Service value system

The Practical Impact of ITIL®4

The impact on your ITSM tool

Content

Intro

Much has been talked and written about ITIL 4. However, most of this has been about the new terms such as the "service value chain" and the "ITIL 4 management practices." For organizations that use the previous ITIL v3/2011 version, this is helpful but still might leave them unclear as to the practical help ITIL 4 offers in light of their ongoing need to improve business performance and outcomes by increasing their IT service management (ITSM) maturity.

This white paper series helps shed some light on this. The first white paper explained the new ITIL 4 concepts briefly. It focused on how organizations can benefit from ITIL 4 and explained the impact on people. The second white paper focused on the practical impact of the changed and new ITIL 4 practices. Now, this third white paper covers the impact of ITIL 4 on ITSM tools. It outlines the tool features needed to support the adoption of new and changed ITIL 4 practices, by ITSM tool customers such as yourself, plus how likely it is that the ITSM tool vendors without these capabilities will invest in their future development.

The high-level impact of ITIL 4 on ITSM tools

How ITIL 4 impacts ITSM tools is multi-layered and not just related to the changed management practices. Some of these layers are discussed below.

The focus on value and new reporting and analytics requirements

The ITIL 4 concept of value co-creation and the use of value streams affect the design and capabilities of ITSM tools.

While the use of value steams – rather than ITIL v3/2011 processes – can be catered for through the use of the graphical workflow engines found in most successful ITSM tools, there's also the need to move from volume- and activity-based metrics – such as "how many" and "how long" – to those that better articulate the positive business outcomes, and the value that's co-created, to key business stakeholders.

An example of this is minimizing vehicle production delays and losses caused by IT issues for a car manufacturer. Or, for a healthcare provider, increasing the number of patients through digitalized processes. This requirement to refocus metrics, with appropriate tool enablement of performance measurement and reporting, is likely also true for your organization's need to measure and improve employee experience.

Non-IT ITSM tool usage

ITIL 4 is aimed at service management per se rather than just ITSM, with this impacting the needs of ITSM tools from an enterprise service management perspective.

The adoption of enterprise service management – "the use of ITSM principles and capabilities in other business areas to improve performance, service, and outcomes" – has grown significantly in the last five years. And while ITIL 4 doesn't explicitly talk to enterprise service management, its service management approach will no doubt make ITIL guidance highly applicable to enterprise service management strategies (and back-office digital transformation initiatives).

The improved non-IT accessibility of ITIL 4 will also potentially help to drive the use of ITSM tools outside of IT, which will require ITSM tools to offer the following enterprise service management capabilities if they don't already:

- Great, consumer-like, user (employee) experience
- Data access controls and separation between different business function domains
- Easy integration with corporate systems (not just IT systems)
- The ability to introduce new data objects that are not related to IT (e.g. facilities assets)
- Task and process automation (and increasingly AI-enabled capabilities)
- Flexibility to match the ways of working across business functions
- Multidimensional knowledge management

The call for increased automation

New technologies, and now ITIL 4's push for more automation, are already impacting customer expectations of ITSM tool capabilities. Artificial intelligence (AI), or more specifically machine learning, plays a big part here. With the new technology – along with traditional automation capabilities – helping to fulfill the ITIL 4 guiding principle of "optimize and automate." This includes AI-enabled ITSM capabilities such as:

Fig. 1: AI-enabled ITSM capabilities

Chatbots and virtual agents
With the latter being where the AI, based on machine learning, augments staff knowledge and capabilities.

Intelligent automation for ticket handling
The automated categorization, prioritization, assignment, and potentially processing of incidents and requests.

AI-assisted knowledge management
From intelligent search, through intelligent email autoresponders, to the identification of knowledge gaps and automated article creation.

AI-assisted decision support and trend identification
From problem management to demand planning and staffing optimization.

AIOps
Machine-learning-based event management that identifies what's important amongst all the event management "noise" and, where appropriate, acts.

These capabilities might be provided in a variety of ways. For example, within the ITSM tool itself (including embedded third-party technology/solutions), via an integration with a tool-vendor technology partner, or by an unrelated third-party provider. Importantly, many of these AI-enabled capabilities are also applicable in enterprise service management scenarios.

The impact on ITSM tool structures

Notwithstanding the changes called out in section 1 of this paper, the loss of the ITIL v3/2011 ITIL Lifecycle in ITIL 4 also has a significant impact on ITSM tool structures, i.e. how the various tool capabilities are shown to the user. ITIL v3/2011 has been used as a "blueprint" for ITSM tool design for over a decade, with all of the service operation capabilities grouped, all the service transition capabilities grouped, and so on. Now that service strategy, service design, service transition, service operation, and continual service improvement are no longer the convenient "homes" for the ITIL processes/practices, it means that a new logical structuring is needed.

So far, there's no industry-agreed view on this, either from AXELOS or ITSM tool vendors. With it inevitable that ITSM tools will continue to present their ITSM capabilities in line with the ITIL v3/2011 structure for the foreseeable future – until a new solution is agreed upon (based upon which of the new and changed management practices are sufficiently adopted by customers). For example, whether organizational change management capabilities are repeatedly called for by customers, such that it becomes a standard ITSM tool feature set, will ultimately influence how any ITIL-4-based tool structure is created.

The potential impact of individual ITIL 4 practices

While the previous section covers the tool-wide impact of the new and changed management practices, each practice in itself might require specific ITSM tool features.

Fig. 2: The 34 ITIL 4 management practices

General management practices

- Architecture management
- Continual improvement
  (ITIL v3/2011: continual service improvement)
- Information security management
- Knowledge management
- Measurement and reporting
- Organizational change management
- Portfolio management
  (Service portfolio management)
- Project management
- Relationship management
  (ITIL v3/2011: business relationship management)
- Risk management
- Service financial management
  (ITIL v3/2011: financial management for IT services)
- Strategy management
  (ITIL v3/2011: strategy management for IT services)
- Supplier management
- Workforce and talent management

Service management practices

- Availability management
- Business analysis
- Capacity and performance management
  (ITIL v3/2011: capacity management)
- Change enablement
  (ITIL v3/2011: change management)
- Incident management
- IT asset management
  (service asset and configuration management)
- Monitoring and event management
  (ITIL v3/2011: event management)
- Problem management
- Release management
  (ITIL v3/2011: release and deployment management)
- Service catalog management
- Service configuration management
  (ITIL v3/2011: service asset and configuration management)
- Service continuity management
  (IT service continuity management)
- Service design
  (ITIL v3/2011: design coordination)
- Service desk
  (was an ITIL v3/2011 function)
- Service level management
- Service request management
  (ITIL v3/2011: request fulfilment)
- Service validation and testing

Technical management practices

- Deployment management
  (ITIL v3/2011: release and deployment management)
- Infrastructure and platform management
- Software development and management

- new
- name change or split
- unchanged naming
- unchanged naming but content changes

Commonly adopted processes/practices

The ITSM tool features that support the most commonly adopted ITIL processes/practices will be needed by the majority of the IT organizations that want to transition their ITSM operations, and the practices they employ, from ITIL v3/2011. The Required ITSM Tool Features list below assumes that you – the ITSM tool customer – wishes to bring your existing ITSM capabilities in line with the new ITIL 4 guidance.

ITIL 4 practice	Required ITSM tool features
Change enablement	This practice requires DevOps-related capabilities. From integrations to DevOps toolchains to the addition of related capabilities (including increased change automation and orchestration), perhaps even DevOps modules. These features will also likely be requested by IT organizations that do not plan to adopt ITIL 4.
Continual improvement	Any capabilities requested for this practice are less related to the evolution of continual improvement itself and more to the greater emphasis on improvement in ITIL 4. However, ITSM tools have, for over a decade, previously ignored the addition of improvement-related capabilities – likely based on lack of customer demand – so if it's not already in your ITSM tool it's unlikely that this will change in light of other "more wanted" ITIL-4-related additions.
Deployment management	As with change enablement, any ITSM tool features required are likely related to DevOps methods and the increased use of automation in terms of continuous integration, continuous delivery, and continuous deployment.
Incident management	The obvious demand for new ITSM tool capabilities for incident management would be support for swarming such that incident handling can be collaboration based.
Problem management	The greater use of automation and machine learning for proactive incident prevention is likely to be the most wanted and beneficial new feature request. ITIL 4 also reintroduced error control and problem control after they were dropped in ITIL v3/2011. If they were ever removed from the more mature ITSM tools they could now return.
Release management	As with change enablement and deployment management, release management capabilities need both greater alignment with DevOps methods (and tools) and the increased use of release automation. For example, in enabling the use of blue/green releases and feature flag approaches.
Service catalog management	ITSM tools need to be able to cater to the use of service offerings and not just individual services. This is the bundling of service components to make service catalog entries business-focused rather than service-provider-focused.
Service configuration management	An important tool feature is the integration with third-party tools such as Vagrant, Ansible, Puppet, and Docker that allow organizations to take an "infrastructure as code" approach. This is where the IT infrastructure reflects the configuration management database (CMDB) rather than the traditional view of the CMDB reflecting the infrastructure – and where changes created within the CMDB are automatically enacted within the infrastructure.

ITIL 4 practice	Required ITSM tool features
Service desk	There are two potential needs for ITSM tools related to the new ITIL 4 service desk practice. One is the use of "query" record/status to reflect something that's presented by an end user before it's categorized – it could eventually be an incident, a request, or something else. The other need is for omnichannel support – and this need is not only being driven by the adoption of ITIL 4 guidance, but it's also a larger market shift. Some ITSM tools will need to add to additional channels and capabilities – for instance, chat and chatbots – to meet this need. Either natively or via technology partners.
Service level management	Experience management capabilities and the use of eXperience level agreements (XLAs) are an ITSM tool feature request that's being driven by the market and not just ITIL 4. This is likely to have a high customer demand as interest and adoption grows.
Service request management	The ITIL 4 guidance adds in what was commonly already being provided by many ITSM tools – service request catalogs, workflow automation, and service orchestration. It's inclusion in ITIL 4, however, does make it table stakes for those ITSM tools that don't already provide these capabilities going forward.

For completeness, the following commonly adopted ITIL 4 practices are thought unlikely to elicit any specific feature requests for ITSM tools:

- Knowledge management
- Monitoring and event management

Less-commonly adopted processes/practices

Tool features which support less-commonly adopted ITIL processes/practices will not be requested by the majority of IT organizations, even though there are opportunities to add value to ITSM operations and outcomes. The following list of potential new ITSM tool features is therefore likely to be omitted from ITSM tool vendor product development plans.

ITIL 4 practice	Potential new ITSM tool features
Information security management	The new tool features required by this practice are likely to be more from an enterprise service management than ITSM perspective. For example, automated workflows for security incident handling that are aimed at security rather than ITSM roles.
Portfolio management	The replacement of the two-dimensional ITIL v3/2011 service portfolio management approach with something that's more akin to traditional (project) portfolio management means that there's potentially the need for PPM-based capabilities that can prioritize investments across services, projects, and other improvements. If these features are not already part of your ITSM tool, then it's likely that they will be delivered by technology partners.

ITIL 4 practice	Potential new ITSM tool features
Relationship management	The wider view of relationship management within ITIL 4 requires ITSM tools to add capabilities that support collaboration and interaction-based documentation. Some ITSM tools already provide these features. However, for the customers of those that don't, the likelihood is that relationships will continue to be managed within personal emails and spreadsheets rather than using the capabilities of ITSM tools to best advantage. For example, the use of weighted matrices to measure the health of relationships and linkages to continual improvement to improve in areas that are causing relationship issues.
Service continuity management	Post-COVID, this is likely to be an area at the top of IT service provider agendas. This practice, unlike the others in this list, will likely impose feature requests. Although probably from an enterprise service management rather than an ITSM perspective. For example, the use of automated workflows to help manage the creation, review, regular testing, and improvement of service (and wider business) continuity plans.
Service financial management	On the one hand, the post-COVID impact on budgets should necessitate that IT service providers show better financial stewardship. On the other, the 2008 financial crisis offered the same hope that what was then called IT financial management would see greater adoption. Today only the bigger, mature IT organizations tend to have ITFM or service financial management in place. The key difference now though is in the cloud arena which, although not called out in ITIL 4, will necessitate that IT organizations seek cloud cost management/optimization capabilities – for infrastructure and software license costs and multi/hybrid cloud environments. For this ITSM tools need to integrate with at least the most common cloud service providers.
Supplier management	The key requirement for ITSM tools for this practice is the introduction of support for multi-supplier sourcing arrangements – commonly referred to as service integration and management (SIAM). For example, the ability for incident tickets to easily move between the customer organization and multiple suppliers and the support for service level targets that reflect more complex service delivery arrangements across multiple parties.

For completeness, the following less-commonly adopted ITIL 4 practices are thought unlikely to elicit any specific feature requests for ITSM tools:

- Availability management
- Capacity and performance management
- Service design
- Service validation and testing
- Strategy management

New processes/practices

As new ITIL 4 processes/practices, only time will tell how they'll be individually adopted by organizations and the ITSM tool changes that will both follow and drive adoption.

ITIL 4 practice	Potential new ITSM tool features
Organizational change management	This is, in many ways, very similar to the requirements for continual (service) improvement that have perennially been overlooked within ITSM tools. This is the provision of work and workflow capabilities related to organizational change management that guide people through the required steps, leveraging pre-built templates, guidance, tools, and workflows that help to ensure that what needs to be done is done. With the ability to plan, collaborate, manage risks and issues, see and report progress, document decisions, capture learnings, and other capabilities that are needed for effective organizational change management.
IT asset management (ITAM)	For some ITSM tools, these capabilities are already present and will likely remain unchanged despite the ITIL 4 addition. Other ITSM tool vendors might consider strategic acquisitions of ITAM tool vendors – for both their tool capabilities and existing customer base – rather than undertake the necessary and mammoth task of creating ITAM capabilities from scratch. The alternative is to continue with ITAM-related technology partnerships. The decision will ultimately depend on customer demand for ITAM capabilities as the industry does or doesn't adopt the newly added ITIL 4 practices.
Project management	Even more so than with ITAM, this will depend on whether customers expect their ITSM tool to offer project management capabilities in light of ITIL 4. Again, some ITSM tools already offer these but it's unlikely that they will be seen as important as ITAM, say, when ITIL 4 adoption is factored into organizations' ITSM tool requirements. Especially when third-party tools can easily be employed and integrated.
Risk management	The new overarching approach to risk management in ITIL 4 requires risk-related capabilities within other practices (which may or may not be supported by the ITSM tool). These include change enablement, information security management, portfolio management, problem management, project management, and service continuity management. For example, via risk registers and risk assessment forms and matrices.
Workforce and talent management	While this new practice includes a wide range of people management capabilities such as resource planning, recruitment, onboarding, performance management, learning and development, and succession planning, much of this will likely continue to be managed within and enabled by the corporate human resources (HR) tool(s). Other than the potential addition of IT skills management matrices, the likely impact on ITSM tools is again likely to be from an enterprise service management rather than an ITSM perspective.

For completeness, the following new ITIL 4 practices are thought unlikely to elicit any changes in ITSM tools:
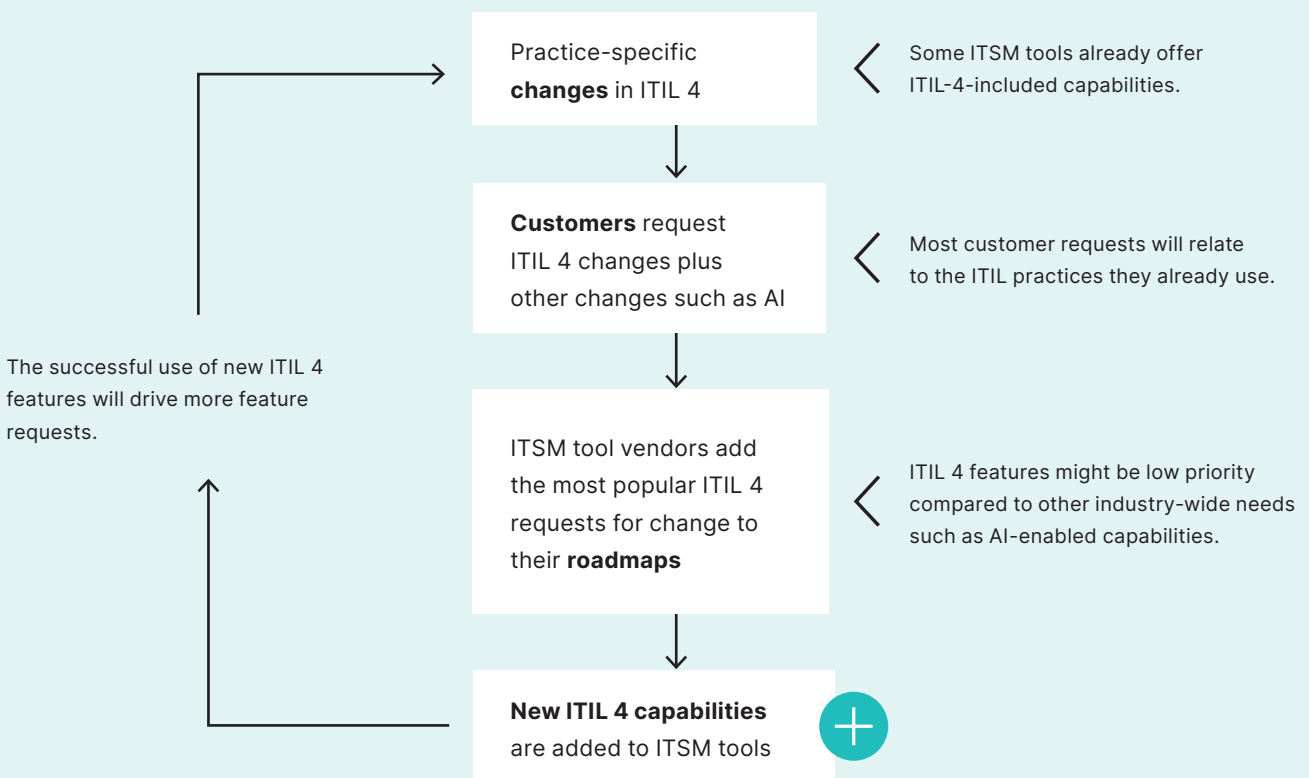
- Architecture management
- Business analysis
- Infrastructure and platform management
- Measurement and reporting
- Software development and management

Future ITSM tool development

As already stated, some of the ITSM tool requirements needed for your organization's adoption of the new and changed ITIL 4 practices may already be supported by your current ITSM tool. If not, a key point to appreciate is that the ITSM tool vendors missing these capabilities will plan their development roadmap based on aggregate customer wants and needs – in terms of both pleasing existing customers and winning new business.

Given the wide range of potential ITIL-4-based changes to ITSM tools, most vendors will sensibly focus their investments on the needs of these customers – prioritizing what these customers are actually asking for over what could be changed or added relative to ITIL 4. So, for example, additional AI-based capabilities might be added to ITSM tools ahead of continual improvement capabilities.

Fig. 3: How ITIL 4 features will be added to ITSM tools

Practice-specific **changes** in ITIL 4
— Some ITSM tools already offer ITIL-4-included capabilities.

Customers request ITIL 4 changes plus other changes such as AI
— Most customer requests will relate to the ITIL practices they already use.

ITSM tool vendors add the most popular ITIL 4 requests for change to their **roadmaps**
— ITIL 4 features might be low priority compared to other industry-wide needs such as AI-enabled capabilities.

New ITIL 4 capabilities are added to ITSM tools

The successful use of new ITIL 4 features will drive more feature requests.

Given this approach, any ITIL-4-based changes to ITSM tools will take time. With it in many ways subject to the "chicken and the egg" metaphor where customers can't see how they can benefit from the addition of new capabilities until they can see and use those capabilities.

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