IDC InfoBrief
January 2022

Building Digital Resiliency
for the Future Enterprise

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IDC

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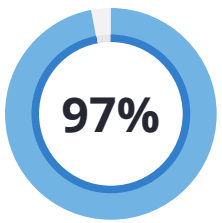
Executive Summary

As organisations navigate the evolving challenges presented by COVID-19, many efforts to build resiliency into their businesses have been tested to the limits. A quickly advancing digital economy, accelerated by the pandemic, has increased the urgency to address digital resiliency requirements across all businesses and industries.

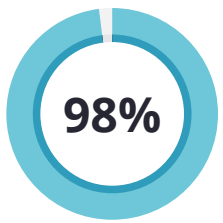
This IDC InfoBrief, based on a study commissioned by Maxis, aims to survey the Malaysian landscape and provide an overview of how organisations are approaching digital resiliency, to pivot towards "The Future Enterprise". The survey also examines how organisations in Malaysia are utilising technologies such as Cloud, Cybersecurity, Internet of Things (IoT), and Software Defined Wide-Area Networks (SD-WAN) as strategic investments in achieving resiliency.

OUTLINE

The survey also reveals several other key findings, which include:



of organisations are currently investing in resiliency while **67%** of these companies plan to further invest in digital capabilities to build resiliency.



of surveyed organisations want to have scalability in their digital infrastructure and are expanding on cloud solutions.

of those surveyed want to reduce risk and inspire trust in their brand ecosystem by investing in security solutions.

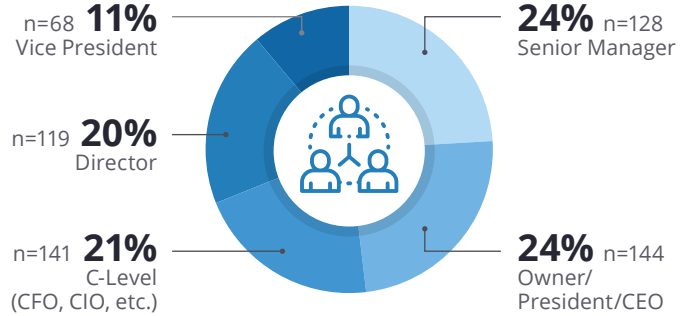
of surveyed companies are looking for data-driven analytics solutions that can provide faster and better decision-making.

of respondents benefit from a superior network infrastructure with full visibility across all elements.

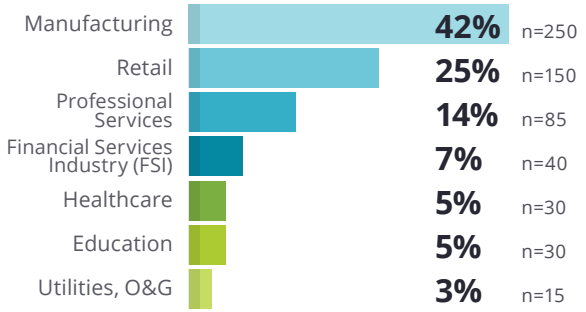
Understanding the State of Digital Resiliency in Malaysia

The **IDC-Maxis Digital Technology Study 2021** survey, commissioned by Maxis, was conducted in Q3 2021. It specifically looked at the current landscape of **digital resiliency within Malaysia** and investments into digital technologies, which organisations are implementing to achieve business and digital resiliency. The survey polled 600 Malaysian businesses in the Klang Valley to get a better understanding of current digital resiliency trends and issues. It was conducted virtually via online interviews with industry leaders (senior managers and above).

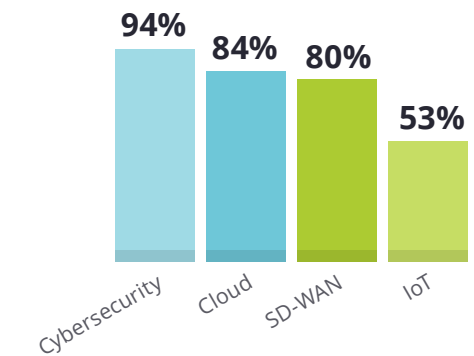
Job Position



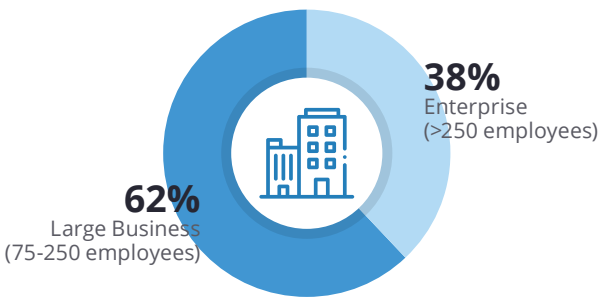
Industry in %



Types of Digital Technology Adopted/Plan to Adopt



Company Size



Why Resiliency is More Important Than Ever

The COVID-19 pandemic illustrated why an organisation needs to be able to rapidly adapt and respond to business disruptions. 97% of Malaysian organisations are developing their resiliency index in an effort to prepare for future disruptions.

The digital economy, which expands the impact of digital technologies in the production of digital products, services and experience, will create more cycles of disruption to business operations and business models, more than any other economic period.

Organisations succeeding in the digital economy need to excel at pivoting rapidly as disruption happens, and target to become a **Future Enterprise.**

The 5 Stages to Recovery

1 Business Continuity
To ensure continuity and to keep employees working, organisations are focusing on network operationality and visibility in the supply chain

2 Cost Optimisation
Organisations are in a cost-saving mode; the priority is to manage this year's financial outcome

3 Business Resiliency
Organisations have adapted to the new changes and are financially stable while maintaining their organisations' objectives

4 Targeted Investments
Organisations have returned to growth; they are focusing on how to advance their digital capabilities for new revenue growth

5 Future Enterprise
Organisations have transitioned to the next normal, underpinning business processes with technology and digital platforms

Where are most organisations today?

9%	16%	1%	41%	34%	Malaysia
4%	2%	6%	59%	29%	Asia/Pacific

Source: IDC Future Enterprise Resiliency Survey (N=382) - Wave 3 – April 2021

Cornerstone Themes in Becoming the Future Enterprise: Digital Adaptation, Digital Acceleration and Digital Resiliency

Digital Adaptation:

Organisations invested in technology to address COVID-19 weaknesses. This will continue for some enterprises as new operational requirements emerge.

Digital Acceleration:

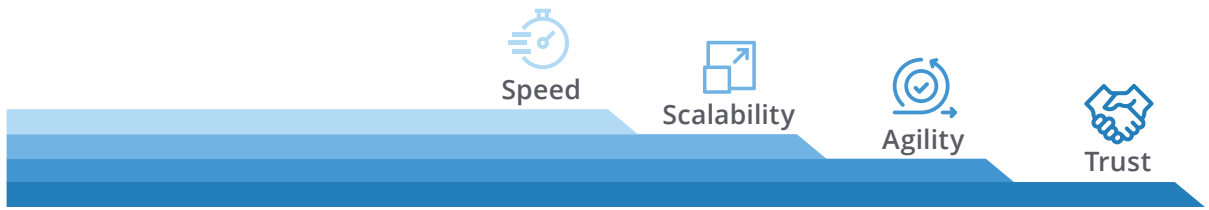
Organisations that had a solid foundation focused on investing in technology that expanded upon and optimised their current capabilities.

Digital Resiliency:

A new chapter for organisations on their way to the Future Enterprise, where adaptation and acceleration interconnect, for enterprises to achieve digital resiliency.

FUTURE Enterprise

Future Enterprise must organise and invest to participate in increasingly digitally centric markets. They are organisations that underpin business processes with technology, are fueled by innovation, and are platform-enabled and ecosystem-centric, while being digitally resilient at the core. They adopt a tech-everywhere and ecosystem-centric culture. Given our experiences in 2020, we now believe that being digitally resilient is a central tenet of the Future Enterprise.



The foundational characteristics needed for an organisation to achieve digital resiliency: speed, scalability, agility and trust

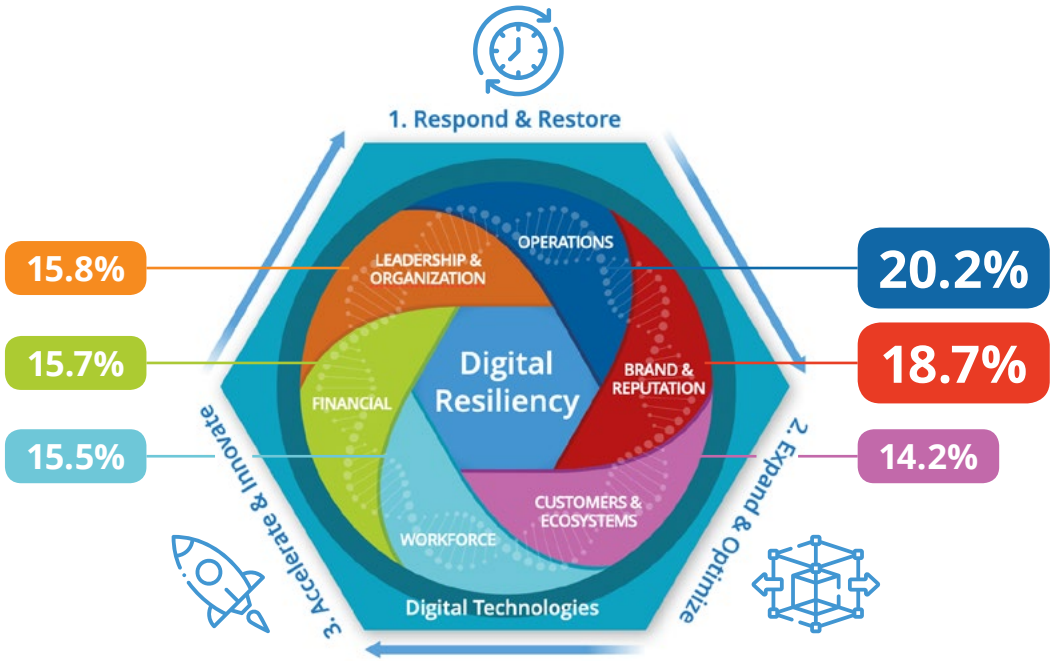
Source: IDC Digital Resiliency Framework 2021

Digital Resiliency in Malaysia

Building Towards the Future Enterprise

What is digital resiliency?
The ability for an organisation to **rapidly adapt** to business disruptions by leveraging digital capabilities to not only restore business operations, but also **capitalise on the new normal.**

Digital Resiliency in Malaysia: "Operations Efficiency" is the Most Important Business Priority



Malaysian Organisations' Prioritisation of the IDC Digital Resiliency Framework's 6 organisational Dimensions[2]

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

The study found that Malaysian organisations are in the "Respond and Restore" phase of digital resiliency.

Digital Resiliency Framework's 3 Response Phases

Organisations' Progression Through The Framework

1. Respond and Restore Emphasising the safety and security of the workforce, disaster recovery of systems and the preservation of cash. Critical digital technologies during this stage centre around business continuity, crisis management and communications. This is not the time for deep analysis or planning; the onus is on action and speed.

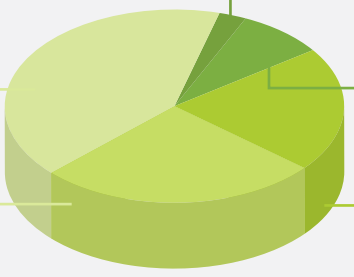
2. Expand and Optimize Emphasising productivity, faster decision-making, customer outreach, stabilising supply chains and cost reduction. There is some time to analyse, plan, and to invest, albeit cautiously. Existing technological capabilities are improved, expanded and optimised to help the enterprise operate as a digital business in the crisis environment.

3. Accelerate and Innovate Incorporating digital resilience as a core tenet of the Future Enterprise to survive and thrive. Priorities include creating a learning organisation, agile business operations, redesign/reinvention of business models/ecosystems, and planning for the next crisis.

Read on to learn about the current landscape of digital resiliency within Malaysia

Post-pandemic, Malaysian Organisations Have Reassessed Their Resiliency Plans

Organisation's Resiliency Plans



- **41.3%** — Planning to invest in the digital to combat current/future business disruptions
- **26.7%** — Enhanced plans in response to COVID-19, and have plans to further improve
- **2.7%** — No current/future resiliency plans
- **8.5%** — Had plans in place prior to COVID-19, no plans to expand beyond this
- **20.8%** — Enhanced plans in response to COVID-19, but no plans to expand further

Most Organisations Implemented Resiliency Plans Only as a Response to COVID-19, but Now Recognise That They Must Continue to Prepare for Future Disruptions

Desired Resiliency Outcome

Enterprise

1. Simplify and standardise data center and multi-cloud management to **improve SLAs, security & cost models**
2. **Reduce business risk** with more comprehensive data security automation
3. Better integrate data sources and analytics tools to **improve business insight**

Large Business

1. Leverage off productivity apps and tools to **enable business continuality**
2. Ensure **visibility of our products/solutions** in the market
3. Reach out to customers and **maintain customer engagement**

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

What are the industry views when planning to invest in digital to combat future distruptions?

Ranking of Industries' Investments in Resiliency to Combat Disruption in 2002

1


49% Retailers

48% Professional Services

43% Education

Retail, Professional Services and Education have the highest percentage of organisations with plans to invest in digital resilience.

Physical contact was minimised, with a staggering drop of customers and consumers.

The Plan Resiliency investments are more centralised and focused on ensuring virtualised touchpoints and engagement with customers as well as a higher adaptation of contactless digital payment in support of business operations.

The Use Cases E-commerce, contactless digital payments, customer support channels and virtual learning platforms.

2


38% Manufacturing

33% Healthcare

33% Oil and Gas Utilities

The Manufacturing, Healthcare, and Utilities and Oil & Gas sectors are in the middle of the pack when it comes to digital investments.

They are strategically planning their roadmap as they view digital resiliency as part of their modernisation journey.

The Plan To overcome the gaps and challenge, these organisations are leveraging trusted advisory services that provide guidance, expertise and experience in developing their strategic roadmap.

The Use Cases Automation of processes, supply chain visibility and predictive maintenance of assets.

3

23% Financial Services

Financial Services organisations have reduced plans to invest in resiliency. Since the onset of the pandemic, their business and operational functions have been severely impacted, and they have been investing into resiliency early on to stabilise their respective organisation function areas leveraging on technology such as robotic process automation.

The Plan Besides expanding and optimising their automation functions, resiliency investments are heavily skewed towards improving customer experience by enhancing their digital channels and touchpoints and acquiring new segments by innovating new digital offerings.

The Use Cases Robotic process automation to stabilise operations, electronic Know Your Customer (eKYC), omni-experience customer engagement, digital wallet, and unified payment infrastructure.

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

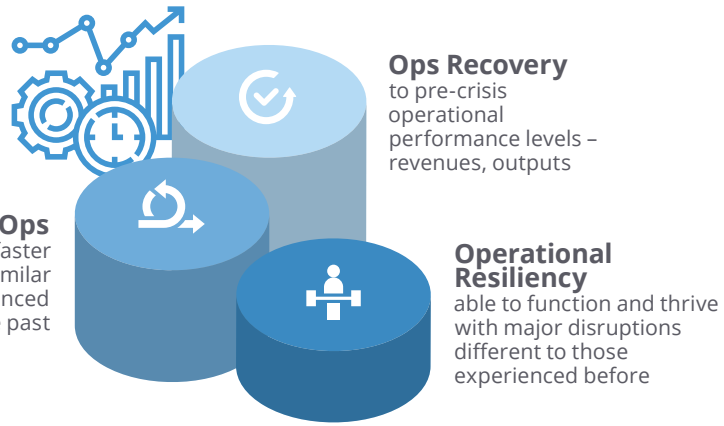
Learn more about Malaysian organisations' business resiliency objectives, based on their DX investments

Developing Operations Efficiency is the Top Priority for Malaysian Organisations Aspiring to Become a Digitally Resilient Enterprise

Operations tend to work in real-time relative to most other functions for successful execution of the delivery of products and services, ensuring resiliency is crucial. As the pandemic endured into 2021, organisations began to realise the importance of understanding the present operation context as this data allows them to analyse trends which can provide foresight for potential issues and threats. This in turn will provide organisations with lead time to pivot to new approaches, if circumstances require.

Key Tenets of **Operations Efficiency**

20.2%[2] of which **20.8% are Manufacturers**



Operations Efficiency[1]

Ops Recovery

Real-time visibility of operational process so that gaps, challenges and more importantly critical issues can be identified and addressed promptly

Agile Ops

Harness operational data and analytics to continuously adapt and optimise operational processes, which will help support and accelerate decision-making

Operational Resiliency

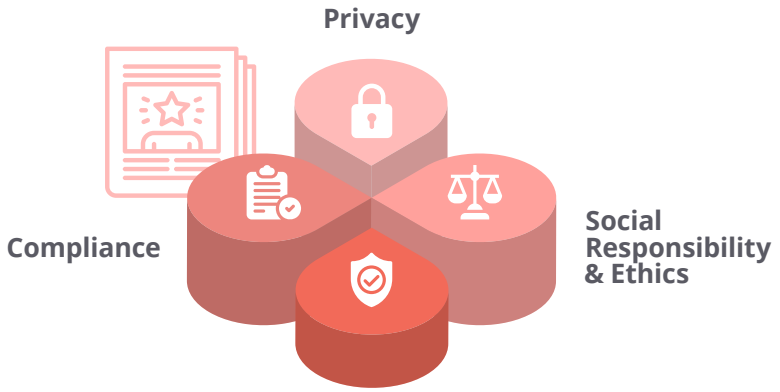
Build ecosystem visibility, by sharing data, insights, and initiatives to secure ecosystem operations

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

Develop Brand and Reputation; Build Trust and Reduce Business Risk Among Your Customers and Partners

Trust in an enterprise's brand and reputation is won slowly but easily lost. At the highest level, customers and consumers must feel safe and secure using an organisation's product or services. An increasing amount of business has occurred over digital channels, and it is critical that customers, partners and suppliers feel a high level of confidence in the organisation's safeguards for privacy and security, as well as business ethics. Adoption of well-defined corporate ethics policy with dedicated ownership and resources allows for consistent monitoring and tangible outcomes. This translates into a higher reputation in customer eyes and within the broader stakeholder community and ecosystem.

Key Tenets of **Brand and Reputation**



Brand & Reputation[1]

18.7%[2] of which **20% are Financial Institutes**

Privacy

Privacy is foundational to the conduct of trusted commerce in which customer loyalty is paramount to long-term growth of a brand

Social Responsibility & Ethics

Social responsibility and ethics are growing in importance, and customers are willing to pay a premium to support products and services whose value align with their own

Compliance

Regulatory and policy are business requirements where organisations must comply with the standards or risk losing the ability to conduct business

Security

Security involves the protection of assets whether data, application, network or devices. Failure to protect these assets can result in highly public breaches that can tarnish an organisation's brand for years to come

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

Agility and Innovation are Key Cultural Tenets in a Digitally Resilient Organisation

Malaysian organisations that are prioritizing agility and innovation are capable of responding to crisis in real time, modernise how business decisions are made, and empower people, process and digital technology across the organisation. Gathering a 360-view of internal processes and external ecosystems is critical to not only have an accurate view of internal processes and operations, but also a clear sight of the external ecosystem and broader economic environment. With this clarity, organisations can foster flexible teams and cultivate an agile workforce that is cross-functional and opens up new opportunities around innovation. This way, an organisation secures a prompt and proactive team that responds to internal and external disruptions.

Key Tenets of **Leadership and Organisation**

15.8%[2] of which **20.7% are Retailers**

Leadership & Organisation[1]

Ability to Sense and Respond

Ability to sense and respond to both internal and external environments. Organisations supported by data, analytics and insights can respond quickly and impactfully to a changing environment

Clear Purpose/ Mission

A strong sense of purpose and mission such that employees can act in a self-directed manner based on a predefined cultural norm for the organisation

Agility

Agile business and IT communities can fluidly form a purpose-driven taskforce to address specific problems and opportunities. This often requires working across organisational siloes, supported by enterprise data and insights

Innovation

Innovate to quickly pivot to new opportunities, often leading to new business models and revenue streams

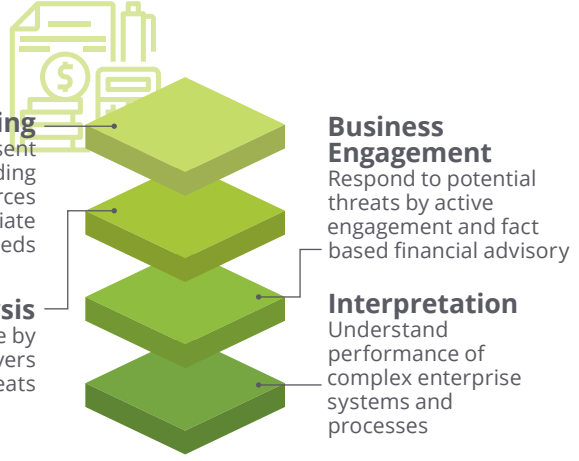
Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

Withstand Business and Systemic Stress Through Stability in Revenue, Profitability and Cost Savings

Many organisations were concerned about the stability of their finances and sustainability in the long-term, as the pandemic's economical impact extended into much of 2021. As such, these organisations view financial resilience as key to responding to current or future business disruptions. This centres around the ability to perform real-time multivariable scenario planning to support executive decision-making. Forecasting completeness and ensuring sophisticated modeling to drive contingency planning will determine a company's survivability through unplanned and unforeseen crises.

Key Tenets of **Financial**

15.7%[2] of which **17.5% are Financial Institutes**



Financial[1]

Reporting

Reporting of available financial resources, outstanding liabilities and the precise timing of cashflow, to provide visibility of its immediate financial needs

Analysis

Analysis and forecasting allow an organisation to be forward-looking, and to identify upcoming issues and threats and ways to mitigate them

Interpretation

Understanding and interpretating these data structures require business processes and data architectures to be aligned. These will produce sophisticated modelling for better executive decision-making

Business Engagement

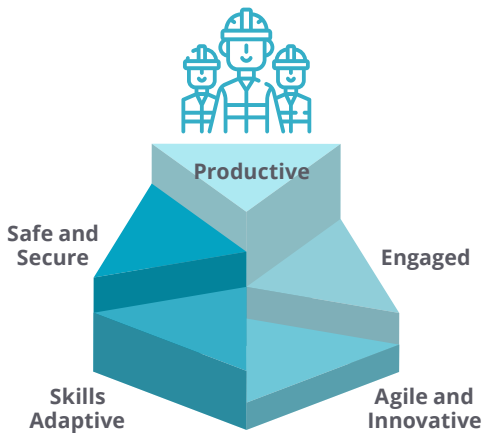
Provide fact-based financial advice—financial insights and solutions to some operational problems—to internal business stakeholders and the wider external ecosystem

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

Increasing Workforce Resiliency Capabilities is Crucial to Adapting a "Work Anywhere" Culture

Workforce is an area every organisation scrambled to effectively address during the crisis, as offices were closed and physical, in-person meetings were scrapped in favour of remote work and video calls. Many organisations' workforce arrangements are unsustainable in the long-term, due to a widening digital skill gap and the impact of multi-generational workforces. Traditional ways of managing, learning, and working are rapidly evolving, and this is further exacerbated by the crisis. Malaysian organisations have begun to adopt a "work anywhere" culture in which employees supported by hybrid workplaces and remote collaborations can promote an agile work environment. Access to applications, tools and other key business and IT resources anywhere and anytime will promote greater productivity including more efficient communication, coordination, monitoring, execution and tracking of progress at an enterprise level.

Key Tenets of **Workforce**



Workforce[1]

15.5%[2] of which **20% are Healthcare Services**

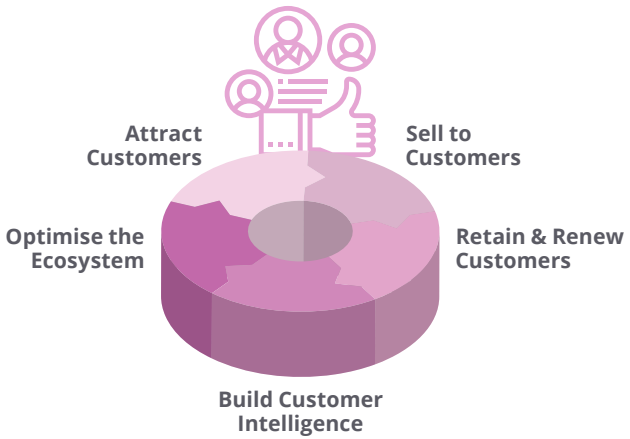
Productive	*Engaged*	*Agile and Innovative*	*Skills Adaptive*	*Safe and Secure*
Enhanced business continuity, improved productivity and augmented workforce	Modernised employee engagement, optimised team collaboration and employee advocacy	Optimal workforce planning, team productivity and an extended innovation culture	Prioritised skills improvement and adaptiveness with an empowered and agile workforce	Ensuring safety and security by providing dynamic and sustainable workspaces and workplace

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

Customer, Partner and Supply-Chain Engagement is Crucial in Securing a Long-Term Ecosystem Resiliency

The ability to attract and retain customers is the basis for all revenue and profit growth over time. Engendering trust and satisfaction with customers and rethinking how organisations work with ecosystem partners are crucial to sell to, retain, renew and attract new customers. As the pandemic continued, more Malaysian organisations have prioritised improving customer experiences (CX), and retention and engagement. Some organisations have also extended their CX focus to ecosystem partners. They recognise the need to treat their suppliers and strategic partners with equal regard to build a resilient and sustainable ecosystem.

Key Tenets of **Customers and Ecosystems**



Customers & Ecosystems[1]

14.2%[2] of which **27.5% are Financial Institutes**

Attract Customers	*Sell to Customers*	*Retain & Renew Customers*	*Build Customer Intelligence*	*Optimise the Ecosystem*
Attract customers through content design and creation, digital marketing, and ultimately an AI-driven opti-channel engagement	Sell to customers via seamless order management and fulfilment to ubiquitous commerce and predictive upsell	Retain and renew customers with optimised customer experience, and digitalised customer self-support and crowdsourced support	Build functional and integrated customer intelligence into a 360-holistic intelligence and sentiment model	Optimise the ecosystem with partners and improve integration through ecosystem management and orchestration

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

What are the business drivers for Malaysian industries?

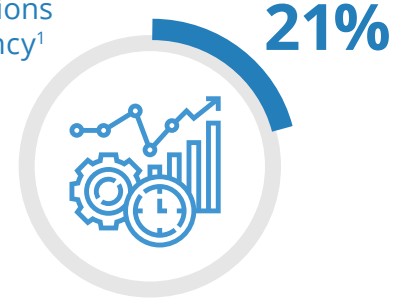
MANUFACTURING

" IoT solutions help us to abstract all the data and making them actionable. "
-Head of Operation Manufacturer in KL

Manufacturers are Looking to Improve Their Operational Resiliency to Optimise Delivery of Products and Services

Top Business Priority

Operations Efficiency[1]



21% of manufacturers are prioritising operational efficiency, with their top areas of focus on agile operations and expanding operational capabilities such as reducing downtime of industrial equipment and automating factory functions.

Top 3 Drivers[2]

1. *Ability to pivot operational resources and processes to new opportunities.*
   - 20% of manufacturers want agility and flexibility in their operational workforce, allowing them to re-deploy operational resource where required to support growth and innovation.
2. *Operational recovery, activation of business continuity plans and support of distributed operations.*
   - 20% of manufacturers want to ensure operational service levels are recovered to pre-covid levels and their operational activities are supported from multiple locations or anywhere.
3. *Expanding operational capabilities.*
   - 18% of manufacturers want to optimise their operational capabilities by deploying technology solutions such as automation to resolve standard problems quickly, therefore their resources can focus on more unusual and complex problems.

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 250)

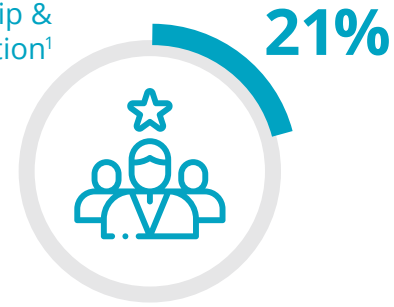
RETAIL

" We are converting out stores to a fulfilment centres. Technology helps us to integrate our eCommerce and POS system efficiently. " *-Senior IT Manager of Fashion Retailer Company*

Retailers are Focusing on Agility and Innovation Which Would Allow Them to Pivot to New Opportunities, Mainly by Leveraging on Digital Commerce Platforms

Top Business Priority

Leadership & Organisation[1]



21% of retailers are looking towards innovation to capitalise on new and ever-changing consumer conditions triggered by the COVID-19 pandemic. Data analytics and digital payment channels enable agility and innovation, leveraging solutions such as Omni-channel data-driven analytics and digital wallet payment solutions.

Top 3 Drivers[2]

1. *Developing a high level of business agility and innovation to innovate and pivot quickly to new opportunities.*

20% of retailers intend to cultivate an innovation mindset within their organisations, which would allow quicker go-to-market cycles and launching of new products or services to acquire market share ahead of their competitors.

2. *Optimisation of current revenue streams to expand established revenue pillars.*

17% of retailers want to optimise their current established revenue pillars by capitalising and expanding upon consumer changed conditions, such as having an online ecommerce touchpoint. Digital payment channels also allow consumers an alternative platform to engage.

3. *Productivity and capacity enhancement.*

17% of retailers want to enhance their productivity and capacity output to further extend their business operations to support new products & innovation and accelerate their growth in the current marketspace. Leveraging on data analytics allow visibility into these areas.

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 150)

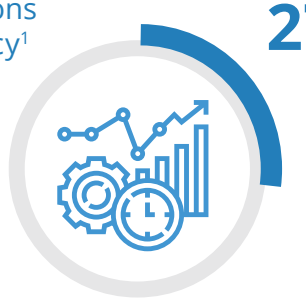
PROFESSIONAL SERVICES

" Automation process such as RPA has completely revolutionised our client experience and backend process. " *-Senior IT Project Manager of IT Services Company*

Professional Services are Ramping Up Their Operational Efficiency as This is the Cornerstone of Their Business Model as They Seek Sustainable Engagement with Their Clients

Top Business Priority

Operations Efficiency[1]



27% of professional services have identified operational efficiency as a top business priority as the value of their services is heavily dependent on the response and output from their operational team. Enabling them with virtual engagement or collaborative platforms allows the value of their services to be justified in this new normal.

Top 3 Drivers[2]

1. *Operational recovery, activation of business continuity plans and support of distributed operations.*

19% of professional services want to ensure operational response time are recovered to pre-covid levels and their engagement activities with clients are sustainable and supported from any location.

2. *Ability to pivot operational resources and processes to new opportunities.*

17% of professional services intend to leverage on digital technologies such as virtual engagement platforms in order to establish leads with potential clients and secure future business opportunities.

3. *Agile operation teams that come together to resolve problems and dissolved as required.*

17% of professional services cite agile operations leveraging on digital tools, such as collaborate platforms, in order to have active engagement with ecosystem partners to quickly respond to changes in internal and external environment.

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 85)

FINANCIAL SERVICES

" We modernise our core IT infrastructure to bring new digital experiences to our customer and help employees to engage seamlessly with them. " -Vice President of Malaysian Bank

Financial Services are Prioritising Their Customer and Ecosystem as They Drive to Sustain and Optimise Their Digital Touchpoints Considering the Changed Conditions

Top Business Priority

Customers & Ecosystems[1]

27% of Financial Services (FSI) main business priority is on their customer and the wider ecosystem, looking to enhance their digital touchpoints. Mandatory validation functions such as "Know-Your-Customer (KYC)" which were physically driven previously, had to adapt and evolve into a more virtual method of validation as digital channels embrace new functionality from these enhancement.

1. *Developing AI-driven, omni-channel engagement that leverages on customer intelligence.*
2. *Digitisation of customer engagement channels.*
3. *Improving customer satisfaction.*

Top 3 Drivers[2]

28% of FSI prioritise optimisation of customer engagement via touchpoints in order to create a unique digital experience for the customer based on their objectives.

23% of FSI cited that digitisation of customer engagement channels are the main drivers, focusing on a seamless customer experience while incorporating key functions to enhance the customer journey.

18% of FSI are driven to improve their customer satisfaction indexes via use cases such as "Voice of the customer", customer tracking and analysis. Balancing and addressing privacy, security and compliance elements are being undertaken to inspire customer trust and satisfaction.

Source: [1] IDC Digital Resiliency Framework 2021 [2] IDC-Maxis Digital Transformation Study, September 2021 (n = 40)

Malaysian Organisations Display a Larger Focus on Resiliency to Navigate Through Uncertain Times and Disruptive Conditions

Many organisations from various industries prioritise investments for respond-and-restore projects as their focus is on establishing the foundation components for their organisation to achieve resiliency. This will continue as new requirements emerge or are exposed by disruptions.

Respond & Restore

43%

Priorities

Ensuring business continuity

Long-term sustainability

Strategy

Ramping up their digital infrastructure, connectivity and security

Expand & Optimise

37%

Priorities

Agile & flexible business engagement

Capacity & resources expansion

Strategy

Optimisation of business processes

Accelerate & Innovate

19%

Priorities

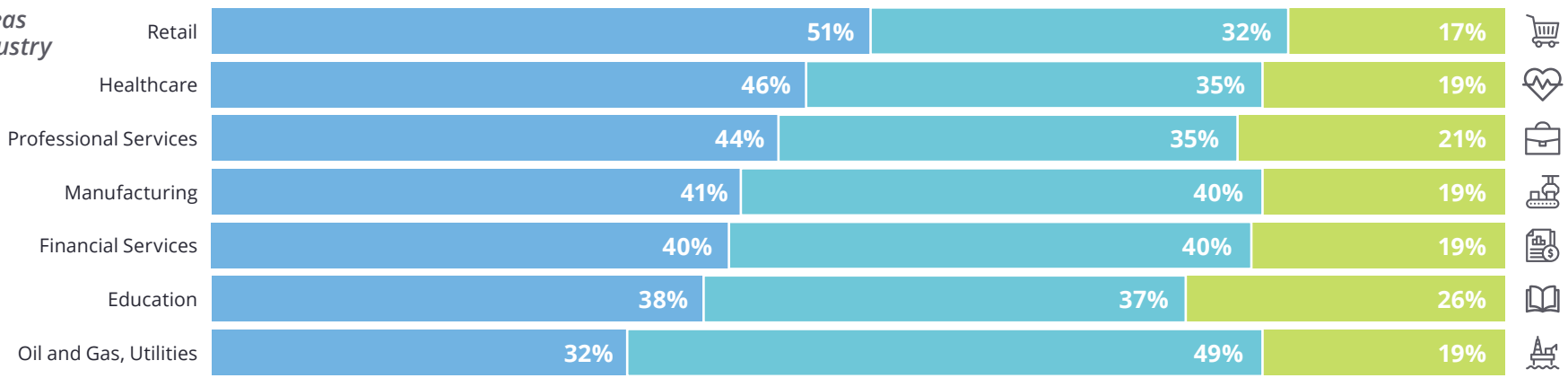
Business model innovation

Increase market share

Strategy

Enable data-driven insights & analytics

Investment areas of focus by industry sectors



Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 600)

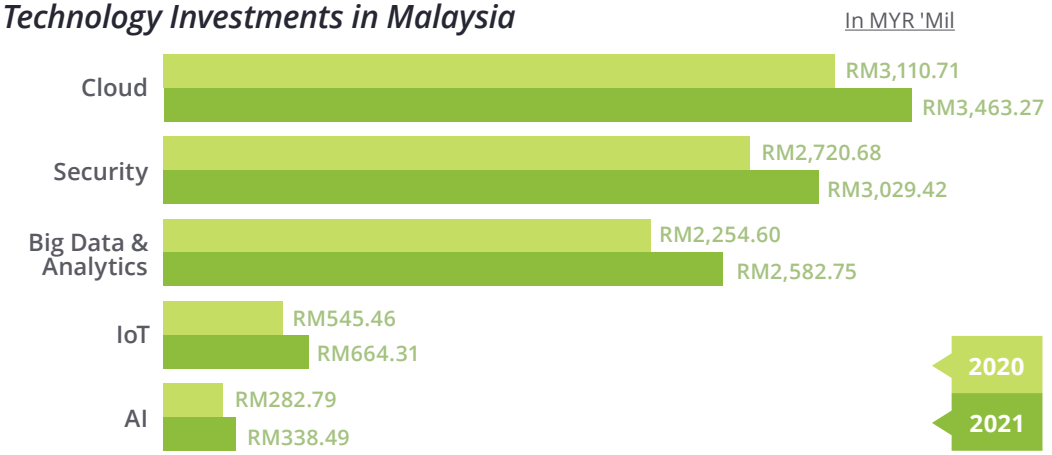
Read on to learn Malaysian technology investments by technology solutions

Digital Core Investments in Technology Solutions to Build Resiliency

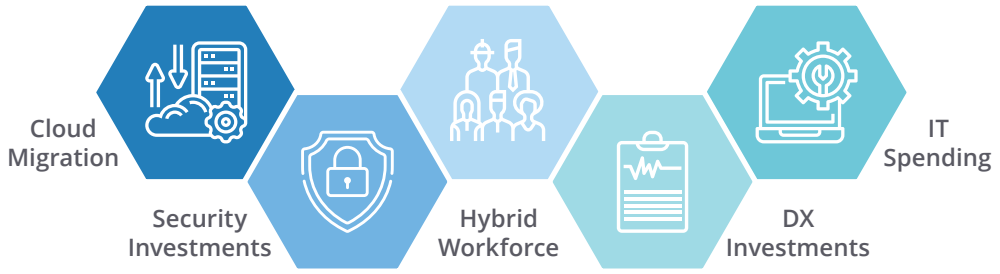
Along with the move to achieve the Future Enterprise and accelerated by the recent COVID-19 pandemic, we have seen an increase in the investment organisations have made to support their enterprise resiliency.

Investments in the core technology of digital resiliency such as their cloud centric IT infrastructure and a superior network to provide scalability and speed, cybersecurity to enable trust, as well as big data, analytics and IoT to support agility and innovation; this are increasing over time as more IT budget is shifted from traditional and legacy IT spending to digital core investment.

Technology Investments in Malaysia



Digital Core Investments



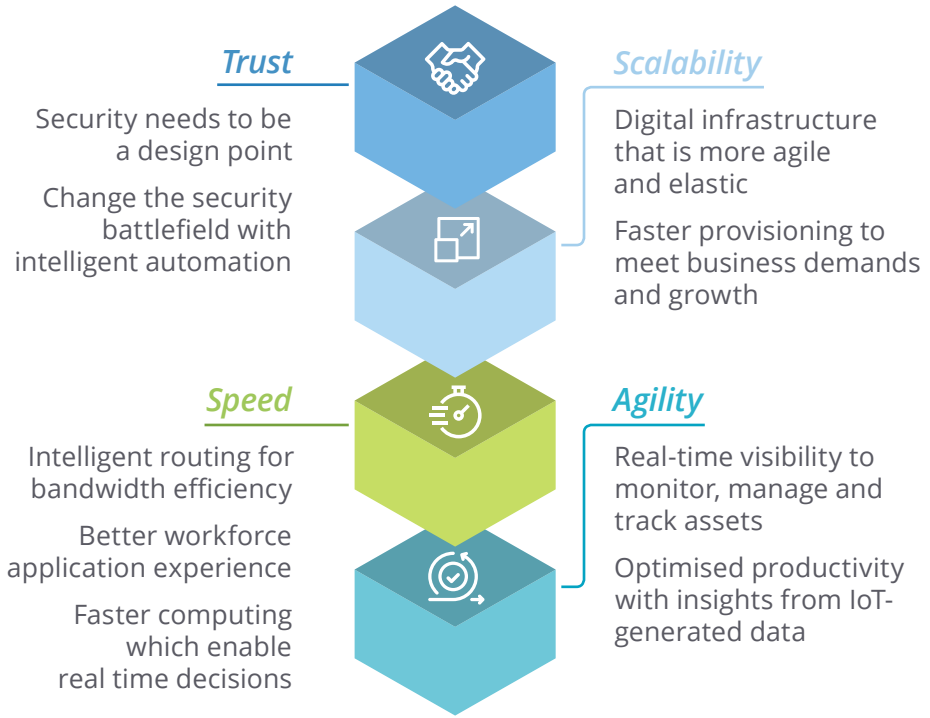
Desired Outcome from Investment

The investments are objectively focused on establishing the foundational technology infrastructure that enables attributes of **speed, scalability, agility and trust.**

Source: IDC Worldwide Black Book 3rd Platform Edition (Malaysia)

What technology should my organisation be focused on in building the foundational attributes of Digital Resiliency?

Foundational Attributes in Building Resiliency



4 Digital Core Investments as Foundational Cornerstone in Building Resiliency

The scalability of the **cloud** enables organisations to scale on-demand to be more agile, improving cost reduction and operational efficiency, while reducing time-to-market for new products and services.

Scalable and flexible **network** provides real-time provisioning and improved network visibility and security, which allows for easier and faster deployment of innovative services while ensuring a seamless end-user experience.

Investment on **cybersecurity** in order to protect enterprise data and network from cyber threats and unauthorised access, mitigating the associated cost of dealing with risk while developing organisation's reputation as a trusted entity.

IoT improves monitoring of assets and data, which allows real-time insights that can lead to speedy operations, better time-to-market and reducing maintenance downtime and operational cost.

Source: IDC Worldwide Black Book 3rd Platform Edition (Malaysia)

Technologies to Build Resiliency

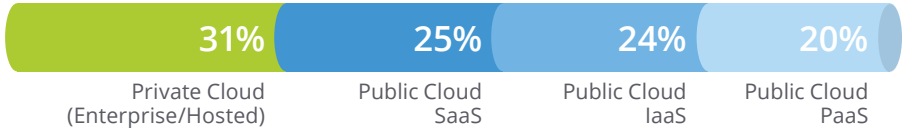
- Cloud
- Cybersecurity
- Internet of Things
- Software-defined WAN

CLOUD

Malaysia Organisations Have Accelerated Their Cloud Service to Build Digital Resiliency and Drive Innovation

IDC survey 2021 indicates that **84%** of organisations in Malaysia have adopted or plan to adopt cloud services. As a result, more workload applications and storage have been migrated to the cloud, thus **improving IT productivity, increasing the pace of innovation** and **building resiliency.** The cloud continues to serve as a crucial foundation for all digital transformation (DX) initiatives, with adoption growing in the coming years.

Workload Applications and Storage Deployed on Cloud Today



Cloud consumption for organisations in Malaysia is growing, with a larger infusion of hybrid environments, including private and public cloud infrastructure (IaaS, PaaS & SaaS).

Organisations are migrating more data and workforce applications to the public cloud for flexibility, agility, and better data management, to pivot their business strategy in the event of disruption or change.

This aligns with Malaysian business resiliency goals, which include expanding company resiliency plans to accommodate the unique requirement of a pandemic, such as remote workforce, digital commerce, and automation.

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 507)

Drivers for Malaysian Organisation to Use Cloud Services

58% are deploying cloud to **optimise operations** and **create business resiliency** with no downtime and higher availability

53% **Creating innovation:** develop new cloud-native apps for external facing interactions and customer experience

51% Drive **revenue growth** by improving go-to-market speed for products and services, leveraging on cloud services

45.4% Use for **crisis management** (security and business continuity)

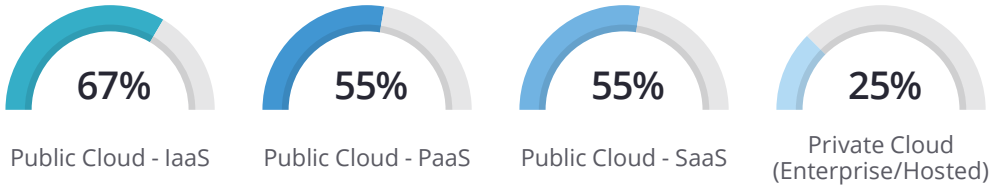
44.6% Reduce their **operations cost** (e.g. on-premise data centre exits)

CLOUD

The Demand for Cloud Solutions Will Increase Over the Next 2 Years

More than 50% of surveyed organisations are planning to migrate their infrastructure into cloud environment in order to utilise the elasticity of cloud and leverage on the services cloud provides.

Cloud Deployment Options Organisations Plan to Use in Next 12 to 24 Months



Top Features Desired by Organisation Based on Cloud Platform

IaaS		PaaS		SaaS		Private	
55%	Simplify and standardise IT infrastructure	65%	Database Integration	60%	Real time digital collaborative apps	70%	Optimise applications for the cloud while retaining on-premise environment
54%	Enable greater control and flexibility	63%	Development Collaboration	55%	O&M service management	66%	Optimise governance, security, and compliance requirements
53%	Ensure consistent access control, security and compliance	62%	Application design & development	53%	Security & protection software	62%	Seamlessly switch over operations in the event of a disaster at a primary location

"Cloud allows us to quickly provision or expand our infrastructure for business growth without the drawback of doing a physical procurement"

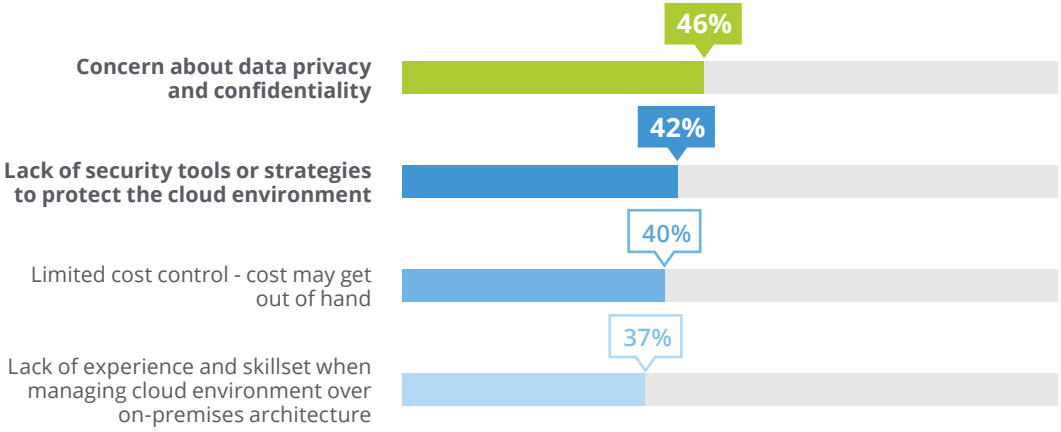
-Head of department, IT infrastructure for Financial institute based in KL

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 507)

CLOUD

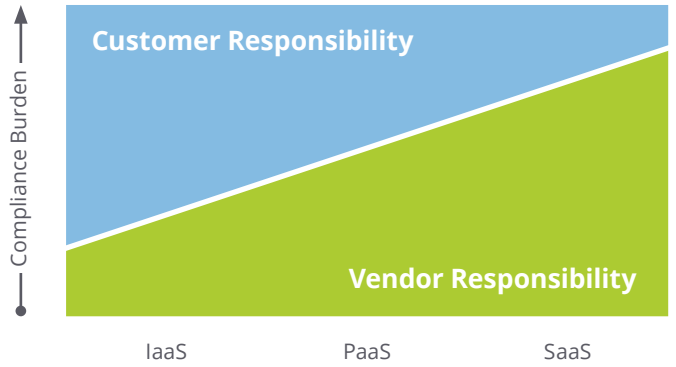
Challenges for Malaysian Organisations to Reach Cloud Maturity

While more organisations have embarked on the cloud journey, some are facing challenges that discourage them from migrating data and workload applications to cloud. Security has always been raised as a barrier for IT executives reluctant to "turn over" their organisation's data to third parties.



Data protection gets more complicated as businesses utilise cloud services. Organisations may not be aware of where all these applications and data are stored, which raises security concerns and need to develop new strategies and solutions to address the issues. They may overspend for something that is unnecessary for the business if they do not properly plan and comprehend the needs of moving to the cloud, especially if they do not have a thorough understanding of cloud architecture and the appropriate skill set.

Shared Responsibility Model for Cloud Compliance



Organisations may adopt the shared responsibility model, which splits the compliance responsibility between customer and vendors, when they subscribe cloud services.

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 507)

CLOUD

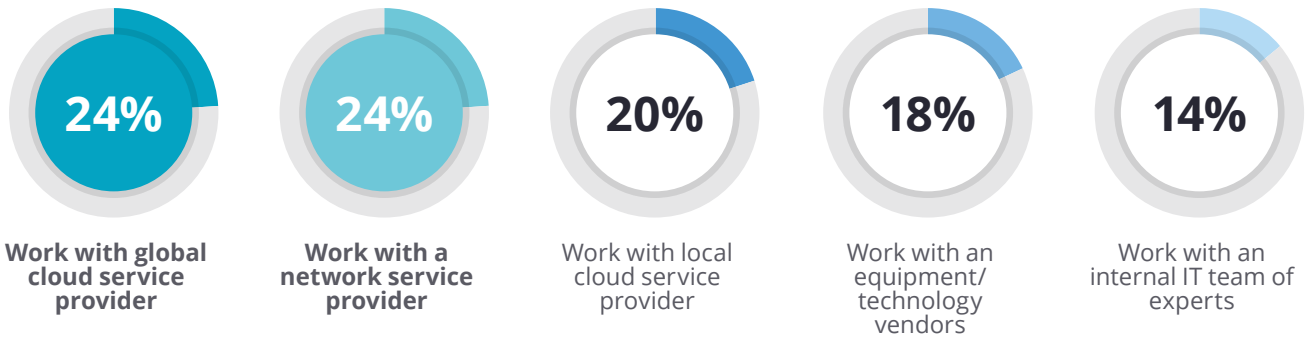
Partnering with GCSP and NSP is a Way to Overcome Challenges and Deployment Complexity

Partnering with cloud service providers (CSPs) will help organisations accelerate their cloud deployment journey as CSPs will provide the best way to integrate or migrate workload applications and data storage to cloud.

Close to 50% of organisations in Malaysia prefer to partner with a global cloud service provider (GSCP) and local network service provider (NSP) for their seamless cloud journey. Cloud service providers will equip organisations with their expertise and resources to scale up their cloud infrastructure with agility and speed; hence enabling them to generate new revenue streams quickly.

There are many options in the market for organisations to consider. Important here is how well they could support unique business requirements and meet resiliency objectives.

Organisation Preferences When it Comes to Developing or Implementing Cloud Solutions[1]



What Companies in Malaysia are Looking for in Cloud Partner[2]

1. Partners with strong, localised technical support capabilities
2. Partners who have strong multi-cloud capabilities and experience
3. Partners who offer the best possible pricing

Source: [1] IDC-Maxis Digital Transformation Study, September 2021 (n = 507) [2] IDC AP Cloud Survey, 2021 (Malaysia only)

CYBERSECURITY

Malaysian Organisations Feel the Importance of Cybersecurity to Build a Trusted and Secure Enterprise Has Further Increased

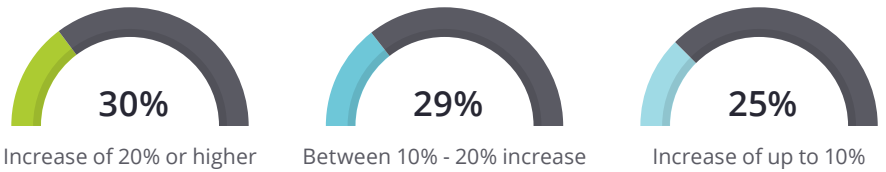
COVID-19 Has Changed Organisation's Approach Towards Cybersecurity Compared to Before the Pandemic

- **54%** Prioritise cybersecurity to protect cloud environment
- **54%** Focus to protect hybrid-working model
- **49%** Cybersecurity to protect multi-channel CX
- **49%** Re-design network security on premise and remote access

Main Drivers for Your Malaysian Organisation to Enhance Its Cybersecurity System

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

According to the latest IDC research, **84%** of Malaysian organisations will increase their investment plan for cybersecurity solutions in the next 12 to 24 months.



Organisations are **rethinking the resiliency strategy,** by adopting new emerging technologies for better strategic business models so they need to ensure that the **cybersecurity functions** and features **are up to date** with technology advancement.

The **hybrid working model** is here to stay, so security policies and measurements have to evolve with and adapt to this new reality.

Migration data and applications into cloud will be key for better collaboration and workforce efficiency. Businesses need to change their **data security approach** as employees are now decentralised.

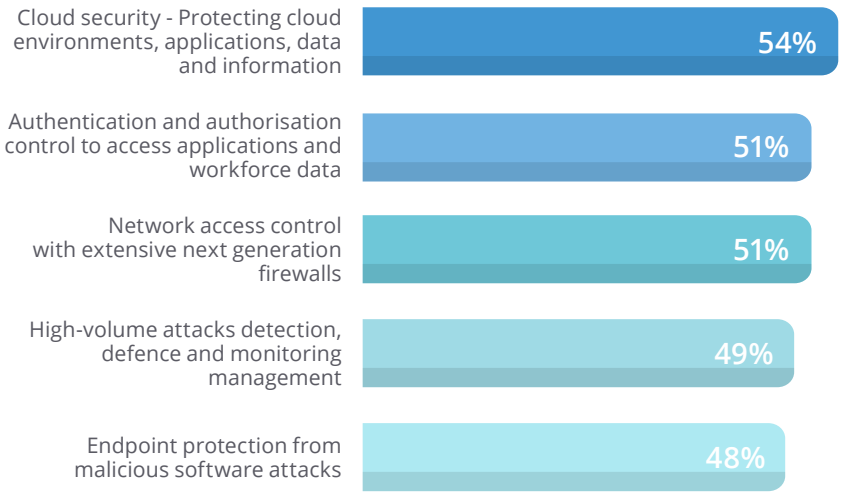
Investment in digital trust (security, privacy, and compliance) technologies will be one of the **top priorities** of organisations in Malaysia.

CYBERSECURITY

Cloud Security, Access Control and Cyber Attack Prevention are the Focus for Risk Monitoring and Security Management

Customers must feel safe and secure when using a company's products or services. As more business is conducted through digital channels, it is vital that customers, partners, and suppliers have trust in the organisation's privacy and security precautions.

Cybersecurity Technology That Would be the Greatest Fit for Organisations in Malaysia



The Reasons Why Companies are Interested in These Cybersecurity Technologies

- Growth in digital transformation (DX) creates unintended risk and vulnerability
- Security needs to be considered at a holistic level
- Hybrid work model, rapid cloud deployment and multi-channel customer experience (CX) are the contributing factors
- Cybersecurity management and protections will evolve from basic to more sophisticated

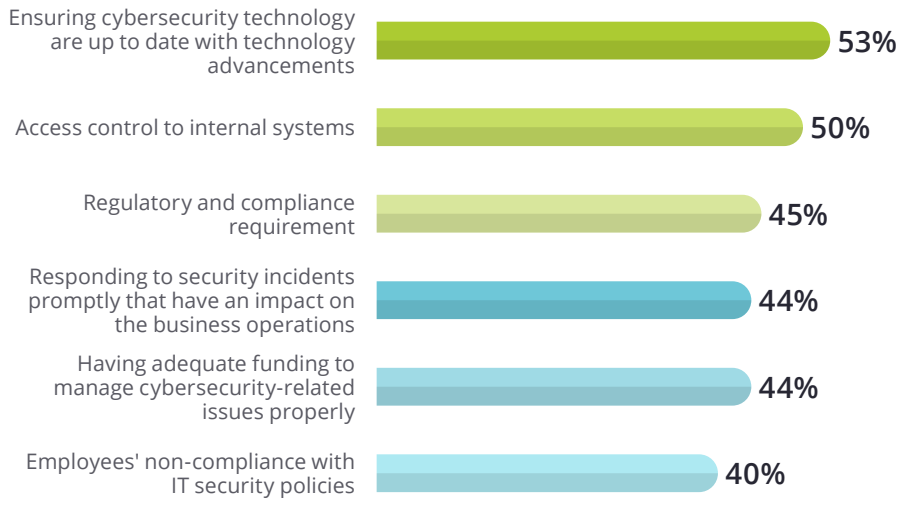
Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

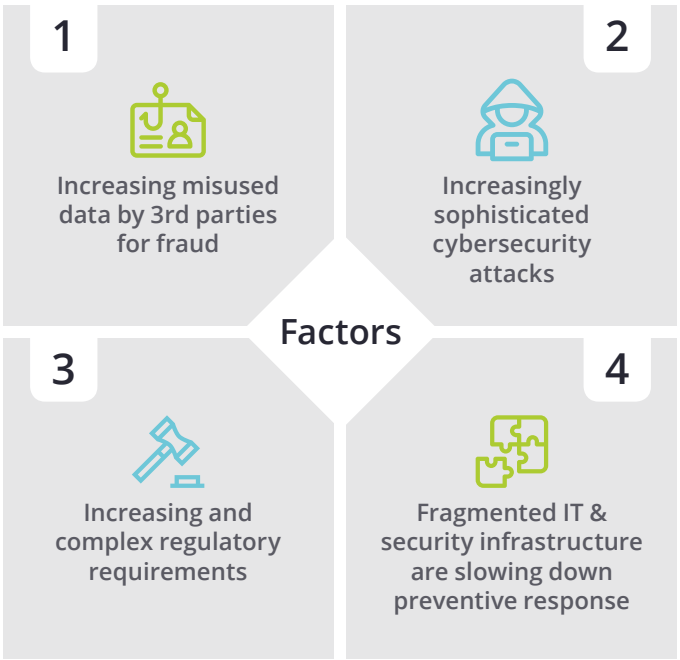
CYBERSECURITY

Challenges to Establishing Trust and Managing Risk from Internal & External Forces

With the pandemic still underway and driving operational business decisions, organisations expect more cyber threats. Work-from-anywhere is here to stay, along with the numerous security and privacy risks associated with remote work. Besides, strikes against cloud services will grow alongside the services' popularity, taking advantage of improper configurations and weaknesses in the supply chain.

Main Challenges When it Comes to Managing Your Company's Security





Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

CYBERSECURITY

Building a Trusted and Secure Enterprise with Cybersecurity Solutions to Develop Brand and Reputation Resiliency

The trusted and secure enterprise is intended to transform how businesses approach security from reactive to proactive with distributed control, real-time visibility and tool-based capabilities.

Trusted and Secure Enterprise

Embedded Trust

Distributed control

Extension of programs into fully distributed trust frameworks, enabling real-time and continuous measurement. Expand governance to encompass security operations and data protection across the ecosystem

Real-time operations visibility

Enable a portfolio of real-time support, with the cybersecurity domain being managed like a "day trader" function where transparency enables value-based decisions

Tool-based capabilities

Tools that provide trusted delivery, support, monitoring, and response that extend from the roots of trust through to impact analysis, response management, and strategic resilience

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

Evolution of Security Solutions and Services

Extension of monitoring to the cloud environment	Transition to an as-a-service model or cloud-based security solutions	Growing focus on incident response orchestration services and automated containment	Increasing the need for technology partners to work together and solutions to be orchestrated

88% of Malaysian organisations are developing and implementing their IT security solutions with security vendors or managed security service partners.

IOT

Internet of Things (IoT) Will Be Key for a Data Driven Organisation

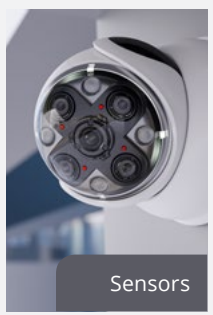
Key Growth Drivers

A large pool of **sensor & module** manufacturers in the Asia/Pacific region will support the supply chain in Malaysia.

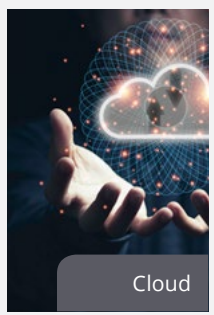
The pervasiveness of **5G technologies** in the nation will be the foundation for IoT deployment.

Cloud native and **edge computing** will make IoT application and storage more scalable and provide faster provisioning.

National Internet of Things (IoT) Strategic roadmap (2015-2025) which aims to create a conducive IoT industry ecosystem, strengthen technopreneur capabilities and establish Malaysia as the regional development hub for IoT.


Sensors

5G


Cloud


Government Initiatives

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 317)

The Main Factors That Influenced or Will Influence Organisation's Decision to Create a Strategy or Investment in the Internet of Things

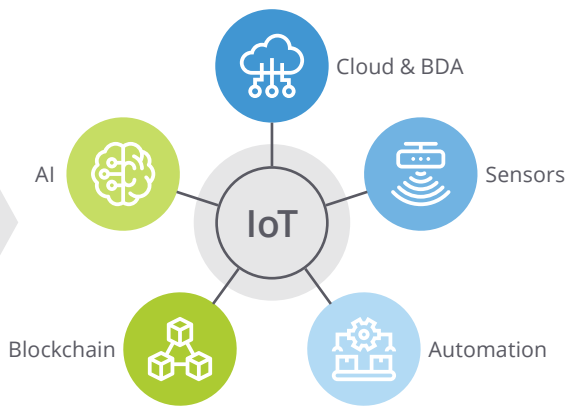
Companies in Malaysia are interested in investing in IoT because it helps them to make **better or faster decisions** using data analytics, **increase productivity** and **improve time to market** for their products or services.

At the same time, companies can **save operational expenditure** and generate **better business models.**

Internet of things (IoT) in automation is proving to be a game changer for companies as it can reap new benefits.

53%	Using data analytics for faster or better decision making
52%	Improved productivity of staff and their safety
49%	Improve time-to-market for products/services
46%	Reduce operational and maintenance costs
42%	Build better business models

Technology Converge to Provide a Seamless IoT Experience

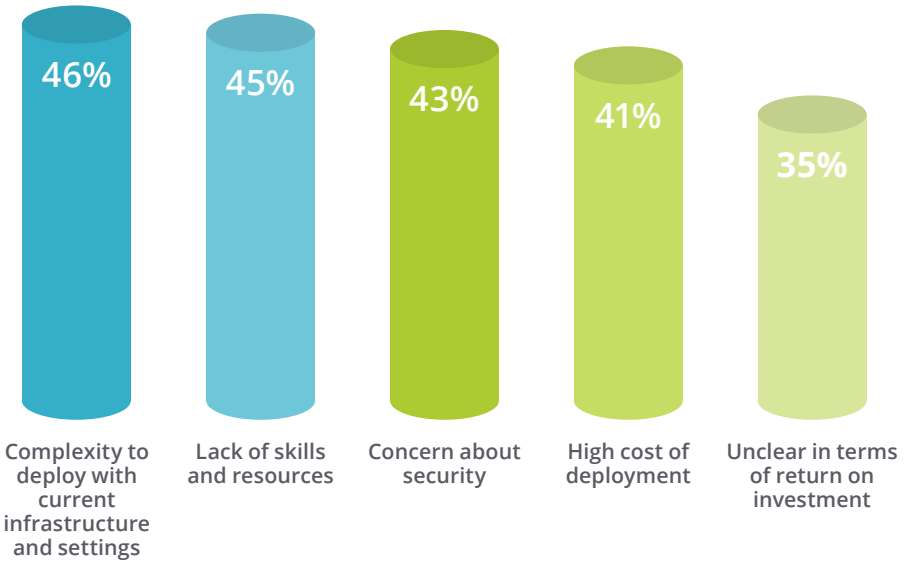


IOT

Inhibitors that Cause IoT Projects to be Delayed or Cancelled

Reflecting the need to integrate legacy applications, the greatest challenge in utilising the data within their operations in decision-making is integrating operational data resources. The future of a utilities ecosystem is dependant on connectedness, data capabilities and automation across the value chain.

The Top Challenges That are Holding Back or Slowing Down Progress on Iot Project(S) for Organisations



Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

Part of the organisations' challenges is the **complexity of deploying IoT technologies** with its current infrastructure and settings. One issue is the inability to make a connection between the real-time IoT data and systems that provide the contextual information to dictate the correct response.

Lack of talent in the industry for IoT technology is a top challenge, as **skills gaps are slowing down progress in their IoT projects.**

The security of IoT devices has been a cause of concern when it comes to cyber attacks. **Insecure communications and data storage** are the most frequent concerns for IoT applications. Devices can be used as a medium to access confidential data.

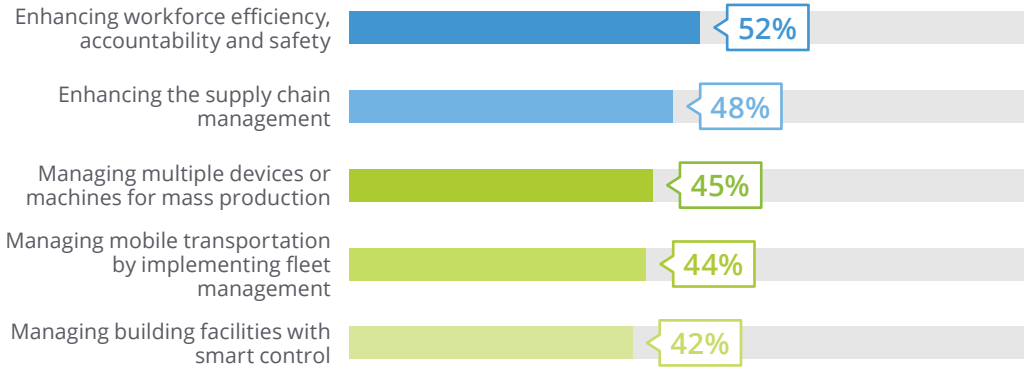
IoT comes with **high-cost** for many organisations because it requires significant investment. Often, the **lack of standards** forces developers **to create solutions from scratch.**

IOT

Using IoT to Drive Business Model Change

Applications of IoT in Malaysia are becoming more mature as organisations start using the technology to provide **workflow data and views of data** required for business processes. IoT will be among the technologies with the greatest impact on organisations over the next few years as **remote access to information** has become essential.

The Top IoT Applications Best Suited Malaysian Organisation's Environment



Organisations in Malaysia are looking for IoT applications that can accelerate their digital resiliency from multiple organisational dimensions.

Digital transformation survey 2021 indicates that top applications of IoT are focusing on **workforce, customers and ecosystem, and operational resiliency.**

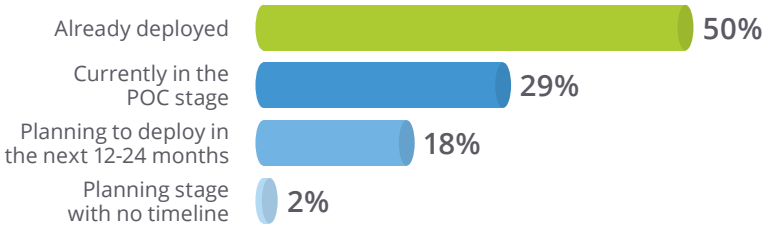
Industry	*Use Case*
Financial	Automated Teller Machine (ATM) Remote tracking
Manufacturing	Autonomic operations Root cause Quality & compliance
Healthcare	Bedside telemetry Remote health monitoring
Professional Service	Smart Elevators Smart Buildings (commercial) Staff Identification
Retail	Omni-Channel operations Digital signage In-store contextual marketing
Utilities - Electricity, Gas, Water	Distribution automation Smart Meter

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 571)

SD-WAN

SD-WAN is No Longer New in Malaysia and is Entering the Next Level of Network Modernisation

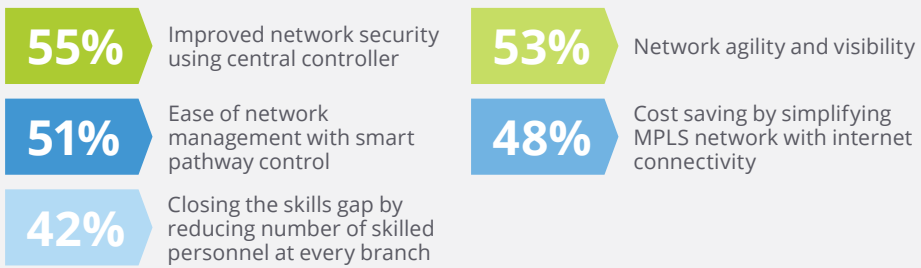
Consumption Rate of SD-WAN Technology in Malaysia



Most SD-WAN infrastructure on the market today address the limitations of traditional enterprise WAN in areas such as support for cloud applications (IaaS and SaaS), simplified deployment and management, cost-effective bandwidth utilisation, WAN flexibility and efficiency, and WAN security.

We are seeing nearly 50% of Malaysian organisations start planning to migrate to SD-WAN to support organisational needs such as mobile and remote working, decentralised access to applications and data, and cloud native network architecture.

The Main Drivers for Implementing SD-WAN in the Organisation



SD-WAN infrastructure has become a critically important technology for enabling flexible, agile, secure and optimised connectivity.

The work-from-home shift caused by COVID-19 is accelerating that trend. This means that network and IT managers must now look for more efficient ways to manage their networking resources, specifically connectivity, virtual private networks (VPNs), and security.

SD-WAN simplifies connectivity to the cloud and improves cloud app speed and WAN efficiency, while also addressing branch office routing, security concerns, VPN, and built-in encryption.

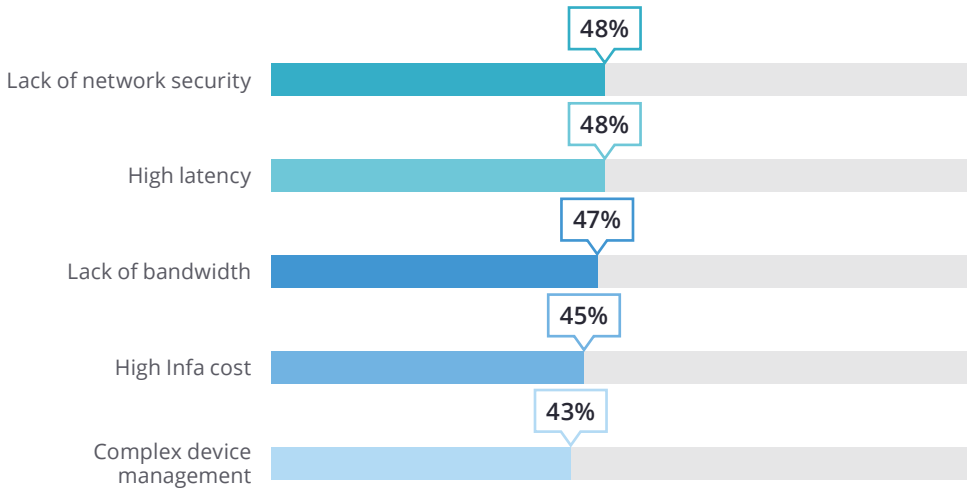
Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 478)

SD-WAN

Cost is No Longer the Top Challenge for an Organisation's Network. Security, Latency and Bandwidth are.

Applications have become the primary means of doing business for successful organisations. The role of a network is to provide reliable and secured connectivity in supporting these applications. SD-WAN can provide a seamless user connectivity experience while overcoming challenges faced by organisations regarding network architecture.

The Main Challenges Faced by Organisations Regarding Network Architecture



Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 478)

Keeping people, devices, and applications connected to the network is one of most complex challenges for a network administrator.

Enterprises are looking to provide not just connectivity but security as well. This is especially important for business applications running on home or public networks.

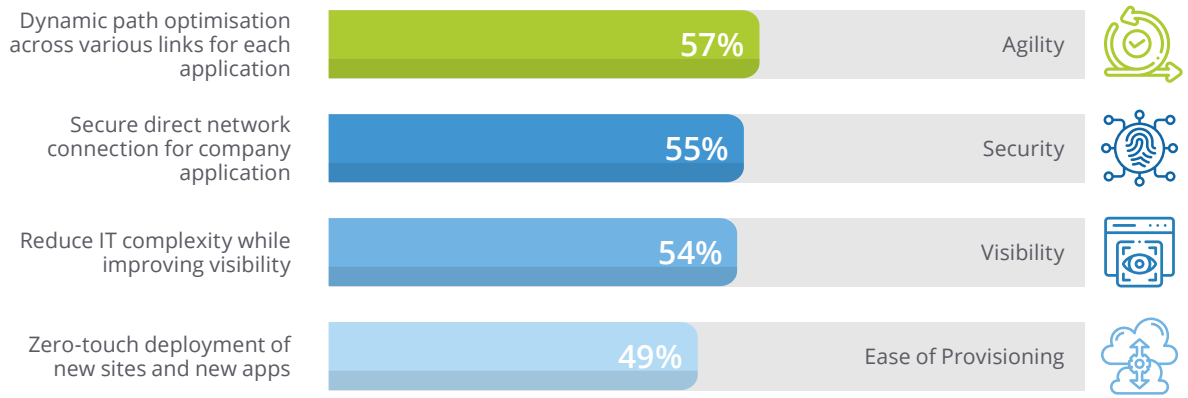
Enterprises are embracing the "new normal" with their individual strategies for ensuring equivalent connected experiences for office-based and remote workers. They are looking to scale their bandwidth, deliver low latency and lower capex costs.

SD-WAN

SD-WAN is the Next Step to Building Business Agility for the Future

A network automation and analytics strategy will help increase business agility by simplifying tracking, monitoring, and management through a single interface for visibility. It can also be achieved with a larger connectedness strategy that includes the proper network and IT investments that allow organisations to function efficiently and adapt in real-time.

SD-WAN Capabilities That Provide the Most Value to Organisations



SD-WAN solutions continue to be refined to deliver to enterprises a high-quality user experience and optimised secure access to cloud platforms. This is by enforcing robust security and network intelligence policies for hybrid WAN connections.

Partnering with a managed service provider helps take the complexity out of the equation. This allows the enterprise to dedicate more focus on external product and service innovation.

Source: IDC-Maxis Digital Transformation Study, September 2021 (n = 478)

Next Steps

Self-Discovery Questions and Essential Guidance

Assessing the State of Your Digital Infrastructure

Self-Discovery Questions

Stability in Technology Operations	*Optimising Digital Infrastructure*	*Scaling to Meet Business Growth*
Do you often encounter IT outages or security breaches and have difficulty delivering a consistent customer experience or quality of service?	Are you looking to simplify management of your technology infrastructure to address the growing chasm between business requirements and IT infrastructure capabilities?	What are the performance and scalability requirements of your existing and next-generation modern workload?
Do you want full visibility across all network elements and components?	Are you looking to achieve workload and cost optimisation?	How quickly can you ramp-up your digital infrastructure to support a rapidly expanding customer base and increase in customer touchpoints?
Do you have concerns of your current infrastructure's availability and reliability during times of business disruptions, volatile and rapid change?	Is your legacy infrastructure putting a strain on your existing human resources that stifles innovation for rapid business expansions and growth?	Do you have silos of infrastructure that prevent you from bringing new products and services to market quickly, or providing seamless customer experience across different products and service offerings?

Essential Guidance for Organisations

Align your business priorities with your digital roadmap

- Assess your strategic priorities programs and define your blueprint's to achieve a state of the Future Enterprise.
- Identify use cases related to your organisation goals that can deploy in the short-term, use cases that are being incubated for medium-term targets and use cases that imagine the possibilities for the long-term objectives.
- Use data-driven insights to drive your strategic priorities and achieve value and a distinct advantage through innovative products and services, improved workforce or resource capabilities and develop trusted reputation.

Build speed, scalability and agility in order to adapt to fast-changing business priorities

- Expand and grow your business by pivoting towards modernised solutions that display characteristics of speed, scalability and agility. These solutions will assist your organisation when adapting to disruptions or change in business priorities.
- Invest, not spend, when deploying solutions. All investment should have a benefit and a return of investment measured by a performance metric native to the solution deployed.

Accelerate your journey into a Future Enterprise with a trusted partner that:

- Can help to provide guidance when defining your digital roadmap, establishing your technology blueprint and identifying your return of investment prior to execution.
- Have the experience, expertise and resources across all elements to become a one-stop trusted advisor.
- Can be a catalyst for your organisation's journey to become a Future Enterprise.

FIBRE & 5G -READY

maxisbusiness Always Be Ahead

Can your organisation transform into a Future Enterprise?

Build digital resiliency with the right partner to always be ahead.

The best network
Enhance the security, reliability and agility of your applications with our MEF 3.0 certified programmable network

The best digital solutions
Access cutting-edge solutions and expertise through our partnerships with the world's leading providers such as Microsoft, Cisco, AWS, and more

The best experience
Best-in-class strategic IT advisory capabilities and fully managed services

Find out how Maxis Business is the right partner for your journey towards the future.

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IDC Asia/Pacific
83 Clemenceau Avenue
#17-01 UE Square, West Wing
Singapore 239920
T 65.6226.0330

idc.com

@idc

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