

Bringing Order to Enterprise Infrastructure Chaos with IT Operations Management



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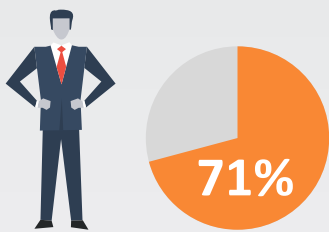
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INTRODUCTION

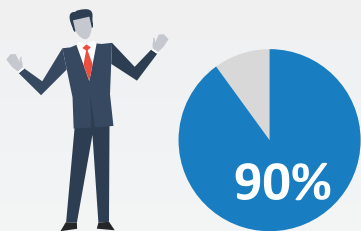
Enterprises today are faced with a technology landscape that is changing rapidly. They are driven by the need to stay competitive and responsive to the demands of their customers. Shifts in technology and constant evolution in the needs of the customers mean that their internal IT infrastructure is subject to frequent change. Enterprises are turning to IT Operations Management to try and bring some order to this complex situation.

This Whitepaper will make the case for IT Operations Management in the face of increasing complexity in Enterprise IT infrastructure. The paper will then introduce ServiceNow and ServiceNow ITOM.

Does IT Infrastructure drive competitive advantage?



Respondents agreeing to the importance of IT infrastructure



Respondents wanting a 'new age' IT infrastructure platform

IT Infrastructure – Complexity and Challenges for Enterprises

A survey in 2014 by the IBM Institute for Business Value among 750 top technology executives showed that as many as 71% of them believed that their IT infrastructure played “an important role in enabling competitive advantage or optimizing revenue and profit.” 90% of the respondents to the same survey also believed that the existing IT infrastructure their organizations possessed was inadequate for the challenges of newer technology areas like cloud computing, big data, mobility and social media. This shows the essential challenge for the IT group within enterprises today.

Technology has become central to the ability of the Enterprise to respond to changes in the market and its customers and to execute its business plans. This has meant, that the IT Department is more involved with making strategic decisions and also has a greater responsibility beyond managing the compute infrastructure. Tom Rosamilia of IBM, said while releasing the report referenced earlier, “Today's IT leaders are responsible for more than overseeing technology breakthroughs [and] are also integral to advising chief executives about the organization's business strategy.” On the other hand, this has also meant that traditionally non-IT departments are also getting more involved in decisions that were earlier the purview of IT – for eg. choices regarding edge devices, cloud services and even security policies and plans. It is clear that several factors are at work in making the IT infrastructure ever more complex and un-manageable. The Infrastructure has to ramp up and scale back as demand fluctuates. Enterprises are themselves becoming more complex and the IT infrastructure has to evolve to keep pace. Significant technology shifts also necessitate small as well as large-scale changes in the IT infrastructure of the enterprise on a regular basis.

The role of the IT department, and the IT infrastructure of the Enterprise has now become to:

- Help the Enterprise to execute to plan

- Maximise the value delivered by the IT infrastructure
- Proactively identify and ensure a smooth shift to the most appropriate, next technology paradigm
- Eliminate or manage risks associated with the expanded importance of the IT infrastructure

In achieving these goals, the IT infrastructure has to face several complex challenges, some internal to the Enterprise and others within the eco-system the Enterprise operates in.

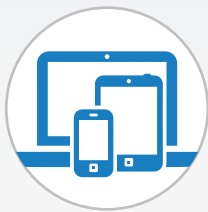
Internal Challenges



Budgets: Budgets are under pressure. The SpiceWorks 2016 State of IT Survey of 800+ IT Professionals revealed that even though annual revenues of companies were rising they expected IT budgets to remain at the levels they were at in 2015. The challenge for the IT department is to deliver more with the same amount of investment – essentially utilise the available budgets more efficiently.



Multi-locational / Distributed workforce: Enterprises are located across multiple geographies and teams are more spread out. To add to this, trends like telecommuting and remote teams are adding complexity. A Forrester Report had predicted that by 2016, 43% of the US workforce, 63 Million people, would be telecommuting. Further complexity is introduced by the growing number of freelancers or temp workers, estimated at 60 million people by 2020 in an Intuit study. The IT infrastructure has to cater to the connectivity needs of the distributed workforce and also support them remotely.



BYOD: A Gartner report, “Bring your own device: The facts and the future”, projected that by 2017, 50% of employers would require that employees get their own devices for work. Juniper Research estimated that as a result by 2018 over 1 Billion devices would be used in BYOD mode. The emergence of tablets has further complicated the scenario by blurring the lines between traditional definitions of compute and mobile devices. A multiplicity of devices means added complexity in terms of integration needs, software compatibility, license issues and non-standard infrastructure elements.

External Challenges



Technology Shifts: There are several technology-driven trends that are impacting Enterprise IT – Cloud computing is no longer just a trend but has become a core part of the Enterprise IT strategy of. The way Enterprises leverage the Cloud is evolving from the Public Cloud to the Private Cloud and to a more Hybrid version today. The need to leverage Big Data and Analytics is making greater demands on the data storage and network infrastructure of



the Enterprise. A greater reliance on Apps and sensors on data gathering and reporting mean the IT infrastructure has to be more mobility friendly. These technologies are also developing rapidly and present a moving target for the IT department to assess and address speedily as well as efficiently.

Security: In June 2015 UK's Department of Business, Innovation and Skills, reported in its "Information Security Breaches Survey" that 90% of large organizations and as many as 74% of small organizations had suffered a data breach in 2014. The IT Infrastructure has to evolve to ensure the security and integrity the data, both at rest and while in motion over the network.

Compliance: Compliance has become more onerous for Enterprises. The regulatory landscape is complex and dynamic and the degree of difficulty is even higher for Enterprises located across geographies. Enterprises need to hold themselves to very high standards of governance and this further increases the compliance burden as internal reporting and policy mechanisms get tightened. The need to give the Board transparent, real-time visibility into the operations of the whole Enterprise imposes a greater burden on all the IT systems. Data collection, filtering, analysis, reporting and dashboard creation becomes a core need and hence a significant challenge for the IT infrastructure.

IT departments in the Enterprise are faced with a double challenge – a more central and strategic role with a greater hand in the success as well as the failure of the Enterprise combined with a greater complexity in the IT operations. In this situation, they are turning to IT Operations Management to bring some order to this chaos. The need for, and the role of ITOM, has been expressed well by Fred Luddy, founder of ServiceNow, "The issue is that there are no end-to-end processes to govern IT. We have these things in place for running the business, for the supply chain, we have ERP and MRP, but we don't have something similar for IT."

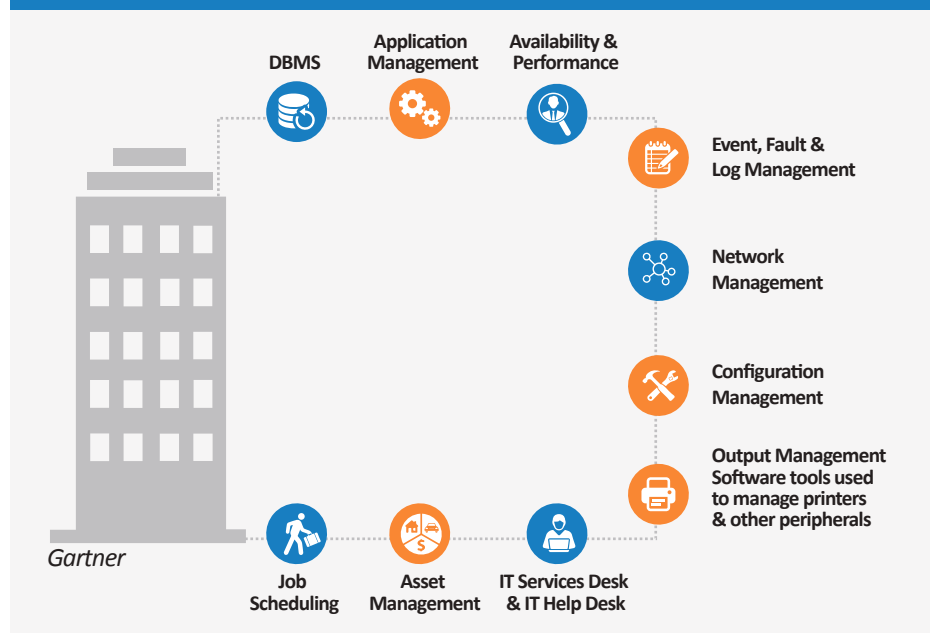
A Standard Definition of "IT Operations Management"

ITIL V2 from 2007 very simply defines the objective of IT Operations Management as, "To monitor and control the IT services and IT infrastructure. IT Operations Management executes day-to-day routine tasks related to the operation of infrastructure components and applications." The definition forms a part of the broader "Service Operation" piece of ITIL and is seen as being owned by the IT Operations Manager.

Taking a deeper look at the definition reveals the various facets it addresses. The focus is on managing the overall IT infrastructure that forms the backbone for service delivery. In the context of the typical Enterprise today, this may

include the networking infrastructure, the wide area and edge device connectivity, the data storage infrastructure, the applications and even the IT services delivered to the Enterprise. Enterprises are turning to ITOM software solutions to leverage their IT investments more efficiently and to address ongoing changes more easily. ITOM software can help to automate the processes associated with infrastructure provisioning, capacity utilization, performance management and ongoing maintenance of all the elements of the IT infrastructure.

IT Operations Management Segmentation



Taking the ITIL definition further, the day to day activities associated with managing the IT infrastructure can be divided into two distinct areas:

- **IT operations control** – for monitoring and control various operation-related tasks like console management, job scheduling, peripheral management, backup and restore operations and maintenance.
- **Facilities Management** – for the nuts and bolts of the IT infrastructure like the servers, the network switches and fabric, the data storage infrastructure and the disaster recovery options.

Difference between IT Operations Management and IT Applications Management

As Gartner has outlined, Application Management is one of the functions included in ITOM. There is some overlap between the IT Operations Management and IT Applications Management functions and this is perhaps



Why do Enterprises leverage ITOM solutions?



To Automate More



To Monitor Better



To Manage Effectively



To Anticipate Proactively

the reason for some confusion between the scope of these two solutions.

The needs of the Enterprise may be addressed through a combination of off-the-shelf software and in the case of some specific need, custom developed software. IT Application related activities are usually thought to be connected to custom software programming and management. The areas of overlap arise as the IT infrastructure plays a key enabling role in the process of custom software development. The process of developing the Enterprise IT Application is a business activity just like any other and in that light a consumer of many of the services that the IT Operations group provides.

How ITOM Can Help Enterprise IT

Enterprises are looking to implement ITOM to gain greater visibility and control over the various elements of their IT infrastructure. The objective is simplification for easier and more responsive management that enhances the Enterprise's ability to deliver according to the plan. ITOM helps Enterprises to utilise their IT infrastructure more efficiently, to be more agile in response to external and internal needs and to improve the overall service and support delivery.

Enterprises leverage ITOM solutions to:

Automate More: Automation is a key benefit delivered by ITOM. The various elements of the overall IT infrastructure that can be automated include the IT Service Management by the optimization of the service desk, the management of the data center including virtualized elements and the management of the network backbone. Automating these processes makes response faster, more effective and more efficient.

Monitor Better: ITOM allows the Enterprise to gather data from several data sources representing all the key elements of the IT infrastructure. This data can be analysed and can then provide insights to the IT Operations on factors like loads, performance and user activities. This makes it easier to identify issues earlier, diagnose them and to then address them faster. ITOM also provides transparent visibility into the actual behaviour of users and the issues that they face.

Manage Effectively: ITOM enables more efficient and effective management of the IT infrastructure by allowing a common management platform for the various different applications across the Enterprise. ITOM communicates with these applications at the API level and facilitates a degree of communication that allows faster decision making. ITOM also supports easier provisioning of resources like application licenses and cloud services based on analysis of the workloads.

Proactively Anticipate: The business and technology landscape changes very

rapidly and the Enterprise has to be extremely agile to respond to such changes. Enterprises are leveraging ITOM to proactively anticipate the changes that may be needed to the IT infrastructure to address a business situation that is liable to change and to then use that insight to be ready when the anticipated change does occur.

The benefits to the Enterprises from ITOM, thus, are:

- More transparent visibility
- Efficient utilization of the IT investment
- More responsive provisioning of IT resources
- Enhanced availability
- Easier issue isolation and better maintenance

Difference between IT Operations Management and IT Applications Management

IT Service Management is defined as a combination of people, processes, and tools that are deployed to support the production environment or for delivering other IT services to the organization's internal & external customers. ServiceNow is a cloud-based ITSM tool focused on the enterprise. ServiceNow focuses on the workflows within the enterprise and helps enterprises define, codify and automate these workflows to ensure predictability and scalability on a day to day basis. Enterprises deploying ServiceNow leverage the capabilities of the product in Incident Management, Issue Management, Request Management, Knowledge Management and for Tracking and Reporting.

ServiceNow itself identifies the following capabilities for its product offering:

Service Management: Improved workflow efficiency across IT, HR, Facilities, Field Services and other service areas

IT Operations Management: Simplify service delivery, mapping and assurance, automated provisioning and monitoring

Business Management: Tracking, monitoring and reporting tools

ServiceNow focuses on a variety of business domains including Financial, Healthcare, Higher Education, Managed Services and various Government sectors.

Overview of ServiceNow ITOM

Among the ServiceNow product offerings is IT Operations Management delivered as a part of the ServiceWatch Suite. ServiceNow makes the point

Capabilities of the ServiceWatch suite

- *Making the CMDB service-aware*
- *Detection and diagnosis of service issues*
- *Faster restoration of services*
- *Reduce risk of planned changes*
- *Enhanced self-service*
- *Strengthened governance*

that making the services operations, and the IT infrastructure, mature is a process that takes time and which occurs over multiple stages. These processes are not linear and the Enterprise can try to address some or all of them in parallel. ServiceNow recommends a three stage approach starting with enhancing visibility across the entire IT infrastructure being used for delivery of business services. ServiceNow then recommends focusing on increasing service availability by managing the IT infrastructure as a whole rather than as individual elements and finally on maximising the agility of the IT infrastructure by leveraging automation, better analytics and providing more self-service options.

ServiceNow claims the following capabilities of the ServiceWatch suite:

- Making the CMDB service-aware
- Detection and diagnosis of service issues
- Faster restoration of services
- Reduce risk of planned changes
- Enhanced self-service
- Strengthened governance

The ServiceWatch suite allows Enterprises to “Enhance Visibility, Prevent Service Outages, and Maximize Operational Agility”.

Alcor’s capabilities in ServiceNow and ITOM

Alcor is a global cloud advisory and implementation services company serving Fortune 500, Government establishments, and other leading organizations in multiple industry verticals across the Americas, Canada and India. Alcor is a ServiceNow Silver partner and also partners to Mulesoft, Salesforce, Tanium, Microsoft and Bomgar. They advise leading businesses on cloud platforms, architecture, enterprise service management and integrating IT service delivery. They also provide business process consulting to capture, re-engineer and improve processes that can easily be automated to deliver real value. The Alcor consulting team is derived from a combination of experts in Business strategy, Cloud Technology and Organizational Change Management.

Alcor takes a strategic ITSM implementation approach and focuses on solving the business problems of their clients by leveraging an integrated business process design and technology implementation capability. Alcor’s ITSM solutions with ServiceNow leverage a business view of IT services. The objective is to enable the IT support organization to:

- Quickly resolve or escalate issues and problems
- Improve root cause isolation, and
- Provide higher levels of business user satisfaction.

Alcor brings substantial process expertise, ServiceNow experience and depth of organizational governance modeling to build solutions that are effective and provide complete life cycle support for Incident Management, Problem Management, Change Management and Configuration Management. Alcor has experience in Automating ServiceNow with external applications like emails, active directories, Adobe, assets, and Amazon Cloud Provision (LABS). This includes real-world experience of having worked with enterprises in the banking and financial services and retail sector where we have helped orchestrate transaction volumes running into the 100's of thousands.

They have significant experience of Service mapping with the ServiceWatch suite of products. Alcor has specific expertise in ServiceNow IT Operations Management across the three levels, Orchestration, Release Management and Service Analytics. Through effective Orchestration Alcor helps clients launch the right automated process consistently and to codify best practices into the process workflows to save time and money. Alcor's expertise in helping their clients manage Release Management better allows optimal usage of the IT assets, hardware and software, available to the client to ensure effective, timely, un-interrupted and on-demand service delivery. Alcor helps their clients put in place Service Analytics solutions that gives them the capability to keep track of each and every infrastructure component that impacts overall service delivery.

Alcor achieves this by leveraging their integrated business process design and technology implementation capability. Their professionals are the top talents in the business with deep personal understanding of the business verticals they service. This allows them to deliver flexible solutions that work in the real world. Their strength lies in delivering solutions that are customized to the specific requirements of their customers including complex integrations with the other systems in the eco-system like Financial and Procurement Management systems. You can get more information about Alcor and their capabilities by writing to information@alcortech.com.

CONCLUSION

Rapid technology change and an extremely demanding customer landscape is putting the IT infrastructure of Enterprises under extreme pressure. As IT becomes more central to the achievement of the business plans for the enterprise it becomes critically important for them to keep track of every infrastructure element at all times. In such an environment, to avoid potentially catastrophic disruptions in services and to ensure that the IT infrastructure is managed efficiently as well as effectively enterprises are turning to IT Operations Management tools like ServiceNow's ServiceWatch suite.



Alcor is a technology implementation company focusing on Enterprise and Government technology needs in ITSM, systems integration, web development and mobility space. We provide a strategic ITSM implementation approach to our clients and focus on solving business problems by leveraging an integrated business process design and technology implementation capability.

14241 East Firestone Blvd, Suite 400, La Mirada, CA 90638 / Phone(818) 835-3454

11501 Dublin Blvd, Suite 216 Dublin, CA 94568/Phone (925) 452-8231

www.alcortech.com

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