Service Management and Operations: A Data Center Perspective

An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper
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EMA™ IT MANAGEMENT RESEARCH, INDUSTRY ANALYSIS AND CONSULTING

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Executive Summary

IT has matured significantly. No longer is it a challenge to understand that assets have a lifecycle and that each stage in the asset's lifecycle requires "handling," from procurement to provisioning to retirement of the asset. Similarly, it is not a stretch to make the leap from asset lifecycle management to that of connecting assets with the services they support. Moving further still to see how these services can then provide support for the business' mission and its financial bottom-line. Service management necessarily moves IT closer to business and strategy management and is necessary to achieve optimum value from IT investments.

Successful service management demands the close interaction between data center operations and the service management team. This is as true of IT professionals needing to cooperate as it is of the toolsets that require effective integration. Sharing of data and sharing of knowledge is necessary across all dimensions of IT. The foundation for IT Service Management (ITSM) has been established and there is now adequate maturity in IT to reap its rewards.

While ITSM has reached a level of maturity, work still remains. IT has acknowledged that service management rests at the intersection of people, process and technology. Culture and politics come into play as well. Much can be solved with technology and yet the inherent limitations in corporate cultural dynamics can still get in the way of a smooth continuum in IT management technologies. The reality is that the service desk team depends on data center operations. Operations, on the other hand, will not see the impact of its choices without a strong handshake at the service desk. The service catalog then brings users into the mix making demands for services. IT assets surround all of this from operations straight to the user.

As IT moves to the next level of maturity for ITSM, some of these hurdles will need to be crossed. The development of service catalogs definitely demands a cross-functional discussion between the business and ITSM technology team. Deployment of effective knowledge management and problem resolution is indicative of the need for deep, two-way toolset integration to support knowledge sharing as well as the elimination of artificial barriers sometimes put up by staff members. A true understanding of the interrelationships between the lifecycle of the service and the lifecycle of an asset will help pave the road to understanding demand planning and the true cost of service delivery.

LANDesk Software (LANDesk) has a continuum of solutions that can ease the transition in more ways than one. The company brings together a trio of offerings to support those tackling the big picture for ITSM, and at the same time has strong roots in the data center; understanding the operations dimensions more than most of its competition. LANDesk has a robust and mature service desk offering called LANDesk Service Desk designed around a consolidated suite of functionality and including the Configuration Management Database (CMDB) as an underpinning. LANDesk Asset Lifecycle Manager takes a unique state-based approach to managing the asset lifecycle working in concert with LANDesk Process Manager

Service Management and Its Lifecycle

Migrating to a service management paradigm has become the norm for IT and not the exception. While some organizations are still at the stage of "aspiring to" service management, many are well along the path. Either way, IT has shifted its management orientation from discreet technology silos to services management in support of the business. This evolution has taken shape over multiple decades—continuing to mature and move towards support of the business on its own terms. Services simply take all the individual technologies involved and pull them together in a way that is meaningful to the business. Individual technologies will continue to be important and yet they must be leveraged in the context of services required by the enterprise. This concept is the essence of service management.

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One of the driving forces behind this change has been the increasing adoption of the IT Infrastructure Library (ITIL) best practices all around the world. ITIL standards were developed to improve and manage IT from a quality service delivery. As executive management teams in corporations began demanding that IT become more business aware, ITIL and other more informal approaches to best practices garnered the attention of IT leaders. Other drivers include the need to be more competitive, executive demands for more effective use of IT resources, and the need for IT to demonstrate value in business terms.

Services, just like assets, should be managed for an entire lifecycle. The lifecycle for services begins with IT working together with the business to understand needs and a full range of service options. From this dialog, business priorities for particular services can be determined in order for the business to achieve its mission. These services are planned, provisioned and deployed. In mature organizations, services are detailed in a user-friendly service catalog and requested according to user entitlements. The service now becomes operational and service quality levels managed. It is at this stage of the lifecycle that both the service desk and operations in the data center must be involved to ensure that service quality levels are not breached. Management continues until eventually the service reaches its end-of-life and needs to be retired. Lifecycle stages are important because they drive processes and actions related to any given service.

Proving IT Value with the Service Catalog

The service catalog is not at the earliest phase of the service lifecycle. Yet from a user point-of-view, it is the place where users can see and understand the value that IT is bringing to the business. The service catalog is IT's storefront, and in an ideal world would be completely automated and available to users with services deployed based on role and entitlement-sensitive provisions. It represents a high priority for IT strategic planning and justly so. In no other place can IT so effectively *prove its worth* to the organization.

The service catalog is the "front office" for IT. According to the latest version of ITIL, the catalog should serve two primary functions. The first is to show externally all of the services that are available by role, geography, department, customers, etc. Internally, the service catalog links tools, technology, and operating procedures to deliver on the external catalog of services. The service catalog, perhaps more than any service management discipline, is a place of convergence.

Where Assets Meet Services

IT Asset Management (ITAM) as an inventory tool is a thought for the past. Inventory is just one aspect of contemporary ITAM and what EMA calls Next Generation Asset Management (NGAM)—or the merging of service, asset and financial management. Looking at the dimensions of IT asset management, financial management and services as *one single entity* will help IT executives to understand the varying layers of technology that are needed to support the business and how they work together to do so.

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Managing IT assets in today's enterprise demands an understanding of assets in the context of a broader strategic viewpoint for IT. Of course, IT must continue to track individual physical and software assets for the sake of themselves. Yet, they are much more valuable in the context of the services they support and the financial implications (opex and capex) that result from their purchase and ongoing usage. Assets have their own lifecycle, and yet they are inextricably linked to the lifecycle of services, beginning with the planning phase for services where assets are identified as a required service component, and moving all the way through to retirement of the service and potentially (but not necessarily) the asset at the time.

The Growing Role of the Service Desk

The help desk function of 20 years ago was often the orphan-child of IT. Many companies felt the level of skills at the help desk had very limited value in the broader corporation and viewed the help desk as a low-return financial resource consumer. This is no longer the case. The help desk has grown up and the service desk is now an important and often driving force behind ITSM initiatives. Problem, incident and change management are frequently the starting points for ITSM deployments and sometimes the starting and ending point. Companies have recognized that adopting the Information Technology Infrastructure Library (ITIL) does not necessarily mean adopting it in totality. It can make sense to choose only those disciplines that can return the most value to the organization.

EMA researched user plans around the service desk in the spring of 2009 and published results in its report, *The Aging Helpdesk: Migrating to a Modern Service Desk*. The maturity has clearly shifted from the historical reactive mode of the helpdesk to one of proactive service. Forty-seven percent of all participants indicated that integration with an over-arching ITSM solution is critical to their operation. Not all have deployed this type of integration. Eighteen percent have deployed with 44% planning to deploy. In total, 62% of all participants have placed an emphasis on this requirement.

In this research, participants defined the service desk as a full-service shop. Most indicated that they are either currently operating in a service desk environment or moving in that direction, adding incremental responsibilities to the help desk. This is as true at the mid-size company as it is in the large enterprise. The result is that many legacy help desks are being replaced to support this evolution and are not feasible with old technologies in most cases. The service desk then touches on every aspect of the service lifecycle.

Understanding Relationships: The Core of the Service Lifecycle

The service lifecycle depends on a keen understanding of the relationships of all service components as they progress through each phase of the lifecycle. The ITIL CMDB, or more recently defined as the Configuration Management System (CMS), provides just that place to record and connect the dots between services, their configuration and assets that support them. They are a system that provides cohesive, logical insights by way of federation to inform IT about the connections and states of its assets, configuration information, trouble-tickets from the service desk, and a host of other data documenting the infrastructure and its related services.

The CMDB and CMS have been responsible for helping to initiate a discussion about integration needs across the enterprise and across the vendor community. The requirement is for collaboration and data exchange to support service management. Potential areas for cooperation vis-à-vis the CMDB/CMS may include cooperative analytic engines, optimization, change management, accounting and billing, service impact analysis, governance, and visualization. The most common approach at this point in time is a federated system where one CMDB might support change management in the data center while another would support desktop management—still bringing both together in a meta-data model.

Intersecting Domains: Systems, ITSM and the Data Center

There are departmental and cultural divisions in any organization. IT is no exception. The developers have long been separated from operations and operations from the service desk team. These lines between IT groups are narrow and at the same time run deep. Yet service management initiatives that demand the organization cross silo-based margins and organizational boundaries can only be successful when all of these groups internal to IT work together. The growing maturity of IT as a whole demands this. Yet the culture is not always prepared to move in this direction. This hurdle is one that has to be crossed. Cultures, toolsets and processes that are often very separate, must be combined and integrated.

Illustrative Examples Linking Asset, Service, and Data Center Operations

There are many points of intersection between service management, asset and data center operations management. Some natural points of dependency and interrelationships can include:

- **Service Requests**—requests often come through the service desk as a front-end requiring integration with problem and incident management and workflows that support them.
- **Operational Performance**—service performance trends in the data center clearly have an impact on the service desk. The service desk can take the lead to be alerted and ensure service level breaches are averted.
- **Problem and Incident Resolution**—time required to resolve issues depends on timely root cause information that often only the data center can provide. The service desk team is on the hook to resolve these problems while the data center must provide insight quickly in order for the service desk team to perform their job.
- **Provisioning**—workflow to provision services defined in the service catalog depend upon operations' tools to execute in an automated way.

- **Change and Configuration Management**—the connection between change management, the service desk, assets and the data center are tightly interwoven. Each domain needs to be part of the change management process and have access to details of change implementation. All too often changes in infrastructure in the data center can trigger a ripple effect of issues arising at the service desk.

Many more examples exist. The key point in this illustration is to show that in order for IT to continue moving up the maturity curve and support the business directly, historical segmentation in IT must be streamlined and business relationships understood. The more processes are linked and data shared, the better the job IT can do to support improved business results.

The LANDesk Software Solution

LANDesk Software is a company that can deliver an integrated solution for operations, asset management and the service desk domains. Its products include: LANDesk Service Desk, which provides a suite offering extending the historical role of the help desk to today's expectations for expanded capabilities; LANDesk Asset Lifecycle Manager, for managing the asset lifecycle using a distinctive state-based approach; and LANDesk Process Manager, to manage business processes and critical operations tasks such as change management. These product suites are increasingly integrated to support broad ITSM strategic initiatives. Working in concert, these toolsets offer users provisioning, patch management, security management, software asset management, remote control and asset management. They cover a large territory of needs for the mid-market.

The overall product architecture is shown here in Figure 1 and a discussion about each product in the suite follows.

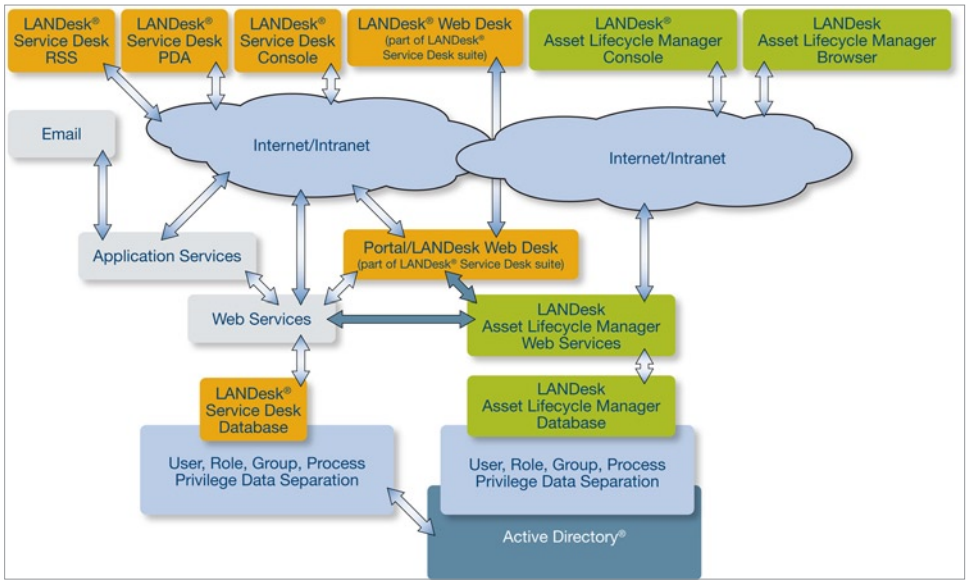

Figure 1: LANDesk's Integrated Suite: Asset Mgt, Service Desk and Operations

Asset Management

LANDesk Software has taken a lifecycle approach to asset management including both software and hardware assets. LANDesk Asset Lifecycle Manager offering is an integrated solution for asset management recognizing the need to provide detailed data to the service desk and data center operational teams. The workflow engine and process tools are integrated with a powerful lifecycle state engine, which provides asset inventories as well as relationship mappings. A robust reporting engine rounds out the formidable feature list. LANDesk is committed to playing a role in the larger federated IT management architecture including the ITIL CMDB/CMS Systems. It will do so by enabling integration using "connectors" and a data sync engine.

Service Desk

LANDesk Service Desk is a mature service desk suite offering that was built according to ITIL principles. It incorporates the breadth of functionality expected in contemporary service desk offerings including problem and incident management, service level management for the service desk, change and configuration management, self-service and strong knowledge management. Tight integration has been a central theme from the beginning so that the product can provide comprehensive service delivery functionality to the mid-size market.

Operations and Process Management

LANDesk Process Manager provides a tool to automate workflows and define business processes including change management. It is an enabler for both LANDesk Service Desk and LANDesk Asset Management. For instance, it can be used when an asset changes state. In this case, the LANDesk Process Manager could initiate a workflow change so that the asset's state would be reflected in the overall environment. This is an advantage for automating and streamlining process operations. LANDesk Process Manager is equipped with a drag-and-drop graphical interface for ease of use. Use-case examples could include change management approval processes, automated patch management and on-boarding of new employees. It enables IT staff to achieve much needed automation for repetitive procedures while at the same time enforcing departmental and corporate policies.

EMA Perspective

Effectively migrating IT to a service management model demands strong linkages across service support and operational teams. A good part of this is politics and cultural norms within IT. The operations team has seen service desk as separate and distinct from operations and often vice-versa. Some of these walls are coming down as the service desk team's skills have gone up and as operational teams have learned about cross-functional requirements that are necessary to support the business. This socio-political work in IT will continue as IT evolves.

In addition to the human dimension, the industry also needs solutions that can address the layers between infrastructure and business services necessary to support successful service delivery. Historically, IT has thought of these domains as being distinct and separate. The service desk (or formerly the help desk) was simply in place to respond to crises that arise. Operational teams were focused on their respective silos. Yet the maturity that has occurred in IT has brought with it a clear focus on the need for integration both in the cultures in which we work, and toolsets that are used for operations and service delivery.

LANDesk Software is one of just a few companies that have pulled operations and service management together for the mid-market. Core disciplines for service desk and asset management are tied together with process automation capabilities to streamline operations in the data center. LANDesk Software has strong operational roots that go back nearly two decades. The company entered the ITSM market later and now has many years of experience integrating a diverse ITSM solution with operational tools. With a growing interest in ITSM in the middle market, LANDesk is well positioned to capitalize on its investment in taking the long view across these disciplines.

About LANDesk Software

LANDesk Software is a leading provider of systems, security, IT service, and process management solutions for desktops, servers, and mobile devices across the enterprise. LANDesk enables thousands of organizations to easily deploy and use end-to-end management solutions.

These solutions form a unified, tightly integrated platform to help your organization:

- manage IT complexity
- secure all of your deployed systems
- design and deploy IT process workflows to automate redundant maintenance tasks, reduce errors, and transition from a reactive work environment to one that's more service oriented
- integrate your service desk and systems management functionality to reduce the number of incidents while boosting the productivity of service desk staff and end users

LANDesk solutions offer low cost of ownership, requiring less server infrastructure and less bandwidth, and have been proven on hundreds of thousands of nodes at organizations worldwide. In addition to the technologies LANDesk offers, we strive to meet customer needs through our renowned service and support programs, including design, expert consulting, implementation and integration, project management, technical support, and training.

LANDesk is headquartered in Salt Lake City, Utah, USA, with offices located in the Americas, Europe and Asia Pacific. More information can be found at www.landesk.com.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that specializes in going "beyond the surface" to provide deep insight across the full spectrum of IT management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help its clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise IT professionals and IT vendors at www.enterprisemanagement.com or follow EMA on Twitter.

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