How Cloud Migration Futureproofs Your IT Infrastructure for the Age of AI

TSL Marketing

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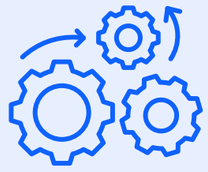
1 Future Technology Trends

When conducting research into future technology trends, TSL Marketing found that many companies are planning on adopting AI. We discovered that businesses plan to use AI in the next 2 years to:

63% Automate routine tasks[1]

63% Improve data analysis and insights[1]



48% Streamline operational processes[1]

This movement towards AI and other data-driven initiatives means companies must find ways to create infrastructure environments that support future needs and help overcome the challenges of transforming the way they do business.

For example, companies identified their biggest data-related AI challenges as:

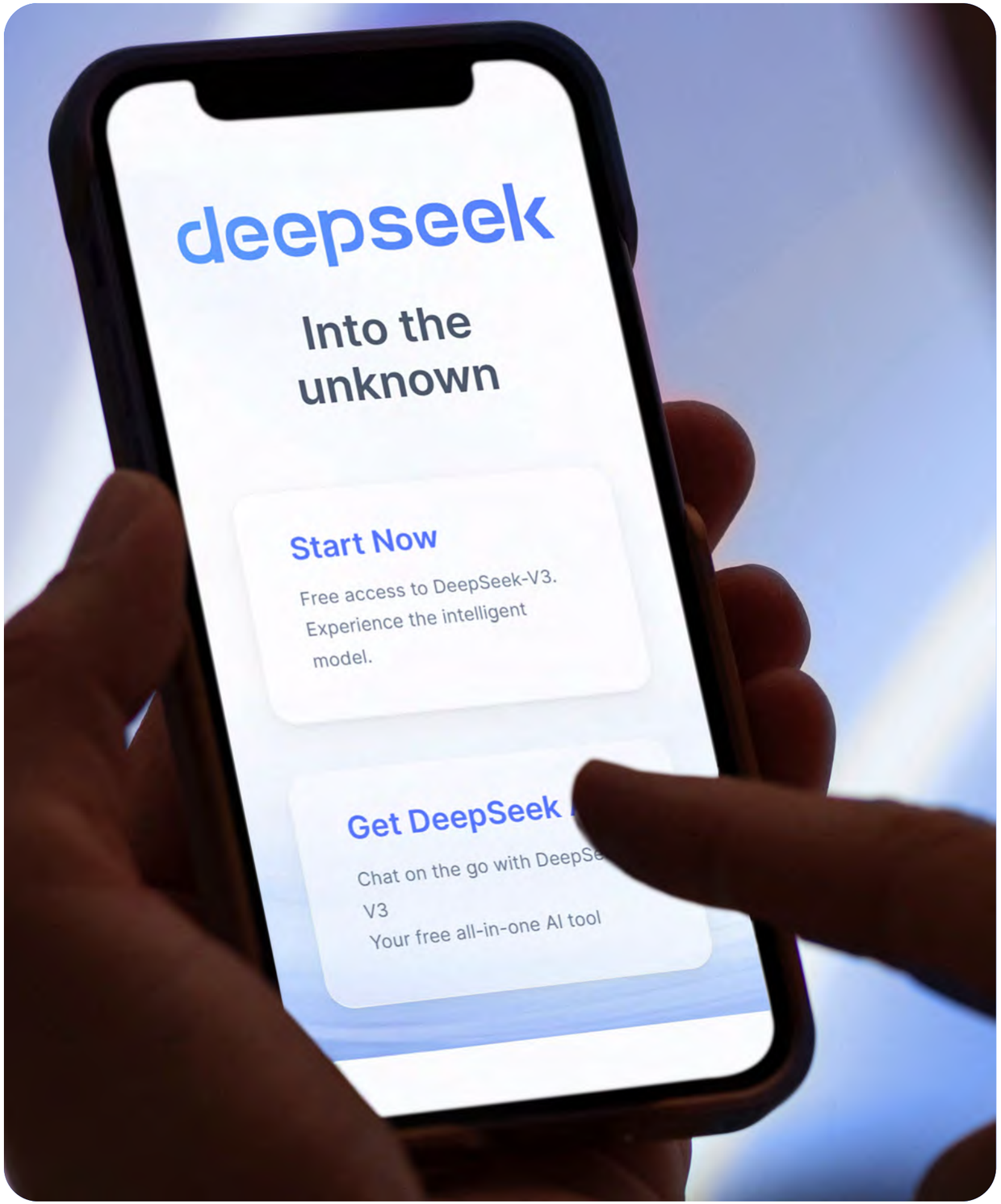
46%
Lack of expertise in managing and analyzing data for AI[1]

40%
Maintaining compliance with data regulations[1]

31%
Accessing and integrating data from multiple locations[1]

31%
Analyzing unstructured data[1]

29%
Lack of quality and clean data[1]



To take advantage of future technology trends, such as AI and automation, companies need to move to IT infrastructures that support data management, security, analysis, and governance.

The recent emergence of the Chinese AI solution DeepSeek has raised concern about the need to reduce the cost of the infrastructure required to develop advanced applications.[2] Costs for developing DeepSeek were reported to be only $6 million compared with the $1 trillion investment US companies, such as Google and ChatGPT, have made in AI.[2]

For companies that want to stay competitive in the future by developing innovative services, solutions, and ways of solving business problems, migrating to the cloud may be the answer to future-proofing their IT infrastructure.

2 Why Traditional Infrastructures Fall Short

An AI-driven future means companies will rely on data more than ever before. Using AI means handling larger volumes of more complex data, such as unstructured data that comes from imaging, video, and audio, to meet the training requirements of AI models. These changes to the way data needs to be managed may overwhelm the abilities of a traditional on-premises data center or colocation.

Most companies find on-premises data centers and colocations inadequate for meeting the requirements of AI projects because of:

- Inflexibility
- Unreliability
- Lack of scalability
- Strain on resources

Lack of Flexibility and Scalability

Traditional on-premises data centers are more difficult and expensive to scale and update, making them inflexible. Scaling requires provisioning and implementing new hardware, a lengthy and costly process which prevents your company from adapting to changing business conditions and developing innovative products and services. Moving your data center to a colocation limits your flexibility by taking away the control your company has over your servers.

Unreliability

On-premises infrastructure is unreliable because it puts all the responsibility for maintaining business continuity and preventing security threats on your shoulders. Colocations provide limited resiliency because mirroring workloads across colocation facilities is difficult.

If your company can’t stay ahead of risk and lacks backup and recovery resources, you will experience costly and debilitating downtime that slows production and keeps you from gaining a competitive advantage in a field that prizes availability.

Strain on Resources

Working with an on-premises infrastructure pulls the focus of your IT team away from business strategy. Instead, your team members spend their time managing and maintaining the infrastructure. Your company may also lack the security expertise necessary to prevent data breaches. While using a colocation allows your company to outsource the management of your infrastructure, the costs of setting up the colocation can put a strain on your budget.

3 Why the Cloud is the Best Option for the Future

In contrast to on-premises data centers and colocations, the cloud provides companies with the flexibility and reliability they need to increase productivity and differentiate themselves by keeping up with or anticipating future trends. Companies that move to the cloud excel in the areas of customer satisfaction, innovation, and operational efficiency due to significant boosts to their AI and analytics capabilities.

To progress along a digital transformation journey that includes AI initiatives, companies must migrate to the cloud to:

- Ensure they are working with quality and clean data
- Accommodate the required data volumes
- Adequately scale their infrastructure

Benefits of Cloud Migration

Scalability

By migrating to the cloud, companies benefit from the large volumes of storage and compute resources required to meet the demands of data-intensive initiatives. The scalability of the cloud enables AI model training and performance to reach more accurate insights. With the cloud, companies can access both internal and external data sources to fuel AI analytics. Automation capabilities of the cloud allow companies to allocate resources more efficiently.

Flexibility

The cloud creates a flexible work environment that supports both on-site and remote work and empowers companies to achieve a global reach. Cloud-based tools promote business collaboration and improve productivity by up to 50%.[3] Through the cloud, companies gain access to IT services and network capacity for necessary expansion.

Security

Companies that move to the cloud experience significantly fewer security incidents, including breaches. The cloud provides built-in advanced security features, such as encryption, access control, and automated monitoring, as well as compliance standards to reduce risk and promote a proactive approach to security.

Automatic security patches and updates decrease the amount of downtime companies undergo. Cloud users see a 76% reduction in downtime along with better application performance.[4] After moving to the cloud, businesses deliver 99% service reliability.[4]

Benefits of Cloud Migration (cont.)

Cost Savings and ROI

Moving to the cloud delivers these benefits while reducing upfront investments and generating significant return on investment (ROI). Organizations save between 20% and 40% on the total cost of ownership (TCO) because of reduced capital and operational expenses.[4] Some of these cost savings come from the greater energy efficiency of the cloud compared to on-premises data centers.

McKinsey & Co. discovered that the business value the cloud generates through innovation is 5x the cost savings it delivers.5 The cloud generates ROI by accelerating time to market for products and services up to 60% and increasing the efficiency of business processes.[3]

Productivity

Accenture found that once companies move to the cloud, they see a 10x increase in employee productivity.[4] Cloud-based tools and applications boost productivity by supporting business collaboration and communication between workers, wherever they are located.

Innovation

Companies that use the cloud accelerate development processes to roll out new applications or features more quickly than competitors that rely on on-premises infrastructure. The cloud allows DevOps teams to spin up development and testing environments quickly and deploy applications using automation.

Widespread adoption of the cloud is a sign that cloud migration is the key to staying competitive in the future. Gartner found that 90% of organizations will embrace hybrid cloud through 2027.[6] According to the 2024 State of the Cloud Report, 38% of companies are experimenting with public cloud services for GenAI.[7]

4 Cloud Readiness

Now is the time to prepare for an AI-driven future by modernizing your IT infrastructure. But is your company ready to move to the cloud?

Assessing the capabilities of your current data center will help you determine if it's time to migrate to the cloud to take advantage of AI and other innovative trends.

Ask yourself:

Is my data center infrastructure aging?

Do an increasing number of remote workers need to access the network?

Is keeping up with security updates and patching difficult?

Is my backup and recovery unreliable?

Am I experiencing unplanned downtime?

Does infrastructure and management complexity make detecting capacity issues challenging?

Can my IT resources meet increasing demands?

Are my development resources being used to maintain applications instead of to develop new ones?

Answering yes to many of these questions may be a sign that you need to migrate to the cloud to prepare for future technology initiatives.

5 How to Get Started with Cloud Migration

To achieve a successful cloud migration that will enable your company to generate significant business value from AI in the future, you need to lay the groundwork through preparation.

Vetting Cloud Migration Partners

Start by evaluating potential cloud providers to find the right match. The right partner should be able to explain and demonstrate what sets their cloud platform apart from the competition.

The partner should provide a high level of support throughout the migration process. Consider whether working with a particular partner will enable your company to easily and quickly adopt the cloud and the likelihood that the migration process will go as planned and be successful.

Ideally, the provider should be experienced in working with companies like yours and understand what you need from a cloud platform. The provider should demonstrate an investment in the technology innovations that most interest and benefit your company.

Pre-Migration Assessment

Before moving to the cloud, you should conduct a pre-migration assessment. An assessment will help you determine the TCO for your cloud platform so you can justify migration from a business and budgeting standpoint. A data-driven assessment will help you identify the most affordable option for running your AI workloads, contributing to your argument for moving them from on-premises to the cloud.

Forming a Cloud Migration Team

Next, put together a migration team that delivers the perfect mix of skills and experience. You need a migration support team that includes a seasoned systems integrator. Experts can predict challenges and plan how to avoid and overcome issues that might arise during migration. Partners and subject matter experts should be part of the team so that you have access to the necessary expertise.

Putting Together a Migration Plan

Once you've assembled your team, develop a migration plan. Take stock of your current workloads and applications so you can develop the most time-efficient plan for migration. The plan should accommodate the migration of any type of workload, including those you might need to migrate in the future for AI initiatives.

Fill Your Gaps

Bridge any gaps discovered during assessments. Once you have chosen your cloud provider, you can work with them to fill any gaps and solve any problems uncovered during your migration evaluations and planning. Your cloud migration partner should put together a proof of concept (POC) demonstrating that the migration plan will be successful.

6 What You Want from Cloud Migration

Ideally, cloud migration should enable your company to see benefits quickly without the need to make major changes or experience interruptions to your production.

Cloud migration should future-proof your company by opening possibilities for AI initiatives and other types of innovation, including more personalized services that lead to greater customer satisfaction and loyalty. Moving to the cloud can reduce development time for new applications, enabling your company to automate processes using AI-powered solutions.

The benefits of cloud migration for data-driven initiatives include:

- Securing your infrastructure while maintaining control over data
- Automatically scaling capacity to accommodate the data volume needs of AI and other data-intensive workloads
- Achieving data resiliency for greater availability

Moving to the cloud isn't just about keeping up with technology trends. Instead, cloud migration is about generating business value. From significant cost savings and enhanced security to better scalability and environmental sustainability, the benefits of moving to the cloud are clear and measurable.

By transitioning to the cloud, your business will be in the ideal position to grow, innovate, and succeed in the long term. Companies that embrace cloud migration are better equipped to adapt to changing market demands, protect their assets, and deliver value to their customers.

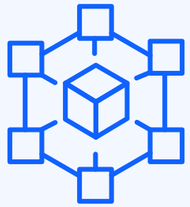
7 Choosing a Partner for Cloud Migration

Your cloud migration partner should have extensive experience helping all types of organizations achieve their short-term and long-term business goals by migrating to cloud, including leveraging future AI initiatives. You want to have the ability to move any type of workload to the cloud, including those for AI. Your partner needs to guide you through the entire migration process, providing tools and services for migration assessments, planning, support, and training.

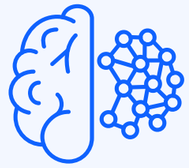
Ultimately, your cloud migration should increase efficiency while delivering measurable cost savings. A cloud migration partner must provide you with a cloud solution that delivers advantages, such as:

Security through a wide range of features to reduce traumatic incidents

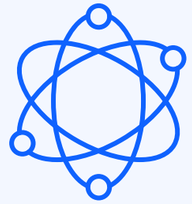
Resilience to reduce unscheduled downtime



On-demand scalability and capacity



Growing set of capabilities, including those for machine learning and AI



Commitment to ongoing innovation

The right cloud migration partner will be developing new services continually, ensuring that your company will be prepared for an AI-driven future.

Contact us today for an assessment of your migration requirements.

TSL Marketing

About TSL Marketing

TSL Marketing has been serving technology companies as a Growth Agency for 25 years. We have a long and successful record of helping leading IT service firms, managed security service providers, SaaS companies, and other technology providers grow by delivering a wide variety of inbound and outbound marketing services, including Lead Generation, Website Development, SEO, Digital Advertising, Content Creation, Telemarketing, and more.

RESOURCES

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