IT Silos and the Need for Enterprise Architecture

By Valerie Arraj

It's time to reign in the unplanned proliferation of tools used to manage IT, writes *ITSM Watch* columnist Valerie Arraj of Compliance Process Partners.

Consider the following scenario: You are responsible for the care and feeding of a power plant that services a major region of the country. In this capacity, you must tightly manage each of the following areas or risk a major power outage or power degradation to a densely populated area that is home to a major world financial center.

Your job is to:

- Assure continuous availability of power
- Guarantee power capacity during times of peak utilization
- Provide ongoing maintenance of all aspects of the plant without disrupting service
- Add new capacity or upgrade equipment as needed
- Deal with disruptions as they occur with the goal of rapid service restoration
- Interface to new power sources as they become available.

Now imagine that the 15 or so departments that are responsible for each area of the plant and each type of technology required use a different system to:

- Track equipment
- Manage and schedule changes
- Report and resolve incidents
- Monitor availability and performance.

Let's suppose that the different tools used in the 15 or so departments are not integrated. How efficient do you think your power plant will be? How effectively do you think you will be able to run things?

On face value, this scenario is unrealistic. Who would operate a power plant without across the board visibility? Think of all the systems that are critical to providing power to every customer and every event that can potentially impact the ability to meet the obligation to deliver service. Or is this situation really as implausible as it seems.

Taking this analogy a step further, the IT department is the "power plant" of the enterprise. IT is responsible for all of the critical systems of the business entity it supports—supply chain, HR, payroll, demand chain, etc. Although the nature of their "services" are certainly different, the IT department and the power plant have similar

responsibilities to provide continuous, reliable service to their respective customers. Yet, so many IT organizations operate as a group of functional silos when it comes to the delivery and operation of the business of IT. Each of these silos uses its own tools at various levels of sophistication to deal with the realm of technology for which it is responsible.

Maybe because IT is an embedded business unit, which typically operates as an overhead function to a larger organization, causes this group to lose sight of managing itself as a stand alone service provider with its own supply chain and demand chain. Regardless of the cause, the islands of automation IT organizations use to monitor and control changes, incidents, availability, capacity and performance make the ability to manage services and guarantee service levels challenging at best.

EA for the "Business of IT"

There are three dimensions of IT architecture which must align to an overriding business architecture. These represent the processes and operating models required for business success.

These are:

- Application architecture – Assuring that application components are structured such that they represent the business needs for functionality, availability, performance, continuity and security with consideration to all of the internal and external interfaces required.
- Infrastructure architecture – Designing underlying infrastructure components that accommodate the business needs with respect to availability, performance, continuity and security with consideration to the relationships and connectivity to both internal and external services.
- Information or data architecture – Organizing data both logically and physically to meet the transactional and reporting needs of the business taking into consideration interfaces to both internal and external data providers and subscribers.

These dimensions of IT architecture must be crafted in unison under the guidance of an enterprise architect to provide holistic IT solutions or services to the business. The enterprise architecture must consider current needs, future needs, cost, skills, innovation and risk.

If we consider IT as a stand-alone business unit, these same principles apply. The business of IT from service requests through design and provisioning into operations and ultimately service retirement must be architected from an application, infrastructure and data perspective so that the IT business objectives can be met. IT Management applications (most commonly referred to as "tools") are the backbone

of the IT service provider business and provide functionality to fulfill IT's own demand, supply and support chains, which are comprised as follows:

- Demand Chain
  - Service Request Fulfillment
  - Service and Project Portfolio Management
  - Capacity Planning
  - Reporting
- Supply Chain
  - Change Management
  - Asset & Configuration Management
  - Source Control
  - Supplier Contract Management
  - Service Catalog Management
  - Release & Deployment
  - Infrastructure Provisioning
  - Reporting
- Support Chain
  - Incident/Problem Tracking
  - Monitoring and Event Management
  - Compliance Management
  - Backup & Restoration
  - Job Scheduling
  - Functional & Performance Validation
  - Identity Management
  - Service Reporting.

The Bottom Line

While there may always remain a need for point solutions due to the specificity of technology and the depth of management a given IT tool can provide, the determination for tool use should be the result of an architectural analysis and decision to apply the right solution to the intended functionality. The holistic management of the business of IT must take into consideration the ability to provide an across the board view of the IT demand, supply and support chains.

Applying an enterprise architecture strategy to the business of IT will enable internal IT organizations to:

- Prioritize projects
- Manage internal and external resources
- Align services to business needs
- Assess and manage risk
- Minimize business disruption

- Manage and report on service levels.

Equally important is that architectural decisions, once made, must be adequately supported. Assuring that the resources and skill sets are in place to build or customize and support the IT management tool implementation will go a long way to assuring the success of the architecture strategy for IT management.