Cloud adoption readiness research report

FUJITSU | AIDH

The digital transformation of health care has never been more critical.

Over the last two years, we have witnessed the accelerated adoption and scaling of digital health solutions across the Australian healthcare landscape.

This exponential increase in the utilisation of health systems to deliver patient care is anticipated to continue as the healthcare needs of Australians are met through virtual care interactions.

The maturation of person centred care technologies has enabled and equipped our healthcare systems better than previously possible. One of those technologies is cloud-based computing.

Cloud computing enables health systems to deliver safe, secure, quality care inside and outside the hospital walls, while also lowering the barriers for the healthcare workforce to improve the efficiency of workflow and service delivery.

Importantly, cloud technology is unlocking healthcare's digital potential in an environment that is better equipped to withstand malicious threats and defend against cyber attacks. Following, a series of natural disasters such as bushfires, floods and the pandemic, health systems have fundamentally changed their appetite for on-premise housing of technical infrastructure.

Cloud is scalable, flexible and customisable. It can be implemented within any health setting with an internet connection to provide clinicians and patients with secure access to data, clinical systems and mobile applications.

In July 2022, Fujitsu and the Australasian Institute of Digital Health (AIDH) surveyed the membership to understand cloud adoption readiness in health care organisations, attitudes towards cloud technology and the value cloud can bring to the healthcare workforce. The survey population is representative of the wider Australian geographic distribution.

The survey posed questions to Australian healthcare and technology professionals about their experience with cloud readiness and adoption in their current organisation.

The survey yielded seven important findings illustrating that while the benefits of cloud are widely understood, attitudinal and systemic barriers to cloud adoption still exist.

Sluggish implementation

92%
Health services have not fully deployed cloud implementation roadmaps.

Cloud is an established technology that is widespread in many industries, yet health system adoption remains under-developed.

Most survey respondents stated only a few of their organisations' applications are currently hosted in the cloud. Only 8% reported that their organisation had fully deployed a cloud implementation roadmap. Cloud can assist in building a self-sufficient health eco-system as it allows on demand access to computing that can support large datasets with the ability to share data insights across clinical teams.

Intelligent insights most valued

65%

of respondents recognise improved analytics as a key benefit of cloud.

One of the most recognisable benefits of migrating data and applications to the cloud, is that it results in consistent enterprise data and enables intelligent, actionable insights. Data science leads to more anticipative services, better decision making and greater transparency for clinicians and patients. When answering the question, 'In which area has the most value been derived with cloud adoption?' the highest response was given to improved analytics.

Generating more financial value

53%

Health services noted the potential for cost savings through cloud adoption.

Respondents highlighted that a key benefit of cloud was the ability to reduce costs with 35% stating they recognised this in some areas and a further 18% stating this was recognised in most areas. There is a perpetual challenge balancing healthcare expenditure with the healthcare needs of the population; cost savings generated through cloud adoption can be re-invested to improve health access and equity, benefiting the most disadvantaged.

Most secure

62%

say improved cybersecurity is a key benefit of cloud.

The health industry is a treasure trove of sensitive personal information with logarithmic increases in volumes of sensitive data with the growth of genomics and precision medicine data added to phenotypic data. In a period of increasing geopolitical turbulence, the threat and success of cyberattacks continues to grow. 62% of survey respondents stated that value had been realised in improved cybersecurity through the adoption of cloud. Cloud service hyperscalers invest large amounts of capital on physical and virtual security that public and private health systems can ill afford.

External actors were behind 61% of data breaches for health organisations . Cyber insurance premiums are typically 70% dearer post pandemic. Health systems are critical infrastructure that require continuous protection. Upgrading healthcare systems to the cloud drastically reduces the risk of cyberattacks, as dedicated teams protecting off premise data centres are searching for potential malicious attacks 24/7.

Operational value generation is critical

64%

say delivering operational value for people, process and technology is a critical success factor for adoption.

In asking respondents which factor would be most important to successful cloud adoption in their organisation, 64% answered that value generated through improvements in people, process and technology would be most important. This reflects what is already recognised across industries as one of the greatest benefits of cloud. Implementing cloud in a healthcare setting improves operational efficiencies, reduces workloads through automation and provides ease of access to data and clinical systems.

Person centred patient experience

73%

rank patient services and virtual care as the highest priority for cloud.

Cloud enables a more personalised care journey with specialist insights and cross disciplinary access to clinical documentation. Respondents to the survey prioritised clinical systems including Medical Records, Pathology, Imaging, and Pharmacy as the priority applications for migration to cloud.

73% of respondents stated that patient appointment booking and transport systems should utilise cloud. Prioritising these systems to adopt cloud would improve patient experience and improve workforce satisfaction while decreasing cost and inconvenience for patients and their carers.

Budget is the greatest challenge

38%

stated the greatest barrier to health service cloud implementation is budget.

One of the most evident barriers to implementing cloud is a dedicated business case and budget to pay for cloud adoption. This was reflected within the survey with 38% of respondents stating it was one of the most important factors to successful cloud adoption in their organisation even if longer term savings were acknowledged.

A further challenge faced when proposing cloud technologies in healthcare is that there needs to be a clear benefit articulation for clinicians and other healthcare providers. Of the survey respondents, 49% stated that clear benefit articulation is required as well as support from their organisation's executive leadership. Encouraging wide-spread support for a cloud first policy is a common way its adoption can be accelerated.

Recommendations

Complete a cloud adoption roadmap as a priority.

Create a diverse coalition of cloud champions across clinical professions, business administrators and patient advocates.

Create a business case that includes strategic considerations such as patient experience and cyber security in the financial calculation of value generated.

Start with high value use cases and deliver quickly using agile methods to demonstrate return on investment and benefit realisation.

Prioritise person centric digital health over other cloud adoption use cases.