



Managing BPM

Joseph Francis

Managing Partner
PCOR

Joseph.Francis@pcor.com

The IT Supply Chain Top 10

I've recently been discussing with teams how to generate a high-level Service Oriented Architecture (SOA) using standard frameworks (SCOR® and its family), and I frequently mention "... and then you optimize the architecture depending on your company's strategic objectives. You can look at how the architecture performs according to your key metrics, and coordinate them with those strategic objectives, and define what gaps there are and begin a re-architecting to close the gaps." What seems to leave people mystified is the concept of "measuring an architecture." When we use process frameworks to optimize IT operations (mentioned in a previous article, "From Supply-Chain IT to the IT Supply-Chain") – in particular, the IT operations around a particular Architecture (this is what we mean by an IT Supply-Chain: an Architecture) – it all starts with metrics. In this article I want to touch on supply chain-like metrics, and in next month's article I'll discuss using these metrics supply to measure and characterize a given architecture's performance in comparison with company strategy, and in the last article of the series, I'll walk-through to how to re-engineer IT processes to close the gaps in a particular strategy.

So, starting out, I'd like to walk through the Top 10 process metrics – apologies to David Letterman – for the IT Supply-Chain using a SOA (Service Orientated Architecture) focus. In our nomenclature, a "service event" or "service request" is the fundamental unit of work, material, or information flow through an architectural element, whether it's an SAP transaction or a new Desktop.

- 1) **Perfect Service Fulfillment** – the percentage of service requests delivered on-time, in full. Components include all events and elements on-time using requestor's definition of on time and with closure – from packing slips and invoices, to handshake signals and EDI response messages.

Calculation: $[\text{Total Perfect Service Requests}] / [\text{Total Service Requests}]$

Key Category: Service Reliability

- 2) **Service Event Fulfillment Cycle Time** – the average actual cycle time consistently achieved to fulfill service events.

Calculation: $[\text{Sum Actual Cycle Times for All Service Events}] / [\text{Total Number Of Service Events}]$

Key Category: Service Responsiveness

- 3) **Service Flexibility** – the number of days required to achieve an unplanned sustainable 20% increase in service event delivery.

Calculation: Max [number of days required to achieve sustainable increase for Service

Sourcing, Service Execution, or Service Delivery]

Key Category: Flexibility

- 4 & 5) **Service Adaptability (Upside & Downside)** – the sustainable reduction and increase in service events that can be achieved in 30 days (without cycle delay, cost penalties or technology inventory).

Calculation: Upside: Percentage sustainable increase; Downside: Percentage sustainable reduction

Key Category: Flexibility

- 6) **Service Management Cost** – all direct and indirect expenses associated with the operation of service infrastructure across the IT Supply-Chain.

Calculation: [Cost to Plan] + [Cost to Source Services] + [Cost to Deliver Service] + [Cost of Service Failure Support]

Key Category: Cost

- 7) **Cost of Service Execution** – the costs associated with executing service events within IT Supply-Chain. This cost includes direct costs (labor, materials) and indirect costs.

Calculation: Direct Materials + Direct Labor + Overhead

Key Category: Cost

- 8) **Service-to-Cash Cycle Time** – the time it takes for cash used to fund service execution to flow back into the company after related end-customer billable goods or services have been delivered to customers.

Calculation: [Service Days of Execution] + [Days Sales Outstanding] – [Days Payable Outstanding]

Key Category: Assets

- 9) **Return on IT Fixed Assets** – the return an organization receives on its invested capital in IT fixed assets. This includes the fixed assets used for IT Planning, Service Sourcing, Service Execution, Service Delivery and Service Failure Support.

Calculation: ([IT Services Revenue] – [COGS] – [IT Service Management Cost]) / [IT Service Fixed Assets]

Key Category: Assets

- 10) **Return on Working Capital** – return on working capital is a measurement which assesses the magnitude of investment relative to a company's working capital position verses the revenue generated from Service Events. Components include accounts receivable, accounts payable, service event inventory (payments), service event revenue, cost of goods sold, and supply chain management costs.

Calculation: ([IT Services Revenue] – [COGS] – [IT Service Management Costs]) / [Working Capital]

Key Category: Assets

Now, I assume that this turns some conventional wisdom on its head around measuring IT (architecture), but that's because we're beginning to think about IT process in business process terms. Consider "uptime." I don't really consider "uptime" important per se, but I do consider whether an architecture delivered all the services I needed **at the time that I needed them**. If a system were down 5% of the time (95% uptime), but during that time I didn't need services (say we're only open 9-5), then even though 99.5% uptime may be a key conventional measure, from business point of view 95% may be perfectly acceptable because I got perfect service performance during that uptime.

Likewise, this begins to look at some key metrics like TCO – Total Cost of Ownership – for IT assets and clarifies that ownership involves Total cost of Management as well as cost of Execution – planning the services, executing services, delivering a service, and cost of service failure support. ROIT becomes Return on IT Fixed Assets, and Return on IT Working Capital.

This is a start. With more than 200 SCOR® based metrics available for interpretation as IT process metrics, I could spend quite some time with a new catalogue of detail definitions of how IT processes operate. I hope to see this done by March, with a key track at the Supply-Chain Council North America conference devoted exclusively to SCOR® for use with IT process.

So in the end, suddenly IT Processes are just a bunch of Business Processes (the IT Supply-Chain I refer to) like any other supply chain process, with their own possibility of scorecards and benchmarking. And with that, a whole fascinating series of techniques comes into play that I will write about in February. In particular, I will look at how to relate the key metric category to company strategy, and how this all relates to improving IT architecture and performance to match company strategic priorities.

I hope everyone has had a great holiday, and I very much look forward to sharing the details in 2007 of re-engineering the IT Supply-Chain in these articles with a practical step-by-step how-to for IT practitioners to use in their own operations.