

A Practical Guide to Integrating ITSM & ITAM

Promoting collaboration between asset and
service management



Executive Summary

IT Service Management (ITSM) and IT Asset Management (ITAM) are complementary disciplines with different views of the IT estate. Service Management focuses on assets in the context of services, operations and business value. Asset Management focuses on costs, risks, compliance and security. Where ITSM deals with the life cycles of services and support cases, ITAM is responsible for the life cycles of underlying hardware and software assets. Collectively, ITSM and ITAM form the backbone of IT Infrastructure and Operations (I&O).

ITAM and ITSM add value to the organization independently of each other, however, by aligning and combining people, processes, data and tools, the maturity and value of both programs can be greatly enhanced. Through the sharing of capabilities and data and the establishment of a seamless flow of IT processes across both disciplines, IT organizations can break down silo walls and cultivate collaboration between ITSM and ITAM – driving greater productivity, efficiency and transparency.

This whitepaper describes the steps involved in integrating ITSM with ITAM - looking at the people, process, data and technology aspects that must be considered to succeed.

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Introduction

Born of different business drivers and from different roots in the business, IT Service Management and IT Asset Management are closely related disciplines within I&O that are converging to solve the challenges of enterprise IT today.

Service management looks at the IT estate from a services and operations perspective. Asset Management looks at it from an accounting and risk perspective. However, viewing an IT asset from one angle in isolation is to ignore the bigger picture. If you consider the performance of an IT service without looking at the cost of supporting assets, you don't get a true picture of value for money. Likewise, if you consider only the cost of an asset, without looking at the business value delivered, you get a very negative picture indeed – one which fuels the image of IT as a “black hole” cost center.

So, ITSM and ITAM are complementary disciplines; two sides of the same coin. They share many common objectives, procedures, data needs and technology requirements. As the two disciplines have evolved, the overlap between the two has reached a “critical mass” – and it is now difficult to ignore the potential opportunities for efficiency and cost savings that can be achieved through integration.

Cloud, virtualization, mobility, Bring Your Own Device (BYOD), social IT and other disruptive trends that have emerged over the last few years are making IT Infrastructure & Operations Management increasingly challenging. The accelerating pace of business is putting pressure on IT to ramp up agility. Rigid silos and hierarchies only stand in the way of the close collaborative that is required to deliver optimized agility and efficiency. In a siloed IT organization, duplication of effort, data and technology absorbs resources and creates conflicts which put the brakes on productivity and innovation. The antidote is to break down silo walls and create a more collaborative culture between ITSM and ITAM. Establishing strategic alignment, cross-functional business processes and data/skills sharing is the key to developing collaboration.

In order to fully understand where we are now (and how to proceed), we must first look at the origins of IT Service Management and IT Asset Management.

The origins of IT Service Management

In the late 1980s, the UK Government's IT bills were soaring, so the Office of Government Commerce (part of the Efficiency and Reform Group) was tasked with gathering together a set of best practices that could be shared to reduce costs and raise the bar of quality across dozens of government departments.

The IT Infrastructure Library (ITIL®) was born and began to gain traction in the 1990s - first in the UK, then Europe and North America. With the rise of the desktop PC in the late 1980s and early 1990s came the demand for end user support. Where the mainframe computer had been the sole domain of computer scientists in lab coats, technology was now in the hands of the layman.

Reactive support set the tone of ITSM for the next decade or so until best practices took hold and IT departments were able to begin putting out fires, establish a more stable IT estate, and think about becoming more service-oriented, customer-oriented, and business oriented.

Having access to detailed information about the IT estate, in the form of a Configuration Management Database (CMDB), has been fundamental to improving the efficiency and efficacy of support – and a key enabler for another step-up in ITSM maturity.

The CMDB - a map of the IT infrastructure showing IT assets and the *relationships between them* (and relationships with users) – became the cornerstone of good incident management, problem management and change management. Having this functional, business-oriented view of the IT estate – a single source of truth – has enabled improvement in almost every ITIL process in some way.

As ITSM has matured, the scope and complexity has grown. We are now facing the challenges of new technologies like virtualization, cloud, mobility and big data analytics, and of incorporating the management of services in other areas of the business.

In organizations where ITSM is at the top end of the maturity scale, service management practices have been extended out to HR, Finance, Facilities Management, Legal, Marketing and other departments. Having been proven within IT, the service management approach now has strategic value across the whole organization.

Another trend, the Internet of Things (IoT), is further complicating the management of assets in ITSM. The “smartification” of previously “dumb” devices (like vending machines and car pool vehicles) means IT will have to look after a much larger set of newly digitalized, newly connected assets; many of which carry procurement, supplier, legal and contractual implications that are largely unfamiliar to ITSM professionals.

The release of ITIL Version 3 (updated in 2011) brought in the concept of a *Service Asset*, which could be defined as *anything* (a device, person, document, application or data block) that plays a part in the delivery of a service. The scope of the term in ITIL is extremely broad, which brings the *IT Service Asset and Configuration Management* process closer to the scope of IT Asset Management – yet there are still marked differences.



The origins of IT Asset Management

The origins of IT Asset Management lie in the organization's need to account for rising IT costs as data centers expanded and desktop PCs spread throughout the organization.

The CFO naturally wanted visibility and control over costs. Procurement processes were put in place to control spending, and IT assets were managed in much the same way as other traditional assets – accounted for as *Asset Inventory* on the balance sheet.

If the CFO couldn't directly quantify the ROI (IT-driven increases in business performance have always been difficult to quantify), they would at least be accounted for in the books. This placed ITAM firmly within the view of the CFO, a situation which persists today in many organizations.

Initially, the management of hardware and software as assets was simple. The IT estate was small and uncomplicated. Each person was provided with one desktop PC and a handful of apps – and procurement was controlled with water-tight processes. It was easy to track using a simple spreadsheet. But then the business developed a real thirst for productivity tools and the IT estate exploded. The rate of change accelerated beyond the point of control. The ITAM processes and tools of the time simply weren't up to the job.

Ultimately, the management of IT assets was more complex and demanding than the management of other (more static) business assets. Specialist IT Asset Management skills and tools were required to keep control over the unique aspects of managing IT assets.

At the turn of the millennium, the Y2K bug drove the need for full inventory of the IT infrastructure - to systematically ensure that *anything* with an internal digital clock would continue to operate on January 1st 2000. January came and went and, in many organizations, the IT asset data that had been collected was abandoned. It had served its purpose. The opportunity to keep and maintain a complete inventory of IT assets had been passed over.

In the last decade, virtualization has complicated IT Asset Management even further, both inside and outside the data center. We no longer see one-to-one relationships between servers and software. The need to reduce costs in the data center has driven the consolidation of many applications onto each server – creating new challenges for software license tracking and compliance.

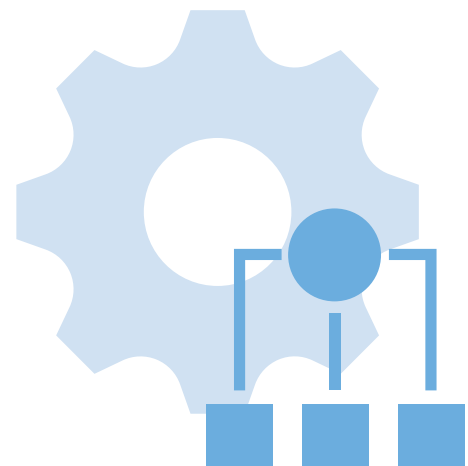
Virtualization has also given rise to viable cloud computing models. Processing and storage can now be done without ownership of the supporting assets, which changes the ITAM dynamic significantly. Software-as-a-Service (SaaS) applications are rented, not owned, so they don't qualify as assets in the classical sense.

A broad array of "as-a-service" infrastructure offerings means ownership within the data center is no longer mandatory (unless legislative requirements dictate) and many of the traditional risks that were managed by the ITAM team have been swapped for a new set of risks.

On the end user side, desktop virtualization (the "thin client" trend) has brought opportunities to simplify desktop management and establish more control over operating systems and applications – by hosting virtual desktops within the data center.

Assets are now less tangible, bringing new management challenges for ITAM, especially when it comes to license auditing. The mobility and BYOD trend are further complicating the situation. ITAM teams now have to deal with a plethora of non-standard devices owned by end users, making it more difficult to track what they are, where they are, and which software is in use.

These new challenges are collectively blurring the lines between ITAM and ITSM. We have reached a point where the two disciplines must work more closely together to deliver for the business and prevent IT operations costs from spiraling out of control.



What does integrated ITSM/ITAM look like?

Integrating ITSM and ITAM isn't about merging teams or departments.

It's about facilitating closer collaboration between two distinct IT disciplines which are well established and supported by mature best practices libraries (ITIL for ITSM and IBPL for ITAM). Your ITSM and ITAM frameworks will both continue to exist. The shape of your teams will remain the same. Reporting lines won't change. Cooperation, collaboration and transparency are the key words here.

Integrating ITSM and ITAM means:

- Aligning the two programs at the management level. Getting ITSM and ITAM heads in the same room and on the same page.
- Building relationships between people at all levels within both teams.
- Pooling people, skills, expertise, tools and data, and making them available to both programs.
- Educating Service Management teams about Asset Management and vice-versa.

- Formally integrating IT processes to combine ITSM and ITAM capabilities. Processes shouldn't be constrained by departmental walls when capabilities exist just across the hall.
- Working together to build a more complete picture of the IT estate, what it does, what it costs (both procurement and operations) and where the potential risks lie.
- Presenting a single unified interface to the end user community through a single service desk and a single IT portal/ service catalog. The customers of IT Service Management are also the customers of IT Asset Management.
- Co-planning innovations that will drive the business forward.

What the integration of ITSM and ITAM isn't about:

- Forcibly consolidating teams to reduce staff numbers.
- Consolidating ITSM and ITAM tools to satisfy the need for cost reduction.
- An aggressive takeover of ITAM by the ITSM team (or vice-versa). That's a hornet's nest you definitely don't want to kick.
- Stripping people of their ITSM or ITAM "identity".



Why integrate ITSM & ITAM

- Break down silo walls and establish a more collaborative relationship between Service Management and Asset Management.
- Draw on ITSM tools and expertise to support more efficient and effective ITAM processes. Leverage ITAM tools and expertise in support of better outcomes from ITSM processes.
- Reduce costs by eliminating effort and spend that is duplicated across the two disciplines.
- Share infrastructure and operations data for more efficient processes in both areas.
- Improve the integrity of data with coordinated policies across both teams.
- Establish a seamless flow of processes across ITSM and ITAM teams.
- Enable better strategic planning through closer collaboration between ITSM and ITAM – combining data from both disciplines for greater transparency and better, more data-driven decision-making.
- Open a window between the two disciplines to improve the ITSM team's understanding of cost, risk, governance and compliance issues.
- Likewise, improve the ITAM team's understanding of the value of IT assets in the context of IT services and business services.
- IT Asset Management is commonly an underestimated and underfunded program. Putting ITAM on the same stage as ITSM will help bring it under the spotlight.
- Integrating ITSM and ITAM improves the maturity of both disciplines.
- In essence, the strengths of the ITAM team complement the weaknesses of the ITSM team and vice-versa.



The approach

The task of making ITSM and ITAM work better together should be approached as if you are integrating complementary frameworks.

Whether your ITSM and ITAM programs are based on a formal framework (like ITIL or the IAITAM Best Practice Library) or not, there will be people, process, data and technology angles to consider:

1. **People** – What do your ITSM and ITAM teams look like?
2. **Processes** – Which formal processes are in place in each framework?
3. **Data** – How is infrastructure and operations data captured and where is it stored?
4. **Tools** – Which tools are used by ITSM and ITAM, and which (if any) are used by both?

The key to success is to systematically analyze these aspects and gain knowledge of how each framework operates in *your* organization. There is no “cookie-cutter” plan for integrating service and asset management. However, if you have previous experience with integrating frameworks (like COBIT® and ITIL) then this experience will come in handy. Most of all, remember that integrating ITSM and ITAM is not just a technology project.



People: Driving Collaboration

Despite the frequent misconception that technology is the silver bullet solution to every business problem, *people* are (and always will be) the most important part of corporate IT.

Getting people to work together is the first and most important step to integrating your ITSM and ITAM frameworks. If you can get people on both sides of the fence on board with the idea, the process, data and technology aspects will fall into place with a little planning and guidance.

Of course, every organization is different. The “people footprint” of ITAM and ITSM will depend on the size of the organization, industry, business model and IT maturity level.

In larger companies where the division of labor is an organizational necessity, there are more likely to be dedicated ITSM and ITAM roles and teams, supported by formal processes and automation. Organizations with higher maturity ITSM and ITAM frameworks will, by definition, already have a clear picture of who does what. So integrating ITSM and ITAM will be easier where both functions are already well defined.

In organizations where the ITSM and ITAM frameworks/disciplines are not so mature the process of identifying stakeholder groups may be more laborious. Some manual effort is required to build out the “people map” that you need to coordinate collaboration in the right places.

Key questions to ask:

- What size and shape do your ITSM and ITAM teams have? Are there formally identified teams and roles? Some ITAM functions may exist within your finance team, under a different name, so you might have to do some hunting.
- Where do these teams sit in the organizational chart? Who do they report to? Where are the solid and dotted lines?
- What functions do they support? Which processes are they involved in? What key skills do they have? What knowledge and expertise do they hold?
- What cross-discipline understanding do the teams have? Do your ITSM people understand the objectives of ITAM? Do your ITAM people understand ITSM?
- What interactions already take place between ITSM and ITAM people/teams?

Get key stakeholders in a room to discuss the opportunities of integrating ITSM/ITAM teams, processes and tools. If you want to succeed, you need to bring people with you (metaphorically, and perhaps physically). That means helping them to find out how integrated ITSM/ITAM will benefit them and their teams.

The key to gaining traction is articulating how integrating your ITSM and ITAM programs will make life easier for everybody in the room.

Integrating ITSM with ITAM will be met with some resistance. Again, this will vary across organizations, but larger companies with larger teams on both sides are more likely to encounter issues in this area.

Some people just don't like change. Some people fear change. Make sure your plan is sponsored by the CEO or CIO (and the CFO where possible). Executive gravitas will dissolve all but the most adamant objections. But that's not enough to get people fired up about the opportunities of collaboration.

Make sure the benefits are clearly communicated to each group – in terms that make sense to their roles and responsibilities. That means spending a bit of time upfront working out the specific benefits to your organization.



Processes: Integrating activity

Processes and procedures are critical foundations of both IT Service Management and IT Asset Management.

ITAM is concerned with processes that support the asset life cycle. ITSM is concerned with processes that support the service life cycle and the life cycle of support cases.

Consequently, ITSM and ITAM processes are closely interrelated. They both operate around the same IT infrastructure.

The task of integrating operations to increase efficiency, increase quality of output and reduce costs is founded on knowing which activities are taking place and where.

This stage of the plan involves systematically identifying the *functional* scope of your ITSM and ITAM programs in order to draw a map that will guide the integration of activity.

If we consider the processes described by ITIL (2011), we're talking about a large number of processes and functions, oriented around the life cycle of services.

Few organizations will be following all of these best practices, but this serves as a useful guide to begin the exercise.

Service Strategy	Service Design	Service Transition	Service Operation	Service Improvement
Business Relationship Management	Design Coordination	Transition Planning and Support	Service Desk	Service Management
Strategy Generation	Service Catalog Management	Change Management	Incident Management	Service Reporting
Market Intelligence	Service Level Management	Asset and Configuration Management	Problem Management	Service Improvement
Demand Management	Capacity Management	Release and Deployment Management	Event Management	
Financial Management	Availability Management	Service Validation and Testing	Request Fulfilment	
Risk Management	Service Continuity Management	Evaluation	Access Management	
Service Portfolio Management	Information Security Management	Knowledge Management	Operations Management	
	Supplier and Contract Management			

Figure 1 – ITIL Processes.



Processes: Integrating activity (Continued)

Likewise, the International Association of IT Asset Managers (IAITAM) defines 12 key process areas that make up a mature ITAM program:

ITAM Processes		
Acquisition Management	Disposal Management	Policy Management
Asset Identification	Document Management	Program Management
Compliance Management	Financial Management	Project Management
Communication and Education Management	Legislation Management	Vendor Management

Figure 2 – IAITAM Best Practice Library Processes.

The trick is to draw up a picture of what *your* ITAM and ITSM frameworks look like. Identify the defined processes that you have in place in both disciplines, remembering that they might not exist under the names that appear above. From there you can get your ITAM and ITSM teams together to systematically identify opportunities for collaboration by walking through the individual process models, step by step.

Where do strengths in ITSM complement weaknesses in ITAM? Where can ITAM capabilities facilitate ITSM processes and help to mitigate risks? This is where the process can get a bit critical and personal, so establishing a forward-thinking atmosphere is important to get people to open up and get off the defensive.

Each opportunity should be listed, assessed and prioritized based on business value. As is often the case, cutting a large task such as this into bite size chunks makes sense. As part of this exercise it can also be of value to look for the processes where ITSM and ITAM are *already* working closely together.

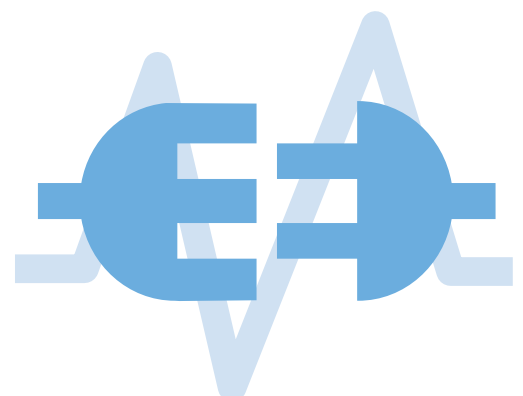
Find out where, how, why and what benefits have been delivered. This will provide some momentum and renewed purpose to what can be a laborious exercise.

What we're talking about here is stitching ITAM capabilities into ITSM processes and ITSM capabilities into ITAM processes to improve quality, increase efficiency, eliminate risks and reduce costs.

For example, when a service request is received via a service catalog, the ITSM team will at some stage pass the process "ball" over to the ITAM team to handle aspects of vendor management, acquisition, compliance and risk. Likewise, the ITAM team will route tasks relating to support, service delivery and impact assessment to the ITSM team.

Recognizing that there are people on the other side of the fence who can add value to a process is key to gaining support for an integration initiative. The ITAM team still own the asset life cycle processes and the ITSM team still own the IT service life cycle and service support process, but now the two disciplines are more coordinated and synchronized.

The results are mutually beneficial to ITAM and ITSM, as well as benefiting the end user community and the business as a whole.



Data: Sharing information

Information is critical to productivity for your ITSM and ITAM programs. Both disciplines have their own primary infrastructure database. ITAM has an Asset Register. ITSM has the Configuration Management Database (CMDB). However, the two are not the same (see Figure 3). The data sets are different in both scope and detail as they support different purposes.

What constitutes an asset is not the same as what constitutes a CI, so an IT asset repository will contain assets that are not in the CMDB and the CMDB will contain CIs that are not in the IT asset repository. If an asset doesn't support a service, it won't appear in the CMDB. If a CI falls below the cost and risk threshold for ITAM, it won't appear in the IT asset repository.

However, data in the CMDB can be useful to the ITAM team (e.g. in assessing the potential business impact of swapping out a specific asset) and asset data can be useful to the ITSM team (e.g. providing the service desk with access to maintenance and support information).

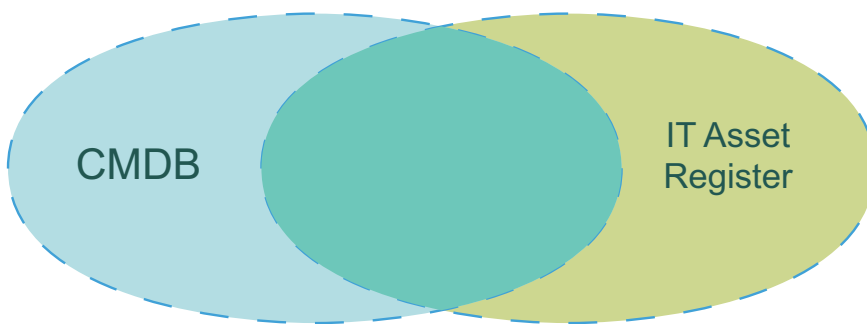


Figure 3 - A CMDB is not an IT Asset Register and an IT Asset Register is not a CMDB, though there is an overlap.

How data sharing will work depends on the systems of record that are in place. In some instances where data is required to support a process, it may be best to simply throw a request over the wall from one function to the other. In this case it would be best if the process could flow seamlessly across teams, so the chain of the process is tracked end-to-end, unbroken.

In others situations it will be more efficient to expose data directly to the other team via their own native management system, so toolset integration should be considered.

For example, the service desk should have quick and easy access to maintenance contract information so that they can escalate tickets to vendors as quickly as possible.

However, inventory is just one part of the data story. On the ITSM side there is a wealth of IT operations data above and beyond infrastructure data. On the ITAM side there are contracts, licenses, maintenance agreements and more (see Figure 4).

Again, this list may be different in your organization depending on which tools you have in place and the maturity of your processes.

Some of these data may even come from third party departments/systems, like HR. Get your ITSM and ITAM people together once again to look at data sources and assess the potential value of sharing.

ITSM Data Categories	ITAM Data Categories
Configuration Items (CIs)/service assets	IT asset inventory
Support events	Licenses
Applications and dependencies	Maintenance agreements
Support costs	Purchase and leasing costs
Systems monitoring data/asset status data	Software license structures
Availability, capacity and performance data	Contracts
SLAs	Policies
User data	User data

Figure 4 – ITSM and ITAM Data/Records.

Tools: Sharing & integrating platforms

Sharing of data is closely related to sharing tools, as it is through tools that people access and use data. In an ideal world, ITSM and ITAM teams would share one system which holds all data and supports all processes.

This would make life easier for IT by reducing IT management application overheads. With one common toolset supporting both programs there are fewer integration, license, vendor and data integrity issues to contend with – not to mention the time saved in toolset selection and implementation.

If your current ITSM or ITAM system can accommodate the requirements of both teams, the process of migrating one team onto a new system (new to them) will be disruptive.

Configuration of processes and data views will be required to knock the system into shape and training will be needed to ramp up the productivity of system users and admins. In the meantime, productivity will take a hit.

However, sharing a system can pay long-term dividends in both capital and operational cost savings, as well as productivity improvements. Sharing a single ITSM/ITAM system will also underpin the commitment to integrating the two disciplines.

If you can't have a single system, can you integrate the two systems to enable sharing of data and seamless flow of processes across the two? Most enterprise-class systems are capable of reconciling data from multiple sources through APIs and connectors.

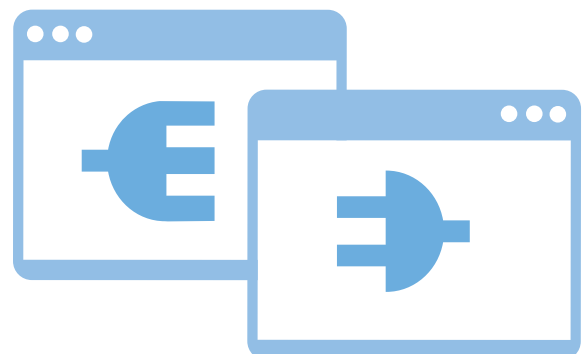
Many also accept and integrate tasks from third-party systems to ensure continuous flow of processes between different systems.

Having looked at tools from the internal IT perspective, there is also the end user perspective to consider. The customers of IT Service Management are also the customers for IT Asset Management. The two disciplines service the same end user community, so it makes sense to consolidate points of contact to simplify the overall customer experience of IT.

Provisioning of hardware/software and access to services can be managed through the same IT portal/service catalog – providing a single pane of glass into IT for the whole end user community.

Seamless integration of ITSM and ITAM from the end user community perspective also ties in nicely with the growing trend for Enterprise Service Management (ESM) portals that expose services from IT, HR, Facilities Management and other internal service providers in a single “one stop shop” portal.

The service catalog falls most frequently within the scope of ITSM, so the ITSM team will own and manage the interface, but IT asset procurement and IT customer-facing ITAM services should be dovetailed into this portal. This might include application provisioning in the form of the fabled “Enterprise App Store”.



Conclusions

ITAM and ITSM are two key parts of IT Infrastructure & Operations, so it makes sense to promote collaboration and information sharing at both the strategic and operational levels.

IT is a complex domain and this complexity often means that the business suffers when IT teams don't work together.

Complex challenges, such as virtualization, BYOD, shadow IT, Big Data and mobility, require both ITSM and ITAM capabilities to handle them, so it makes sense for the two disciplines to work closely together to tackle these problems and turn challenges into opportunities.

But integrating two frameworks is an intricate multidimensional task that encompasses people, processes, data and tools. All four of these aspects must be considered in order to succeed.



Axios

For more than 25 years, Axios Systems has been committed to innovation by providing rapid deployment of Service Management software. With an exclusive focus on Service Management, Axios is recognized as a world leader, by the leading analysts and their global client base.

Axios's enterprise software, *assyst*, is purpose-built, designed to transform IT departments from technology-focused cost centers into profitable business-focused customer service teams. *assyst* adds tangible value to each client's organization by building on the ITIL® framework to help solve their business challenges.

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About the Author

Dr. Nigel Martin
VP of Global Marketing

Nigel Martin has more than 20 years of experience in global enterprise software. Nigel has written multiple research papers on organizational strategy and holds a doctorate in strategy and organizational brand development.

Nigel can be contacted at nigel.martin@axiossystems.com