

HCL's Service Delivery Platform: Gaining Service Advantage through Industrialization

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for HCL Technologies Limited

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Introduction

This paper examines the trend toward industrialized IT management in service delivery models of infrastructure outsourcers. This trend, paralleling the roadmaps of major providers of Business Service Management software, industrializes IT management by reducing the consequences of technological diversity below the highest levels of enterprise control. Industrialization is like a universal translator that allows an Operations Bridge¹ to communicate with all systems as if they were speaking a single language. The technologies and architectures for this type of abstraction are just now becoming available, and outsourcers seem highly motivated to invest the resources to implement a working model.

The Next Battle in Globally Delivered IT Infrastructure Management

The focus of globally delivered IT infrastructure management has shifted in several ways:

- Consistency and level of service has replaced cost as the primary consideration when selecting an outsourcer.
- The cost basis of service delivery models are changing from capital expenditure (CAPEX) to operational expenditure (OpEx) – a sign of both innovation and maturity.
- Managed Service Providers (MSPs) have adopted aspects of cloud computing and Software as a Service (SaaS) for flexible multi-tenant infrastructure management.
- With platform-based delivery systems, MSPs are standardizing services across heterogeneous environments rather than customizing solutions for each client.

The intelligent industrialization of IT service management has emerged as a major strategic advantage on the shifting battleground of infrastructure outsourcing. MSPs are moving to SaaS²-like delivery models to improve both service levels and operating margins. The successful application of the SaaS model to infrastructure management hinges on efficiency and, therefore, on an architecture that allows a consistent interface to manage heterogeneous environments across multiple clients with minimal manual intervention. There are smart ways to approach this, and then there are the approaches that most will take. The smartest approaches will be adaptive and dynamic, enabling rapid implementation of modular rules for correlation, automation, provisioning, and orchestration.

Industrializing IT Service Management – Key Advantage

A new layer of automation is taking shape that unifies business service requirements and infrastructure management across the complex and diverse landscape of a multi-tenant Operations Bridge. This layer of industrialized infrastructure management, though beneficial to any organization, holds particular promise for Infrastructure Outsourcers (IOs) because it simplifies and unifies IT management – a necessity for the amplified complexity of the multi-tenant model.

¹ ITIL defines an Operations Bridge as a “physical location where IT services and IT infrastructure are monitored and managed.” Source: *Service Operations, 5.2.1 Console Management/Operations Bridge*

² Software as a Service (SaaS) is on-demand licensing of application software as a service, releasing the customer from the duties of provisioning, maintenance, and administration associated with the software.

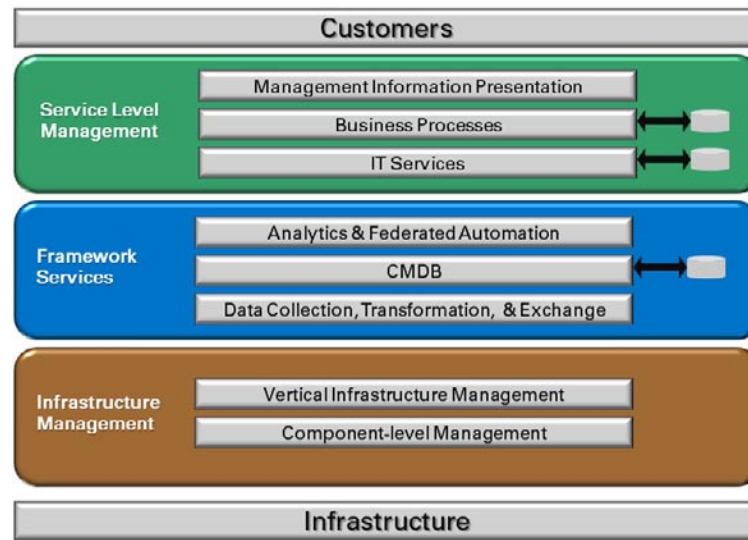


Figure 1. EMA ITSM Semantic Model

Successful industrialization of service management depends on integration, automation, and ease of use at higher layers of the ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) ITSM Semantic Model (see Figure 1). The “Framework Services” and “Service Level Management” layers stretch across all “Infrastructure Management” components (network, servers, applications, databases, etc.). For MSPs, one must add the client dimension and manage iterations of the model across all clients.

As an example of industrialization, take an outage event that generates a few hundred exception messages from various sources (network, applications, servers, etc.). Problem isolation – a key component of any attempt at IT management industrialization – requires knowledge of dependencies rather than knowledge of the originating platform. Once one has normalized all event streams and established a dependency map of all event originators, the interdependencies make irrelevant the nature of the originators and enables simplification of problem isolation algorithms.

Correlation, as an abstraction of event management, has prerequisites such as discovery, dependency mapping, event normalization, a topology-based correlation engine, and a knowledge base (CMDB). Essentially, these constructs manage the infrastructure elements by tracking their identities, states, and dependencies.

Similarly, one can industrialize provisioning, patch management, process orchestration and other activities of infrastructure management in such a way that the nature of the target is far less important than the activity model because the layer of normalization obscures the peculiarities of the target.

The objective of industrialized service management is the ability to execute a verb with little or no regard to the predicate. When provisioning an application, there need not be concern about the target platform because the provisioning policy and template shield the requestor from that level of detail. The simplicity of IT service management derives from the ability to layer and modularize automated activities.

The benefits of industrialized service management include:

- a) Reduced cost of service delivery
- b) Consistently high customer service levels
- c) Competitive advantage

The implementation of a framework for industrialized service management requires executive commitment, resources, and intelligent planning. Because of much higher operating margins, a wealth of quality IT personnel, and an economy that continues to expand (with somewhat less exuberance), infrastructure outsourcers (particularly in India) seem well-positioned to implement this new service delivery model.

The following section describes a SaaS-like service delivery model from HCL that strives for industrialized service management.

HCL's MTaaS™³ – A Model of Consistency

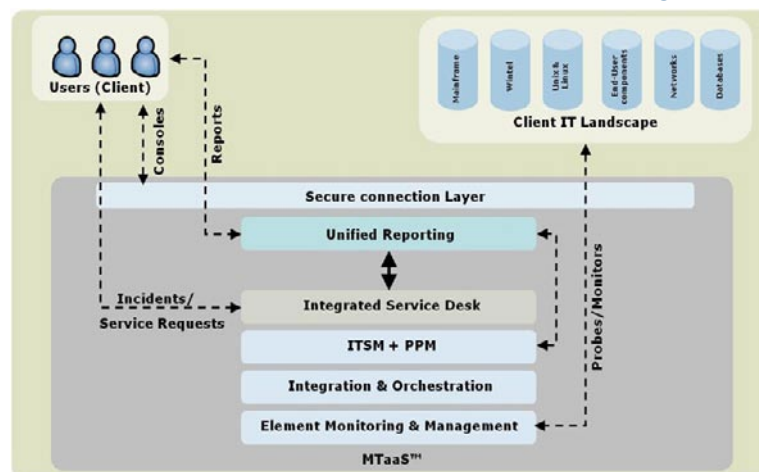


Figure 2. HCL MTaaS™ Architecture

HCL, a global services company based in New Delhi, has developed a service delivery platform with integrated processes and tools that exemplifies the drive toward industrialized service management. The MTaaS™ architecture (see Figure 2), modeled on ITIL⁴ and certified for ISO 20000⁵, differs from many of its competitors in the flexibility of delivery options. The MTaaS™ “plug and play” capability allows customers to choose from three different flavors, according to needs:

1. Cloud-based offering for “pay per use” MTaaS™ functionality.
2. On-Premise offering for customers with a heavy investment in ITSM software.
3. Hybrid offering

³ Managed Tools as a Service (MTaaS™) is HCL's trademarked architecture for service delivery.

⁴ Information Technology Infrastructure Library, a set of documented policies and best practices for IT Service Management. <http://www.itil-officialsite.com/AboutITIL/WhatIsITIL.asp>

⁵ ISO 20000, derived from ITIL, is a standard that validates a properly configured and effective implementation of IT Service Management. <http://www.isoiec20000certification.com/about/whatIs.asp>

The MTaaS™ delivery platform includes selectable services within six key process groups:

1. Release Management
2. Relationship (Business Relationship Management, Supplier Management)
3. Resolution (Incident Management, Problem Management)
4. Service Delivery (Capacity Management, Service Continuity, Availability Management, Service Level Management, Service Reporting, Information Security Management, Budgeting and Accounting)
5. Control (Configuration Management, Change Management)
6. IT Portfolio Management

HCL's new platform-based delivery model is very flexible, with faster on-boarding and pre-defined integration between best of breed tools. In cases where the customer already has invested heavily in tools, MTaaS™ can leverage the customer's existing toolset to provide the required services. In this delivery model, the MTaaS™ offering is broken down into layers of various functionalities, delivered via the Web, and assembled like building blocks to fulfill business needs. As a result, MTaaS™ allows the customer to focus on the processes upon which the business most depends.

HCL, because of its massive pool of quality human resources and its focus on multi-tenant remote infrastructure management, continuously accumulates automation for event management, provisioning, and workflow orchestration. This automation, coupled with the enabling architecture of MTaaS™, fulfills the primary requirements for industrialized IT management. EMA has dealt extensively with HCL and can attest to the focus of its senior architects on the MTaaS™ model of service delivery.

Looking forward, HCL has plans to improve its Service Delivery with a Maturity Scorecard/Roadmap that regularly measures the effectiveness of its processes, technology, and governance from operational and customer service perspectives while also recommending actions for improvement. This commitment displays an understanding of the principles of continual service improvement as they apply to the management of very complex IT infrastructure.

About HCL

HCL⁶, with its two subsidiaries HCL Technologies, Ltd. (HCLT on Bombay Stock Exchange) and HCL Infosystems, generated \$5 billion of revenue in 2008. The company of 58,000, founded in 1976, offers product engineering, custom and packaged applications, business process outsourcing (BPO), IT infrastructure services, IT hardware, and systems integration. HCL Technologies Infrastructure Service Division (HCL ISD), the creator of MTaaS™, accounted 16% of HCL Technologies Revenue and the fastest growing Line of Business in HCL Technologies. HCL Technologies focuses on “transformational outsourcing”, underlined by innovation and value creation and offers an integrated portfolio of services including software-led IT solutions, remote infrastructure management, engineering, R&D services, and BPO. With offices in 20 countries and revenue of USD 2bn, HCL Technologies provides multi-service delivery in key industry verticals including Financial Services, Manufacturing, Aerospace & Defense, Telecom, Retail & CPG, Life Sciences & Healthcare, Media & Entertainment, Travel, Transportation & Logistics, Automotive, Government and Energies & Utilities.

⁶ For more information on HCL Technologies, visit www.hcltech.com. For information on HCL, visit www.hcl.in.

EMA Perspective

Offshore MSPs have long held a significant advantage in labor costs. These providers, particularly in India, are acutely aware of the current market conditions, technology landscape, and client requirements. Architectures like MTaaS™ offer compelling advantages for a wide range of enterprises by delivering a cohesive and highly automated management of the infrastructure – an accomplishment that might otherwise require many years of planning and customization at considerable expense. Even in cases where an organization has already invested the time and money to automate their infrastructure management, the cost of maintenance and administration may, depending on the velocity of technology change, be sufficiently onerous to justify outsourcing. In the end, outsourcing decisions will depend on cost and service levels. Service levels will depend on a well-architected industrialization of IT management and that industrialization will depend on an accumulation of adaptive automation. These goals, though hardly trivial, are achievable by combining today's best-of-breed technology with a focused organizational commitment to adaptive automation. HCL has the resources, focus, and architecture. If they succeed and can objectively measure their advantage (with their planned scorecard), their success could rattle the outsourcing landscape.

About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst and consulting firm dedicated to the IT management market. The firm provides IT vendors and enterprise IT professionals with objective insight into the real-world business value of long-established and emerging technologies, ranging from security, storage and IT Service Management (ITSM) to the Configuration Management Database (CMDB), virtualization and service-oriented architecture (SOA). Even with its rapid growth, EMA has never lost sight of the client, and continues to offer personalized support and convenient access to its analysts. For more information on the firm's extensive library of IT management research, free online IT Management Solutions Center and IT consulting offerings, visit www.enterprisemanagement.com.

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