An enterprise process framework defined and delivered with IBM Rational Method Composer

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from The Rational Edge: An enterprise process framework gives an IT organization visibility into critical business operations. See how IBM Rational Method Composer can be used to create such a tool for managing enterprise-wide complexity.

In the 1960’s software engineering used the term “software crisis” to define the ever growing complexity, expectations, and changes around software engineering. The crisis was manifested by over-budget and over-time software projects delivering products of low quality that did not meet requirements and were difficult to maintain.

Along the same lines, today’s IT industry is experiencing a similar challenge regarding process in terms of complexity, expectations, and a continually changing environment. The disparity of IT processes coupled with the intricacy of the IT enterprise impedes the optimization of IT services and products.

An IT enterprise process framework (IT-EPF) is a mechanism for harmonizing process disparity and managing the associated complexities. It uses five architected views: alignment, process interdependence, governance, organizational operations, and process traceability. This enables clarity and visibility into critical process failure points.

Here are some examples of common process failure points managed by an IT-EPF:

- Process silos with redundant and overlapping functions operate with autonomy within the IT enterprise
- Mismatches between processes with differences in structure and maturity
- Failure of organizational collaboration and transition of activities, such as:
• The synchronization of the software development lifecycles and infrastructure operation practices
• The assimilation of Enterprise Architecture (EA) technology governance into all aspects of technology adoption such as software development efforts and infrastructure environment management operations
• The transition of an infrastructure or software project change request to portfolio management as a demand item for approval as a new project
• Mechanical and bureaucratic governance that imposes process inefficiencies.

This article provides an overview and strategic synopsis of an IT-EPF, showing how it enables the harmonization of process and manages complexity. The discussion then turns to the application of IBM Rational Method Composer (RMC) to enable these features.

State of process in the IT enterprise

Today's IT environment is characterized by IT leaders attempting to restructure their operations to be adaptive. They are looking towards process as one of several means to achieve this end, but they face the following constraints and limitations:

• Processes typically address only a segment of the full scope of IT operations. For example, IBM's Rational Unified Process (RUP) is focused on software lifecycles and the IT Infrastructure Library (ITIL) orients on the infrastructure.
• Processes lack coordination, traceability to policy, and often contradict each other. For example, RUP and ITIL both define configuration and change management but with different roles, work products, and tasks.
• Many processes are large, complex bodies of information, not easily consumable by the uninitiated. For example, classic RUP is over 3000 Web pages in length and ITIL is composed of eight publications covering a dozen plus disciplines.
• A majority of governance and governance-based processes are intuitive, ad-hoc, or non-existent. One of the primary reasons is that IT industry processes, such as RUP and ITIL, are not enabled to facilitate the integration of governance in a mature manner. For example, RUP has no mechanisms for the integration of compliance management. Similarly, ITIL exists in the same state but without any actionable process elements to facilitate integration of governance.

These constraints and limitations are a hurdle inhibiting the use of process within the context of enabling an organization to be agile. But overcoming this hurdle would lead to efficiency and financial benefits. The efficiency benefits are derived from the harmonization and management of complexity. Silos are eliminated, mismatches are managed, dependencies are coordinated, and governance is sustainable.

Financial benefits are derived from the ability of the framework to reduce inefficiencies and manage the integration of governance on an enterprise scale. Elimination of redundant or mismatched processes, for example, reduces overhead costs. Effective governance has been shown to increase financial benefits as follows:
• **Higher ROI from effective governance processes:** A survey revealed that "81% of CEO's and CIO's identified a higher ROI"\(^6\) due to the IT organization having implemented an effective governance-based process.
• **Superior IT governance equates to greater profits:** Firms with superior IT Governance have more than 25% greater profits than firms with poor governance. The firms with the return had custom-designed governance processes aligning IT decisions with monitors for performance and accountability.\(^7\)
• **Increased market value with improved governance:** "On average, when moving from poorest to best on corporate governance, firms could expect an increase of 10 to 12 percent in market value."\(^8\)

And these are just a few of the efficiency and financial benefits that an IT-EPF can provide to an organization: the first in terms of maximizing quality and consistency of IT operations; and the second in terms of reducing overhead costs, improving profits, and increasing market value.

**What is an IT enterprise process framework?**

Simply stated, an IT-EPF is a mechanism for abstracting the organizational processes and their various elements. Figure 1 visually presents an example of the key elements of an IT-EPF. This framework is composed of process definitions (the outermost spheres) for a sample set of IT enterprise processes, enterprise alignment and governance (the center sphere), process intersections and dependencies (the lines), and an underlying process architecture (the underlying circle) that synchronize the elements.

![Figure 1: Visual representation of an enterprise process framework for a sample set of enterprise processes](image-url)
Five views for improved perspective

An IT-EPF organizes processes and associated elements into views. The views abstract and modularize the IT enterprise to allow visibility into the critical enterprise operations. This visibility, in conjunction with the decoupling of critical process elements, enables harmonization and management of the IT enterprise complexities. In turn, this realizes consistent, collaborative, and synchronized operations.

Supporting this perspective is an underlying alignment and governance framework. The objective of the framework is to provide sustainable compliance management, leverage governance to improve IT-spend, and facilitate improved enterprise alignment. The framework realizes these objectives by means of actionable alignment and governance process elements that are seamlessly integrated into organizational processes.

In summary, the five IT enterprise views are:

- **Strategic process alignment**: Captures both internal and external alignment to synchronize processes with enterprise strategies.
- **Process interdependency**: Maps process dependencies between enterprise organizational processes and manages them in terms of responsibility, consistency, and collaboration.
- **Governance infrastructure**: Standardizes regulatory compliance mechanisms and control points across all organizations within the IT Enterprise; streamlines the integration and implementation of transparent governance to constituent organizational processes.
- **Actionable process suite**: Captures the complete set of IT enterprise processes specific to the enterprise's constituent organizations. Unified by a shared process infrastructure, the discrete processes are owned and utilized by the individual organizations but are harmonized and managed across the enterprise via this view.
- **Process traceability chain**: Maps the implementation of strategy, governance, and standards from policy to the process actionable elements realized in day-to-day tasks. Traceability enables the identification of process elements for strategy, alignment, and policy while also facilitating the management of process change.

A mechanism for point-of-view, abstraction, and actionability

An IT-EPF is an ideal for harmonizing and managing complexity, because it provides:

- An actionable process established at the enterprise level.
- The abstraction of enterprise process elements.
- An overarching viewpoint of the IT enterprise process infrastructure.

**Actionable process established at the enterprise level**

IT-EPF defines objectives, governance, and alignment strategies as actionable process elements. This enables constituent organizations to extend the enterprise process elements to their specific needs and integrate them within their own processes.

For example, an IT enterprise defines a change management process as an enterprise standard to control technology changes in a consistent manner across the enterprise. This would be defined
as a set of standard roles, tasks, work products, and common workflow. The software engineering organization would utilize the enterprise change management process to meet the fine granular details necessary for change management of software. On the other hand, the infrastructure group would extend the same IT enterprise change management process to fit within ITIL’s definition of change management; focused on control of change to production with less concern over the granular details.

The common thread is that each of these organizations is applying an actionable process that integrates across the enterprise in a consistent and seamless manner. An IT-EPF introduces actionable process at the enterprise level and leaves specific implementation to the individual organizations.

**Abstraction of standard enterprise process elements**

Abstraction is the reduction of complexity by filtering out the detail. An IT-EPF abstracts the common and critical process elements in the IT enterprise, such as governance. The abstraction provides visibility into the common elements and ensures they are not lost in the details of day-to-day tasks or subsumed by a single organization. Furthermore, with abstraction the common elements can be extended by individual organizations to integrate governance and enterprise standards into their processes without encumbering organizational needs.

For example, an IT enterprise implements EA governance process around technology adoption affecting both new and existing technology. Around this process are defined governance and standards. A software development organization can expand the EA governance criteria to meet internal software development standards around Java or .NET. Meanwhile an infrastructure group would expand the same EA governance criteria along the lines of production hardware and operating systems.

To each of the individual organizations, the merging of their standards with the EA governance is transparent, yet their commonality can be traced to the originating source in EA. This enables each organization to build upon their own needs by piggybacking on the EA governance, all while governance is seeded throughout the organization for managing changes to the enterprise technology landscape.

**Overarching viewpoint**

Change in an organization is difficult without an overarching point of view that allows for the coordination of diverse processes in terms of overlap, intersection, and structure. Compounding this matter is the fact that implementation of any organizational process entails some level of change; typically significant change. Further, an IT-EPF facilitates coordination by providing insight into the changes necessary to optimize the IT Enterprise. It identifies what processes are operating towards IT enterprise objectives, which processes are in conjunction with the business, where processes have coordinated integration points, where processes are overlapping and redundant, and where mismatches exist.
For example, configuration management is performed by both software development and infrastructure groups to meet their own needs and objectives. Yet, like change management processes, configuration management intersects other activities, especially when change is involved or responsibility for software is being transitioned from the software development group to another group in the organization. An IT-EPF enables the identification of where the configuration management processes overlap, where they intersect in terms of release management, and maps the differences in each organization’s implementation of configuration management. This understanding facilitates collaboration and manages the changes to the benefit of all organizations impacted.

**Impact of business drivers**

To successfully realize the advantages of an IT-EPF, it is important to understand the impact of the business drivers acting on the IT Enterprise. As an enabling mechanism, an IT-EPF is a common ground for the constituent IT enterprise processes to collaborate both with the business as a cohesive whole and internally with each other.

![Business drivers acting on the IT Enterprise](image)

**Figure 2: Business drivers acting on the IT Enterprise**

Figure 2, Business drivers acting on the IT Enterprise, presents a strategic view of the business drivers impacting the IT enterprise and thus the IT-EPF. This figure presents a sampling of business drivers that need to be given consideration to fully realize the benefits of an IT-EPF.

The impact of business drivers on the IT enterprise processes can be quite complex and sometimes contradictory. For example, the driver for business agility via technology combined with technology solutions with a best-fit can drive the selection of new software in a rapid manner as it hits the market. On the flip side, the drive for quality and reliable technology services leads the infrastructure processes to be more constant and methodical to realize stability, predictability, and availability. This impedes the adoption and deployment of new technologies; furthermore, this
approach can create cultural differences between the infrastructure and software groups. The end-result is a complex set of interactions that are underlined by process and cultural contradictions.

While there are always overlapping business drivers, some drivers have a greater impact on a given organization. Without a balancing mechanism, the higher priority drivers create an evolutionary state where each IT enterprise process is slowly pulled further out of alignment by a set of business needs that outweigh the whole; such as an infrastructure organization driven to put priority on stable and reliable production environments. This focus results in less priority on business drivers such as agile technology adoption and deployment to remain competitive.

In this environment, after a period of time, processes are either barely in harmony or are extending the functionality of their processes to pick up the slack. These situations are underscored by conflict between organizational process elements or by redundant and overlapping processes. An IT-EPF allows for the coordination of changes across the IT enterprise arising from an external business driver by harmonizing the processes and managing their inherent complexities.

Compounding this situation is the recent and nearly frantic business drive to implement enterprise governance; especially to meet regulatory compliance requirements imposed by external entities. A "risk-assessment survey reported that executives ranked regulatory noncompliance second -- above terrorism, and surpassed only by losing to competitors." Without harmonization and management of governance driven processes, processes will become a hindrance to success due to their bureaucratic and non-agile nature.

**Enterprise process framework and RMC**

Achieving process harmonization requires the application of industry best practices coupled with process engineering and organizational change management. For most IT Enterprises, a solid and pragmatic approach is not enough to capture the depth and complexity of all operations and interactions needed for process harmonization. A tool is necessary to manage the myriad details and abstract them into a more consumable format.

An IT-EPF supported and delivered with the IBM Rational Method Composer (RMC) can provide a solution for harmonizing and managing the complexity of IT enterprise processes. Besides RMC being a tool for process definition and publication, it also:

- Facilitates the social engineering of organizational and cultural complexities.
- Provides a structure enabling the traceability of strategy to policy to implementation.
- Unifies standards for consistent implementation of strategy, governance, and alignment.
- Captures organizational complexities via workflow and dependency diagrams.
- Enables consistent application of standardized work products across the enterprise.

**Application of RMC to defining an IT enterprise process framework**

RMC provides value to defining an IT-EPF for multiple reasons. While the most obvious reasons are related to tool functionality -- such as publishing content to a Website, enabling collaborative authoring, and integration with tools such as IBM Rational Portfolio Manager (RPM) and Microsoft Project -- a less obvious reason is the Unified Method Architecture (UMA). UMA is the process
meta-model the tool is built upon; UMA is a derivative of the Software Process Engineering Meta-model (SPEM) 2.0 released by the Object Management Group (OMG).

SPEM 2.0\(^{11}\) expands the scope of the meta-model to a view of engineered process applicable to any process definition; in this case an IT-EPF model to abstract processes into the five views. In fact, the features of SPEM 2.0 are an ideal fit for the IT-EPF. Besides the benefits of harmonizing all enterprise processes to an industry standard, SPEM 2.0 also realizes aspect-oriented process design, encapsulation for reuse, and dynamic binding to propagate changes through all processes at a single touch point.

As IBM’s RMC utilizes UMA as its fundamental architecture, the tool is precisely suited for capturing and defining the views of the IT-EPF in an industry standard format. This suitability can be seen by IBM’s definition of the UMA. This definition enables RMC to realize the following:

- **Separation of concerns:**
  - Packaging and configuration of method content, processes, and plug-ins in method libraries.
  - Separation of core method content from the application of method content in processes.
  - A separation of recommended method and guidance description fields.
  - A separation of semantic elements from their notation in process diagrams.

- **Reuse and extendibility:**
  - Content reuse by allowing each process to reference common method content from a common method content pool and process patterns via extends and copies.
  - Support multiple families of processes in different varieties and combinations of life-cycle models for process definitions.
  - Provide the means to customize method content and processes without directly modifying the original content.
  - Enable aspect oriented solutions where a specific process can be engineered to meet a specific business need via extending defined processes.

- **Management of complexity:**
  - The definition of an optional extensibility mechanism in the method for large-scale management of method and process repositories.
  - Provide the ability to consistently and effectively manage and maintain whole families of related processes with variations.
  - Define multiple and consistently maintained views on processes with immediate updates to dependent processes when a parent process is changed.
  - Establish variability binding between process elements and process patterns so that changes made to the original process element is propagated throughout all dependent process components.

The focus on separation of concerns, reuse, and management of complexity allows for the design of a process with an engineered object-based perspective in terms of abstraction, generalization, modularity, and cohesion; each of which lends itself to reuse and the management of the complexities inherent in an IT-EPF. These design philosophies benefit the construction of an IT-EPF within RMC as outlined in the following subsections.
Abstraction

A key benefit of abstraction is the ability to reduce complexity by factoring out the detailed level to observe higher level design patterns. Details are gradually extended that keeps the high level design intact. RMC enables this though the use of Method Libraries which are a composition of processes and process extensions. The Method Library is a critical component to the IT-EPF as it enables the grouping of like-processes. This allows for the identification and alignment of processes needed to meet the IT enterprise needs while also providing a mechanism for each organization to define and capture its own unique processes. Figure 3 shows an example of a single Method Library for an infrastructure organization utilizing IBM’s ITIL Tivoli Unified Process (ITUP). Note that the Method Library is composed of plug-ins that contain entire process or process extension definitions; another layer of abstraction enabled by RMC. This example also demonstrates one level of reuse in terms of organizational processes. In this particular case, the plug-ins for corporate compliance (corp_compliance), EA Governance (corp_ea_governance), and corporate process standards (corp_process_framework_standards) are used by all organizations across the IT Enterprise. This level of reuse facilitates consistency in strategy, governance, and policy.

![Library](image.png)

**Figure 3: Sample method library -- Infrastructure**

RMC enables each organization within the IT enterprise to define in detail the set of processes and process extensions, in the context of Method Libraries and plug-ins respectively, needed to meet their own unique needs while being harmonized with the IT Enterprise. Such abstraction ensures alignment is set at the enterprise level from the top down.

Figure 4, Business Drivers to Enterprise Internal Alignment, presents an example of how the business drivers and the IT enterprise are evolved into an Enterprise internal alignment model. This demonstrates the transition of aligning the business drivers with the various organizations of the IT Enterprise.
Figure 4: Business drivers to IT enterprise internal alignment

With an abstract structuring of the business drivers against that of the IT enterprise constituent organizations, it is possible to define a logical view of the IT enterprise process library, as shown in Figure 5. The IT enterprise process library is an abstract model of the modularization of the critical operations of the organizations comprising the IT Enterprise. As depicted in Figure 6 farther below, these operations are captured as process method libraries.
Figure 5: IT enterprise internal alignment to logical model of the IT-EPF process structure

As presented in Figure 6 below, an IT-EPF method library can be defined and realized with RMC from the logical model of the IT-EPF process structure. The IT-EPF logical model is the basis for structuring and organizing the RMC Method Libraries.
Figure 6: Logical model of the IT-EPF process structure to realization as an IT-EPF RMC method library

This approach starts with an understanding of the organizational business drivers. From this point an internal alignment view is created as the basis for logically modeling the packaging of processes. The logical model is realized within RMC as a set of Method Libraries.

Figure 7 shows an expanded view of the final product presented in Figure 6 but with labeled dependencies; the IT enterprise Method Library is composed of Method Libraries for the IT Program & Portfolio, IT Infrastructure, and Enterprise Architecture. As software development is of higher concern to the organization a corporate SDLC Method Library is created to standardize RUP and the organizational resources and software standards.

Inheriting from the Corporate SDLC are two Method Libraries. The first, Corporate SW Development Method Library, is specific to custom software development and release of enhancements. In parallel with this hierarchy is the Corporate SW Services Support Method Library specialized for the maintenance of all applications in production. The Corporate SDLC Method Library ensures that the processes utilized by both SW Development and SW Services Support organizations are in alignment. This level of abstraction within RMC allows for the identification of key dependencies where process harmonization needs to occur.

Figure 7: Sample enterprise method library demonstrating abstraction of dependencies

The ability to abstract via RMC enables the capture of higher level aspects of an IT-EPF in terms of method libraries, dependencies between those method libraries, and the key plug-ins contained within each organizational method library.

Generalization
Generalization, also known as inheritance, provides a means to simplify complexity and institute consistency by means of extending common process standards through child objects. In terms of RMC this is realized by variance functionality where a given role, task, work product, guidance, or process can be extended by an element, contribute to an element, or replace an element. This allows for the implementation of process standards that are consistently implemented across the enterprise but with the unique flavor, maturity, and level of detail of each organization. This harmonizes processes in terms of consistency across the enterprise and also allows for the management of complexity where critical enterprise changes are made at one point and then inherited by the specialized implementations.

Figure 8 shows a sample enterprise process framework method library demonstrating generalization, which depicts several aspects of the relationship between the Method libraries. In terms of generalization, the PMO office maintains plug-ins as standards used throughout the IT Enterprise. In this particular example there are the process framework standards, corporate compliance, and project portfolio management plug-ins used throughout the IT organizations. This type of plug-in dependency structure establishes consistent standards and governance across the organization as a means to implement a regulation framework that is defined and owned by a given organization. Another type of generalization represented in this diagram is the asset financial management plug-in which shares governance in terms of asset management between the PMO and Infrastructure Method Libraries.

Figure 8: Sample enterprise process framework method library demonstrating generalization

Modularity
The underlying architectural meta-model of plug-ins, method content packages, and process packages driving RMC institutes the organization of processes and process extensions into modules. This allows for discrete ownership and focus upon key concerns. Plug-ins within each method library can be extended and reused across the IT enterprise to drive consistency and seamless integration. Further, modularity allows for separation of business concerns in terms of process maturity, process differences, project vs. operational processes, and process ownership. And finally, such modularity simplifies the many complexities enabling focus upon the critical elements. Coupled with a Roadmap, a process implementation can focus on particular plug-ins and/or method libraries based on risk, priority, and value.

Figure 9 shows a sample enterprise process library demonstrating modularity; this depicts a sampling of modularized processes in the form of method libraries with a partition of business concerns into enterprise architecture (EA), program & portfolio management (PMO), and infrastructure. This modularity allows for differences in process maturity, process differences, and ownership over the discrete processes while harmonizing these processes. For example, EA is responsible for EA governance. The EA Method Library contains a plug-in that is in read/write format. This plug-in is distributed in read only format to the owning organizations of the Infrastructure and Corporate SDLC Method Libraries. This allows for specialized implementation of standards in a consistent fashion so all EA governance organizations are utilizing the governance in the same manner.

Figure 9: Sample enterprise process library demonstrating modularity

Another benefit of modularity is the ability to exchange only the key process concepts between different processes from different organizations. This enables the integrating organization to focus on the points where collaboration needs to occur vs. absorbing an entire process. In this example,
the integration between RUP and ITIL is represented as shared plug-ins between the two Method Libraries.

**Cohesion**

Cohesion is the grouping of elements into like process elements. High cohesion is the target state as this lends to a robust, maintainable, reliable, and reusable process structure; on the other hand, low cohesion results in the opposite. Cohesion in RMC is enabled by means of the separation of concerns previously outlined but only realized with a sound approach to process engineering. The concept of an IT-EPF encapsulates the core objectives of cohesion; a process structure that harmonizes disparate processes and manages their complexities. This is achieved through industry best practices of organizational assessment, stakeholder driven requirements definition, model driven process engineering, and organizational change management.

Figure 10 presents the infrastructure method library, where the focus is on all the elements relevant only to infrastructure. As can be seen there are a high number of dependencies just within a single focused method library composed of elements relevant to conducting the activities and operations of an infrastructure department. Without separation of concerns into cohesive method libraries, the complexity grows exponentially. This is a key rationale for separation of concerns; the more plug-ins, the greater the complexity of dependencies.

Figure 10: Sample method library demonstrating cohesion

**Mapping the views to RMC and other IBM Rational tools**

Admittedly, RMC is only one tool of several that can be utilized to realize an IT-EPF, but it is a vital tool because it enables the capture of actionable process into a format that is consistent, cohesive, and reusable while managing the many complexities inherent in an IT Enterprise. One of its most
critical features is the realization of processes at a task step level with concise responsibilities, defined work products, and explicit process flow from the top level to the actual steps within a task. This allows for the definition of actionable process that can be executed as organizational operations. Definition of governance in an actionable format seamlessly integrates into actionable processes, and thus provides for consistent implementation of process elements throughout the organization.

As with any tool it does have its limitations. Though when paired with other tools the full set of IT-EPF views can be realized. Table 1 maps the IT-EPF views to a sampling of primarily IBM tools and their usage in realizing the IT-EPF.
<table>
<thead>
<tr>
<th>Tool</th>
<th>Alignment</th>
<th>Interdependence</th>
<th>Process Suite</th>
<th>Governance</th>
<th>Traceability</th>
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</thead>
<tbody>
<tr>
<td>IBM Rational Method Composer</td>
<td>1. Define and manages alignment driven process content and workflows.</td>
<td>1. Defines and manages intersecting process elements (roles, tasks, and work products) between organizational processes.</td>
<td>1. Captures, defines, and manages both process elements and process workflows.</td>
<td>1. Defines and manages governance process content.</td>
<td>1. Defines and manages the actual thread of reuse and extension of defined process elements and workflows for strategic alignment, governance, and the transfer of responsibility for process work products.</td>
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<td></td>
<td>2. Extension and reuse of strategic process elements across the IT Enterprise.</td>
<td>2. Structuring of intersecting points within organizational process Websites.</td>
<td>2. Extension and reuse of common process elements across the IT Enterprise.</td>
<td>2. Extension and reuse of governance driven process content and workflows.</td>
<td>2. Captures and defines reusable process elements used across the enterprise.</td>
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<td></td>
<td>3. Publication of a strategic process Website for communication with the IT Enterprise.</td>
<td></td>
<td>3. Publication of organizational processes, intersecting content, and governance as a single source Website.</td>
<td>3. Structuring of IT enterprise governance within organizational process Websites.</td>
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<td></td>
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<td>4. Workflow diagrams representing process workflows.</td>
<td>4. Publication of IT enterprise Governance as a reference source.</td>
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<td>5. Workflow diagrams representing process workflows specific to governance management.</td>
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<td></td>
<td>2. Captures and manages core requirements for process implementation from organizational policies.</td>
<td>2. Captures the requirements for task, role, and work product interdependencies.</td>
<td>2. Capture of Process Use Case Specifications to define organizational workflows.</td>
<td>2. Capture of Business Use Case Specifications to define the management, oversight, and compliance with IT enterprise Governance.</td>
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<td>3. Capture of Business Use Case Specifications to define organizational alignment both with the business and internally within the IT Enterprise.</td>
<td>3. Captures requirements for the organizational implementation of organizational processes.</td>
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</table>
2. Business Object models to realize the Business Use Case Models and associated sequence diagrams.

2. Sequence models to capture the sequencing of critical process flows within an organization.

3. Logical models to represent the structuring of critical process elements.

2. Governance work product structural models to represent the packaging and compilation of information necessary for oversight and compliance management.

1. Text Editor or equivalent enabling technology

1. Enterprise and organization Stakeholder Needs and Requirements.

1. Enterprise and organization governance Needs and Requirements.


2. Business Use Case Specifications to define the management, oversight, and compliance with IT enterprise Governance.


2. IT enterprise Strategy.

1. Enterprise and organization Stakeholder Needs and Requirements.


2. IT enterprise and Organizational Policies.

1. Enterprise and organization Stakeholder Needs and Requirements.


1. Enterprise and organization governance Needs and Requirements.

2. Business Use Case Specifications to define the management, oversight, and compliance with IT enterprise Governance.


2. Organizational Interface Control documents to define organizational touch points.

1. Enterprise and organization governance Needs and Requirements.

2. Business Use Case Specifications to define the management, oversight, and compliance with IT enterprise Governance.

Why not other methodologies?

There are business and enterprise methodologies that encapsulate the IT-EPF but their perspective on process is at a different level of perspective in comparison to an IT-EPF. For example, the Zachman framework defines and models an enterprise's systems architecture, but it only touches on the processes in terms of a list of enterprise processes, a business process model in terms of enterprise systems, and technical workflows for the architecture and enterprise systems. None of these views delve into the same details as the IT-EPF -- let alone realize, harmonize, and manage actionable processes. The Zachman views are simply focused on the processes and workflows that impact the enterprise architecture and systems rather than the full gamut.
of processes to realize IT objectives. IT-EPF is focused on harmonizing process, managing their complexities, and realizing a state that makes them actionable vs. being descriptive.

But this does not mean that Zachman and IT-EPF are not complimentary. In fact, their complimentary nature was exactly what I had in mind when writing this article. The IT-EPF is part of a greater whole, encapsulating the entirety of strategy, operations, and resources that comprises the IT enterprise and the business beyond. The IT-EPF enables the harmonization of the processes within the Zachman framework. And the Zachman framework captures a view of the IT enterprise that compliments the process harmonization and management enabled by the IT-EPF. The same consideration goes for Scott Ambler's Enterprise Unified Process. And in terms of the many approaches to process improvement, they are go hand-in-hand with an IT-EPF.

The importance of an IT-EPF is its ability to enable the harmonization and management of the IT enterprise process complexities using UML model-driven process engineering and the IBM Suite of tools. This provides a framework and structure to unify organizations in terms of collaboration in overlapping objectives, consistent application of policy and governance, and alignment with the business. Just as it takes a village to complete the gamut of IT enterprise operations, it takes a village of methodologies and tools to define and optimize the IT enterprise.

**Conclusion**

Today's IT enterprise environment is characterized by high degrees of intricacy, increasing demands from its customer base, and an ever-changing landscape. In this environment IT leaders realize that an enterprise needs to be agile, responsive, and dynamic to provide quality services and products to its customer base.

With the advent of IBM’s Rational Method Composer and the evolution of industry best practices, a solution avails itself that will allow an enterprise process solution. This solution can facilitate the management of the complex processes while enabling them to be both pragmatic and definitive. When applied on an enterprise scale, RMC enables the realization of an IT enterprise process framework (IT-EPF).

An IT-EPF is a mechanism to harmonize process and manage the many intricacies of an enterprise-scale process framework. It meets the needs of the IT enterprise in terms of both internal and external alignment and seamless integration of governance in the IT enterprise without undue bureaucracy. Additionally, an IT-EPF is an organization wide process structure that consolidates, establishes, and standardizes process throughout the IT enterprise. This framework provides a common ground for all IT enterprise organizational entities to perform their work in collaboration. Thus an enterprise standard is established that drives consistency across all constituent organizations of the IT enterprise and yet, enables each individual organization to realize its fullest potential to maximize the quality and effectiveness of its services and products.

When all of the organizations within the IT enterprise are performing processes in a coordinated manner the power and capability of the entire enterprise is magnified. There are no wasted actions and the entire IT enterprise can focus on the needs of the business. Governance and regulatory
compliance are more easily attained working within a defined process framework such as the IT-EPF.

Utilizing industry best practices for process engineering and organizational change management, coupled with IBM's Rational Method Composer (RMC) a process framework can be defined, implemented, and maintained in an understandable format. RMC is ideal for building, compiling, and then delivering an IT-EPF that is both distributed yet interconnected as its content is based on the concept of separation of concerns. The focus on separation of concerns allows for the design of a process with an engineered object-based perspective in terms of abstraction, generalization, modularity, and cohesion. Each of which lends itself to managing the complexities inherent in an IT-EPF.

Notes


3 A study commissioned by the IT Governance Institute showed that 42% of 695 surveyed CEO's and CIO's have a mature process for IT Governance while 58% have either no, intuitive, or ad-hoc processes in place.

4 A beta plug-in for compliance management has been released for RMC that addresses and presents how to implement compliance management using RUP.

5 IBM has released the IBM Tivoli Unified Process (ITUP) that captures and defines ITIL to the actionable level.

6 "Findings of the IT Governance Global Status Report -- 2006," commissioned by the IT Governance Institute.


8 The McKinsey Quarterly, 2002 Number

9 I intend to provide greater depth of detail on these five views and their fit within the IT-EPF in a second article to be published this spring.

10 "Lock out business risks," Amir Hartman with Craig LeGrande and Tom Goff, Optimize, Issue 50 (December 2005)

