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Enterprise Architecture's role in recovering from a crisis
A COVID-19 perspective

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Deloitte's Crisis Response Framework

Organisations typically respond to a crisis, such as Covid-19 or major Cyber security incidents, over three phases: Respond, Recover, and Thrive.

While organisations have handled the immediate response to the COVID-19 impacts and have stabilised in the interim state, they are now looking forward to **how they recover**, and how they may take this an opportunity to drive new business and **thrive**.

1. Manage continuity

Organisations need to have a structured approach and be ready to respond to a crisis

- Optimise the workforce and implement safe/flexible working arrangements
- Understand impacts on business financing to be able to prioritise the critical processes
- Engage with key customers and the stakeholder ecosystem to support business continuity

In 2020: *Throughout the pandemic organisations had to scramble to respond and remain in business*

RECOVER
RESPOND
THRIVE

2. Learn and emerge stronger

Companies need to rapidly reconfigure their processes, people and technology environment to adapt to a changing reality

- Reimagine workforce strategy and operating model
- Execute on strategic growth, partner and M&A ambitions
- Formalize and update crisis and resiliency playbook

In 2020: *As organisations are trying to emerge from the first wave of the pandemic, they need to stabilise, while taking stock and recovering*

3. Prepare for the new normal

Beyond the immediate recovery businesses must adapt to thrive and position themselves to the new norm, winning in the market and out pacing competitors

- Build scenario thinking/sensing into strategic thinking
- Implement digitally-enabled future of work
- Consider shape of business models and ecosystems for the future
- Reimagine the operating model to strengthen customer engagement

In 2020: *A small number of organisations are clearly adapting more quickly to the new environment and will likely take a lead in the market*

# How can Enterprise Architecture help in all of this

Enterprise architecture provides a structured approach to drive change at all levels of the organisation by establishing a clear view of technology assets and their alignment to business needs.

> An Architecture function that is working in the trenches, building the bridge between business and technology allows organisations to be agile and build robust relevant plans to prepare organisations to work in the new reality.

1. Manage continuity

At the time of the impact and shortly after, being in the prime position between business decision makers and solution delivery, the architecture function can help organisations to quickly review and adapt the current state using an enterprise model by :

- Identify critical business services and processes
- Identify key technology assets and people that support them
- Adapt the technology to support the business in responding to the crisis effectively
- Identify new capability needs (e.g. for remote working)
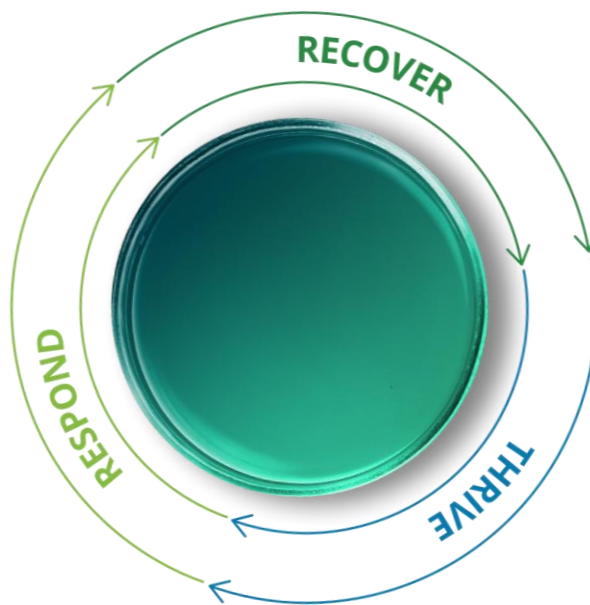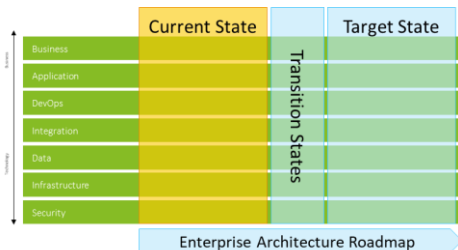
Note: Using Deloitte's Enterprise Architecture Framework as a reference for Architecture Domains and Transformation phases.

2. Learn and emerge stronger

As enterprises recover from the crisis architects will continue working with the business to review and to build a recovery plan and a transition state for the near-term future.

- Review lessons learnt regarding resilience and risk in the technology landscape
- Identify remedial opportunities for data and technology assets to build a resilient architecture
- Enhance digital presence and promote innovations
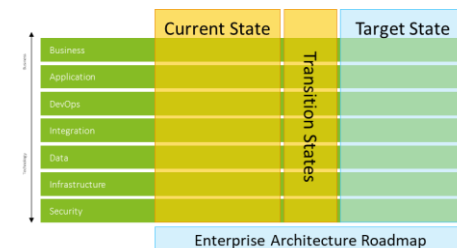
3. Prepare for the new normal

Using an enterprise model, the architecture function can help business leaders with the scenario planning highlighting capabilities required, and build roadmaps that will be needed to make the business models successful as they emerge from the crisis

- Enable businesses to make informed decisions for reallocating tech funding
- Enable enterprises to build nimble and agile architectures in an iterative way
- Embed lean processes to support decision making along with a minimum viable approach
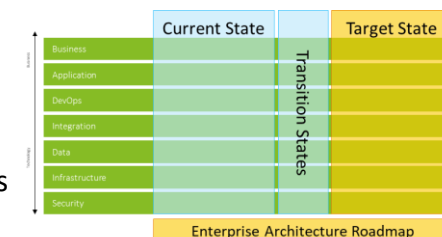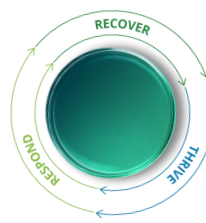
Respond

As the crisis unfolded, many organisations used technology to overcome the significant logistical, organisational and decision-making challenge they faced

What happened

- Core business processes and solutions had to evolve rapidly as the existing ones stopped working such as
  - Stores and physical customer services locations had to close
  - Customer services were limited to critical support
  - Supply chain was severely disrupted
- Many organisations had to rapidly adapt to a distributed, dispersed "work from home" model
- A number of short-term technology decisions might have been made with less than regular rigour and considerations as expedience took precedence over rigour
- Cybersecurity risks increased significantly due to more encouraged work from home and potential for new infrastructure vulnerabilities introduced.
- Cyber adversaries looked to take advantage of the crisis through malicious schemes

And architects had a lot of work to do

How was technology used

- Deployed new laptops or allowed employees to use their own devices ('BYOD') to connect to corporate apps and services
- Provided remote access to core systems at scale to keep the business functioning
- Tactical solutions and processes were developed or deployed in place to get the core business working
- Exploited collaborative tools, at a scale they had not experienced before
- Bought un-planned licenses such as for video conferencing (e.g. Zoom) or cloud storage to share files and data
- Implemented automation/AI solutions to mitigate reduced staff availability

29% of Enterprise Architects have started performing Application Rationalisation activities to identify redundancies and reduce costs *

Points for reflection

- Organisations may have deviated from technology standards or guidelines
- IT financial commitments may have increased significantly but long-term costs are as yet unclear
- Many systems and services might have been deployed or changed in a way that may make them more complex to maintain or unable to meet business needs for the longer term
- Viruses may have been introduced and has infrastructure been correctly configured to make the environment properly secure
- Tactical solutions might have inadvertently compromised data compliance and controls impacting customer and employee data
- Customers and shareholders now need reassurance and detailed plans for what the company is going to do next.

27% of Enterprise Architects are reviewing their application portfolio in light of the new norm *

Source: Survey recently conducted by LeanIX (https://www.leanix.net/en/blog/supporting-business-continuity-with-enterprise-architecture-during-covid19)
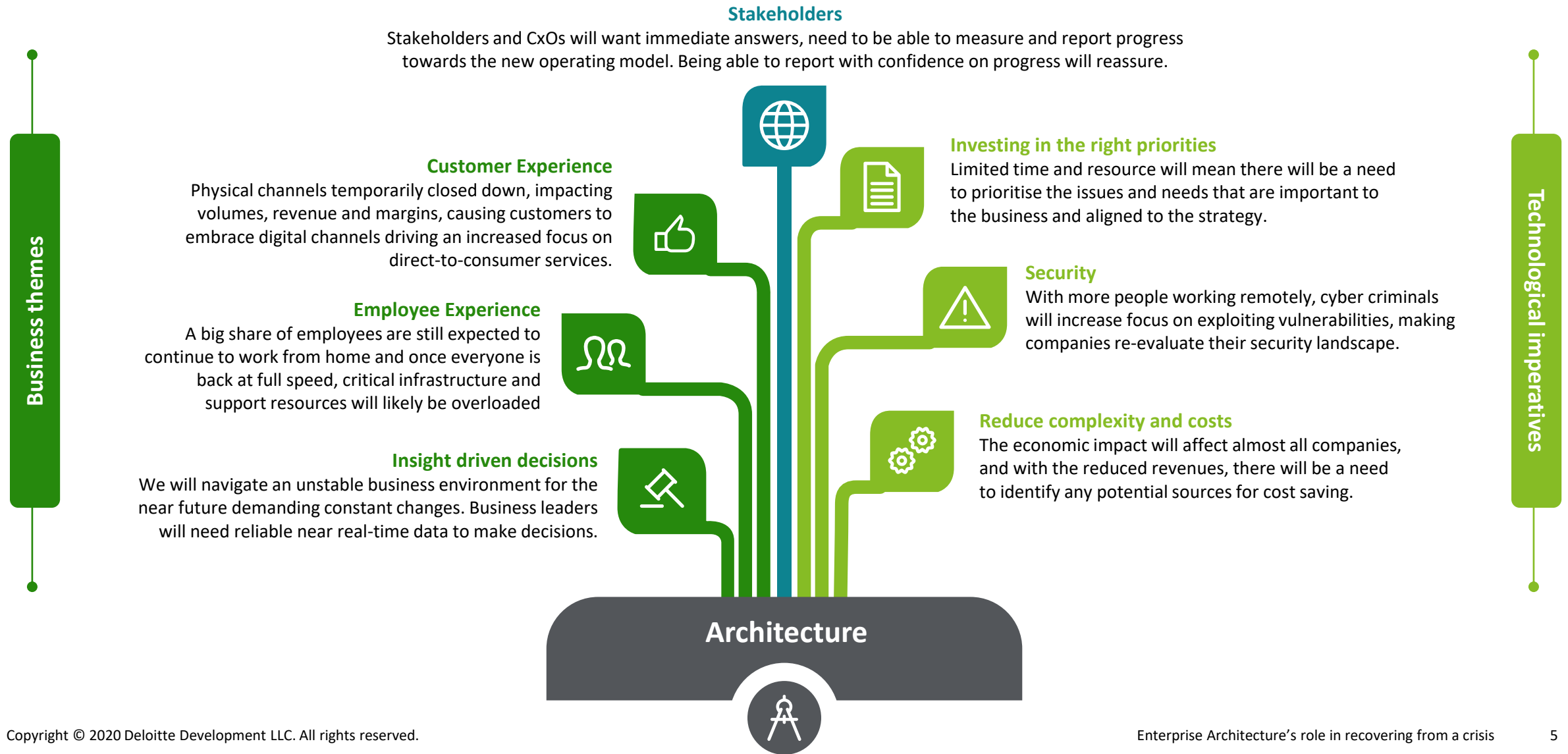
How have your architects supported the response?

Recover

As organisations look to recover from the crisis, a number of business themes and technology imperatives are emerging

Business themes

Technological imperatives

Stakeholders
Stakeholders and CxOs will want immediate answers, need to be able to measure and report progress towards the new operating model. Being able to report with confidence on progress will reassure.

Customer Experience
Physical channels temporarily closed down, impacting volumes, revenue and margins, causing customers to embrace digital channels driving an increased focus on direct-to-consumer services.

Investing in the right priorities
Limited time and resource will mean there will be a need to prioritise the issues and needs that are important to the business and aligned to the strategy.

Employee Experience
A big share of employees are still expected to continue to work from home and once everyone is back at full speed, critical infrastructure and support resources will likely be overloaded

Security
With more people working remotely, cyber criminals will increase focus on exploiting vulnerabilities, making companies re-evaluate their security landscape.

Insight driven decisions
We will navigate an unstable business environment for the near future demanding constant changes. Business leaders will need reliable near real-time data to make decisions.

Reduce complexity and costs
The economic impact will affect almost all companies, and with the reduced revenues, there will be a need to identify any potential sources for cost saving.

Architecture

Recover

Architects are central to shaping the opportunities and satisfying the needs of both business and technology

Architecture's role in this

Business themes

Theme	Architecture's role in this
Customer Experience	• Make sure customers have a consistent technological experience throughout the customer journey, from awareness to aftersales • As digitisation accelerates enable the right technologies while avoiding an explosion of applications and proliferation of shadow IT • Promote the use of the decoupled architectures using patterns such as microservices to provide flexibility required in the experience layer
Employee Experience	• Introduction and approval of more secure, efficient and quicker methods of authentication and for people working remotely • Help adoption of Collaboration/knowledge sharing platforms in the organisation • Build resilience and security in infrastructures and end user computing
Insight Driven Decision Making	• Strive towards an interconnected data platform that provides a rich source of real-world data to drive efficient decision making • Evaluate emerging technologies such as Machine Learning, Deep Learning, Big Data and IoT, among others, to deliver a better data and analytics platform • Review the application landscape, making sure core applications are scalable
Stakeholders	• With many changes being required to adapt organisations to the new reality, Architects are in a prime position to help IT Executives to set the right priorities, plan the transition and communicate the right messages to internal and external stakeholders demonstrating the value of investments made in people, processes and technologies

Technological imperatives

Theme	Architecture's role in this
Investing in the right priorities	• Work close to the business areas and make sure IT is investing in the right business priorities – which becomes more critical as budgets are more limited and organisations need to re-think their business models after responding to the crisis
Security	• Build a structured approach by identify the building blocks for recovering the critical business operations • Implement the appropriate guardrails and protection measures to improve the overall security posture for the architecture • Plan to evolve the approach and solutions to protect personal data of individuals, following regulatory determinations such as GDPR
Reduce complexity and costs	• Review the existing portfolio of technology investments, while enabling the modernisation without creating technical debt • Add transparency with frictionless governance processes for approval of new additions to the landscape • Consider a cloud first approach with appropriate guardrails to build elasticity and agility in the architecture • Assess existing application portfolio and list of approved vendors, looking for opportunities to rationalise and reduce complexity of the landscape

How are your architects shaping your recovery initiatives?

Thrive

How do organisations stay ahead to drive purposeful transformational change?

How about the future?

New business models and products
- The pandemic, has put existing business models under scrutiny and companies are forced to re-think the whole of their supply chain (sourcing, manufacture, deliver), products and services

Business continuity and resilience need to be embedded in the core
- The crisis revealed that to sustain and respond effectively, resilience and flexibility need to be in-built in the business processes and technology.

Meaningful Insights requires reliable data
- For some organisations the crisis has exposed deficiencies in the availability and reliability of the data and systems required to make meaningful decisions

Well being and societal impact are no longer secondary on the agenda
- Keeping people safe, healthy and productive is essential for creating a resilient organisation. This will require reimagining how we work and collaborate in the future

Architect for the next normal

Understand new business models and **identify opportunities** to **leverage existing technology assets** to support them

Understanding customer demand signals based on data rather than intuition will be critical.

Focus on outcomes and measure the impact of this through the right leading metrics.

Identify **emerging and innovative technologies** such as **Digital twins** to improve services in the future.

Build a technology strategy and architecture that underpins **growth through innovation**

Deliver innovation by leveraging broader **technology alliances.**

Advocate and embrace a **cloud first approach** to build elasticity and resilience

Enable virtual collaboration as default

How are your architects helping you imagine the future?

The increasing importance of Architecture

Organisations need to establish and evolve their Architecture approaches using a the following key principles

Having an effective Architecture capability is foundational to evolving the technology landscape and deliver ever-changing business models

Early Engagement

Architects can engage with the business early in order to decompose strategic priorities into portfolio objectives and become more accountable for solution outcomes.

This will allow architects to best advise on technology options and architectures that enable customer value to be delivered quicker (e.g. though loose coupling and microservices).
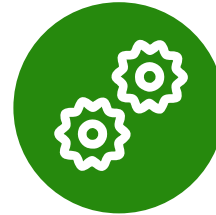
Frictionless

Architects can support speed and innovation, providing a seamless experience for the business while increasing developer productivity.

To support this, the architect will work within the long-lived product-based team constructs to provide advisory services
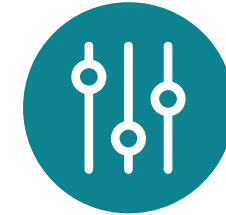
Guardrails & Metrics

Architects will provide appropriate guardrails to support effective decision making to balance the business and technical priorities.

Being able to measure the impact of this through the right leading metrics will be crucial to allow for course corrections to be applied quickly
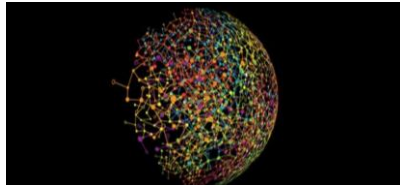
Are you ready?

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RECOVER
THRIVE
RESPOND

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