Adopting holistic approaches to strategic modernisation

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Introduction

A surprisingly large number of enterprises continue to run their core operations on legacy systems, even where a digital front-end has somewhat brightened the user experience.

Gartner research from 2023 found more than 60 percent of organisations had technical debt due to legacy systems, which were also negatively impacting their agility and speed of delivery.

This is not sustainable into the future. The accelerated move to remote workforce practices that arrived with the pandemic – coupled with the dramatic increase in cyberattacks – has made the need for systemic change more critical. Additionally, these legacy systems are inflexible, hindering the ability of many organisations to adapt quickly to changing business environments.

In computing terminology, a legacy system is simply an outdated computing system, hardware or software that is still in use and written in a computer language that is no longer in common usage.

In 2024, many industry incumbents are struggling to compete against various 'born in cloud' companies that have been established in more recent years, and are therefore unburdened by 'legacy debt'.

Strategic modernisation is the leadership resolve to improve and upgrade existing systems to achieve better customer experience and to meet business objectives.

InnovationAus.com hosted two roundtable discussions in Sydney and Melbourne between a senior group of Chief Information Officer (CIO) peers from industry and government to reflect on practical strategies to address legacy issues and future-proof systems, while still meeting the competing priorities that always exist within organisations.

To start the discussion, Infosys executives outlined global best practice and provided insights into what constitutes an 'ideal modernisation strategy'.

60 percent of respondents had technical debt as a result of legacy systems in place

Attendees

Naresh Duddu, Associate Vice President and Global Head – Modernisation, Infosys

Jason Carr, Head of Digital, GHD Digital

Jim Cooper, CEO, Terragen Biotech

Keith Pinto, Head of Digital, Optus Enterprise and Business

Maxim Shklyar, CTO, Founder, CPO, Instantscripts

Padmini Victor, Head of Strategic Architecture, Bupa

Ryan Rubin, Director of Operations, Soulfresh

Vikas Tatwani, Vice President and Head - JAPAC, Cloud Infrastructure and Cyber Security, Infosys

Moderators
Corrie McLeod, Publisher, InnovationAus.com, in Sydney and
James Riley, Editorial Director, InnovationAus.com, in Melbourne

Appropriate drivers

Modernisation is a way to achieve many organisational goals. Be it to fulfil long-term business objectives, keep pace with market changes, or enable continuous innovation to be future-ready. Making the organisation resilient, relevant, and responsive must be the central driver when modernising legacy applications with the cloud.

Designing an easy-to-navigate approach to the transition from legacy systems to new technology is a good first step. This is an under-recognised but critical part of the process – there is a lot to understand in operating a business in the new environment. Specifically, an organisation's data remains the most critical layer for any enterprise. Hence its efficiency and security are therefore paramount.

The cost-versus-risk calculus is very familiar to anyone working in technology. There are two branches of this cost-risk calculation. First, there is the cost and risks of implementing a modernisation program. But there is also the costs and risk of not implementing such a program. There is no 'one size fits all', but it is worth noting that legacy systems are generally more expensive to run and do not deliver the business benefit of modern digital systems.

Also, simply 'moving to the cloud' is not modernisation. The danger here is that outdated and inefficient systems and processes are simply moved to a new environment. This does not deliver the full benefit. And such 'lift and shift' migrations to the cloud can actually increase the cost in the long term — and become operationally inefficient.

> **"There are some big, hairy problems that cannot be solved in isolation. Connection leads to modernisation solutions."**
> — Jason Carr, Head of Digital, GHD Digital

> **"Today, cloud and other next-gen technologies have an important role to play in any organisation's modernisation journey, as they not only accelerate innovation but also put them ahead in the race."**
> — Naresh Duddu, Associate Vice President and Global Head – Modernisation, Infosys

Modernisation programs success stories — the critical factors

The accelerated migration to the cloud has been reported as a proof point for the global success of modernisation programs. But this is not necessarily the case.

Looking at cloud services as the start and the finish of modernisation has let many organisations into a 'lift-and-shift' approach – which effectively means moving a business application to a cloud platform, without having re-imagined or redesigned the application itself.

This approach can even lead to organisations turning to 'digital factories' that are brought in to get the business application operations in the cloud – to the point where these outsourcers have now taken charge of your program management.

Modernisation of this type – moving core business systems to the cloud – requires a long-term vision and will often involve a journey of up to five years. The first step to overcome is to remember that while organisational culture is difficult to change, forward-thinking leadership with the right change management plan is the transformative engine for strategic modernisation.

There was general agreement that a successful journey starts at the top. That is, if modernisation is driven at the board-level or most senior executive tier to reduce the 'tech debt' of aging systems and processes, then the chances of creating a successful program are substantially increased.

Organisation that are moving to the cloud and app modernisation are generally more resilient and more flexible than those that are not.

There are many examples of older organisations like government agencies and telecommunications companies that have moved towards more secure and flexible technology that future-proofs their systems.

What is needed is an ecosystem that spans the distance between incubation to commercialisation – creating the space to overcome IT challenges can lead to customised solutions.

"A state department of transport has a division that is customer focused. That is happening very rapidly, from the CEO down."
— Jason Carr, Head of Digital, GHD Digital

Reversing failed modernisation programs

Not all modernisation programs achieve what the organisation had set out to achieve. The programs themselves need to be flexible enough to respond to challenges.

Keeping abreast of case studies where programs have failed is a good way to recognise the red flags of an ill-conceived approach or outcomes.

The executives and managers driving these programs should always be asking: 'In hindsight, what could have been done differently?'

For example, there are parts of government that have a 'business as usual' approach process – and this includes entrenching legacy systems or reporting programs. While public servants in these organisations can see the advantage of new technologies, they are too entrenched in outdated ways of thinking to see how that technology can be applied within their own organisation.

This is a cultural obstacle where outside help from a trusted advisory specialist can make a world of difference – because the IT assets need to be complementary to the strategy and modernisation objectives.

The avoidance of existing problems in favour of adopting the latest technology is not a realistic fix either. Rather, this is a short-sighted and often detrimental approach.

> **"You're never going to get everybody onto the same platforms but having coding and developers who are able to connect things will smooth the path ahead."**
>
> — Keith Pinto, Head of Digital, Optus Enterprise and Business
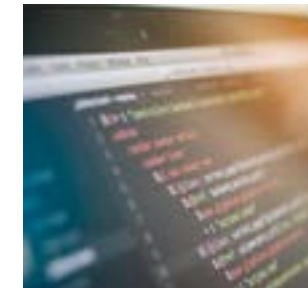
Investments that build business and create impact

When exploring digital investments, the emphasis is often put on trying to find management consultancy skills that can deliver a modern system rather than focusing on building the skills to drive modernisation programs in-house.

There was general agreement during the discussion that audits and assessments of internal skills are worth doing before enlisting consultancy and advisory firms.

Many holistically inclined organisations, including in the education sector and utilities, have adopted the managed services of strategic modernisation leaders. Household-name global conglomerates are perceived as industry beacons in cloud adoption framework and upkeep.

Conclusion

Strategic modernisation programs can deliver both operational savings and improved outcomes, including increased customer/citizen satisfaction and increased revenue. But there is no one-size-fits approach. Each organisation brings unique challenges and opportunities.

The first challenge is to ensure that modernisation is appropriate for each of the apps or programs being modernised. That is itself a complicated process.

Cloud providers, managed service providers, third-party technology providers, DIYers and all levels in between for how you host the application needs to be fit for purpose. Business leaders must consider private and public cloud platforms, for example, and their suitability for individual commercial objectives.

Making the wrong decisions or not understanding nuanced guidance can result in long term damage – as inflexible or redundant systems are adopted.

The key question is – how do we leverage cloud for modernisation to motivate digital innovation? Whatever you are going to build needs to offer sustainability, reliability and flexibility.

Functional requirements must be hand in glove with organisational discipline in order to succeed. In other words, the technical objectives and cultural ethos need to align.

And here is the challenge: Modernisation can be put off for decades and consequently the legacy systems you may be trying to upgrade have almost become a dying breed. However, even in this scenario, the pressure to migrate core systems to the cloud is not necessarily the complete answer.

Rather, it is an important component, or potential step in the right direction. Strategic leadership required for building a sustainable modernisation program that includes regulatory and organisational effort.

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