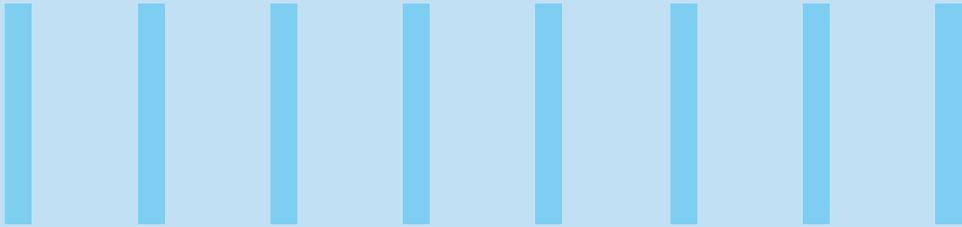




QUALITY ENGINEERING FOR CLOUD MIGRATIONS



Going cloud native

Cloud adoption has become a de facto shift to create future-ready organizations as they progress along the digital path. Already well on its way to establishing itself as a megatrend, the COVID-19 pandemic accelerated adoption as businesses

scrambled to get back on their feet with minimal disruption and maximum speed. Microsoft CEO Satya Nadella summed this period succinctly – “We’ve seen two years of digital transformation in two months.”

Further, McKinsey estimates that the cloud has the potential to deliver a massive \$1 trillion in value across Fortune 500 companies¹. No wonder that research firm Gartner predicts that 85% of companies will turn to a cloud-first approach by 2025².

60%

Organisations with public cloud by 2022

24%

Predicted Growth on IaaS YoY

30%

Investment on Cloud First

Risks ahead

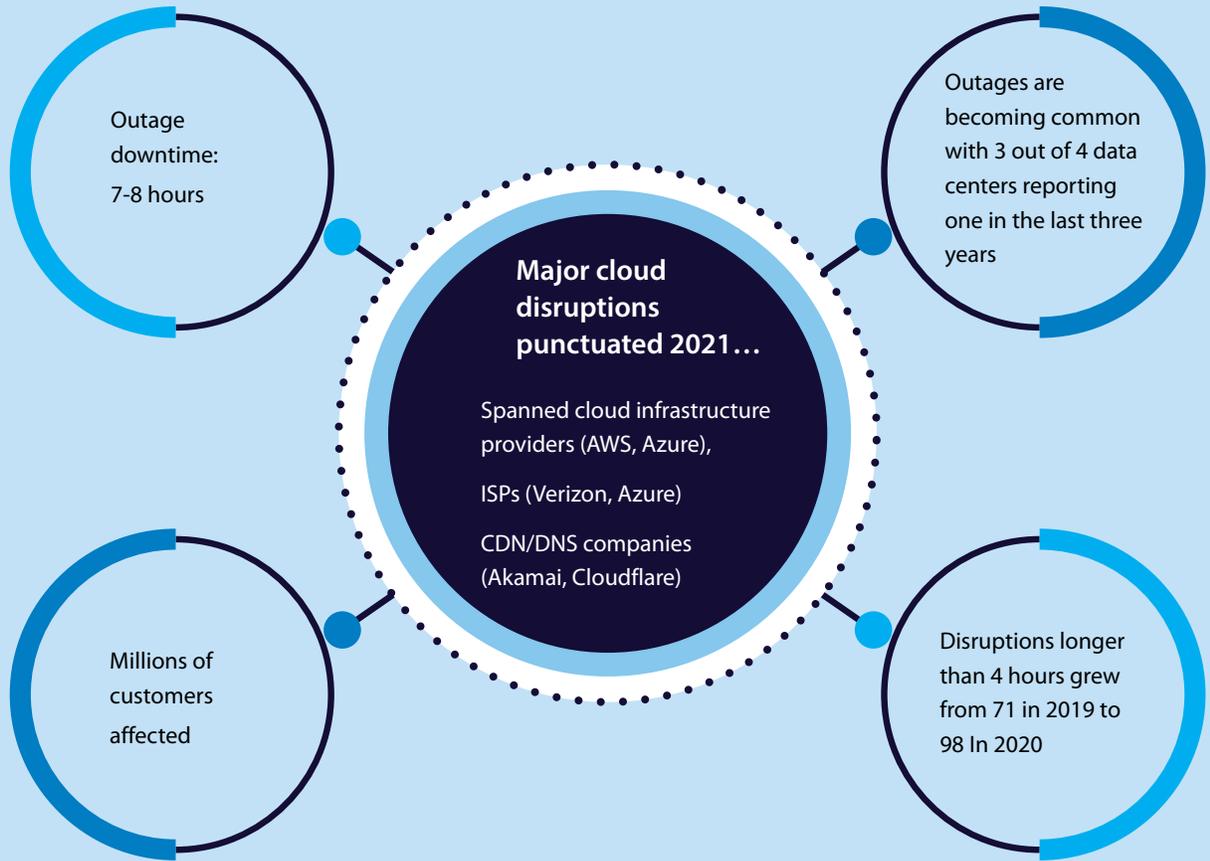
While the cloud market is flourishing, companies must understand that this path is fraught with complexities and potential issues spread across many areas starting with deciding on workloads to move and the right mix of cloud platforms to use.

In addition, focusing on the short-term by switching to cloud platforms without performing the necessary due diligence can cause problems over the long term. The shortcut can disrupt daily operations and risk the \$1 trillion prize.

Production outages stem from network (44%), information security (23%), cloud (18%) or workplace-related (13%) issues. Costs of such outages span fixing technical issues, as well as the cost of lost business.



How much do organizations stand to lose?



As mission-critical systems move to the cloud, disruptions get costly for enterprises

Average cost of network downtime for an enterprise: \$5600/minute equalling \$300,000 per hour

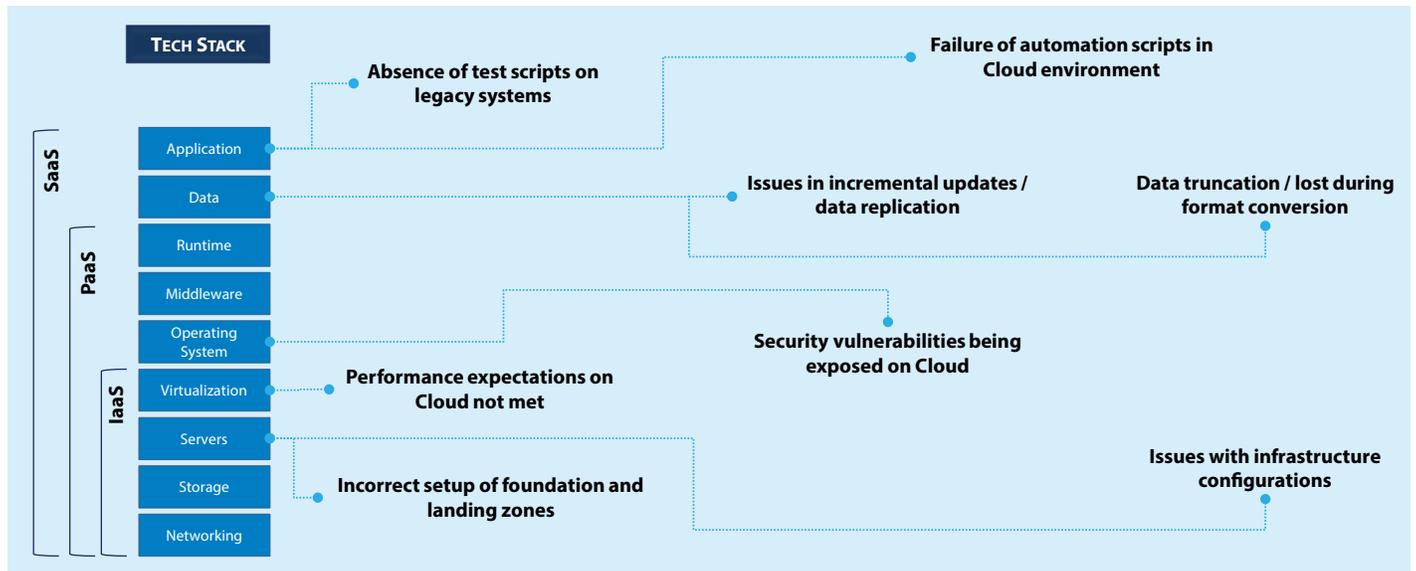
In 2020, 40% of outages cost enterprises between \$100,000 and \$1 million, up from 28% in 2019

*Includes direct, opportunity and reputation costs

The fail zone is large

The points of failure span the cloud ecosystem, from infrastructure to platform to software.

Multiple points of failure



How does an enterprise de-risk?

Validation at every level of the stack is the answer – a robust validation strategy pays for itself through avoided outages.

A validation strategy must cover all enterprise layers, from customer-facing applications to networking. A multi stack validation strategy is essential to cover all bases:

- Infra platform validation spanning platform readiness and cloud server build validation in addition to requirement adherence and benchmark compliance checks
- Non-functional validation covering configuration review and analysis as well as validation against CIS benchmarks
- Real-time data/migration validation using multi-protocol, omnichannel support
- Functional validation for customer facing applications, sales and revenue channels and social engagement
- Network validation
- Information security validation



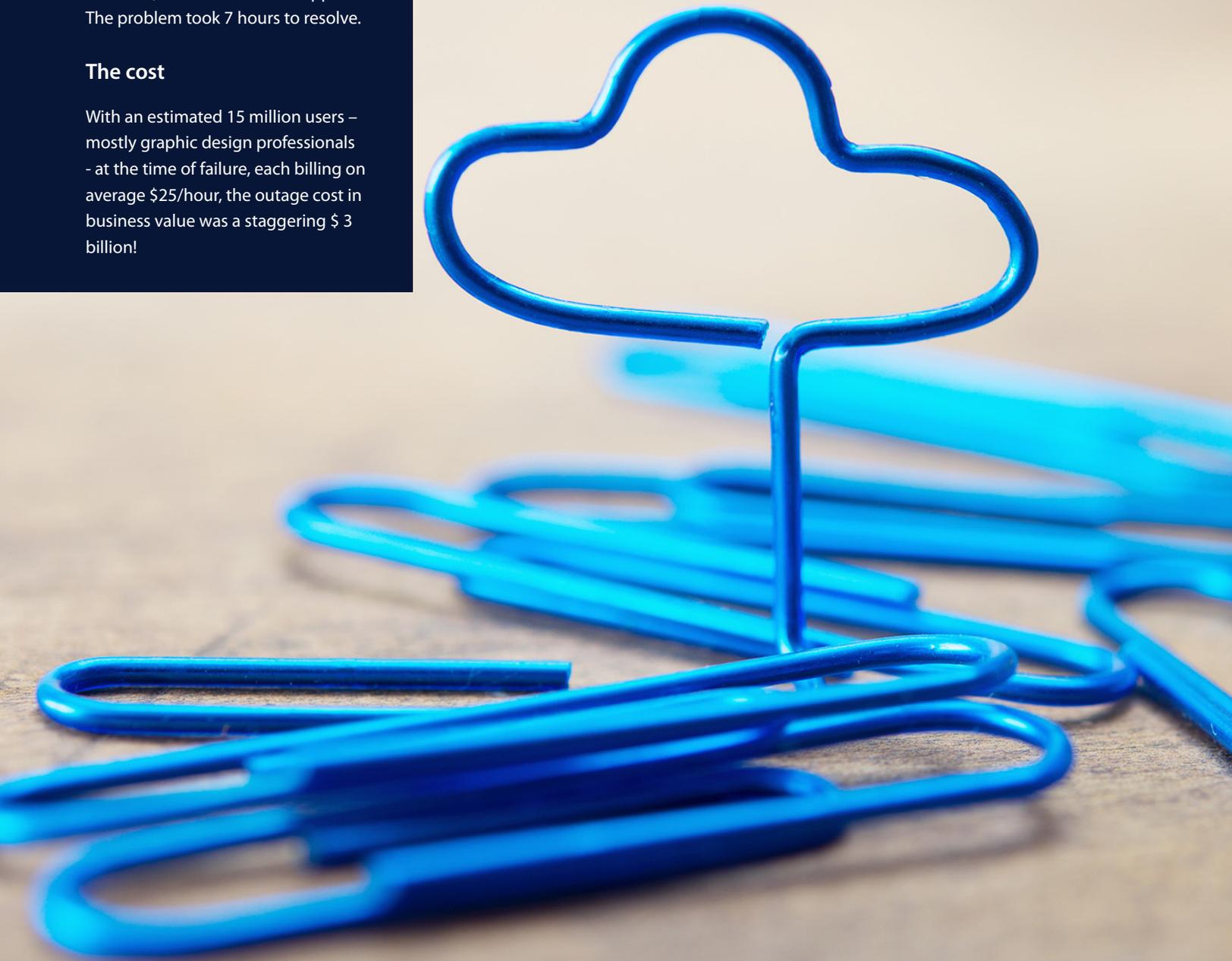
A design debacle

A creative content design company's web-based service went down for one whole business day in May 2020.

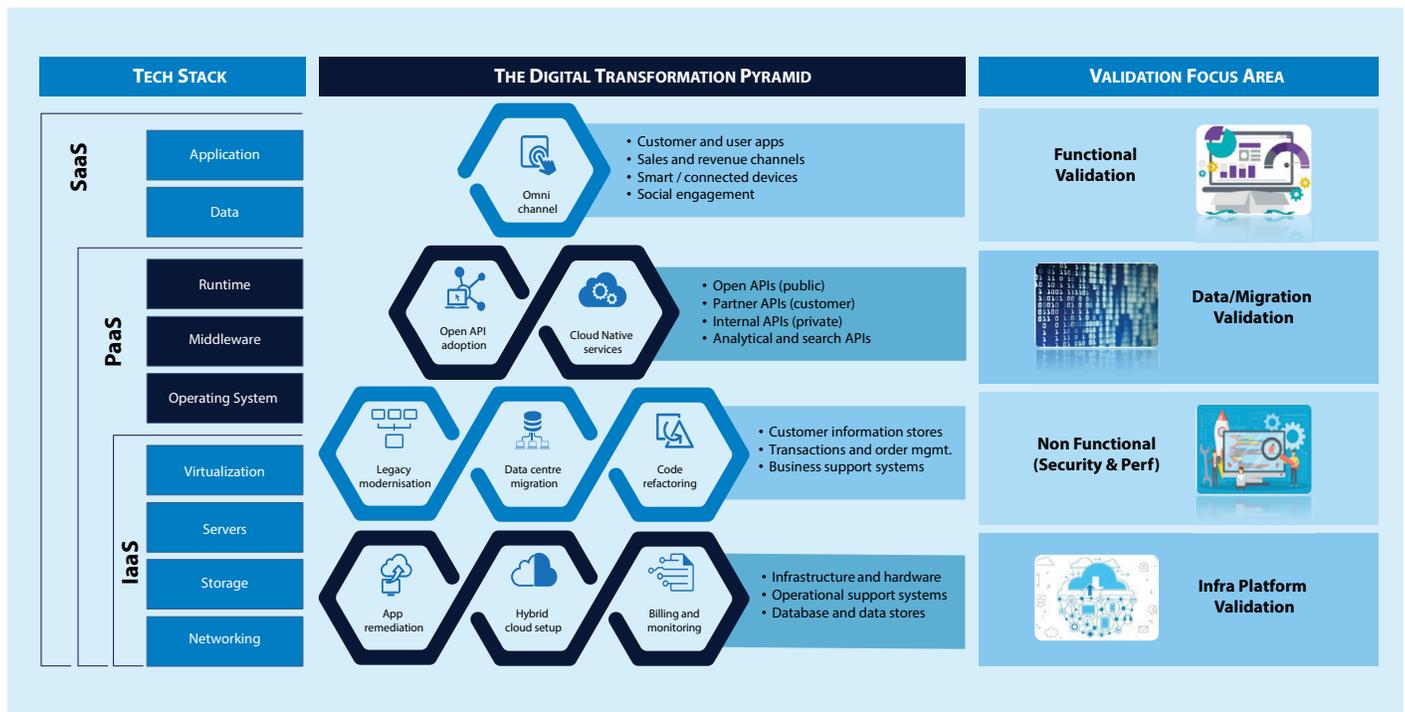
Customers could not log in to the platform and access their projects. Some were locked out of their accounts, with no access to support. The problem took 7 hours to resolve.

The cost

With an estimated 15 million users – mostly graphic design professionals – at the time of failure, each billing on average \$25/hour, the outage cost in business value was a staggering \$ 3 billion!



Layered approach to cover quality across the cloud digital stack



Why invest in Cloud migration QA?

A robust validation strategy can yield 50x returns.

It will deliver:

AGILITY through faster resource provisioning and automatic deployment of software

QUALITY by ensuring zero critical defects in production through the migration journey

EFFICACY by promoting greater customer use of the migrated platform

PRODUCTIVITY through re-use of regression automation



A high dividend investment

A leading Australian banking and financial services company recently implemented a cloud first strategy to ensure fully automated service delivery for different lines of business. The solution was based on a single secure hybrid platform with a high level of compliance and data privacy.

Infosys' enterprise platform migration validation plan covered:

- End-to-end cloud assurance framework
- Devops integrated IaC Azure platform readiness validation
- Azure Data Lake validation

Direct outcomes

- 70% increase in productivity through Regression automation
- 40% faster time to market



About the Author



Venky Iyengar

AVP, Group Practice Engagement Manager, Infosys Validation Solutions

Venky lives in San Francisco Bay area and has 25+ years of global experience in the IT services industry in Service Delivery, Sales and Customer Relationship management functions. He now leads the GTM function for Infosys Quality Engineering business. Along with this, he also is building out Infosys competencies and service offerings around IBM Cloud solutions.

References

1. [Cloud's trillion-dollar prize is up for grabs | McKinsey](#)
2. [Gartner Says Cloud Will Be the Centerpiece of New Digital Experiences](#)

Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 35,000 cloud assets, over 300 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

For more information, contact askus@infosys.com



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