

# Business Process Framework (eTOM)

*For The Information and Communications Services Industry*

Addendum Q:

Application Note: Frequently Asked Questions (FAQ)

**GB921 Addendum Q**

**Version 11.3**



*October, 2011*

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Direct inquiries to the TM Forum office:

240 Headquarters Plaza,  
East Tower – 10<sup>th</sup> Floor,  
Morristown, NJ 07960 USA  
Tel No. +1 973 944 5100  
Fax No. +1 973 944 5110  
TM Forum Web Page: [www.tmforum.org](http://www.tmforum.org)

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## Executive Summary

As with most things, there are recurring issues and questions that arise when using the Business Process Framework (eTOM).

This document acts as a repository to collect some of these, as they arise, and so can be regarded as a living document that develops and grows over time.

This document is an Application Note, aiming to document approaches based on industry experience that can be used by a company and adapted to its business needs.

Note that, as an Application Note, this material should not be read as normative – i.e. as representing a single standardised approach – but rather as a representative view that provides a useful base for others to build on. Other approaches are also possible. It is the goal of work like this to assist convergence for the industry, but not to impose a single approach, where there are other variations and alternatives that make sense.

## 1. Introduction

As with most things, there are recurring issues and questions that arise when using the Business Process Framework (eTOM).

This document acts as a repository to collect some of these, as they arise, and so can be regarded as a living document that develops and grows over time.

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## 2. Does my enterprise need to look like the Business Process Framework (eTOM) model?

Many users are sometimes confused about the role of the Business Process Framework (eTOM) structure - the familiar top-down view of the enterprise divided into the 3 Level 0 process elements (OPS, SIP and EM), with each decomposed into Level 1 process elements, then Level 2, etc.

This hierarchical process structure is the way that Business Process Framework is designed – i.e. it is a way of visualizing a generic view of the enterprise's processes, in more and more granular detail as we move down the Levels. When an organization or company applies the Business Process Framework within its business, it does not need to model the structure of the business so that all this Framework structure is directly visible.

When we look at alignment with the Business Process Framework, we must first recognize that the scope of some businesses may only involve some of the Framework process elements – i.e. the nature of the business may mean that some areas of process are “out of scope”. A VNO, for example, may have little or no process support for the Resource Management & Operations area. For more discussion, see later.

Next, for the process elements which are in scope – sometimes referred to as the “footprint” of the business on the Business Process Framework – we may find that these are not contiguous within the Business Process Framework. In other words, the business “footprint” involved several “islands” of process elements from different parts of the Framework. Obviously, the choice of what is in scope would need to make business sense, but this is a matter for the organization or company concerned.

Finally, the process elements that are “in scope” may be mapped in whatever arrangement is wanted into the organizational structure of the business – i.e. the business units, departments, etc, may be arranged as desired, and as long as each of the process elements has a home within this organizational structure (and, of course, is properly implemented), then the business is considered to be aligned with the area of the Business Process Framework concerned.

As a result, for some company it may be that there is no single area of the business that represents the Service Management & Operations Level 1 process element, but every Level 2 process element defined by the Business Process Framework within this Level 1 might still be fully supported, but in various different parts of the business. This would mean that there was alignment with all these Level 2s, and as a consequence there was alignment also with the Service Management & Operations Level 1, even though it itself was not visible as a single department within the business.

So, regard the Business Process Framework structure as representing the design structure, and when applying this within your business, you can select process elements at various decomposition levels (i.e. Level 1, 2, 3, etc) and map these into your business. As long as the ones you use are there, and supported, you are aligned with them. How all this is arranged and organized within your business is not something that the Business Process Framework constrains.

### 3. Is it OK to use some but not all of the Business Process Framework (eTOM)?

The Business Process Framework (eTOM) is a framework – this means it is expected that users will apply it where it works for their businesses, but may find that in some areas it needs to be adjusted to work for them, or that some parts of the Business Process Framework are not needed for their business scope.

This flexibility is one of the design principles of the Business Process Framework, and users may choose freely what to use directly, what to modify, and what to exclude from their application.

Remember though that a major value of the Business Process Framework is that it represents an industry-wide standard and that therefore the business judgment for each user organization or company is to decide on the balance between applying the standard and creating a proprietary alternative. This is not a single decision, as the choice is there for each part of the Business Process Framework – i.e. some process elements might be adopted directly while in some other area of the framework and the business the decision might be to make some changes.

Since the Business Process Framework is recognized and used so widely, the value proposition is that the language and structure of the Framework will make it much easier and quicker to understand and negotiate about processes and subsequent implementations both inside your business, and between your business and your suppliers, peers, and customers. Additionally, the Business Process Framework represents a working process structure that is the result of a huge amount of analysis and design effort from the whole TM Forum membership, and has been extensively tested in the field. These are enormous benefits for an organization or company trying to establish a comprehensive process view within its business, so the judgment on whether to use the Business Process Framework or introduce proprietary aspects needs to take this into account. Of course, in the end these are decisions for users to make for themselves, but a clear view of the implications will help here.

## 4. How do I fit Business Process Framework (eTOM) processes into my business?

An issue that often arises for organizations and companies applying the Business Process Framework (eTOM) in their businesses is how to decide which process elements belong where. This is an issue that can't be answered uniquely since the whole idea of the Business Process Framework is to provide a generic process view that can be recognized in whole or in part by every business. As a consequence, different enterprises will map the available process elements in the way that works best for them, and may sometimes choose to use some process elements and neglect others based on this. However, we can provide some general guidance that hopefully assists users.

Although it is a Business Process Framework design principle that process detail is not replicated within the framework, and important point in mapping this into your business is that replication is allowed and can arise as you do this. For example, the Framework contains one set of Product Lifecycle Management process elements (under the PLM column in SIP) but it is typical within organizations to have several product departments, each focusing on different product sets or regions, and the expectation would therefore be that each of these departments runs the same (or similar) processes but that they operate separately. Thus, the single PLM process area can thus be mapped into several replicas within the organization.

Also, there are cases where the Business Process Framework defines process areas that have similarities, but different focuses, and an enterprise may choose to apply these according to the best fit within the business.

For example, if we consider how network build might be handled we can look across the Resource layer in the Business Process Framework and observe that there is a focus in Infrastructure Lifecycle management (ILM) in SIP, and in OPS there is a focus both in OPS and FAB for this. How does a company choose which process area fits best? The answer is that there is flexibility. The philosophy in the Business Process Framework design is that ILM plans the network installation, contracts with suppliers (as necessary) and managed the physical deployment of network kit. OPS then takes over the "potential" resource set represented by this physical capability and through OSR manages any pre-configuration. Fulfillment then instantiates the actual resource entities that make use of the resource pool gathered in ILM/OSR, and makes the association with services/products/customers.

Thus, on this basis, physical network is in place within ILM, but in an unconfigured, even unmanaged, state, with OPS having the responsibility for bringing this into use.

To be sure this is unambiguous, if we focus for the moment on what happens within the enterprise's own network, this suggests that OPS does not directly manage deployment of major network capability (like core exchange switches, SDH rings, etc) as this is done in ILM, although minor network resources (like access elements for individual customers or premises) could be handled directly there. OSR, and then Fulfillment, would "take over" the ILM network capabilities and pre-configure/configure them for use.

However, where the enterprise draws a line on this must be up to them. One company might regard a street cabinet installation as infrastructure build in SIP, while another handles as part of OPS. As long as they support the process elements involved as defined, then both are aligned with the Business Process Framework, but have made different organizational choices in how the processes map into their business.





Just to build a little on the example, the workforce management process area (i.e. “Manage Workforce”) might be called upon in both these scenarios since it is defined to support workforce management across the enterprise.

## 5. What does alignment with the Business Process Framework (eTOM) mean?

Many organizations and companies want to assess their alignment with the Business Process Framework (eTOM), or need to assess how companies they are working with align. This is not an obvious issue, since this Business Process Framework is designed to be a framework and hence for a specific enterprise, some Business Process Framework areas may be directly applied, some may be modified in use, and some may not be considered relevant and excluded.

The crucial insight in addressing alignment with the Business Process Framework is to “follow the text” – in other words, the framework is defined by the process descriptions, both Brief Description and Extended Description, that are published for the Framework process elements. Alignment must be assessed against this text, which can be viewed as setting out a series of process requirements, that can be considered one by one. If support is provided for all these requirements, then the relevant Business Process Framework process element is aligned. If any or the process requirements are not supported, then that process element is not aligned (or might be regarded as partially aligned, although the formal TM Forum Business Process Framework Conformance Assessment scheme does not distinguish this).

Note that assessment may be made at any level of decomposition and it is the process text for the level concerned that applies. So, a Level 1 assessment might be made against, say, the Customer Relationship Management Level 1 within the Business Process Framework, and it is only that Level 1 process description – and not the detail within the Level 2 process elements within this – that applies. This produces the interesting implication that a Level 1 process element might be assessed as aligned, even though some of the contained Level 2 process requirements are not aligned (and hence the affected Level 2s are not aligned). At first sight, this may appear odd, but this allows a progressive assessment mechanism and avoids existing assessments at higher levels being destabilized by the later publication of lower level detail in new decomposed process elements. Another implication is that if assessment is made at, say, Level 2, and if all the Level 2 process elements within a Level 1 are aligned, then alignment follows automatically for the Level 1 and no explicit assessment need be made for that Level 1. This applies throughout the Business Process Framework decomposition hierarchy.

## 6. How do I decompose a process element in the Business Process Framework (eTOM)?

We'll look here at what happens when an individual user (e.g. within a company applying the Business Process Framework (eTOM) in its business) wants to decompose a published Framework process element, and so create a new set of process elements within the published element. This might arise in defining Level 4 process elements for existing Level 3s (note that we are beginning to define and publish some Level 4s within the TM Forum collaboration program currently). Note that any such decompositions represent a proprietary extension to the Business Process Framework until, and if, the company brings these candidate decompositions back to TM Forum for review and potential agreement for publication as new Business Process Framework detail.

There are a number of techniques that can be used to identify candidate decomposed process elements. For example, often the process element being decomposed may address some or all of a lifecycle that may be visible within the process description. This lifecycle may be expressed in terms of process detail, or may be related to the lifecycle of related information (and this can be seen through the mappings between the Business Process Framework and the Information Framework (SID) that are published). Another very useful technique is to “parse” the text of the process description for the existing process element, and look for words and phrases that represent more granular process activities (each of which can then become the focus for one of the decomposed process elements) – this is an application of the technique known more generally as “semantic analysis”.

There are other ways of tackling this as well – it is a human design judgment how to decompose a process element, so what we will concentrate on here is how you can decide if the decomposition you choose is valid.

There are some design principles for process analysis and how this is used in the Business Process Framework that support us here.

1. The decomposition must be complete. Every process requirement (i.e. from the full description of the process element being decomposed) must be represented within the scope of the decomposed process elements – so there can be no “orphaned” process details.
2. The decomposition must be disjoint. Each process requirement (i.e. from the full description of the process element being decomposed) must be represented in one and only one of the decomposed process elements – so there can be no duplicated process details (note though, that it is permissible to map a part of a process requirement to one decomposed process element, and another part to a different process element).
3. The decomposition must be consistent. There can be no new process requirements in the decomposed process elements – so every process detail must be traceable back to the description of the process element being decomposed (note though, that it is expected that the decomposed process elements will reveal more detail, but this must be consistent with the higher-level view from the level above).

Note that a decomposition exercise like this usually involves some iteration – i.e. the first pass that produces a set of candidate decomposed process elements is rarely found to be ideal, and it is generally useful to go “around the loop” several times. For example, it may be found that the description for the process element being decomposed leads to a poor choice for the decomposed process elements, when applying the “semantic analysis” technique mentioned above. This might be because of some intrinsic issue with the original description, or may be because other influences (perhaps related to the organization or company concerned) need to be accommodated. This arises frequently, and the decomposition activity as indicated above is a human design one where balancing such issues is part of the exercise. Note that where the original process description is



found to have issues, an obvious route is to feedback these concerns to TM Forum, so that the published Business Process Framework can be improved in line with this.

## 7. How is translation between products and services and resources handled in the Business Process Framework (eTOM)?

The Business Process Framework (eTOM), and the rest of Frameworkx, distinguishes Products from Services from Resources. Products are seen as being built from one or more Services, with a Service defined as essentially the technical core that is then packaged into a Product. The Product “wraps” around this technical core of Service, typically with non-technical aspects such as a tariff, an SLA, support arrangements, etc. This separation between Product and Service creates useful flexibility: a given Product may be supported by different Services (say, using different technologies) over time, but the end-user need not be aware of this if the Product they buy and use remains the same. Equally, a given Service may be sold as different Products (say, with different tariffs). Also, of course, several Services may be bundled into a single Product.

Services map into Resources in a similar way. The Resources typically represent physical or logical elements that are “building blocks” - say, routers or modems in a network. Some combination of Resources then supports a given Service.

With all this in mind, an issue that then arises is how to manage the association or mapping between given Products in use, the Services that support these, and then the underlying Resources?

Here, we can see an influence from another set of decisions, intended to clarify and simplify the mappings between the Frameworks within Frameworkx. One aspect of this, is an important Frameworkx design principle that we avoid having elements of the lifecycle of individual informational elements managed from different areas of the business processes. The result is that all the “active” operations on a given information element (Create, Update and Delete from the familiar “CRUD” view, with the “passive” operation Read of less concern) are concentrated in a single Level 2 business process. So, for example, the “Order Handling” Level 2 process element in the “Customer Relationship Management” Level 1 has been defined to be the Level 2 that manages the “Product” information element, and so it is “Order Handling” that creates, updates and deletes instances of “Product”. Note that this principle has been followed in most cases, but there are a few exceptions in the existing process/information mappings.

We can look at an example of how this works. As a result of this approach, if we consider how a customer order is processed, then as part of “Order Handling (i.e. within the “Customer Relationship Management” Level 1 “layer”), the stage will be reached where it is necessary to translate or map from the product (instance) associated with this customer order into one or several service orders (instances), that will then be fulfilled to support that product (instance). Because of the design principle above, the decision is that the entire lifecycle of a service order (instance) is handled not in the “Customer Relationship Management” Level 1 “layer”, but rather in the “Service Management & Operations” Level 1 “layer” and specifically (in this case) in the “Service Configuration & Activation” Level 2 process element. So, the result is that, in process terms, the translation between Product and Service is positioned at the lower layer (i.e. Product is mapped to Service within “Service Management & Operations” rather than “Customer Relationship Management”).

This is a general principle, and applies to all areas of process mapping between Products and Services. A similar approach is taken at other layers, and so mapping between Service and Resource is handled within “Resource Management & Operations” rather than “Service Management & Operations”.

Note that this all this applies for the process view, and an important flexibility is that when processes are mapped into a specific organization, it is permissible to map the same process area to several



areas in the enterprise (if this makes sense in business terms). For example, a company may use the same PLM processes in several separate product groups within a real enterprise. As a result, it would be valid to map the content of, say, the Product/Service translation process into several enterprise areas (of course, the company would need to ensure this remains manageable in their business). This would allow a customer-facing part of the organization still to retain the ability to directly manage the relationship between Product and Service, by absorbing and supporting this part of the service-management processes.

## 8. ITIL processes are now visible within the Enterprise Management area (Level 0) – is this the only part of the Business Process Framework (eTOM), and the actual business, where ITIL is used?

NO! This is not the only area where ITIL is used.

The influence of ITIL can extend across the entire enterprise, depending on how the company concerned wants to use it and how far they apply it in their business. The reason we see ITIL in Enterprise Management within the Business Process Framework (eTOM) is that ITIL defines Good Practice, and this represents a kind of business policy that a company decides to adopt, and then uses this policy to modify behaviour across the business. Enterprise Management is the natural place within the Business Process Framework to position this kind of corporate approach. However, the reality is that any policy or good practice doesn't stay as just a corporate view, but becomes a direct influence on the way that the rest of the business behaves.

So, ITIL will impact, in principle, on the whole of the enterprise, and thus the whole of the Business Process Framework. Of course, individual companies may not choose to use ITIL everywhere, or may not choose to use all ITIL process areas in their businesses, but potentially ITIL can impact almost anywhere across the enterprise.

This is acknowledged in the Business Process Framework, within the definitions for the ITIL process elements. Within the Process Decompositions (in Addendum D of the Framework), for each ITIL process element, there is a list of the potentially-impacted Business Process Framework process elements, i.e. the processes elsewhere in the enterprise, and what this impact can be. For example, in "ITIL Change Management" (within Enterprise Management), one of the identified impacted process elements is "Service Capability Delivery" (within Service Development & Management"), and the identified impact is:

*"Where ITIL Change Management is employed as a guiding mechanism, then the Service Capability Delivery processes operate in line with this, so that they are then aligned with the ITIL approach. The Service Capability Delivery processes work with ITIL Change Management to plan and deliver changes within business services, which typically includes IT services."*

So, the visible positioning of ITIL within Enterprise Management is just a bridge between the two frameworks, and the intent is to define the whole range of impacts, across the whole enterprise, that ITIL involves. It is therefore important to recognize that the Business Process Framework does not limit ITIL to just the Enterprise Management area, but intends to address the full range of ITIL impacts across the whole of the enterprise and the whole of the Business Process Framework. The visible ITIL processes within Enterprise Management are just the placeholder or bridge for how ITIL is brought into the rest of the Business Process Framework.

## 9. Administrative Appendix

This Appendix provides additional background material about the TM Forum and this document.

### 9.1. About this document

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This document is an Application Note, aiming to document an approach based on industry experience that can be used by a company and adapted to its business needs.

### 9.2. Document History

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#### 9.2.1. Version History

Version Number	Date Modified	Modified by:	Description of changes
11.1	Sep 2011	Mike Kelly	first draft of document
11.2	Sep 2011	Mike Kelly	Tidying for publication
11.3	Oct 2011	Alicja Kawecki	Minor cosmetic corrections prior to web posting and ME

#### 9.2.2. Release History

Release Number	Date Modified	Modified by:	Description of changes
11.1	Sep 2011	Mike Kelly	first issue of document