



MATURING “COST CAPTURE & CURRENCY”

A working example of IT financial management maturity

As IT organizations evolve, the finance function must do so as well. The finance organization must transform from a reporting function to the role of strategic partner to technology and business strategy. It must ensure that essential business data (both financial and non-financial) is captured and it must use that data to identify and propose value-enhancing opportunities for the organization. To reach this strategic level of maturity the finance organization must define where it is today and develop a path to maturity that it can use to cast a vision for itself and its stakeholders.

Integris Applied has worked hands-on with technology organizations that were grappling with this evolution. Through these experiences we have developed a view of how a finance organization can mature in a measured and methodical manner.

In prior papers, we have described Integris Applied’s approach to assessing and improving financial management maturity. In this text we will walk through a working example of financial management maturity in the function of *Cost Capture & Currency*, which is defined as *automated capturing and tagging of costs for value-added reporting at varying organizational levels and for industry comparisons*.

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1. REVISITING THE INTEGRIS APPLIED MATURITY MODEL

As we described in our last paper the Integris Applied financial maturity model describes the evolution of the finance function through three roles of increasing strategic importance – Reporter, Analyst and Influencer. We define the roles based on a five-stage maturity model employing eight solution components. At any point in time a finance organization’s maturity can be measured for any of the eight solution components both in their entirety and independently of each other, allowing that organization to prioritize improvements based on its own needs. In other words, an organization can have the highest maturity (Stage 5) for one solution component but have lower maturity levels across all other solution components. This is okay. What is important is that an organization can use a measurable framework with defined improvement criteria to chart a course and measure progress.

1.1 DEFINING THE FINANCE ORGANIZATION’S ROLE

We believe the elements of a maturity model must include a description of the roles an evolving organization plays as it matures. These descriptions are important for stakeholders external to the finance function to understand the compelling purpose behind improving ITFM capabilities. We define three roles for the finance function, increasing in strategic impact as the organization matures. These roles – Reporter, Analyst and Influencer – are described in the figure below.

ROLE OF FINANCE	Attributes	Description
REPORTER	Tactical, Report Oriented, Controlling	Establish manual reporting and financial controls and processes required to protect the organization’s financial landscape
ANALYST	Collaboratory, Analytical, Empowering	Support business decision with insight and analysis via automated reporting
INFLUENCER	Engaging, Leading, Executing	Establish cross-functional processes that engage all stakeholders to identify, plan and execute value enhancing opportunities for the Enterprise – become strategic partner to the CIO

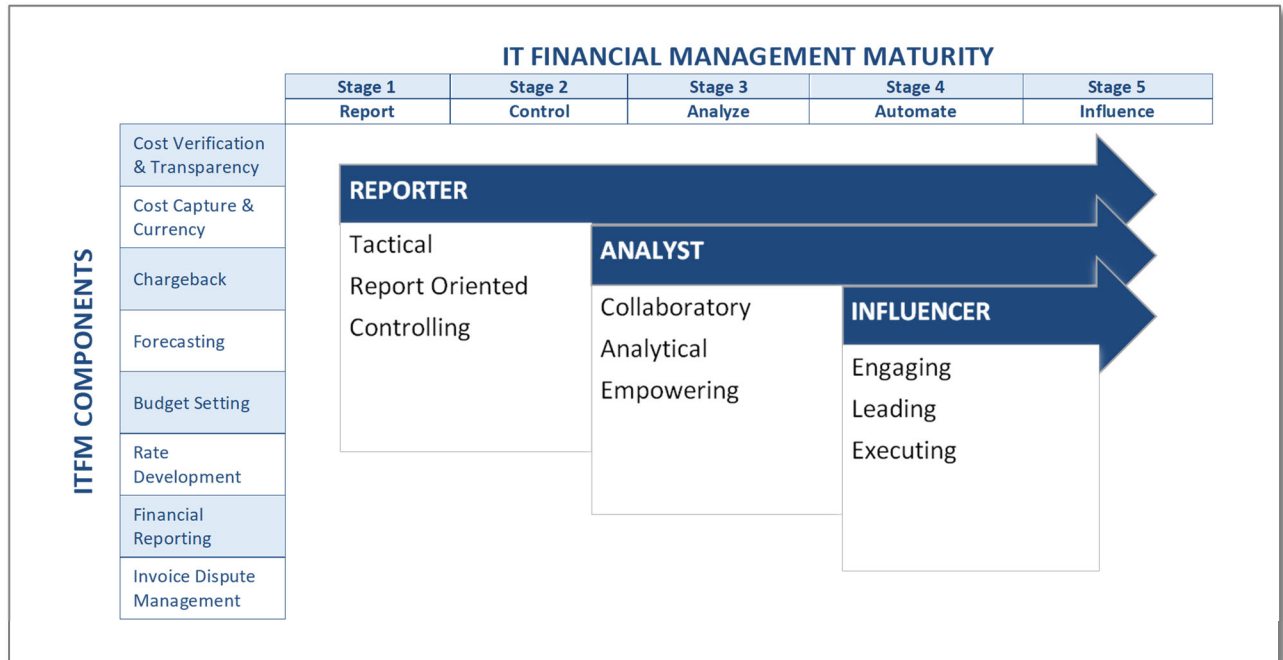
In a modern technology organization, delivering multiple services from multiple sources of supply and across multiple platforms, the finance function must be more than a mere reporter of financial data. The finance function must influence decisions being made at the CIO and customer level and engage multiple stakeholders in its analysis and recommendations. Reaching the stage of Influencer benefits not only the finance function but all stakeholders engaged in the outcomes produced by the CIO function.

1.2 DEFINING THE IT FINANCIAL MANAGEMENT SOLUTION

Integris Applied advises that finance organizations supporting an IT function should align their approach with the eight solution components outlined in the image at right. Each component will have its own defined process that must integrate with the other components. While it is possible to measure the maturity of each component, an organization must view these elements as an integrated whole. Far too often we have seen CIOs fail to understand what these components are or why they matter. This leads to ad hoc management where priorities shift daily, the wrong questions are being asked, and suppliers and customers alike are confused.



1.3 PUTTING IT ALL TOGETHER



Applying the finance organization's roles to the ITFM components needed to provide the right services to customers and internal stakeholders leads to a maturity model with five stages. The figure above depicts our maturity model, which can be used to measure the organization's overall maturity as well as the maturity of an individual ITFM component. The real value in the model is the blending of the concrete solution elements with the more artful stage definitions. The model can be used as a communication tool and a measuring stick. In both cases it is based on real world methodologies and the actual demands placed on an IT financial organization by its customers and suppliers.

2. MATURING THE "COST CAPTURE & CURRENCY" COMPONENT

We will now turn our attention to the Cost Capture & Currency component of our maturity model, what comprises it and how an organization can mature it. We will walk you through the sub-components that make it up and demonstrate how they are present in an organization at different levels of maturity. We begin here because the cost capture component is the most relatable and provides a highly desirable opportunity at the most mature stages - benchmarking.

The Cost Capture & Currency component is described as follows in our ITFM component framework: *Automated capturing and tagging of costs for value-added reporting at varying organizational levels and for industry comparisons.*

IT FINANCIAL MANAGEMENT MATURITY					
Stage Role Descriptor	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	REPORTER		ANALYST		INFLUENCER
	Report	Control	Analyze	Automate	Influence
Cost Capture & Currency Sub-Components	Cost Allocation by Budget	✓	✓	✓	✓
	Accounting-Centric Cost Categorization	✓	✓	✓	✓
	Standardized Cost Descriptors		✓	✓	✓
	Uniform & Simplified Cost Descriptors		✓	✓	✓
	Operational Cost Categorization (TBM)		✓	✓	✓
	IT Tower Cost Categorization (TBM)		✓	✓	✓
	Cost Type Tagging (Fixed/Variable)			✓	✓
	Line Item Level Invoice Entries			✓	✓
	Analytical Cost Categorization				✓
	Cost Currency Program				✓

The figure above represents a more granular application of our maturity model to an ITFM component. One can begin to see how to assess an ITFM component and how an organization could prioritize the sub-components when looking for process improvements.

2.1 COST CAPTURE AND CURRENCY SUB-COMPONENTS

Perhaps the most important aspect of our approach is its definitions-based methodology. Creating a common language for organizational improvements makes it easier to set priorities and communicate with stakeholders. Just as we have defined the ITFM Components, so too have we defined their sub-components. The Cost Capture and Currency Sub-Components are defined below:

- **Cost Allocation by Budget:** A finance organization should ensure that it captures all costs in appropriate cost centers. This means costs are going to the right places and reports can be pulled to show how much each budget area has spent at any given point in time. This is a minimum requirement of an organization.
- **Accounting-Centric Cost Categorization:** Spend data should be tagged with an accounting-centric budget categorization. Organizations should have a standard set of accounting cost categories for accounting entries. Such categorization is foundational to financial reporting and provides a detailed view of an organization's cost structure at a level necessary for mandated financial reporting.
- **Standardized Cost Descriptors:** Cost descriptions for expense line items should be standardized. This means cost descriptors, for all expense line items, should have set standards for the required elements in a cost descriptor such that the cost descriptor ultimately provides the analyst of cost data enough information to understand the cost with minimal context of the operations and business.

- Uniform and Simplified Cost Descriptors:** Description of expense line items should be uniform and simple. Uniformity in description means that the expense descriptions not only contain certain elements, but that such elements are applied in the same fashion and order every time. This uniformity makes data easier to manipulate and analyze due to the facility of grouping and collapsing all related entries, spanning multiple accounting periods, into a fewer number of line items when reporting. Additionally, cost descriptions should be simplified, which means care should be taken to minimize the length of descriptions. Simplicity in descriptions also makes it easier to read and handle expense entries from an analysis perspective.
- Operational Cost Categorization (TBM):** Cost categorization can serve different purposes, which means the way costs are categorized can be different based upon the purpose. For example, spend categorization in an accounting centric fashion is the foundation for mandated financial reporting. However, cost categorization according to a mandated accounting structure does not necessarily allow for efficient costs management at an operational level – something that is necessary for improved cost control and performance. Therefore, operational cost categorization has been something many institutions have implemented and refined, especially in the IT space, for improved financial performance. The expertise of many of these organizations and the evolution of optimal operational cost tagging is captured in the TBM taxonomy. The TBM taxonomy dictates a set of operational cost categories (cost pools and sub-pools) that align well to the accounting categories existing in many organizations and serves as a standard for organizations to follow when maturing their operational cost categorization.
- Standardized IT Tower Cost Categorization (TBM):** Cost categorization by IT towers groups costs by technology type to assess the financial and operational efficiency of each of the building blocks of IT services. While IT towers are relatively similar in all organizations, definitions tend to vary on the intersecting edges of a tower. Therefore, a standardized way of tagging costs by IT tower allows not only consistency in cost tagging internally but also helps align costs to those of comparable external entities, which is ultimately useful in benchmarking. The TBM taxonomy provides a standard for grouping costs by IT tower and serves as a model for progressing the maturity in this sub-component.
- Cost Type Tagging (Fixed/Variable):** Understanding the make-up of your organization's cost structure is necessary to be able to flex spend up or down when needed. For this reason, ensuring that costs are tagged and broken out into their respective fixed and variable components is a steppingstone in achieving financial maturity in the cost capture component.
- Line Item Level Invoice Entries:** A principle of effective cost control and forecasting is a bottoms-up approach. Such an approach enables a granular understanding of costs. For this reason, evolving cost entries to include a detailed invoice-line item view is crucial to a mature financial management environment. Upon increasing the granularity of cost entries, the underlying data will provide necessary information for analysis, bottoms-up projections and improved cost management.
- Analytical Cost Categorization:** A finance organization is tasked with answering the **What? Why?** and **So What?** of financials. Establishing the preceding sub-components helps to understand much more easily **What?** is happening with financials. Answering **Why?** such trends are occurring takes a bit of analysis on the part of the finance team. For this reason, establishing a cost categorization standard that places costs in categories that are self-explanatory in answering **Why?** makes the analysis part easier, ultimately freeing up more time for analysts to determine the **So What?** – what to do about it.
- Cost Currency Program:** Establishing a regular cadence of comparing cost efficiency of your organization to that of the market is the final and arguably the most beneficial sub-component of the Cost Capture and Currency element. A program that does this can be structured in many ways, but such a program instills the rigor to

continuously improve and self-assess. The ability to do this will pay off in the long-term for an organization through cost savings that ultimately allow for additional investment and growth or the organization to weather a temporary storm.

We hope these definitions allow a financial organization to align behind a path to maturity and, therefore, effectiveness. The application of these frameworks is simple, but it is not easy - it takes diligent work and the dedication of resources.

2.2 DEPICTING THE MATURITY JOURNEY

To better describe the sub-components of “Cost Capture & Currency” we will provide examples of what spend reports may look like for a hypothetical organization at varying levels of maturity, for each sub-component. We will zoom in on portions of the hypothetical spend reports to show what the goal of each sub-component is and for additional study.

The spend examples will come from a hypothetical End User Services (EUS) functional area of an organization. This EUS area oversees the End User Computing (e.g. Laptops, Desktops, Tablets) and Managed Print (e.g. Multi-function Print devices, network attached printers) portions of the organization’s platform and ultimately manages the delivery of outsourced services for each. The hypothetical EUS functional area has a spend of approximately \$51M per year. Below is a walk-through that describes what this EUS organization’s cost capture sub-components look like at stages 1 through 5, highlighting the improvements made at each stage.

2.2.1. STAGE 1

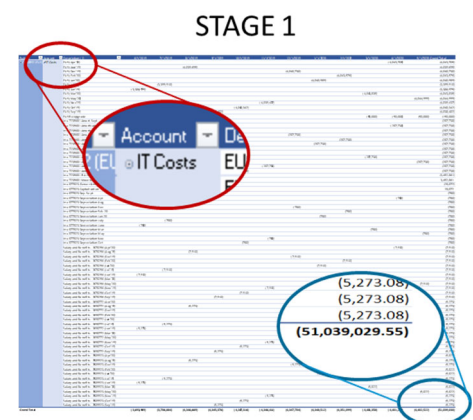
A finance organization that is playing a reporting role at a stage 1 maturity level should be able to perform:

- Cost Allocation by Budget, and
- Accounting-Centric Cost Categorization.

What this means, in short, is that the organization will have costs categorized appropriately, accounting-wise, and reports can be pulled to show how much each budget area has spent to date because all costs are being captured in appropriate cost/budget centers. To exemplify what this would look like, rather than show an entire example of the spend report, which would be rather unwieldy, we will zoom in on portions of an example spend report for a STAGE 1 organization, and describe the key elements present that satisfy the goals of the two subcomponents listed above.

In our hypothetical organization, the spend is \$51M per year. This \$51M dollars is structured as follows in order to satisfy the two sub-components above:

- Spend data is presented with an accounting-centric categorization, as can be seen in the first (red) zoom-in. Organizations log expenditures in a standard set of accounts, unique to them, for official financial reporting purposes, and the appropriate adherence to such structure should be maintained at all times.
- Spend data also appropriately attributes costs to the correct budget (EUS), which is necessary for accurate cost reporting. In our example, for this to be the case, it would be assumed that all ~\$51M of costs were indeed EUS related costs AND that no other EUS related costs were present in other budget centers or cost centers.



Ensuring the above ultimately allows the spend data's structure to achieve the foundational aspects of financial management; However, it fails to check-off the remainder of the Cost Capture & Currency sub-components. Generally, as can be seen in the full spend report example of the Stage 1 organization, the data is unwieldy (and is likely difficult for the reader to understand). This level of cost categorization is enough but will make it much more difficult to optimally manage financials and grow the business and its impact. This type of accounting is not uncommon. We have seen this level of cost capture frequently both in clients and in our own prior organizations. The following stages aim to correct these downfalls in cost capture.

2.2.2. STAGE 2

Following the maturity path in the figure in section 2.0, the Stage 2 organization, in addition to the above, would have established:

- Standardized Cost Descriptors, and
- Uniform and Simplified Cost Descriptors.

What this means is that the organization would have matured the way they capture cost descriptions by establishing standards for what elements each cost description must contain as well as a practice of simplifying and ensuring cost descriptions are uniform and simple. To expand on what this may look like we will explore examples of these two sub-components:

Standardized Cost Descriptors

Cost descriptors should have certain elements that together fully describe a cost and its nature. An organization will pick the elements in their cost descriptors based on their specific needs. To show this in action we have put together two examples of spend reports, one from a Stage 1 organization (without cost descriptor standardization) and one from a stage 2 (with cost descriptor standardization). In both reports we have software that is paid for, moved to a pre-paid expense account, and subsequently amortized over a 12-month period. Additionally, our EUS organization has established that for all software related entries, the following must be included in the cost descriptor:

- Invoice Number;
- Type of entry (Initial, Movement to prepaid account, amortization);
- Relevant license period; and
- Software description.

STAGE 1

Budget	Description (1)	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	Inv. 7235681 ELA 2019	(3,452,861)												(3,452,861)
	Inv. 7235681 Move to Pre-Paid	3,452,861												3,452,861
	Inv. 7235681 Amort. Sept.				(287,738)									(287,738)
	Inv. 7235681 Amortization April											(287,738)		(287,738)
	Inv. 7235681 Amortization Aug			(287,738)										(287,738)
	Inv. 7235681 Amortization December						(287,738)							(287,738)
	Inv. 7235681 Amortization Feb-20								(287,738)					(287,738)
	Inv. 7235681 Amortization Jan-20							(287,738)						(287,738)
	Inv. 7235681 Amortization July		(287,738)											(287,738)
	Inv. 7235681 Amortization June	(287,738)												(287,738)
	Inv. 7235681 Amortization March									(287,738)				(287,738)
	Inv. 7235681 Amortization May											(287,738)		(287,738)
	Inv. 7235681 Amortization Nov						(287,738)							(287,738)
	Inv. 7235681 Amortization Oct					(287,738)								(287,738)
Grand Total		(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)

STAGE 2

Budget	Description (3)	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
	EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
	EUS ELA (Inv. 7235681) Amort. 201906	(287,738)												(287,738)
	EUS ELA (Inv. 7235681) Amort. 201907		(287,738)											(287,738)
	EUS ELA (Inv. 7235681) Amort. 201908			(287,738)										(287,738)
	EUS ELA (Inv. 7235681) Amort. 201909				(287,738)									(287,738)
	EUS ELA (Inv. 7235681) Amort. 201910					(287,738)								(287,738)
	EUS ELA (Inv. 7235681) Amort. 201911						(287,738)							(287,738)
	EUS ELA (Inv. 7235681) Amort. 201912							(287,738)						(287,738)
	EUS ELA (Inv. 7235681) Amort. 202001								(287,738)					(287,738)
	EUS ELA (Inv. 7235681) Amort. 202002									(287,738)				(287,738)
	EUS ELA (Inv. 7235681) Amort. 202003										(287,738)			(287,738)
	EUS ELA (Inv. 7235681) Amort. 202004											(287,738)		(287,738)
	EUS ELA (Inv. 7235681) Amort. 202005												(287,738)	(287,738)
Grand Total		(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)

In the Stage 1 report we can see all the cost related to the software in question; however, the cost descriptions do not contain the necessary information to tell the interpreter of the spend what is happening at all times. Let us explore the required elements this hypothetical organization set up as standard for cost entries to understand what is happening in the example:

- **Invoice Number:** All entries in both the Stage 1 Report and the Stage 2 report contain this element.
- **Type of Entry:** All entries in both the Stage 1 report and the Stage 2 report contain the type of entry. The cost descriptors denote that an entry is an amortizing entry, the movement of the cost to a prepaid account, or that it is the initial purchase of the license (by not labeling it otherwise).
- **Relevant license period:** In the Stage 1 Report, while all amortization entries have the month of amortization for the license, the initial entry and the entry that moves the initial purchase of the license to a pre-paid account lack information on the license period.
 - The initial purchase entry simply states 2019 as the license period. However, upon closer inspection of the Stage 2 report, we can see that the actual license period in the entry there is from 6/1/2019 to 5/31/2020. Understanding the license period is often important when forecasting and sitting in financial meetings, having this standard in your cost descriptors in a fashion that is clear can be very helpful in cost management.
 - The entry which moves the license costs to a pre-paid account in the stage 1 report does not contain a licensing period, while the Stage 2 report entry denotes exactly what this period is. This often helps not only in understanding the period, but also in understanding other related costs. For instance, if a license period starts in June and the license has been purchased and moved to a prepaid account, then the user would know to expect an amortization entry in June. Not seeing this entry would lead to further investigation.
 - All amortization entries in both reports contain the related period for the monthly amortization entries.
- **Software Description:** Entries in the Stage 1 report lack a sufficient description of the actual software that the entries are related to.
 - The initial purchase entry denotes that this is an ELA for 2019, but not much more than that. ELA in this case is an Enterprise License Agreement and could potentially apply anywhere in the organization. In the Stage 2 report, we see that while ELA remains in the entry, it is augmented by "EUS" denoting that it is the enterprise license agreement for that area, clarifying for the reader that the entry is indeed related to EUS budget and was not erroneously placed in this cost center from another organization.
 - The remaining entries in the Stage 1 report do not include, at all, a description of the software related to the entries and only include the invoice number that is being moved to a pre-paid account and amortized. This can be ambiguous, but is rectified in the Stage 2 report, as can be seen.

Uniform and Simplified Cost Descriptors

Uniformity and Simplification is paramount, as described above, to efficient financial reporting. Ensuring data is uniform, allows for consistency in descriptors, which makes it possible to identify all related costs. Ensuring data is simplified allows reporting to be more easily absorbed by the reader. Together uniformity and simplicity of cost descriptors make data easier to manipulate and analyze.

- Uniform Data:** As can be seen in the Stage 1 data above, the amortization entries for the software utilized by the EUS organization are not uniform, while those of the Stage 2 report are. Lack of uniformity makes the entries more difficult to understand. Additionally, optimal uniformity makes spend arrangement more efficient (as can be seen in the Stage 2 report, which has amortization in chronological order, allowing a clear picture of what is happening month over month).
- Simplified Data:** The Stage 2 report above takes one minor step in simplifying data: reducing the length of standard cost entry elements (e.g. “amortization” tag is shortened to save space, changing service periods to numerical values). In addition, simplification can take an additional step which has a more significant impact in reporting: removing the period of performance in cost descriptors. Ultimately, what this allows is collapsing of costs, spanning many months, into one line item when reporting (see the amortization line item in table below, which changed from 12 line items to 1). Many organizations have the ability to have major and minor cost descriptors in their financial systems and utilizing both, one with period of performance and the other without it, may be preferred when the desire to keep the period of performance in the description exists. Additionally, the period of performance should in theory be captured in the “accounting period” field of the financial system, therefore removing the period of performance from the line item description may be possible without implementing a secondary descriptor field because service period is already captured in another field.

STAGE 2 (b)

Budget	Description 2 (3)	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
	EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
	EUS ELA (Inv. 7235681) Amort.	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
Grand Total		(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)

2.2.3. STAGE 3

An organization that can be considered “Stage 3” in the “Cost Capture & Currency” component, in addition to the above, should have established:

- Operational Cost Categorization, and
- Standard IT Tower Cost Categorization.

What this means is that the organization would have matured the way they organize costs into categories that both enable operations to better manage financials and allows cost comparison to market-relevant towers. While organizations may choose to establish their own categories in both the IT Tower and Operational Cost space, the market has begun to widely adopt the TBM taxonomy for these, which ensures a broader consistency across industries in this type of cost categorization. To expand on what this may look like we will delve into examples of these two sub-components below:

Operational Cost Categorization

The first level of categorization that an organization typically achieves is accounting centric. Such cost categorization, as explained previously, is mainly for accounting purposes and is not used, or is very difficult to use effectively, by on-the-ground operations for active financial management. For example, the data below presents the complete spend of our hypothetical EUS organization. The Stage 2 example does not categorize the data in an operations-centric fashion, while the stage 3 example does.

STAGE 2

Budget	Cost Category (L1) - 1	Description 2 (3)	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	N/A	EUS (Implementation Services)			(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(950,000)
		EUS BU Upgrade													(150,000)
		EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
		EUS ELA (Inv. 7235681) Amort.	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
		EUS Monthly Invoice	(3,386,975)	(3,399,910)	(3,944,695)	(3,943,402)	(3,945,342)	(3,944,437)	(3,945,730)	(3,945,989)	(3,948,576)	(3,948,835)	(3,948,705)	(3,949,999)	(46,252,595)
		Salary and Benefits - 2478256	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(94,915)
		Salary and Benefits - 2498772	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(63,277)
		Salary and Benefits - 2509923	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,822)	(5,822)	(5,822)	(5,822)	(5,822)	(66,023)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20200531	(28,072)												(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20200531 - Capitalizat	28,072												28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(9,357)
Grand Total			(3,693,949)	(3,706,884)	(4,346,669)	(4,345,376)	(4,347,316)	(4,346,411)	(4,347,704)	(4,348,512)	(4,351,099)	(4,401,358)	(4,401,229)	(4,402,522)	(51,039,030)

STAGE 3

Budget	Cost Category (L1) - 3	Description 2 (3)	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	Hardware	Server (Inv. 877823) (SVR9986359) 20190601 - 20200531	(28,072)												(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20200531 - Capitalizat	28,072												28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(9,357)
	Hardware Total		(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(9,357)
	Internal Labor	Salary and Benefits - 2478256	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(94,915)
		Salary and Benefits - 2498772	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(63,277)
		Salary and Benefits - 2509923	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,822)	(5,822)	(5,822)	(5,822)	(5,822)	(66,023)
	Internal Labor Total		(18,456)	(18,456)	(18,456)	(18,456)	(18,456)	(18,456)	(18,456)	(19,005)	(19,005)	(19,005)	(19,005)	(19,005)	(224,216)
	Outside Services	EUS (Implementation Services)			(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(950,000)
		EUS BU Upgrade													(150,000)
		EUS Monthly Invoice	(3,386,975)	(3,399,910)	(3,944,695)	(3,943,402)	(3,945,342)	(3,944,437)	(3,945,730)	(3,945,989)	(3,948,576)	(3,948,835)	(3,948,705)	(3,949,999)	(46,252,595)
	Outside Services Total		(3,386,975)	(3,399,910)	(4,039,695)	(4,038,402)	(4,040,342)	(4,039,437)	(4,040,730)	(4,040,989)	(4,043,576)	(4,093,835)	(4,093,705)	(4,094,999)	(47,352,595)
	Software	EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
		EUS ELA (Inv. 7235681) Amort.	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
	Software Total		(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
Grand Total			(3,693,949)	(3,706,884)	(4,346,669)	(4,345,376)	(4,347,316)	(4,346,411)	(4,347,704)	(4,348,512)	(4,351,099)	(4,401,358)	(4,401,229)	(4,402,522)	(51,039,030)

What becomes evident is the clarity this additional categorization (Hardware, Internal Labor, Outside Services, Software) brings to the spend data. These categories align well to the organization's accounting categories and will allow the budget managers to better understand costs. In addition, these categories are standard categories in the TBM taxonomy, which means categorizing costs in this fashion sets up the organization for future cost benchmarking by cost type.

Standard Tower Cost Categorization

As described in the sub-component description earlier in this document, "Cost categorization by IT towers serves to group costs by technology type to assess the financial and operational efficiency of each of the building blocks of IT services." What this means is that by grouping costs in such a manner, an organization can see how well each tower performs. This is valuable because the management of tower technologies can be independent of each other and therefore opportunities for improvement can be unique for each tower (e.g. if the end user services tower in our example tends to be costly, or inefficient in other ways, it can be re-procured independently of the other IT towers for cost savings or quality gains.) The sub-components within a tower can also be looked at as somewhat independent of each other. It is important to ensure, when an organization notes that their EUS costs are high, or those of any tower, that they are making an apples-to-apples comparison to those rates seen elsewhere in the market. For this reason, a widely used standard of IT Tower categorization can be helpful. The TBM taxonomy provides this, and the example below of Standard Tower Cost Categorization is based on the TBM taxonomy.

STAGE 2

Budget	Tower	Description	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	N/A	EUS (Implementation Services)			(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(950,000)
		EUS BU Upgrade													(150,000)
		EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
		EUS ELA (Inv. 7235681) Amort.	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
		EUS Monthly Invoice	(3,386,975)	(3,399,910)	(3,944,695)	(3,943,402)	(3,945,342)	(3,944,437)	(3,945,730)	(3,945,989)	(3,948,576)	(3,948,835)	(3,948,705)	(3,949,999)	(46,252,595)
		Salary and Benefits - 2478256	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(94,915)
		Salary and Benefits - 2498772	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(63,277)
		Salary and Benefits - 2509923	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,822)	(5,822)	(5,822)	(5,822)	(5,822)	(66,023)
		Server (Inv. 877823) (SVR9986359) 20190601 - 2020531	(28,072)												(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 2020531 - Capitalizat	28,072												28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(9,357)
Grand Total			(3,693,949)	(3,706,884)	(4,346,669)	(4,345,376)	(4,347,316)	(4,346,411)	(4,347,704)	(4,348,512)	(4,351,099)	(4,401,358)	(4,401,229)	(4,402,522)	(51,039,030)

STAGE 3 (Tower name identified)

Budget	Tower	Description	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	Grand Total
CC 00992 (EUS)	End User	EUS (Implementation Services)			(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(95,000)	(950,000)
		EUS BU Upgrade													(150,000)
		EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)												(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861												3,452,861
		EUS ELA (Inv. 7235681) Amort.	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(287,738)	(3,452,861)
		EUS Monthly Invoice	(3,386,975)	(3,399,910)	(3,944,695)	(3,943,402)	(3,945,342)	(3,944,437)	(3,945,730)	(3,945,989)	(3,948,576)	(3,948,835)	(3,948,705)	(3,949,999)	(46,252,595)
		Salary and Benefits - 2478256	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(7,910)	(94,915)
		Salary and Benefits - 2498772	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(63,277)
		Salary and Benefits - 2509923	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,273)	(5,822)	(5,822)	(5,822)	(5,822)	(5,822)	(66,023)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20200531	(28,072)												(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20200531 - Capitalizat	28,072												28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(780)	(9,357)
Grand Total			(3,693,949)	(3,706,884)	(4,346,669)	(4,345,376)	(4,347,316)	(4,346,411)	(4,347,704)	(4,348,512)	(4,351,099)	(4,401,358)	(4,401,229)	(4,402,522)	(51,039,030)

The End User Tower, per the TBM definition, should include: “end user computing devices and support for end users. The scope includes costs to build, manage and run end user computing devices for the enterprise and deliver centralized support to end users.” As we see in the example above the entirety of spend in the EUS budget/cost center is tagged to the End User Tower. This is helpful in understanding costs in more detail. For example, the server costs shown could possibly be re-directed to the “Compute” Tower upon first glance. However, in this example the server costs are necessary for the management of the end user devices and therefore their costs belong in the End User Tower. All other costs are also directly related to the build and management of End User devices as explained below:

- Implementation Services and Monthly Invoice Costs: The one-time and recurring costs of the outsourcing agreement of our organization
- BU Upgrade: The one-time project costs of upgrading SW on all End User Devices
- EUS ELA: Software needed by all End User Devices
- Salary & Benefits: The internal labor costs of dedicated resources for the oversight of End User Services Tower
- Server: Self-provided server for the management of End User Devices

2.2.4. STAGE 4

At stage 4, the sample EUS organization, in addition to the above, should have established:

- Cost Type Tagging (Fixed/Variable), and
- Line Item Level Invoice Entries.

What this means is that the organization would have matured the way they capture costs by breaking up spend entries along two dimensions. The first is breaking up expense entries into two portions, the fixed portion of an expense and the variable portion of an expense. The second is breaking up expense entries into the piece parts that make up a cost, in most cases the individual line items within an invoice. Below is an example of such cost segmentation compared to the lack of it:

STAGE 3

Budget	Cost Category	Description 2	Grand Total
CC 00992 (EUS)	Hardware	Server (Inv. 877823) (SVR9986359) 20190601 - 20220531	(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20220531 - Capitalization	28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(9,357)
	Hardware Total		(9,357)
	Internal Labor	Salary and Benefits - 2478256	(94,915)
		Salary and Benefits - 2498772	(63,277)
		Salary and Benefits - 2509923	(66,023)
	Internal Labor Total		(224,216)
	Outside Services	EUS (Implementation Services)	(950,000)
		EUS BU Upgrade	(150,000)
		EUS Monthly Invoice	(46,252,595)
	Outside Services Total		(47,352,595)
	Software	EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861
		EUS ELA (Inv. 7235681) Amort.	(3,452,861)
	Software Total		(3,452,861)
Grand Total			(51,039,030)

STAGE 4

Budget	Cost Category	Description 2	Fixed	Variable	Grand Total
CC 00992 (EUS)	Hardware	Server (Inv. 877823) (SVR9986359) 20190601 - 20220531	(28,072)		(28,072)
		Server (Inv. 877823) (SVR9986359) 20190601 - 20220531 - Capitalization	28,072		28,072
		Server (Inv. 877823) (SVR9986359) Dep.	(9,357)		(9,357)
	Hardware Total		(9,357)		(9,357)
	Internal Labor	Salary and Benefits - 2478256	(94,915)		(94,915)
		Salary and Benefits - 2498772	(63,277)		(63,277)
		Salary and Benefits - 2509923		(66,023)	(66,023)
	Internal Labor Total		(158,192)	(66,023)	(224,216)
	Outside Services	EUS - BU Upgrade	(150,000)		(150,000)
		EUS - Managed Print Services Multi-function Devices	(3,855,276)	(227,785)	(4,083,061)
		EUS - MDM	(1,474,880)	(2,212,321)	(3,687,201)
		EUS - Milestone Amortization	(950,000)		(950,000)
		EUS - Workstation HW Laptop Type A	(7,402,130)	(2,397,217)	(9,799,347)
		EUS - Workstation HW Laptop Type B	(370,107)	(119,861)	(489,967)
		EUS - Workstation HW Laptop Type C	(832,740)	(269,687)	(1,102,427)
		EUS - Workstation HW Tablet Type A	(647,686)	(209,756)	(857,443)
		EUS - Workstation Support Tier 1	(693,950)	(1,755,887)	(2,449,837)
		EUS - Workstation Support Tier 1 (Additional Level 2 Support)		(520,434)	(520,434)
		EUS - Workstation Support Tier 2	(6,245,547)	(15,802,984)	(22,048,531)
		EUS - Workstation Support Tier 2 (Additional Level 2 Support)		(1,214,347)	(1,214,347)
	Outside Services Total		(22,622,317)	(24,730,279)	(47,352,595)
	Software	EUS ELA (Inv. 7235681) 20190601 - 20200531	(3,452,861)		(3,452,861)
		EUS ELA (Inv. 7235681) 20190601 - 20200531 - Move to Prepaid	3,452,861		3,452,861
		EUS ELA (Inv. 7235681) Amort.	(3,452,861)		(3,452,861)
	Software Total		(3,452,861)		(3,452,861)
	Grand Total		(26,242,727)	(24,796,302)	(51,039,030)
			51.4%	48.6%	100.0%

As can be seen, all internal items were already broken down into their most granular components. However, outside services costs were being processed at a higher level in the Stage 3 spend. Moving to stage 4 we can see that the monthly outside services invoice is now broken out into its individual services, aiding the spend report users understand what is being consumed and what is the cost of each individual service. This additional level of granularity not only allows better understanding of costs, but also better projections. Services are typically discretely priced and understanding costs at the service level (invoice line item level) can help drive better forecasting because such price differences are considered, and projections are then made from the bottom up by discretely priced item.

Additionally, the addition of a fixed/variable breakout allows the viewer to understand how much of the cost can be affected by changes in consumption. In this case the fixed cost is ~51%, which means dropping consumption 100% would only drop costs by 49% in the short-term. Understanding this break-down and the logic behind it can be extremely valuable to an organization, especially when performing scenario analysis and forecasting.

As can be surmised, getting this level of breakdown can take significant effort and maintenance. For this reason, we believe this type of cost capture improvement is for mature organizations (stage 4 in the Integrus Applied maturity curve). This type of cost capture implementation would likely only exist in an organization that has its invoice entries

processed automatically via ITFM software, which would allow the organization's focus to be on the checking and maintaining the logic and output vs. data entry.

2.2.5. STAGE 5

At Stage 5, along with everything else that precedes this section, an organization would be focusing on the following items:

- Analytical Cost Categorization, and a
- Cost Currency Program.

Analytical Cost Categorization

Establishing Analytical Cost Categorization means that an organization would have added one more dimension to their cost capture maturity by segmenting and tagging costs in an analytical fashion to make the analytical portion of the organization's role easier. The preceding elements of cost capture will have allowed an organization to understand what is happening with costs (e.g. are they going up, down, or remaining the same for each area in the budget). Without "Analytical Cost Categorization" an organization would need to perform in depth analysis on the data to understand why such trends are occurring. However, answering the **Why?** of changing costs can be facilitated by the establishment of a cost categorization standard that places costs in categories that, once compared to the same category's budget or past projections, are self-explanatory. In other words, the finance organization can further segment costs in order to have a baseline level of analysis performed at the cost capture step, rather than afterwards with after-the-fact calculation. A better understanding of Analytical Cost Categorization often follows a concrete example, therefore, as in the previous sections, we have provided one below.

The analytical categories used for grouping costs for each organization can and should differ, depending on the nature of the business; However, there are a few categories that are common across industries and which are representative of the majority of variances, in other words, costs typically change for the following reasons:

- Growth/Reduction in Consumption
- Removal of Existing Service
- Introduction of New Services
- Unanticipated Supplier Cost Increases (providing suppliers financial relief)
- One-Time Projects
- Transition/Implementation Costs varying from planned costs
- Inflation

As such, below is an example of Analytical cost categorization, to better and more automatically explain the drivers behind spend changes. As can be seen in the Stage 5 sample spent report:

- \$.95M of costs are related to the implementation of outside services;
- \$42.24M of costs are related to the base services that are consumed on a regular basis;
- \$1.56M of costs can be attributed to consumption increases (which would be costs driven by the consumer, not the central IT shop) against some baseline;
- \$.72M of costs are a result of inflation (often a contractually mandated cost adjustment);
- \$3.69M of costs were a result of new services introduced during the fiscal year;
- \$.15M of costs are related to one-time projects; and
- \$1.73M of costs are related to supplier relief (unexpected supplier costs).

STAGE 5 – SPEND REPORT

Budget	Cost Category	Implementation Services	Base Services	Consumption Growth/Reduction	COLA	New Services	One-Time Projects	Supplier Relief	Grand Total
CC 00992 (EUS)	Hardware		(9,357)						(9,357)
	Internal Labor		(224,216)						(224,216)
	Outside Services	(950,000)	(38,552,762)	(1,555,896)	(721,956)	(3,687,201)	(150,000)	(1,734,781)	(47,352,595)
	Software		(3,452,861)						(3,452,861)
Grand Total		(950,000)	(42,239,196)	(1,555,896)	(721,956)	(3,687,201)	(150,000)	(1,734,781)	(51,039,030)

In order for use of this data in analysis to be more beneficial, the analytically categorized actuals would need to be compared to a baseline (either a forecast or a budget, e.g. other key ITFM components) in order to explain variances in expectations. The tables below show the budget for the organization as well as the variance to actual performance:

STAGE 5 - BUDGET

Budget	Cost Category	Implementation Services	Base Services	Consumption Growth/Reduction	COLA	New Services	One-Time Projects	Supplier Relief	Grand Total
CC 00992 (EUS)	Hardware		(9,357)						(9,357)
	Internal Labor		(230,836)						(230,836)
	Outside Services	(950,000)	(38,552,762)	(3,382,729)	(1,420,811)	(4,500,000)	(150,000)	-	(48,956,302)
	Software		(3,120,482)						(3,120,482)
Grand Total		(950,000)	(41,913,437)	(3,382,729)	(1,420,811)	(4,500,000)	(150,000)	-	(52,316,977)

STAGE 5 - VARIANCE

Budget	Cost Category	Implementation Services	Base Services	Consumption Growth/Reduction	COLA	New Services	One-Time Projects	Supplier Relief	Grand Total
CC 00992 (EUS)	Hardware	-	-	-	-	-	-	-	-
	Internal Labor	-	6,620	-	-	-	-	-	6,620
	Outside Services	-	-	1,826,833	698,855	812,799	-	(1,734,781)	1,603,707
	Software	-	(332,379)	-	-	-	-	-	(332,379)
Grand Total		-	(325,759)	1,826,833	698,855	812,799	-	(1,734,781)	1,277,948

What becomes evident now is in which analytical categories variances occurred, telling the analyst why costs are down overall. Along with a bit of context from the business, the analyst can now more easily explain performance as follows:

Budget	\$ (52.32)
Lower consumption growth than anticipated (new customer joined later in the year)	1.83
Lower spend on new services (delayed implementation shifted costs out of FY)	0.81
Lower supplier inflation adjustment than anticipated	0.70
Salary and Benefit efficiencies	0.01
EUS ELA software true-up cost uptick	(0.33)
Unanticipated supplier negotiations contributing to additional spend	(1.73)
Year-End Actuals	\$ (51.04)

While this level of explanation is rudimentary and simple, it gets to the key factors driving financial performance. It is also not a simple journey to establish cost capture at this level of granularity. However, the value derived from the ease of analysis and the insight to management allows the business to be run as effectively as possible.

Cost Currency Program

Once all cost capture elements have been implemented and costs are captured to maximize insight and control, the value-adding step that follows for a finance organization is seeking and finding value for the organization through the establishment of a Cost Currency Program. A Cost Currency Program ensures that all costs faced by an organization (primarily those that are outsourced and can more easily be replaced) are up-to-par (or “current”) with what the market has to offer, both in terms of cost and quality. The organization up to this point has established the cost capture function in a sophisticated fashion to ultimately allow it to perform the following steps:

1. Perform like-for-like cost comparisons to industry costs to find value-adding opportunities on a regular basis;
2. Test the market with regular and targeted procurement efforts to see what the market can offer in the space where opportunity exists; and
3. Capture and control costs in a regimented fashion to prevent value-leakage from the opportunities found and implemented.

Ultimately, a cost currency programs allows a constant pursuit of increased quality, cost efficiency, or both, by leveraging the competitiveness of the market on a regular basis. Establishing this is not a stand-alone capability and relies on many other organizational capabilities to maintain the flexibility required to realize the constant value increases offered by the market. A mature cost capture capability is essential to ensuring financials can be appropriately managed during these endeavors and a good starting point in establishing this type of go-to-market strategy.

3. WHAT LIES AHEAD?

IT organizations face multiple forces while delivering new services to customers. Managing market, customer, political and organizational forces (among others) is hard to do when expectations are so high and technology solutions have become so personal. Defining a path to maturity first requires an organization to convince its leaders that the status quo is not good enough. This is not always easy. But the use of the right frameworks to communicate a roadmap to maturity is a critical tool in the battle for mindshare. From there an organization can use the concepts we are defining in our series of papers on ITFM to communicate its biggest challenges, prioritize initiatives, create a plan and measure progress.

Integrus Applied is a management consulting firm focused on CIOs and their organizations. We guide clients through the changes required to implement sustainable technology-led strategies. We shape IT organizations and environments with an approach that unifies vision, action and the people who influence both. We have walked in your shoes as buyers, sellers and advisors ... and will walk with you now, on your journey.

For more information or to schedule a consultation with our experienced facilitators, please contact:

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