

Butler Group ▶
a **Datamonitor** Company



IT Systems Management

Exploiting the Infrastructure for
Business Value

April 2008

SECTION 1: Management Summary

► 1.1 MANAGEMENT SUMMARY

CATALYST

Traditionally data centres have been managed in siloed teams dictated by the historic differences between the technologies such as network, storage, UNIX servers, Windows systems, and mainframes; these silos have generated highly specialist resources and management tools, which do not easily integrate to provide an end-to-end perspective of the service IT is delivering to the business.

KEY FINDINGS

- Systems management tools are changing IT from being mainly reactive in its response to being more proactive and business focused.
- Simplification of the complexity now inherent in the various infrastructure components is a key operational requirement from any systems management capability.
- Behavioural analysis will be the next big technology advancement in the systems management market.
- Limited automated data centre operations are possible with the current crop of systems management tools, but organisations are not ready for the leap of faith required.
- Integrated Business Service Management (BSM) provides the business prioritisation needed for any systems management capability to demonstrate organisational benefit.
- Power and cooling management of the infrastructure is becoming a significant new requirement.
- Managing both the virtualised environment and physical environment from the same systems management tool is now an essential capability.
- Organisations are demanding vendors provide interoperability with third-party products.
- IT Service Management (ITSM) is now intrinsically linked to systems management and provides a structured approach to managing the IT infrastructure.
- With the Small- to Medium-sized Enterprise (SME) sector increasingly reliant on IT due to the growth of the on-line business model it now requires the same ability as large enterprises to ensure services are available to meet customer demands.
- Existing skills and knowledge often drive the organisation's technology selection process.

ANALYSIS

Introduction

The market in systems management has evolved over recent years, the leading vendors have all integrated the ability to monitor and manage a variety of infrastructure components, from virtual servers to network switches, in to their solutions. The other major transformation has been the acceptance that IT departments need standardised process and procedures so that the delivery of IT as a service can be managed more effectively. This ITSM focus has seen many systems management vendors use the Information Technology Infrastructure Library® (ITIL®) classifications when describing capabilities. However, this Report is focused on the systems management capabilities and not service management – although the two are intrinsically linked – and as a result we have identified that only seven major vendors have the breadth of coverage to be included in this Report.

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Organisational IT structures are often characterised by many different siloed teams of technical specialists, and these silos often drive the technology selection process in organisations, which to a large extent is governed by the existing skills within the IT department. This approach has created tensions between the requirements of the business users and the capabilities to manage the technology of the IT department. The result of this siloed approach is that IT resources are locked-in to technologies, and organisations face expensive retraining or new hiring costs if technologies new to the organisation are selected. The new, more holistic approach to systems management is that of simplification; so that the IT department can manage the technology stack at a higher level, and therefore enable it to manage a wider range of technologies more efficiently.

Business Issues

The overriding aspect of modern systems management is the need to become proactive rather than reactive. This ties-in with the requirement of having a total understanding of how the IT infrastructure impacts the strategic business imperative of the organisation, and how the two are inseparable. Systems management has to be undertaken with the strategic imperative at the forefront, but likewise the limitations of the technology infrastructure have to be made evident to the business units. This dual requirement means that the traditional systems management tools have to be modified or extended to move beyond the purely technical. The new era of systems management is more about helping the business adapt to changing external conditions rather than simply reacting to internal changes.

Systems management has been around for a long time, but it faces new challenges in respect of ensuring that it manages from the dual viewpoint of the technical and non-technical. Modern systems management has to be more than a way of ensuring that IT resource is available; it has to become the central element of ensuring not only the well-being of the organisation but also the control element for allowing structured change.

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Giving due consideration to service management while discussing systems management is important if systems management is to address the needs of the organisation. Without an understanding of the synergy between the two management disciplines, then both will ultimately fail to deliver on the full capabilities of the IT function. What service management brings to the party is an ability to measure the cost and value of the IT function in real terms that are understandable to stakeholders. Although it is not always easy to apply fiscal measures to everything, an attempt at least has to be made. Operationally, it is the financial aspect that has to take centre-stage. Even in Non-Profit Organisation (NPO) environments there is a requirement to understand and report financial standing, and to do this from a background of certainty.

Service management helps make the IT function more transparent to the organisation as a whole, both in respect of the value it brings and the cost burden. By having a strong service management foundation in place it becomes easier to allocate costs more directly, and this creates a more structured use of the IT function.

Business Continuity (BC) and Disaster Recovery (DR) are aspects of systems management that are typically forgotten about until they are needed. However, managing the production systems and the backup systems as a single entity has significant benefits, as well as significant challenges. Technology advances have created the position where BC/DR does not have to mean redundant and expensive capacity; the systems can be used and proved as part of an active BC/DR plan. Butler Group considers that the management and the technology combined represent a powerful combination in enabling organisations to make choices about the type and coverage of BC/DR needed for their particular circumstances. However, we believe the thorny issue of budgets, responsibilities, and priorities must be identified and resolved before any BC/DR plan is implemented.

Technology Issues

Monitoring hardware and software within systems is essential. Audit and compliance obligations require careful recording of systems activity, and monitoring also enables organisations to check whether systems are operating as intended and, if not, initiate action to recognise and resolve problems affecting processes and users. The acceleration of business and technology change, combined with the complexity of the modern IT environment, drive the need for more advanced change management tools. Effective change management can unify and automate change processes, therefore reducing costs, implementation timescales, and risk.

Although ITSM is an area within which it is very important for alignment with business requirements to be foremost as an objective, there remain some issues around adoption and deployment of ITSM which are much more strongly in the domain of IT experts. Organisations' IT experts need to consider these matters in the context of their existing and planned technology strategies. Butler Group believes that BSM is a discipline that, if incorporated into the systems management capabilities, enables this linkage between IT and business domains.

One example of the benefit of this linkage is the capability for managing in a virtualised environment, which has a number of specific and unique challenges, and these are as much about having a tool as they are about having well-defined IT processes and procedures, and understanding the business priority and value of the service provided. The implementation of virtual environments has been characterised as an 'add-on' deployment, creating the impression that infrastructure management does not have a holistic capability. Butler Group believes that the lack of a combined virtual and physical environment management solution was one reason for the reticence of organisations to deploy virtualisation in production environments; in other words it is due to the historical lack of the major systems management tool vendors to offer fully integrated physical and virtual systems management within their existing tools and processes. However, systems management vendors have now begun to address these concerns, but the solutions currently on offer are still additional modules that must be deployed, and are not built-in core capabilities.

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Market Issues

The market in systems management tools is a relatively mature one, which traditionally has been characterised as being of interest only to enterprise-class customers with large data centres. The requirements of this sector of the market drove the vendors to develop large framework-based solutions, which were functionally rich but aligned to the siloed departmental structures that these large customers typically used to support the infrastructure.

However, as the on-line business model became more and more accepted and integral to organisations of any size, so the market for systems management altered. This new, more diverse group of customers brought with them some specific requirements, while also needing the capabilities and functionality provided for enterprise-class customers. This shift in market dynamics caused a great deal of activity; as the larger established vendors re-developed their framework solutions, and augmented them by acquiring many smaller vendors that not only had a technology solution, but also a route to the Small- to Medium-sized Enterprise (SME) sector.

The market stabilised a couple of years ago when the Web-enabled, modular approach to systems management had been adopted by most vendors. However, virtualisation created a significant disruption to the market and was characterised by many new start-up vendors appearing that were offering specific virtual environment management capabilities, which were often add-ons to existing management tools.

Currently the market has once again stabilised, with all major vendors providing fully-integrated virtual management, but we are witnessing a new disruptive force as Microsoft enters the market with a clearly greater ambition than it has shown in the past. Its Microsoft Systems Center and the philosophy that third-party providers' specialist capabilities will integrate seamlessly with the Microsoft command centre presents a compelling argument; however, the proof will be in the ability of Microsoft to gather a sufficient range of technologies that integrate with its Systems Center product.

Conclusion

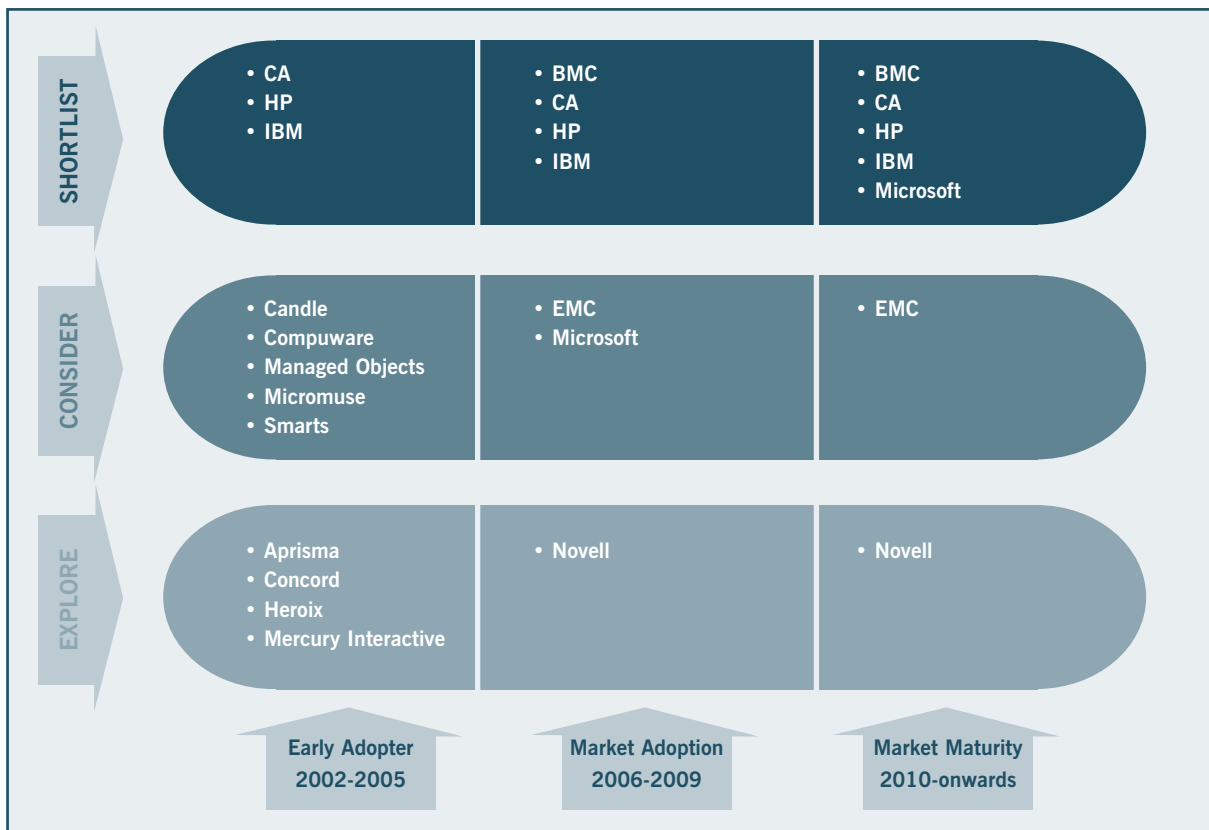
More and more technologies have been developed and deployed, each with its own management capability, these products are often add-ons to an existing complex data centre management picture. Consider clustering technologies: each vendor has its own set of instructions and interfaces with which administrators control and manage the operation. Butler Group believes that the time has come to think strategically about systems management, and how it can be used in a co-ordinated and effective manner to deliver real business benefit.

As IT becomes ever more ingrained in the organisation, so the need to be responsive to business demand in a controlled approach has increased in significance, in fact Butler Group believes that the approach to this problem will differentiate the *good* IT departments from the *average*. In the current economic climate many organisations are facing a tightening of financial controls and spending, IT is not immune from this recession; a recent Butler Group survey found that 73% of respondents expect their IT budgets to be reduced or remain flat in 2008, as compared to 2007. With this more prudent approach the allocation of IT resources becomes a major factor in how IT departments are perceived.

Taking a holistic perspective to managing the organisation's infrastructure requires a different approach and one which many IT organisations are not yet equipped to adopt. The concept of business-driven demand is not new, in fact IT has evolved based on this premise, but currently IT responds to the department/business unit that either shouts loudest, or has the capital to invest in new projects. It is our contention that the landscape is moving, and Chief Executive Officers (CEOs) are increasingly looking toward the Chief Information Officer (CIO) as the guardian of business process prioritisation, which is asking the IT department to police the business units based on corporate prioritisation, and this requires IT to deploy the tools to perform these new duties, hence the growth in holistic systems management.

Butler Group Systems Management Market Lifecycle Ratings

Butler Group's market rating and assessment model groups vendors into Shortlist, Consider, and Explore categories, and shows the predicted progress through the three major market phases of Early Adopter, Market Adoption, and Market Maturity. Within each group vendors are listed alphabetically.



Solution Performance Table

Butler Group's summary of the analysis and market positioning of each vendor's current solution, taking into account both technology evaluation and how each vendor addresses the market.

Rating	Company/Solution	Butler Group Opinion
Shortlist	BMC Software, Inc. Business Service Management v1	BMC is particularly strong in monitoring and fault diagnosis, but is only just above average in the BSM aspect, which is a surprise considering it is one of the driving vendors behind this movement; however, it is weak in performance and optimisation.
	CA Inc. CA Systems Management	CA has a broad set of capabilities, but lacks network provisioning features; however, CA does have a strong monitoring and fault diagnosis capability, and good coverage of the range of technologies.
	HP Business Service Automation v1	HP offers a broad set of capabilities, with BSM being a particular strength; however, HP scored low in the administration and reporting, and deployment sections.
	IBM Tivoli	IBM is the clear leader in this field, being very strong in all aspects of systems management; particular highlights are monitoring and fault diagnosis, performance and optimisation, and BSM; its weakest capability is in administration and reporting.
Consider	EMC Corporation EMC Smarts	EMC has a solid offering that is characterised by some areas of strength – such as monitoring and fault diagnosis, change and configuration, and deployment – but it scores low on others such as BSM, performance and optimisation, and ranges of technologies covered.
	Microsoft Microsoft System Center 2007	Microsoft has a much-improved offering that has some significant strengths – such as monitoring and fault diagnosis, and performance and optimisation – however, the remainder of its capabilities score as just below average; Microsoft has formulated roadmaps that should address these weaknesses over the next couple of years.
Explore	Novell ZENworks version 10	Novell's offering has a basic capability that lacks the richness of the market leaders. It is also let down by the lack of any BSM capability, and its weakness in the performance optimisation capability, but is strong in the deployment section.

This Report reveals:

- How organisations should approach the deployment of systems management.
- Why Business Service Management is a key enabling capability of any systems management tool.
- The differences between IT Service Management and IT Systems Management.
- How IT Systems Management can help transform the way IT departments operate.
- The business challenges, opportunities, and benefits that systems management addresses.
- Why management of the infrastructure will become a significant influence on the added value that virtualisation technologies can deliver.
- How systems management capabilities are changing the skills and competencies needed in IT.

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Analysis without compromise

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