are some discussion points for decision-makers to consider when thinking about the requirements for a strategic roadmap for the organization's infrastructure:

- Can the planned infrastructure **run enterprise workloads at scale**, while being agile enough to deploy new services with minimal disruption?
- Has the roadmap incorporated **commercial considerations** especially with regards to hardware and database licenses?
- Does the infrastructure support increasingly advanced intelligence solutions to **unlock data insights**?

Did you know?

Oracle Exadata has the lowest Total Cost of Ownership (TCO) among its peers because it was designed specifically to run Oracle Databases.

More in this blog post



Next steps

We are living in an age of change and disruption. At a time when globally distributed workforces are set to be the norm, business leaders around the world are searching for data center modernization strategies to keep the lights on, and empower them with new capabilities as they search for new revenue models.

Infrastructure modernization starts at the database – and by extension, the bare metal that runs these databases. Whether you're looking for a private cloud solution, public cloud service, or even a fully managed service available as a subscription offering in hosted within your data center, Oracle has something for you.

Game-Changing Mission Critical Cloud, Your Way

Private Cloud	**Cloud at Customer**	**Public Cloud**
Exadata Database Machine	Exadata Cloud at Customer	Exadata Cloud Service
Customer Data Center	Customer Data Center	Oracle Cloud
Purchased	Subscription	Subscription

About Oracle Engineered Systems

Oracle Engineered Systems are integrated, full-stack solutions developed together with Oracle Database and applications. With Oracle seamlessly integrating your infrastructure stack, you can run your mission critical workloads faster, at lower costs, and with greater security than a comparable multivendor deployment.

Scalable designs enable enterprises to consolidate existing IT infrastructure and quickly meet surges in demand, while management automation reduces administrative workloads and helps control costs.

More about infrastructure modernisation here

About Oracle

The Oracle Cloud offers a complete suite of integrated applications for Sales, Service, Marketing, Human Resources, Finance, Supply Chain and Manufacturing, plus Highly Automated and Secure Generation 2 Infrastructure featuring the Oracle Autonomous Database. For more information about Oracle, please visit us at oracle.com.

Oracle Exadata Database Machine

A high-performance computing platform to meet the scaling requirements, security, and availability of your most mission critical Oracle Database workloads.

Oracle Private Cloud Appliance

On-premises cloud native converged infrastructure to consolidate and run your enterprise applications and middleware. Best of all, with a manageable TCO.

Oracle Database Appliance

Optimized to run Oracle Database and enterprise applications in remote or edge computing environments.

Zero Data Loss Recovery Appliance (ZDLRA)

Protects your business-critical data, including transactions executed in the last second before an outage. Can also be deployed to protect data integrity during database migration.