

What Terma Software Labs can Teach the Industry about Business Service Management

Executive Introduction

The role of automation in service management is continuing to rise in importance both with the ascendant interest in Cloud Services and virtualization, and with the growing recognition that automation is central to enabling and solidifying best practices across domains. Automation does this last in two respects: it “hardens” processes into a more consistent workflow, but it also provides IT professionals and managers with more time to focus on the dialogs and value-oriented initiatives that are so central to business-aligned IT services.

Within the automation pantheon, Workload Automation (WLA) too often gets marginalized as a fairly well defined area with roots in job scheduling, despite its pervasiveness and rapid ROI. The need to place WLA in context with larger automation and service management capabilities is so far not well understood – both by the industry in general, and by many WLA vendors themselves.

This report looks at WLA in that larger context and presents a true service management vision of what WLA can and should become. The report also introduces Terma Software Labs’ JAWS, as the only solution in the market today that meaningfully bridges that gap, with both an eye to present integrations and future possibilities as a unifying system for job automation from a service impact perspective.

The Importance of WLA

For decades, job scheduling software has automated the tedious batch submission of IT workloads. As the number and variety of platforms spread, “consolidated job scheduling” systems emerged to simplify workflow management across the enterprise.

Workload Automation (WLA) is a mature evolution of job scheduling that automates complex IT processing and includes support for event-driven workloads, multiple platforms, Web services, composite applications, Service Oriented Architecture (SOA), virtual systems, dynamic resource allocation, ITSM integration, and of particular note, business service alignment.

The Importance of WLA in Service Management

Companies that fail to manage IT services based on business needs are, quite simply, failing to manage IT services. This is the core premise of ITIL’s definition for IT Service Management (ITSM). WLA, an evolved form of job scheduling with aggregation and integration across (and beyond) the enterprise, is critical to even basic service management. Job scheduling has been around since vacuum tubes and often taken for granted. However, WLA generates and manipulates the data upon which almost all businesses depend.

HIGHLIGHTS

Vendor name: Terma Software Labs

Product name: JAWS

Product function: Bridging the divide between workload automation and true service management

Operating systems: Windows and Unix

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Availability: May, 2010

Banks depend on their customer data, rate tables, and regulatory reports – outputs of WLA. If WLA breaks, branches may not open and ATMs may go into store and forward. Retail, health care, insurance, government, manufacturing, transportation, and others depend in a similar fashion on WLA.

Given the importance of WLA to any enterprise, one would assume that the industry would have long ago awakened to the fact that WLA is a key component of Service Level Management, Availability Management, and other key processes for any enterprise. Wrong.

For businesses with broader ITSM requirements, WLA's lack of service awareness can become a quiet but ongoing source of disruption. It creates artificial silos that inhibit meaningful process flows across organizations that, albeit, may not have been accustomed to working together in the first place – for as is often the case, technology silos may be reflected backwards into organizational structures, as well as in processes and procedures. This means that batch processing is too often managed separately from critical transactional and other requirements, a dangerous condition as Cloud and other services, as well as shifting business models overall, will require much richer and dynamic associations of batch-related outputs with overarching business services.

The Neglect of WLA

ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) analysts recently published the EMA Radar Report on Workload Automation¹. Although WLA has been around for decades and underpins the most critical data in the enterprise, it remains one of the least mature functions in IT (see Figure 1).

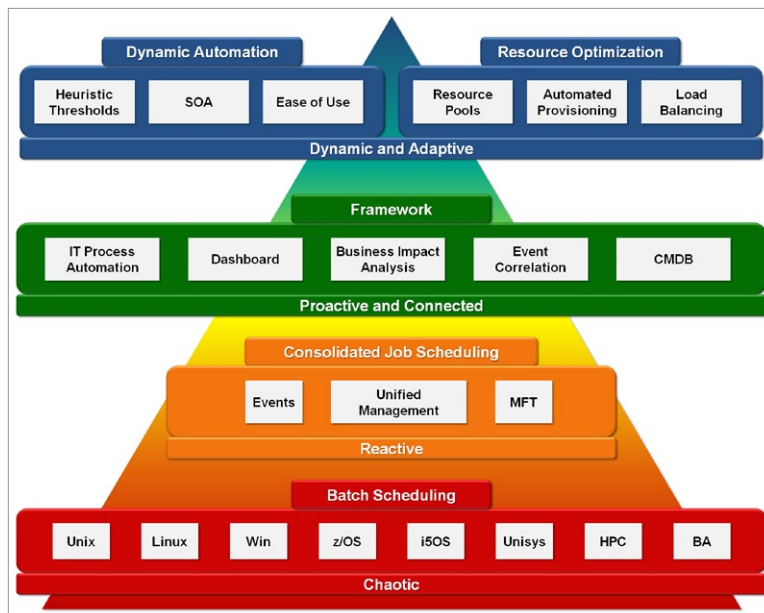


Figure 1

Two key shortcomings in WLA are its lack of predictive analytics and, more important, its isolation from the framework layer as shown in Figure 1.

- Very few vendors have any link whatsoever between WLA and business impact, and when links do exist, they are not integrated into the ITSM framework.
- Job objects are not Configuration Items (CIs) within the CMDB.
- Job objects are not linked to business services.
- Job-stream performance history is not part of Service Level Management (SLM) reporting.

¹ *Workload Automation Q1 2010 – An EMA Radar Report* - A comparative analysis of WLA solutions based on questionnaires, interviews, and product exposure.

In measuring WLA maturity, five major factors come into play:

1. Job Scheduling – creating workflows across multiple platforms and applications: This is standard across pretty much all industry offerings that typically support both mainframe and distributed environments.
2. IT Process Automation – orchestrating ITIL process inputs and outputs: While there is some hand-shake here in most solutions, integrations are not as open as they should be. But even more to the point, most WLA solutions remain “minimally” intelligent in terms of service impact, so that they depend almost exclusively on policies set from other solutions to become effective citizens in the broader service management landscape.
3. Resource Optimization – dynamic resource allocation, load balancing: Here the lack of service-aware intelligence is especially telling. Many WLA solutions stretch their critical execution windows to the limits and beyond with sometimes staggering consequences. To effectively support resource optimization, WLA solutions need: *Business Impact Analysis*, *Business Integration*, *Automated Provisioning*, *Critical Path Analysis*, as well as *Workload Management*. CMDB-related integrations, or integrations that can “speak to” evolving metadata systems in which services are modeled both in real-time and for process control, will become essential over time.
4. Business Integration – linking IT services to business requirements, business impact analysis: Many WLA solutions offer some capabilities for business views that support some level of prioritization for workloads. These priorities are typically resident in a job scheduling database, however, which limits integration and assimilation into the broader service management picture. They belong in an overarching service modeling capability where they can participate in modeling that can support change management, service impact management, asset planning and governance, and resource optimization along with all other IT disciplines.
5. Predictive Analytics – dynamic thresholding, heuristic monitoring: The value of Predictive Analytics lies in its potential to reduce manual maintenance of thresholds and to proactively prevent bottlenecks. With the exception of Terma Software Labs, no WLA solution has a true Predictive Analytics engine, although a few have a very limited analytics capability.

Why Haven't Vendors Figured This Out?

Given the foundational importance of WLA to IT services, these weaknesses are perplexing. What are the real obstacles keeping vendors from addressing this problem? The obstacles come from two directions. First, job objects reside in the job scheduler's non-standard repository. Second, these job objects must relate to the broader ITSM framework – a relationship that varies by BSM vendor. This last is an evolving and industry-transforming issue that will hopefully lead to a future of true modularity in which solutions are “Configuration Management System (CMS)-ready” – or optimized for sharing information and leveraging each others' resources through standards such as the CMDBf, and Web Services enhanced capabilities for exchanging information. And while this may take years to achieve its broader potential, many platform and other vendors will be introducing next-step service modeling along these lines over the course of 2010 and 2011.

These introductions will leave the broader WLA community completely in the lurch, with one single exception.

The Answer from Terma Software Labs – JAWS

Terma Software Labs' JAWS offers a unique bridge between WLA solutions and the broader requirements of integrated service management. Yet few traditional readers would recognize JAWS, even if Terma Software Labs has quietly established itself within the great majority of large financial firms on Wall Street by taking a focused, go-to-market strategy.

This is partly to do with the product's currently limited footprint – today it works only with CA AutoSys. But this is also because JAWS doesn't fit easily into existing categories – in itself. For instance, it is not a WLA product. Rather, JAWS is a powerful service management solution that intelligently integrates WLA data into a relational data framework with smart visualization, predictive analytics, and meaningful reports. In short, JAWS fills the critical functional gaps that have for so long been neglected by other, much larger, vendors.

Central to Terma Software Labs' approach is the notion of “Jobstreams” versus just “job scheduling.” While other vendors offer some limited ability to amalgamate job scheduling requirements, JAWS provides a comprehensive set of processing interdependencies in a unified flow or “Jobstream,” which is available both in real-time and historically. Combined with its strengths in predictive analytics and its ability to bring this all together in a cohesive service model, this make JAWS a unique and potentially industry-transformative approach.

Architecturally, JAWS has several key components to its design:

- An alerting mechanism to support real-time alerts when potential delays occur upstream from critical batch processing requirements and when SLA violations may incur penalties.
- A JobMart, or a separate database where JAWS can help administrators to build and analyze individual Jobstreams to support optimization analysis and real-time predictive alerting. Terma's JobMart is open to also enable a wide variety of custom reports.
- Through this information administrators can determine “average” duration and so set meaningful SLAs.

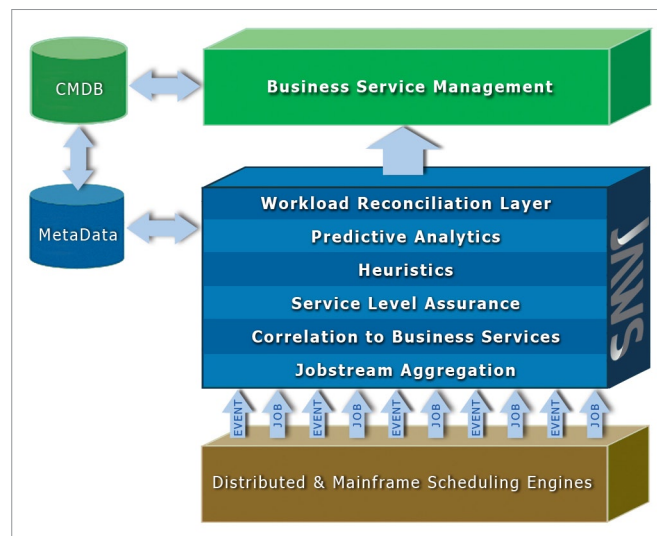


Figure 2 JAWS architecture

Nike and Goldman Sachs

EMA interviewed two Terma Software Labs customers, Nike and Goldman Sachs. Both had distinctive stories to tell about how JAWS supported service management requirements in two very distinctive environments.

Nike had a very focused, transaction-sensitive environment in which their jobs were far from predictable and often running late. A critical Business Intelligence application was consistently performing poorly and SLAs were frequently missed. Nike also found that root cause analysis was slowed because of poor or incorrect data, with embarrassing results to clients and unnecessary costs in operational overhead. With Terma Software Labs, Nike could prioritize problems through its much improved awareness of critical paths in important Jobstreams. The BI application enabled much more responsive, near-real-time decision making without disruptions, and SLAs were no longer an embarrassment.

At Goldman Sachs, JAWS now supplies 80% of the data for service level reporting, a testament to a solution that gathers WLA data and further proof that WLA underpins most services. Goldman has taken JAWS one step further and made it a unifying force at the layer of “Framework Services” – and hence a fully integrated citizen in a service management ecosystem. This is especially important at Goldman, where WLA underpins virtually every business application and hence every business service.

Present-future

One of the more telling developments in Q2, 2010 is JAWS integration with CA's Spectrum Service Assurance Manager (SSA). Spectrum Service Assurance is CA's Business Service Management console that brings together Spectrum, eHealth and Wily for application-to-infrastructure insights into service impact and service performance issues. SSA's ability to integrate additional CA solutions as well as other third-party solutions such as Terma Software Labs into its Unified Service Model (USM) heralds a next-generation approach to service management with increased levels of modularity, automation and insight.

Terma Software Labs has architected JAWS to fit into this Brave New World with a well-thought-out approach to capturing CI attributes and interdependencies in extensible fashion through its modeling. This suggests a broader role for Terma Software Labs as higher levels of service impact information and automation will be increasingly needed to support more dynamic Cloud services and transaction-centric, real-time requirements for a growing variety of innovative business models.

EMA Perspective

EMA believes that Terma Software Labs has the potential to become a significantly disruptive force in both the WLA and service management landscape. As is not uncommonly the case, innovative technologies in service management not only span products and markets, they span IT processes, habits and even cultures. By bringing WLA automation into a more mainstream service management perspective, with potential references to service models in CMDB, CMS and real-time/operational service management environments, Terma is helping to pave the way for next-generation solution sets that hold the potential to bring enormous payback for IT managers and professionals interested in WLA, automation in general, and business-aligned service management.

About EMA

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 (http://twitter.com/ema_research).

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