Driving excellence in IT Operations

Navigating the digital world with next generation IT operating models

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The digital agenda is driving IT organisations to deliver value at ever-increasing velocity while still protecting the integrity and availability of services.

Changes created through forces like cloud, agile, DevOps, micro services, containerisation and automation are challenging and disrupting the traditional delivery and management approaches followed in the majority of IT organisations today.

IT is now getting closer to the business, and we see an increasing number of cases where the IT organisation is moving towards a portfolio or platform-based operating model to better leverage the capabilities of today’s digital world. Typically, portfolios or platforms are based on one or more of the following: business value streams, customer journeys, business organisation structure, technology platforms, or service providers, etc.

IT has now reached its tipping point where there is a need to move away from the ‘one size fits all’ approach enforced through complex internal processes and governance, to be more agile, flexible and autonomous to stay closer and meaningful to the business.

Portfolio and platform based models – which are primarily characterised through increased adoption of agile, a growing culture of DevOps and a higher degree of automation – are already delivering results when it comes to the development of new solutions. However, there is not a great level of clarity and consistency when it comes to the run or operations side of IT, in terms of its evolution to meet the demands of the portfolio based operating model.
IT Operations in a digital world

So how should IT Operations evolve to meet the demands on next generation operating models and cater to the new ways of working driven through cloud, as-a-service, and DevOps etc.?

Over the last decade, the IT Operations function in organisations has focused on keeping IT services running with little disruption to the business. Frameworks and models like ITIL, ISO 20000 continue to play a key role in providing guidance to help organisations in their overall IT operations maturity journey.

However, in a changing digital world, the role of IT Operations has moved away from a ‘keeping the lights-on’ function to one that needs to meet the demands of availability, resiliency and service performance whilst facilitating the development of the new solutions at higher velocity.

To keep up with the new ways of working without losing sight of the overall service experience, there is a realisation for IT Operations that:

- IT service management capabilities have to be updated to remain ‘fit for purpose’ to suit new ways of working and the different delivery models aligned to agile, DevOps, and cloud etc.
- competency of operations and service management professionals needs to evolve to deliver meaningful “customer centric” services to their customers
- tools for operations and service management should be used effectively and driven by powered intelligence to move away from historic reactive and inefficient ways of working
- a shift in mindset is required to nurture a culture of openness, transparency and collaboration
- better practices and governance are needed to engage and manage the service providers as true partners
- business intimacy must be cultivated to drive business outcomes.

KPMG has advised and worked with several large organisations navigating through similar challenges to drive excellence in IT operations.
IO.IAF is a management framework to steer the IT Operations team to identify and build the capabilities that are relevant in the digital world. The framework brings together the dimensions that cover service management, service integration and service operations delivery.

IO.IAF consists of five key focus areas and underpinning practices, and in its core builds on a solid foundation in IT service management and service integration. It provides a clear guidance to either a central IT operations and service management team, or distributed operations teams in an organisation, to evolve the required capabilities swiftly in a structured approach.

![IO.IAF framework](image)

**Key outcomes**
- Enables business outcomes
- Fit for purpose service management
- Supports high change velocity
- Controlled and integrated operations

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1. Delivery patterns

Defining and managing IT Operations delivery patterns to accommodate and align with different modes of working which are prevalent across a number of IT portfolios.

Working with organisations of different scale and maturity, it is easy to see the emergence of four key operations delivery patterns, which characterise the delivery models and practices adopted by the IT portfolio teams within an IT organisation:

i. **Autonomous operators**
   Teams that have end-to-end capabilities to manage development and operations; trend setters of new ways of working (agile, DevOps, automation etc.) and have a strong culture of collaboration and high performance.

ii. **New age leaders**
   Early adopters of new work practices encompassing agile, DevOps in certain areas like scrum, continuous integration etc.; aspiring to gain more maturity to be more autonomous.

iii. **Balanced adopters**
   Teams that adopt conventional build and support (run) model with more emphasis on service stability and performance.

iv. **As-a-service loyals**
   Teams that are highly aligned to products/as-a-service solutions roadmaps delivered as a service; manages the service providers on agreed outcomes.

In a typical organisation or portfolio, there is more than one type of pattern at play based on the type of services and the ways of working. Aligning the IT Operations delivery and management with a clear operating model, ITSM process and controls benefits both the portfolio-aligned and centrally managed operations teams.

For example, if teams can qualify to be autonomous operators, they could take full accountability for all IT Operations activities including the review and approval of change requests local to their portfolio.
2. Organisation and culture

Identifying and investing in the right people capabilities, and driving the change to build the right culture.

This focus area broadly covers the people and culture aspects as described below:

i. **Skills and competencies** for the operations teams are the backbone for delivering the right outcomes. It is highly imperative to build teams with T or X-shaped competencies in IT Operations to provide the required depth and breadth across the emerging IT models and ways of working.

ii. For example, the central change management function should have resources that understand how continuous integration and continuous deployment works in DevOps teams, and their impact on change review and approval process rather than focusing only on process adherence.

iii. **Culture of collaboration** becomes a key component to drive the IT Operations ecosystem made up of portfolio project teams, service providers and other third party solution partners. Many organisations leave this as an afterthought and later realise its detrimental impact on the overall culture of IT Operations.

iv. **Partner management** is another key focus area. It is more of an art than a science to leverage the best from the expertise and experience of strategic partners. For example, getting different service providers to collaborate and focus on problems that cut across multiple services tends to lead to significant improvement in a short time.
3. Tools and automation

Leveraging the capabilities of tools to move operations from reactive to proactive and preventive. Establishing an integrated approach to drive automation leveraging artificial intelligence (AI) and machine learning.

Data, tools and automation are critical for the execution of IT operations and are enabled through:

i. **Tool sets** such as service management platforms and event correlation engines used across various teams are critical for overall operations and are better managed centrally in an organisation. Tools that serve a specific purpose for the needs of individual portfolios – for example, business service transaction monitoring – are better managed locally as long as there is clear architecture and design governance to enable the local data sets to be fed back to a central data lake for reporting, correlation and prediction.

ii. **API approach** is now becoming a key design consideration to allow teams within and outside the organisation to use interchangeably the operational data across different tool sets. For example, using APIs, the service request data from the ITSM tool of an organisation can be sent to their service providers who in turn can raise a ticket in tools internal to their organisation and periodically update the status of the ticket and its fulfilment time.

iii. **Data and analytics (D&A)** quality is fundamental to derive insights and build statistical models that help improve capabilities around event correlation, machine learning and to apply AI in operations activities.
4. Performance measures and controls

Establishing a clear set of key performance indicators and controls to measure the service delivery performance and overall operations maturity.

This focus area broadly covers the aspects as described below:

i. Operational guardrails that clearly define the controls and performance benchmarks in a simple and easily implementable manner go a long way to build autonomy for portfolio teams with the right degree of alignment. For example, at least 20 percent of operations requirements should be implemented in every release.

ii. Automated measurement that pools data from identified systems for reporting as per the operational definition of the metrics helps to eliminate any manual effort. For example, the number of repeat incidents for a service should be automatically calculated based on the ticket data.

iii. Performance dashboard that provides a single pane view of operational performance with ability to drill down and investigate at a source data level without the need to traverse multiple systems and data sets.
5. Service Integration and Management 2.0 (SIAM 2.0)

Evolving and maturing the core service management and integration activities to be fit for purpose and outcome oriented.

Service integration and management in its initial version over the last few years was more focused on managing cross-supplier relationships and developing an integrated model for service delivery.

In the digital world, the service integration and management needs to evolve to deliver capabilities to provide a plug and play type agility for organisations. SIAM 2.0 organisations are prepared to deliver the following services to the organisation:

i. Consult
Consult and coach the different IT teams on adopting and transitioning to pattern-based delivery for IT Operations; e.g. coach the portfolio operations teams on how portfolios can handle problem tickets as part of their development backlog and release in sprints.

ii. Equip
Enablers that allow different portfolios to adopt consistency in operations execution through common frameworks, process, guidelines and tools sets; e.g. defining standard services model, defining service level management framework, defining supplier on-boarding principles etc.

iii. Manage
Management services to integrate critical activities across different platforms and streamline the delivery of IT operations. For example, driving major incident management or management of critical changes.

iv. Deliver
Services owned and delivered by a central/group run function to the organisation or identified platforms. For example, enterprise command centre, service desk, management of IT Operations tools.

v. Improve
Services focused on identifying and driving cross functional improvement opportunities that are focused on improving customer and user experience. For example, problem management effectiveness to improve the customer net promoter score about the customer online experience.
Evolving IT Operations to excel in the digital world provides IT teams with:

### Increased agility
- enabling new ways of working and high velocity
- agility for portfolio teams to deliver at higher velocity with the right guardrails
- federated approach to IT operations allows more autonomy to portfolios in a controlled manner.

### Better collaboration
- fit for purpose service management processes which provides agility with the right set of controls
- integrated and collaborative ways of working to allow strong sense of alignment
- right set of measures and KPIs which prioritise outcomes over activities
- clarity in roles and responsibilities related to operational services.

### Improved risk posture
- reduced IT Service failure risk and improved ability to recover from IT Service Failure risk
- higher compliance with regulatory controls.
A large institution set out to change how its IT Operations worked, with the goal of being able to step up the velocity of its systems and work, and its responses to the business. In turn, this would help the overall business improve its service to its end customers.

With the help of KPMG, the organisation embarked on an enterprise-wide IT transformation, forming a platform-based federated model. This model was designed to strengthen the overall service integration and management capability of the IT Operations.

The new model involved the development of a handful of suitable ‘ways of working’ that could be adopted by each platform team, enabling them to work with more autonomy. In turn, this would speed up their decision-making, service delivery and enable agility.

Implementing faster and more agile IT Operations would have numerous benefits, but it also opened up the potential for new risks to the business. An organisation of this size and significance could not afford any IT issue to impact its customers. Therefore, KPMG helped to instil a clear set of guardrails (risk mitigation processes) to enable autonomy—yet with adherence to the right set of controls.

When forming the guardrails, assessment of platform teams’ maturity regarding experiences and processes. Teams demonstrating greater maturity levels were able to take more ownership of service delivery and operations. A number of platforms continued to be supported by a central service delivery organisation whilst others transitioned to more autonomous ways of working.

Core to the success of the transition will be the support of the organisation’s staff with many people being impacted by new ways of working. Thus, the organisation is instilling good people and change management processes, to help staff to understand what is happening, why it is happening, and the role they can play in its success.

The organisation is now continuing its journey to transition further platform teams to one of the agreed operational delivery patterns, to continue improving their speed and service levels.

In parallel, the organisation is also building up its core service integration capabilities to ensure every platform is operating to the same exacting standards.
Contributors and key contacts
With thanks to the following subject matter specialists for providing their input and guidance on this paper:

Andrew Wiles
Partner
T: +61 2 9455 9814
E: awiles@kpmg.com.au

Jason Fogaty
Director
T: +61 447 064 045
E: jfogaty1@kpmg.com.au

Balaji OS
Associate Director
T: +61 402 956 195
E: bsanthanam@kpmg.com.au

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July 2018. 256448053MC.