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Enhance Digital Resilience Through Observability

TRANSITIONING FROM REACTIVE TO PROACTIVE IT OPERATIONS

AUTHORED BY
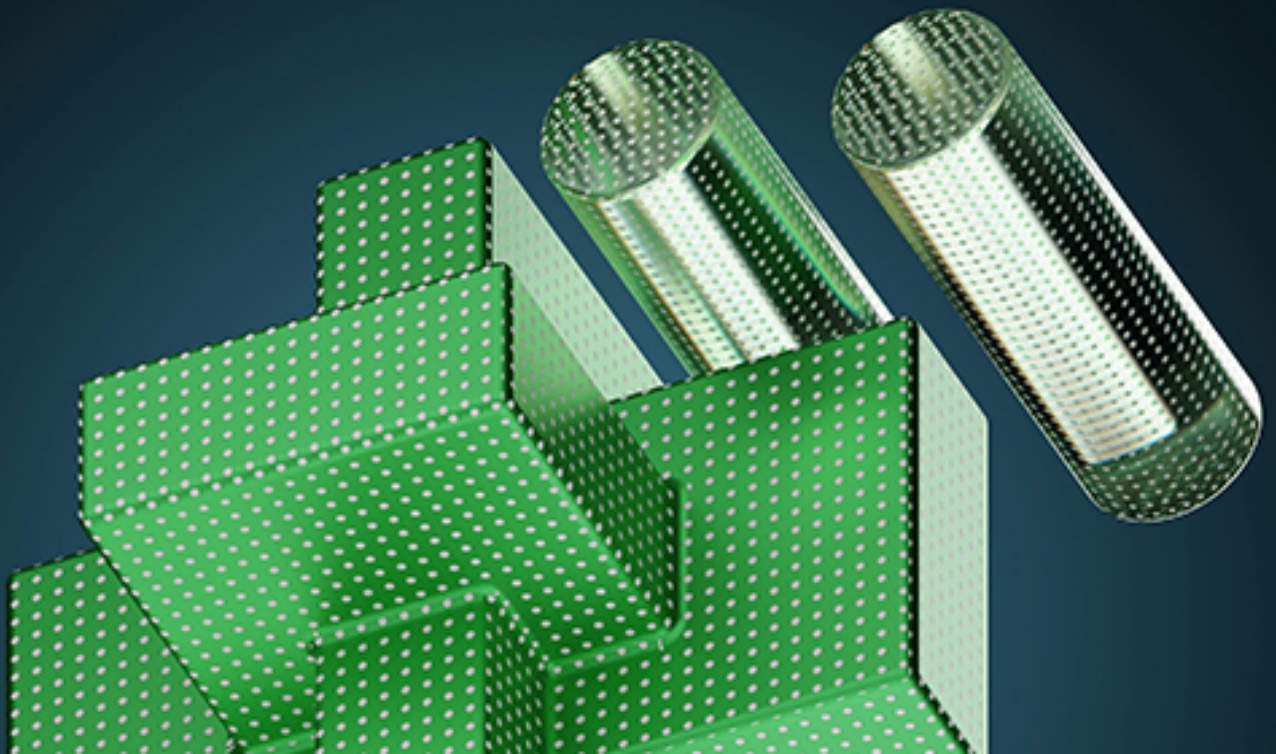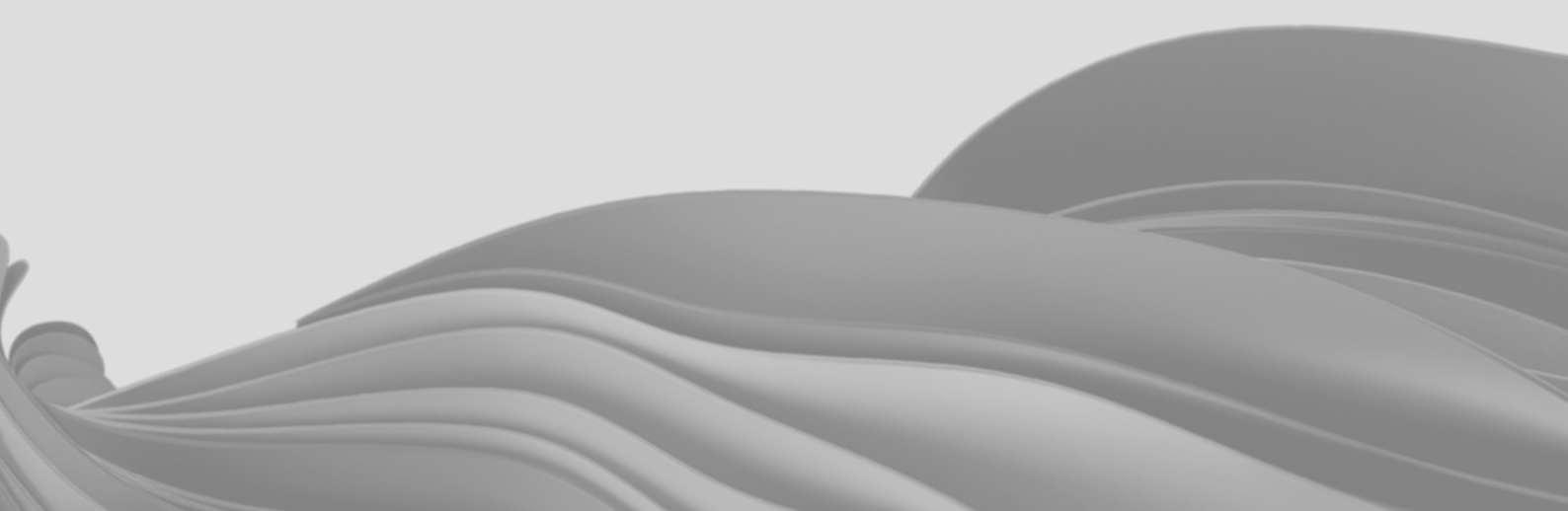
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Table of Contents

Executive Summary

As the market grows more competitive, small and medium enterprises (SMEs) in Australia are compelled to innovate, leveraging AI-powered insights and digital engagements.

This requires a focus on modernising technology infrastructure, with particular emphasis on cloud and AI integration to ensure agility and responsiveness.

The resultant surge in digital intensity within organisations poses challenges for SME technology leaders. The expanding tech architecture, with a proliferation of applications and diverse cloud usage, heightens the demand for IT support. This complexity results in higher costs, increased security risks, and scalability challenges, hampering agility and innovation. Troubleshooting becomes more difficult, leading to extended downtime and compliance concerns. Tech complexity can also hinder employee productivity and jeopardise customer experiences.

In April 2024, the **Ecosystm Digital Intensity in Australia Study**, commissioned by ManageEngine Site24x7, was launched to assess the digital intensity of Australian SMEs and pinpoint the primary challenges technology leaders encounter in navigating this complexity.

The study reveals that technology leaders in Australian SMEs acknowledge the significance of monitoring but encounter challenges in establishing comprehensive visibility and control over their tech landscapes. Siloed IT operations and complex interdependencies hinder effective monitoring, overwhelming tech teams with alerts and delaying issue resolution. While servers and networks are frequently monitored, end-to-end business processes and infrastructure automation often receive less focus, creating risks for digital service delivery.

> Embracing IT observability presents organisations with the chance to facilitate proactive issue resolution and performance enhancement, empowering them to navigate intricate IT environments and construct a resilient, customer-centric foundation.

This whitepaper discusses the key findings of the study and presents the case for a holistic IT observability approach.
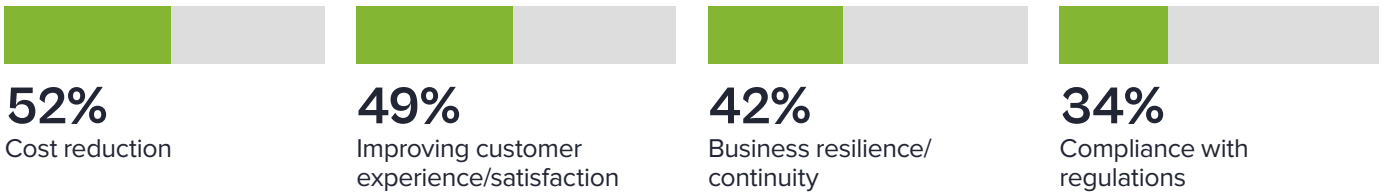
Enhancing Digital Experiences Through Strategic Technology Investment

SMEs are the backbone of Australia's economy.

However, the current economic situation presents a unique set of challenges such as increasing costs and interest rates, and the need to adapt to a competitive digital landscape. Reducing costs is the biggest priority for Australian SMEs (Figure 1), followed closely by improving customer experience (CX).

FIGURE 1

Cost Reduction is the Biggest Priority in Australia's Challenging Market

52%	49%	42%	34%
Cost reduction	Improving customer experience/satisfaction	Business resilience/ continuity	Compliance with regulations

Q: What are the organisation's 3 main business priorities for the next 12 months?

CEOs and business leaders today champion the mantra of "growth without additional cost", driving productivity enhancements through technology optimisation. Organisations can unlock substantial growth and cost savings by fostering innovative digital experiences, including seamless omnichannel support, personalised dashboards, automated workflows, and AI-driven insights. These pioneering strategies not only boost customer satisfaction and loyalty but also free up valuable internal resources. Embracing digital innovation positions Australian SMEs for sustainable growth and competitive advantage in the market.

This shift in priorities has prompted a focus on infrastructure modernisation and cloud strategy over the next five years, emphasising capabilities that yield substantial business value (Figure 2). Modernising technology infrastructure is no longer merely an operational upgrade; it's a strategic necessity for meeting consumer expectations and accelerating digital transformation. These modernisation efforts are ultimately geared towards supporting IT applications that drive business and customer value, serving as the primary interface for customers and employees. Their resilience and availability are crucial in delivering digital experiences that delight and foster loyalty among employees and customers alike.

> Australian SMEs understand the importance of modernising their technology environments for agility, enabling swift responses to market changes and customer demands.

FIGURE 2

Infrastructure Modernisation a Strategic Imperative for Australian SMEs

54%	48%	43%	39%	36%
Infrastructure modernisation	Cloud strategy and architecture	Cybersecurity	IT operations and service management	Business Continuity/ Disaster Recovery

Q: Which 3 areas are the primary focus of the organisation's technology modernisation strategy?

Accelerating Adoption of AI and Cloud

Leveraging cloud allows scalability for efficient resource management, while AI-driven insights inform decision-making and enhance customer experiences.

The rise of AI integration in business operations, and the broadening scope of IT Operations across these new intelligent applications, platforms, and toolsets have led to increased technological complexity and data demands. AI systems, requiring substantial data for training and operation, require robust data management and processing capabilities. As AI applications evolve, they generate additional data through interactions and outputs, further escalating data requirements. This surge in data needs advanced analytics tools, enhanced log management, and more dependable storage solutions, adding to the complexity of infrastructure management.

Compounding this complexity is the evolving nature of cloud. Five years ago, cloud solutions were primarily used by SMEs for data storage and non-core applications. Now, they're central to digital transformation strategies, supporting AI platforms, big data analytics, and IoT integration. Advanced cloud solutions offer agility to manage the growing data and processing needs of AI solutions, providing scalable storage and compute resources. Cloud providers continually enhance AI capabilities, enabling businesses to access the latest innovations affordably. However, managing modern cloud environments, often spanning multiple providers and hybrid, multi-cloud architectures across multiple locations — on-premises, edge, and hyperscaler services — requires careful monitoring and integration. Australian SMEs currently use an average of four cloud environments, with no signs of consolidation (Figure 3).

> AI spend in Australian SMEs is projected to increase from less than 0.25% of total IT expenditure to nearly 2.5% within the next two years.

> Australian SMEs currently run approximately 46% of their workloads on the public cloud – this is projected to rise to 58% within the next two years.

FIGURE 3

Australian SMEs Manage Multiple Cloud Environments

34%
1-2

51%
3-5

14%
6-10

1%
More than 15
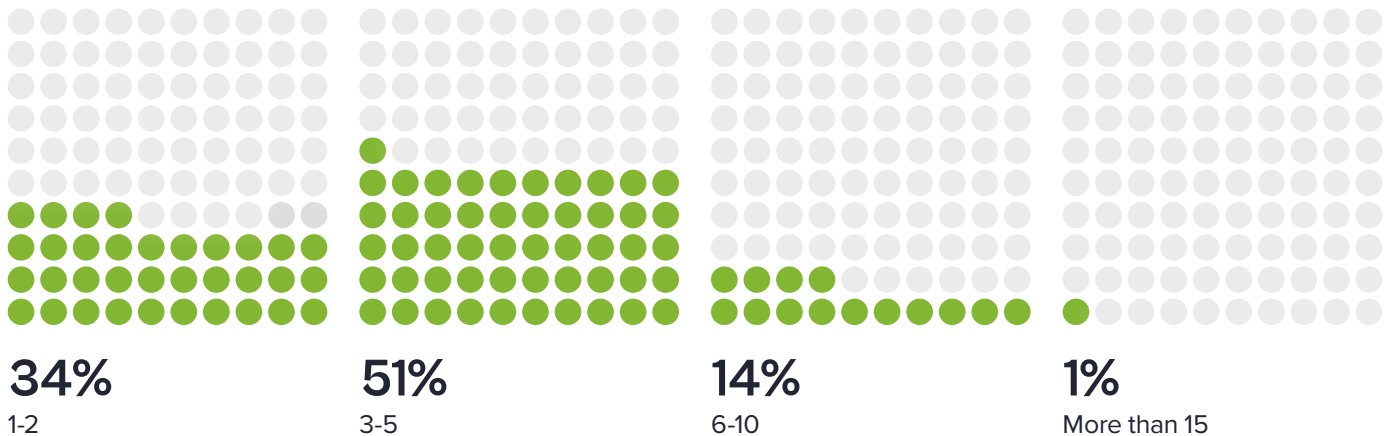
Q: How many cloud environments does the organisation use today?

Together, AI and cloud are reshaping how organisations operate, driving them towards more integrated, intelligent, and scalable tech environments.

Digital Enterprises Need More Interoperable Applications

Organisations today require more applications to meet evolving business needs. These applications automate processes, streamline workflows, extract insights from data, engage customers across multiple channels, and drive innovation in products and services. As organisations continue to evolve their digital capabilities, they are expected to deploy and connect more applications (Figure 4).

> More importantly, these applications need to be deeply integrated with each other to create seamless digital processes – not operate in silos.

FIGURE 4

Australian SMEs Expect an Increase in the Number of Applications in the Next 2 Years

8%	40%	31%	12%	9%	1%
0	1 to 5	6 to 10	11 to 20	20 to 40	40 to 60
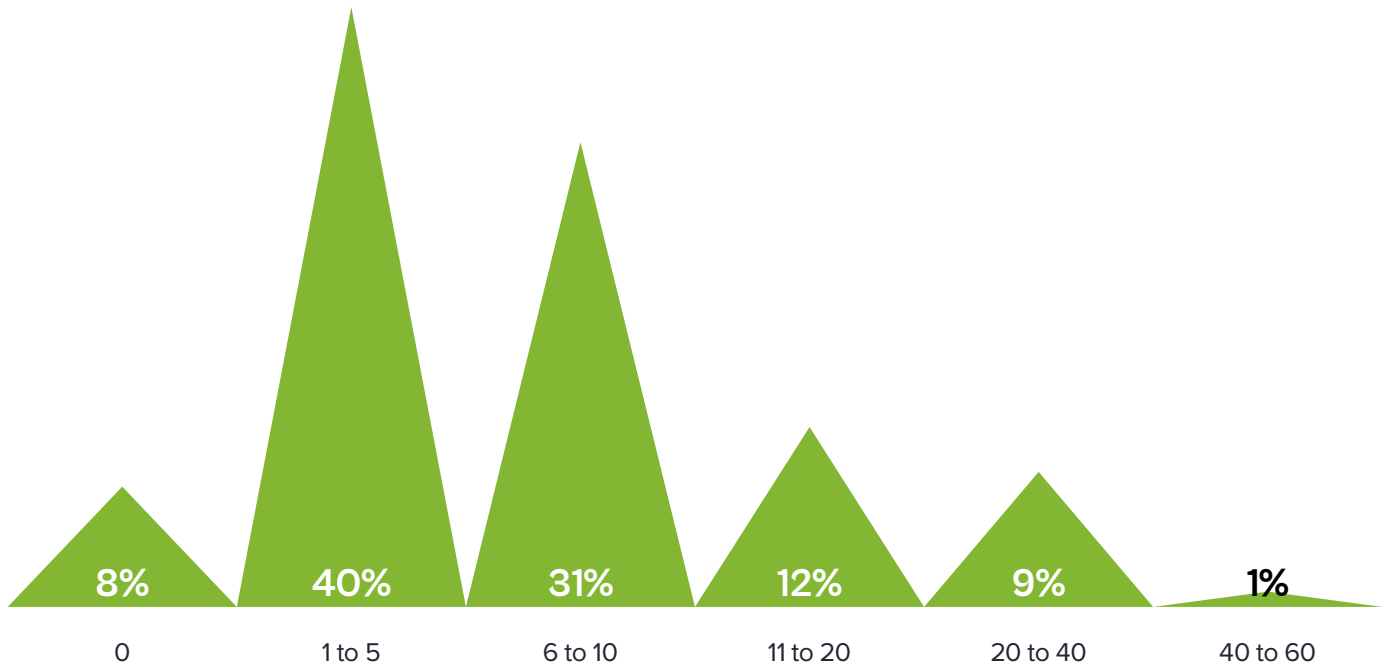
Q: How many new applications, tools or platforms do you expect the organisation will implement over the next 12-24 months?

Technology Teams Challenged by the Increase in Digital Intensity

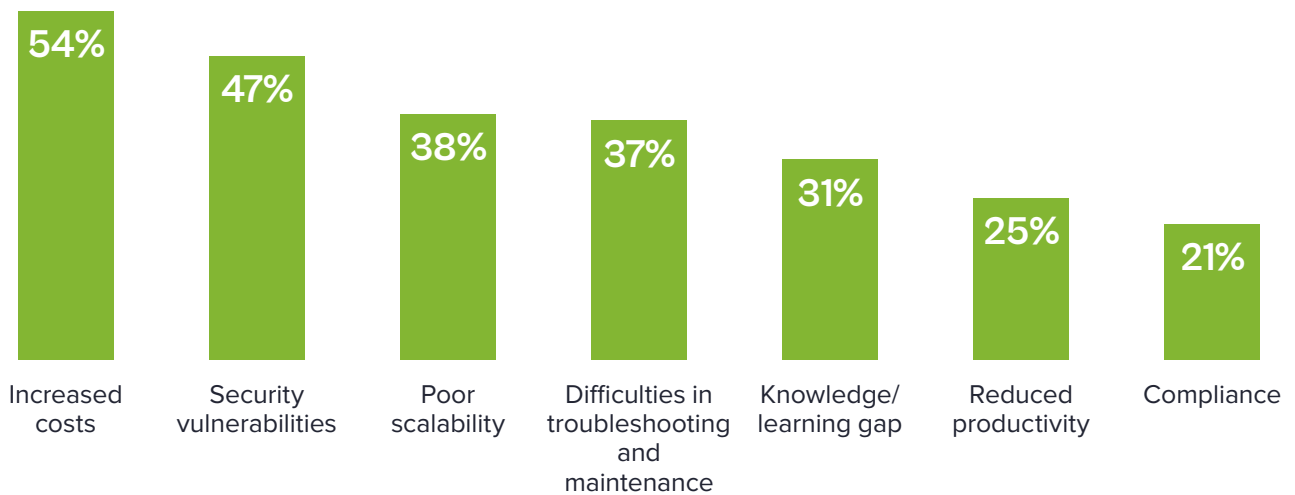## As digital intensity rises in Australian SMEs, so do the challenges of technology teams.

The complexity of expanding technology architecture, a proliferation of applications, and reliance on diverse cloud environments, exponentially increase the demand for IT support and operations. The intricate tech landscape introduces coordination challenges, interoperability issues, security risks, and management complexities, amplifying the potential for technology failures to disrupt systems and applications, resulting in downtime or reduced availability.

> Expanding environments generate vast volumes of data, complicating data management and prolonging root cause analysis.

Tech Complexity Inhibiting Agility and Innovation

Technology complexity significantly inhibits agility and stifles innovation, because of a multitude of operational challenges (Figure 5).

FIGURE 5

The Biggest Impact of Tech Complexity on Australian SMEs

Increased costs	Security vulnerabilities	Poor scalability	Difficulties in troubleshooting and maintenance	Knowledge/ learning gap	Reduced productivity	Compliance
54%	47%	38%	37%	31%	25%	21%

Q: What are the top 3 challenges of increasing technology complexity in the organisation?

The biggest challenges organisations face are increased costs and an expansion of the threat landscape. Costs increase as more resources are required to manage and maintain intricate systems. Data security becomes a bigger concern, as complex systems provide more points of vulnerability that can be exploited, increasing the risk of breaches.
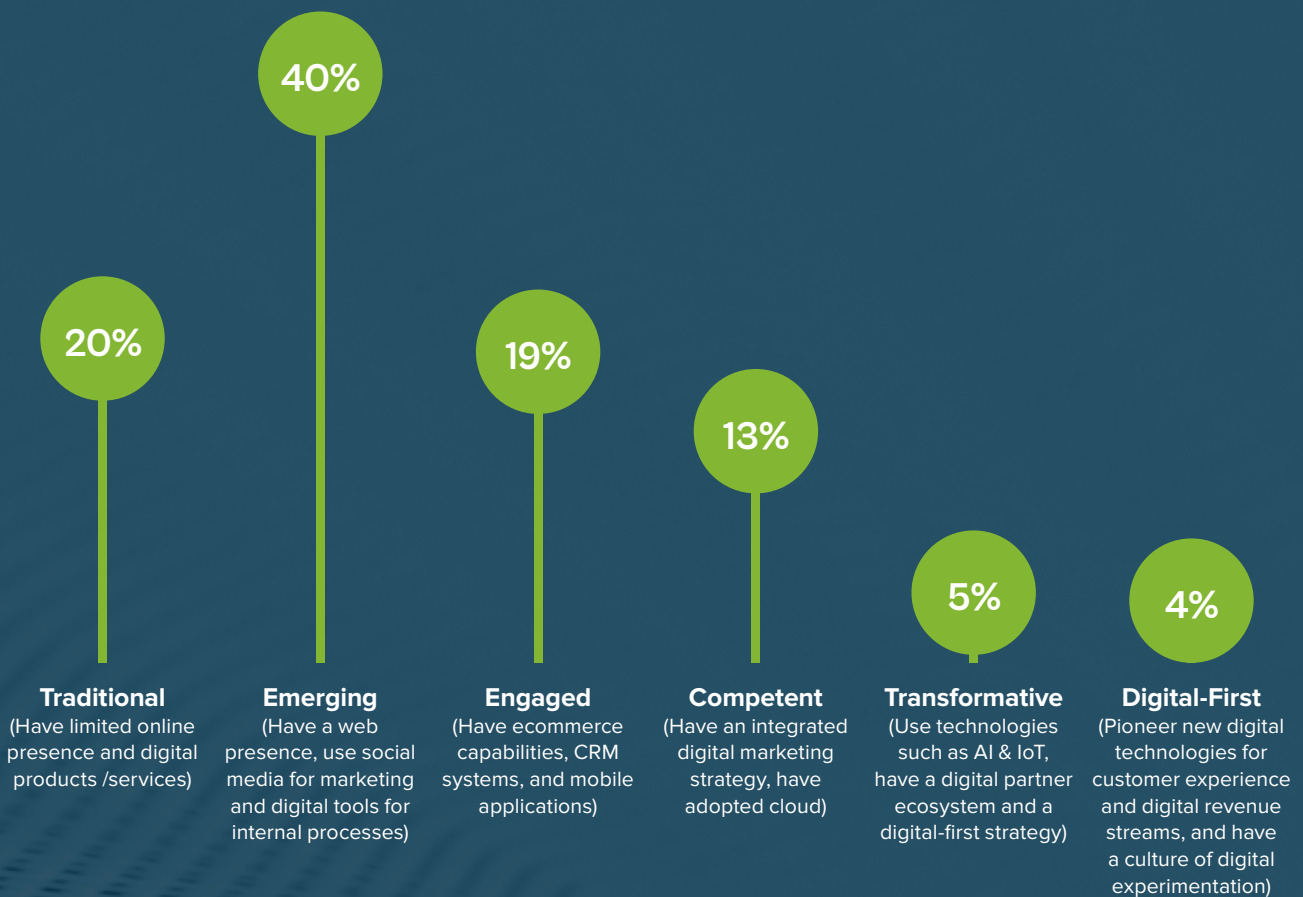
Organisations' ability to scale is stifled by the growing difficulty of seamlessly aligning system expansions with business growth. Complex tech environments are also prone to higher downtime risks. With more components and interdependencies, the probability of system failures increases, which can lead to significant operational disruptions. Troubleshooting such environments becomes more challenging as identifying the source of problems in a highly interconnected system can be like finding a needle in a haystack. Compliance becomes more difficult with complex systems that may involve multiple regulatory standards.

Additionally, complexity in the tech environment impacts employees. It can reduce productivity (by making it harder for employees to navigate systems efficiently, slowing down workflows and response times). A significant knowledge or learning gap can also develop as staff struggles to keep up with new technologies and processes, which, in turn, can result in poor customer experiences due to delays or service inconsistencies.

Managing technology complexity is crucial not only for operational efficiency but also for maintaining a competitive edge in a dynamic market. To ensure performance and reliability, tech teams must skilfully monitor and optimise these complex environments. Training and development will be key, as will the strategic focus on improving IT monitoring and observability.

Despite the investments in cloud and AI, most Australian SMEs consider themselves at the early stages of their digital transformation journeys. Nearly 60% of SMEs rated themselves as Traditional or Emerging; with less than 10% considering themselves Transformative or Digital-First (Figure 6).

FIGURE 6

Self-Assessment of the Maturity of Digital Journeys by SMEs in Australia

40%					
20%		19%	13%	5%	4%
Traditional	**Emerging**	**Engaged**	**Competent**	**Transformative**	**Digital-First**
(Have limited online presence and digital products /services)	(Have a web presence, use social media for marketing and digital tools for internal processes)	(Have ecommerce capabilities, CRM systems, and mobile applications)	(Have an integrated digital marketing strategy, have adopted cloud)	(Use technologies such as AI & IoT, have a digital partner ecosystem and a digital-first strategy)	(Pioneer new digital technologies for customer experience and digital revenue streams, and have a culture of digital experimentation)

Q: On a scale of 1-6 how would you rate the organisation's digital maturity?

A significant barrier preventing organisations from adopting a Digital-First mindset is the challenge of managing complex IT environments and the lack of visibility over them. This limitation hampers the full utilisation of their digital investments.

The Need for Visibility Across the Tech Environment

The importance of visibility over the entire technology environment cannot be overstated.

This ensures the health, performance, and security of the technology that organisations rely on to deliver digital services. Technology leaders in Australia's SMEs understand and appreciate the strategic benefits of monitoring (Figure 7).

> Australian SMEs use an average of 2-3 monitoring tools.

FIGURE 7

The Strategic Benefits of IT Monitoring for Australian SMEs

56%
Optimised performance and efficiency

50%
Predictive maintenance and anomaly detection

45%
Cost management and optimisation

39%
Data-driven decision making

30%
Risk management and compliance

24%
Supporting remote work and digital transformation

Q: What are the top 3 strategic advantages of using IT monitoring tools/platforms for your organisation?

Monitoring should optimise tech performance, ensuring smoother operations and better outcomes. Proactive measures prevent issues from escalating, maintaining uninterrupted workflows. Data insights from monitoring tools can help in cost management, identifying areas for savings and resource allocation. Additionally, data-driven decision-making enhances strategic planning, risk management, and compliance.

With the rise of remote work and digital transformation, visibility becomes even more critical as enterprise data and applications expand beyond the traditional network boundaries.

Despite Intentions, Monitoring Often Falls Short

While SMEs in Australia realise the importance of monitoring, they are underutilising monitoring capabilities.
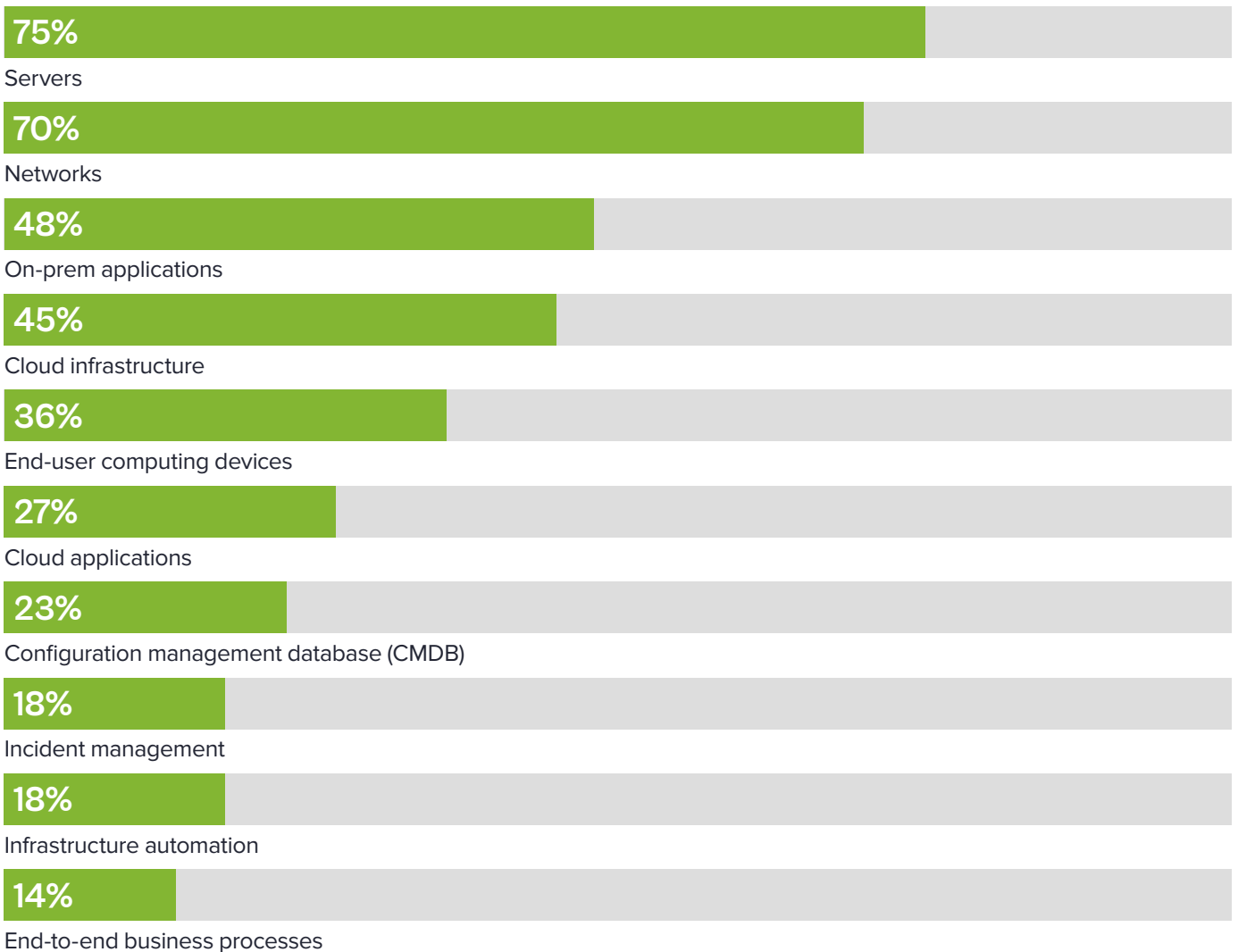
Siloed IT operations and complex interdependencies can limit the usefulness and timeliness of monitoring while flooding IT Operations and Service Management teams with alerts. While monitoring can detect issues, diagnosing the root cause often requires extensive manual effort, leading to prolonged downtime and delays in issue resolution, sometimes lasting from hours to weeks.

Insufficient Monitoring of Cloud Applications and Environments

With most Australian SMEs actively monitoring their servers and networks, there's a clear acknowledgment of their foundational role in maintaining operational integrity. However, the relatively lower rates of monitoring end-to-end business processes and infrastructure automation reveal potential visibility gaps that would be detrimental to digital service delivery (Figure 8).

FIGURE 8

Few Australian SMEs Monitor Cloud Applications & Environments

75%	Servers
70%	Networks
48%	On-prem applications
45%	Cloud infrastructure
36%	End-user computing devices
27%	Cloud applications
23%	Configuration management database (CMDB)
18%	Incident management
18%	Infrastructure automation
14%	End-to-end business processes

Q: Where is monitoring being used in the IT environment?

Enhanced visibility enables organisations to proactively resolve issues, reducing downtime risks and optimising digital service delivery. With the growing complexity of IT environments, comprehensive monitoring solutions are essential, providing a unified view of all systems and services, especially as they rely on a mix of cloud infrastructure and on-premises applications. Monitoring security, compliance, and performance is crucial due to the rise in cloud app usage, while prioritising end-user devices ensures productivity and customer satisfaction.

> The market is evolving to offer better tools and platforms for improved application and process visibility. An IT observability solution allows SMEs to succeed in the digital era, mitigating costs, inefficiencies, innovation stagnation, compromised scalability, and cyber threats.

Traditional Monitoring Metrics Instead of Business-Focused Ones

Australian SMEs are focusing on monitoring traditional IT metrics such as Availability & Reliability and Performance metrics, with Uptime/Downtime and Error Rates being prioritised. However, there's a lag in the adoption of comprehensive monitoring for other critical aspects of IT infrastructure (Figure 9).

FIGURE 9

Availability and Reliability Metrics are Most Commonly Monitored

Availability & Reliability Metrics

45%
Uptime/
Downtime

41%
Error Rates

27%
Mean Time
to Detect
(MTTD)

25%
Mean Time
to Recovery/
Resolve (MTTR)

Performance Metrics

36%
Response
Time

32%
Throughput

20%
Latency

Resource Utilisation Metrics

23%
CPU Usage

20%
Memory
Utilisation

20%
Disk I/O

18%
Network I/O

Security Metrics

18%
Number of Security Incidents

16%
Patch Latency

Business-Specific KPIs

11%
Conversion
Rate

11%
Customer
Churn Rate

9%
User Satisfaction/Net Promoter
Score (NPS)

DevOps & Agile Metrics

5%
Deployment Frequency

5%
Change Failure Rate

Q: What metrics does the organisation use for the monitoring tool/platform?

While Resource Utilisation metrics like CPU and memory are on the radar, a more holistic resource monitoring approach could improve efficiency and predict scalability challenges. Surprisingly, Security metrics are not being prioritised, indicating a potential vulnerability considering escalating cyber threats. Leading organisations are adopting Security Information and Event Management (SIEM) to bolster monitoring platforms and enhance their security posture.

Business-Specific KPIs and DevOps & Agile Metrics show the lowest monitoring levels, despite their high stakes for revenue, market position, and development agility. Being able to monitor resources and applications more holistically across entire business processes allows business leaders to better understand the health of the entire process and the business impact of outages and other technology issues. This helps prioritise issue resolution and focuses the ITSM and IT Operations teams around the issues with the biggest customer or revenue impact.

**Adopting observability brings a holistic monitoring approach across all IT infrastructure including:**

▶ Boosting focus on Security metrics to proactively manage cyber risks.

▶ Using advanced analytics for deeper insights into business KPIs, aligning IT performance with business outcomes.

▶ Fully embracing DevOps and Agile metrics to enhance development cycle agility.

This will not only protect operations but also position SMEs to capitalise on growth and innovation opportunities, driving improved performance through informed decision-making.

Alert Fatigue and Limited Visibility

The efficacy of IT monitoring in Australian SMEs is currently undermined by limited visibility and alert fatigue (Figure 10).

FIGURE 10

Incomplete Coverage and Alert Overload Major Challenges in Monitoring

30% Limited visibility

25% Alert fatigue

20% Silos and fragmentation
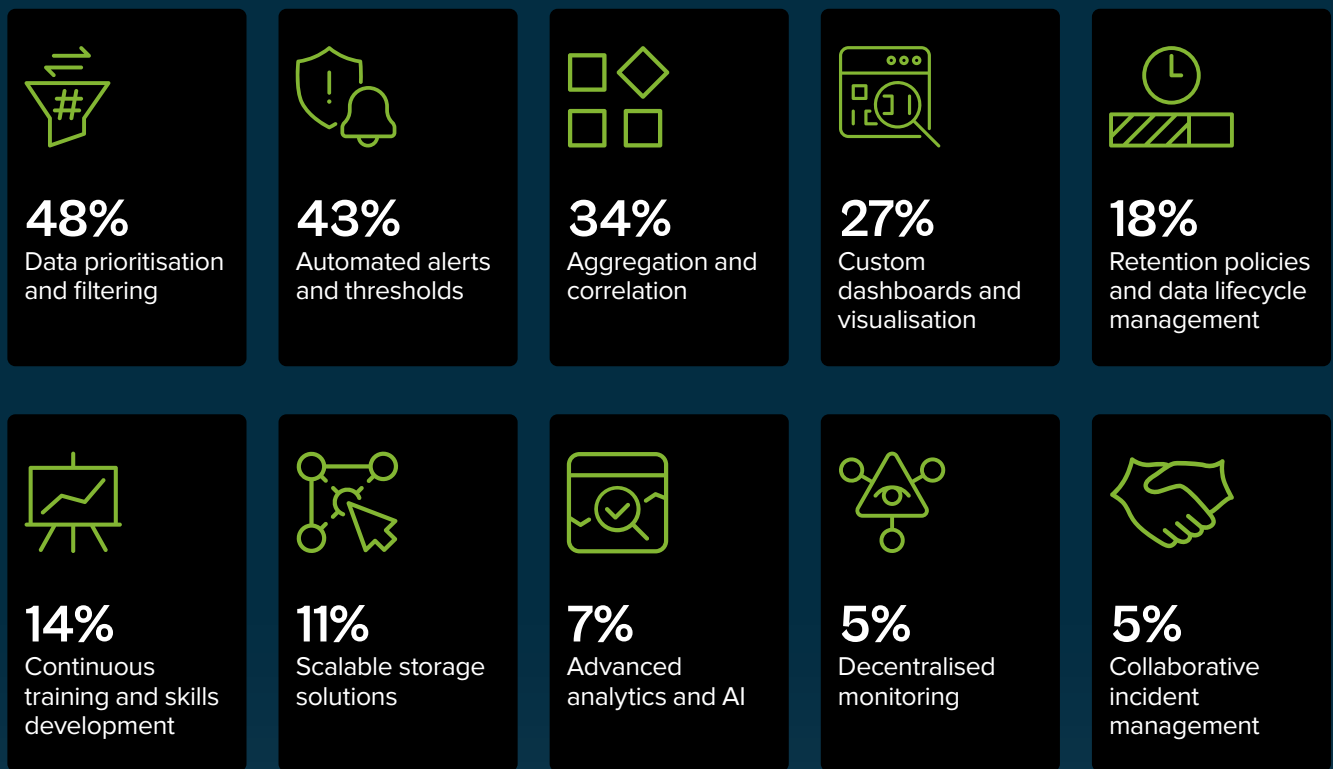
14% Reactive nature

11% Lack of context
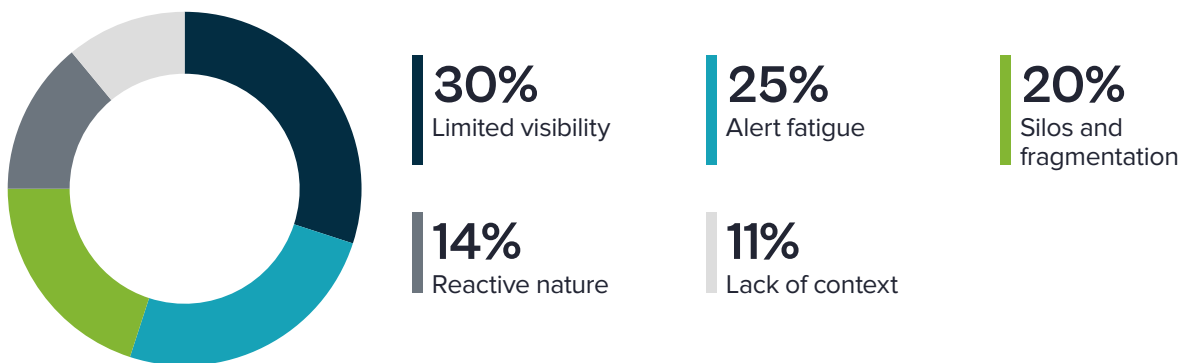
Q: What is the biggest challenge of the organisation's current IT monitoring tool/platform?

Alert fatigue occurs when tech teams are inundated with constant alerts, including false positives, diverting their attention from critical issues and leading to important alerts being overlooked. Previous research suggests that up to 30% of alerts go uninvestigated or ignored entirely, with many IT professionals spending up to 25% of their time sorting through alerts, leading to decreased job satisfaction and higher turnover rates. Silos and fragmentation hinder a unified view of IT health, while reactive alerts lacking context prevent swift and effective responses to threats or issues.

To overcome alert fatigue, SMEs are adopting data prioritisation and filtering methods to differentiate critical alerts from noise (Figure 11). Automated alerts with smart thresholds help minimise unnecessary notifications.

FIGURE 11

Australian SMEs Need to Focus on Other Methods to Handle Alert Fatigue

48%	43%	34%	27%	18%
Data prioritisation and filtering	Automated alerts and thresholds	Aggregation and correlation	Custom dashboards and visualisation	Retention policies and data lifecycle management

14%	11%	7%	5%	5%
Continuous training and skills development	Scalable storage solutions	Advanced analytics and AI	Decentralised monitoring	Collaborative incident management

Q: How does the organisation manage the issue of data overload or alert fatigue from IT monitoring tools/platforms?

Effective IT observability solutions prioritise additional methods to alleviate alert fatigue. They employ aggregation and correlation strategies to consolidate data, supported by advanced analytics and AI for predictive management. Custom dashboards and visualisation tools facilitate the swift identification of trends and anomalies for real-time issue resolution. A robust observability solution, combined with a collaborative incident management approach and ongoing training, ensures teams remain responsive.

# IT Observability Makes Monitoring Actionable

IT observability elevates monitoring by providing a holistic view of system behaviour, incorporating logs, metrics, traces, and events to identify root causes of issues.

This proactive approach, enabled by advanced analytics, detects patterns and anomalies pre-emptively, minimising downtime and enhancing resilience. By ensuring consistent digital services, IT observability empowers teams to experiment with new technologies confidently while enhancing the customer experience.

The potential of IT observability extends beyond the IT team. Business leaders, especially those funding cloud and application development investments, should prioritise observability to guarantee system availability and resilience for employees, partners, and customers.

Australian tech leaders are increasingly adopting IT observability solutions for deeper insights beyond traditional monitoring (Figure 12).

FIGURE 12

66% of SME Tech Leaders in Australia Have Adopted/Are Evaluating Observability

12%
Yes, and we already use it

19%
Yes, and we are evaluating it

35%
Yes, but in the future

34%
No
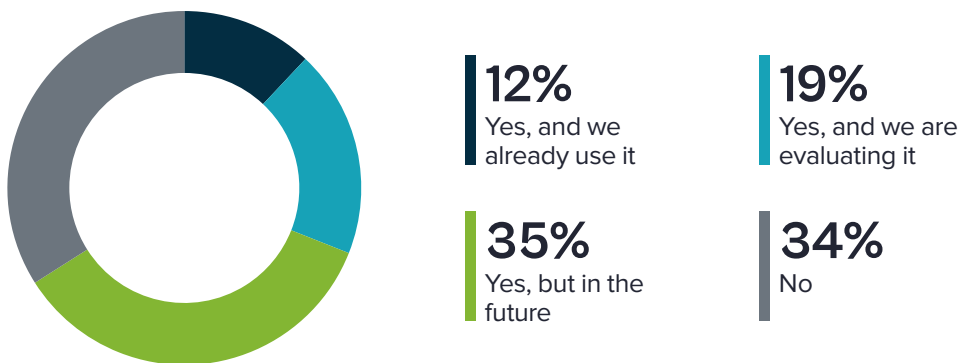
Q: Are you aware of IT Observability; and are you using it today or have plans to adopt in the future?

As SMEs embrace observability, they unlock a cycle of enhanced performance, customer satisfaction, and competitive advantage, underpinning the organisations' agility and innovation capacity.
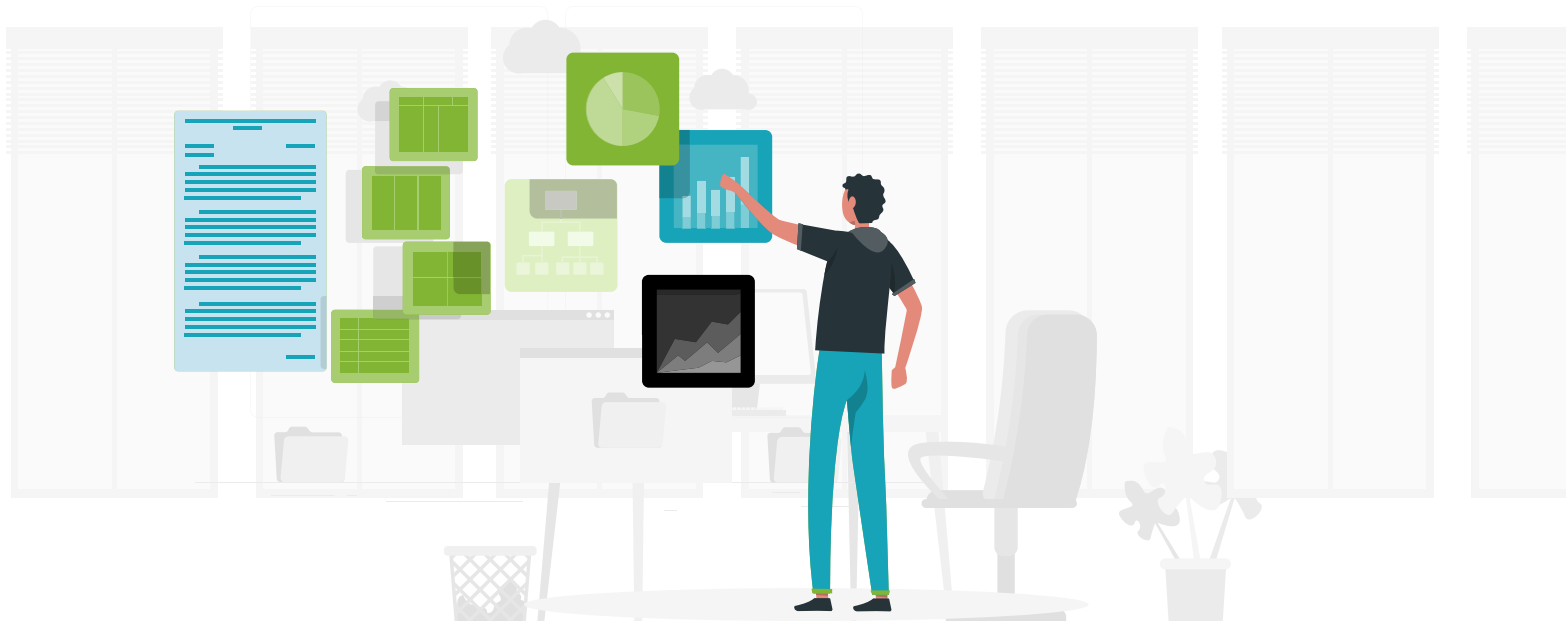
ECOSYSTM OPINION

Accelerate Your IT Observability Adoption to Improve Digital Resiliency

Australian organisations are actively evaluating IT observability to enhance their understanding and management of complex IT environments.

Current utilisation reflects a commitment to proactive system health and performance, with an emphasis on deriving actionable insights from their IT ecosystems.

As infrastructures become more intricate with the proliferation of cloud services, microservices architectures, and agility needs, observability will be pivotal in maintaining operational excellence. Most organisations foresee the investment value, with a majority projecting spending will stay the same or increase.

↗

58% of Australian SMEs expect to spend more on IT observability in the next two years.

Consolidating monitoring and observability platforms strategically drives speed and agility. By reducing the number of platforms, organisations streamline processes, cut overheads, remove data silos, hasten incident response, and remove complexity.

While adopting IT observability, organisations must:

▶   Evaluate existing tools to identify overlaps, gaps, and consolidation opportunities.

▶   Invest in integrative solutions for seamless monitoring-observability transition.

▶   Upskill teams to effectively utilise advanced observability tools and interpret rich data.

▶   Adopt a proactive culture valuing issue identification and resolution via observability insights.

▶   Continuously improve by using observability insights to enhance IT systems and processes.

Addressing these areas will empower Australian organisations to harness the full potential of IT observability, fostering a resilient, agile, and customer-centric technological foundation.

IT Observability Checklist

This checklist outlines the key steps for setting up an IT observability capability in an Australian organisation.

Define Observability Goals and Requirements
- ❑ Define business objectives for observability (e.g. enhance uptime, expedite incident response).
- ❑ Specify IT services and infrastructure for monitoring.
- ❑ Outline necessary metrics, logs, and traces for effective monitoring.

Select Observability Tools
- ❑ Explore cost-effective open-source choices for smaller deployments.
- ❑ Assess enterprise-grade options for security, compliance, and scalability.
- ❑ Confirm compatibility with current IT setup, including cloud platforms and monitoring systems.

Data Collection and Instrumentation
- ❑ Install monitoring agents to gather metrics, logs, and traces from IT infrastructure.
- ❑ Set up application instrumentation to capture necessary telemetry data.
- ❑ Create data pipelines to store observability data centrally after ingestion.

Metrics, Logs and Traces Management
- ❑ Establish naming conventions and tags for easy identification of metrics, logs, and traces.
- ❑ Use data filtering and aggregation to manage data noise effectively.
- ❑ Create alerts with predefined thresholds to notify critical events promptly.

Dashboarding and Visualisation
- ❑ Create real-time dashboards for IT service health and performance insights.
- ❑ Correlate metrics, logs, and traces to troubleshoot efficiently.
- ❑ Share dashboards with stakeholders for informed decisions.

Continuous Improvement and Automation
- ❑ Review and refine observability strategy regularly based on usage patterns and feedback.
- ❑ Automate tasks like data collection, alert escalation, and reporting for efficiency.
- ❑ Integrate observability data with incident management for faster resolutions.

Additional Considerations for Australian Organisations
- ❑ **Compliance:** Ensure observability practices meet Australian data privacy regulations.
- ❑ **Security:** Implement robust security measures to protect sensitive data collected by observability tools.
- ❑ **Support:** Partner with local observability providers and implementation partners for expertise and support.

About the Study

The Ecosystm Digital Intensity in Australia Study, commissioned by ManageEngine Site24x7, represents the views of 101 technology leaders from mid-sized organisations in Australia. 44% of the participants have adopted monitoring, while the remaining are at the evaluation stage.

IT Roles

14%
C-Level

10%
VP

30%
Director

47%
Sr Manager

Size of Organisation

33%
201-499 Employees

33%
500-999 Employees

36%
1,000-1,500 Employees

About the Author

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Tim Sheedy is the VP of Research at Ecosystm - a digitally native technology research and advisory firm. Tim brings more than 20 years of experience in designing and implementing cloud, IoT, AI and automation strategies to the Ecosystm network, to support businesses in their IT decisions. In his role he sets the research strategy for Ecosystm, and works with the advisor and analyst community to deliver a future vision for the technology sector.

In his previous role, Tim spent 12 years at Forrester Research, most recently as a principal analyst, helping IT leaders improve their digital capabilities. Prior to this, he was research director for IT solutions at IDC in Australia, where he assisted IT vendors in designing solutions to better fit market requirements, and IT buyers in improving the effectiveness of their IT functions. Beyond the office, he boasts an international reputation as an entertaining and informative public speaker on the key trends in the IT market. He graduated from University of Technology Sydney with a BA majoring in Marketing and Research. In his free time, Tim enjoys bushwalking, playing football (badly!) and tennis and watching the amazing Wolverhampton Wanderers play the beautiful game, and the terrible Waratahs butcher the game they play in heaven.

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