



TBOSS

business agility for your provisioning and ordering process



Because not all Provisioning Systems are the same...

Meet **TBOSS**...

...and provision the future

TBOSS from Emeldi is a next-generation Order Management & Provisioning Controller for Service Providers in the Communications Industry.

Designed in compliance with Industry Standards, TBOSS boasts an ultra-flexible business model, and a technical architecture to match.

Whether you need to provision Broadband ADSL, Voice and Data, Mobile Services, or a convergent bundle featuring all of these, TBOSS makes it a snap.

Built on the highly successful Enterprise Java platform, even in the most demanding

environments TBOSS will comfortably meet your exacting performance requirements day in, day out.

TBOSS includes a truly flexible product and service catalogue, and can be integrated with a number of Process Modeling tools.

These components combine to allow you to design and implement any form of:

- Workflow
- Service Bundling
- Order Scheduling

...that you can dream up.



Why just compete? ...when you can lead

Gaining Competitive Advantage

TBOSS has been specifically designed to enable you, the Communications Service Provider, to react quickly to changing market conditions, by enabling rapid design and development of new Services and their associated workflows, and hot deployment onto running systems.

As your business volumes increase, TBOSS handles them with ease.

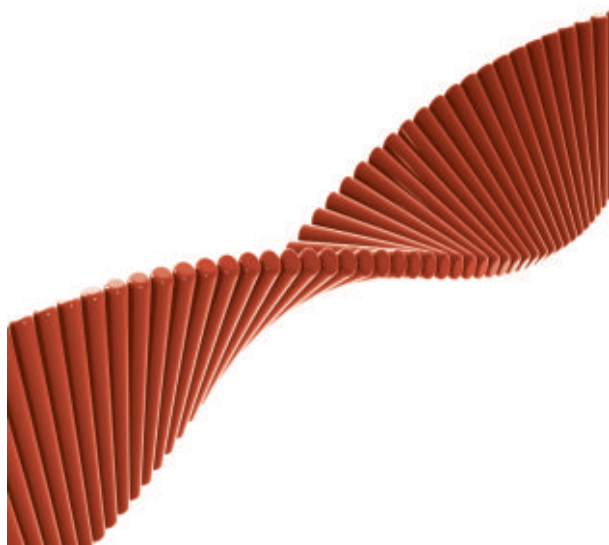
In TBOSS you have a hugely scalable, modular platform that will grow with you, enabling you to focus on your core business and not on technology.

Customers demand a constantly higher level of performance, choice, and quality from their chosen Service Provider. With TBOSS, you can offer them:

- Flexible Service Bundling
- Rapid, accurate Activation
- Built-in Notifications

As you know, great brands are built in the Communications Industry by exceeding the expectations of the customer.

With TBOSS, you focus on your business.
The technology takes care of itself.
TBOSS - for the agile enterprise



Flexibility and Quality Combined!

TBOSS provides flexibility with complete quality

Flexibility Assured

A vital part of your business success as a Service Provider is the ability to rapidly bring new, innovative Products and Services to market.

A vital part of your IT and Engineering function is to provide the fulfillment platform that enables you to achieve this.

Flexibility is the key word when it comes to aligning your core systems with your business drivers.

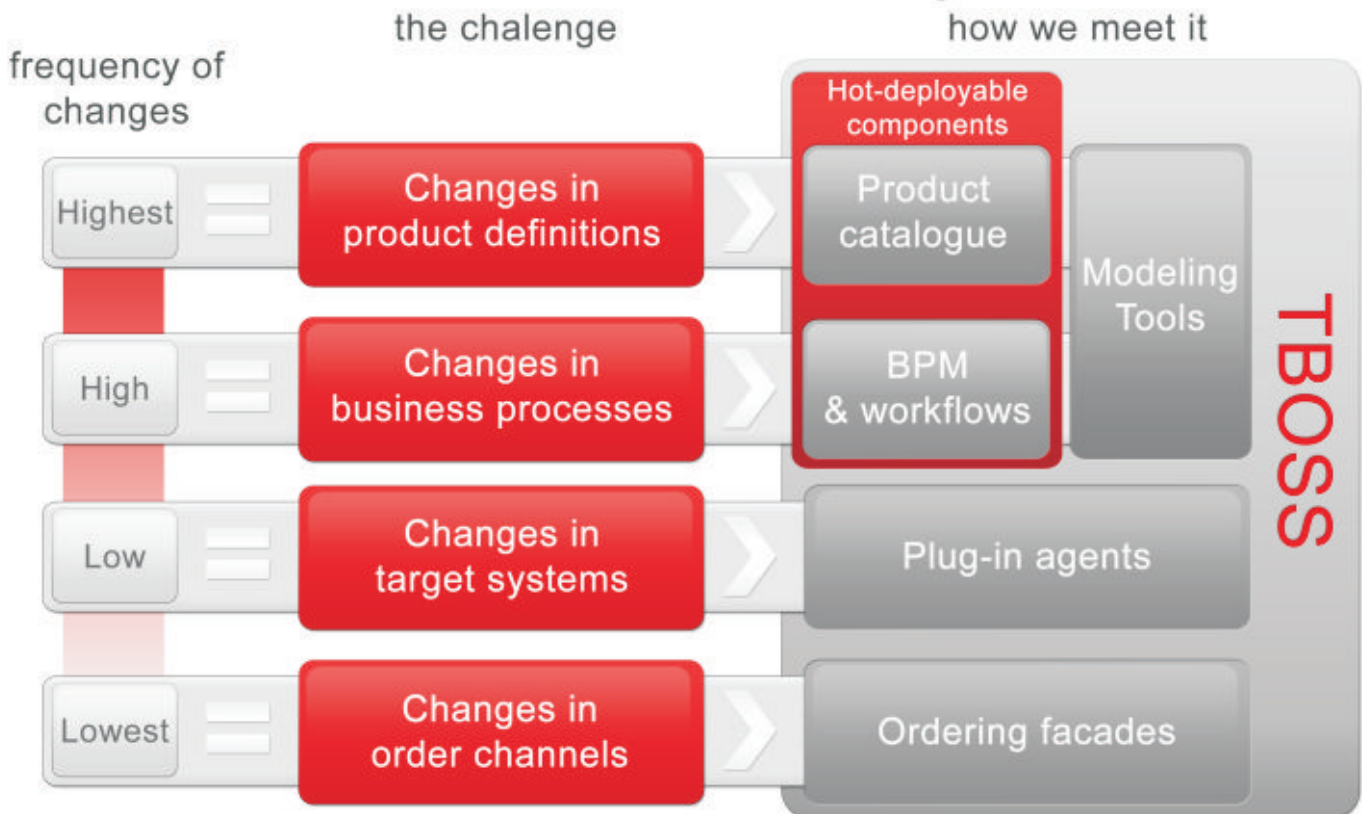
With TBOSS as your Provisioning Controller, you don't have to think about flexibility; you just use it.

What customers love about TBOSS is that the flexibility they need is already designed in. Workflows can be easily redesigned. The real art of achieving flexibility is in doing so with zero loss of quality.

Of course, reliability, and automation also contribute, and in the following pages we'll see how flexibility, reliability, and automation combine to make TBOSS an unbeatable proposition for today's Service.

because you want to lead, not follow...

The TBOSS flexibility model



TBOSS Flexibility is shown in the model above.

As can be seen, the dynamic aspects are managed by configuration and process modeling. These, of course are those areas where Service Providers need the most flexibility as your business evolves.

On the other hand, components which change less often, such as EAI interfaces, are implemented programmatically; yet are contained within a supporting internal Service Oriented Architecture (SOA) framework which offers much greater flexibility than traditional programming models.

TBOSS flexibility is also demonstrated in its ability to scale with increasing order volumes. Scalability is a common feature of Enterprise Java-based systems. OSS/BSS systems processing, however, is more resource-intensive than traditional multi-tier application. This is largely due to the complexity of the embedded work-flows, which touch a large number of components in the overall architecture.

The scalability designed into TBOSS neutralizes this issue, allowing optimum performance alongside massive scalability.



Reliability, Automation

Reliability is essential in the Communications Industry.

We at Emeldi understand that your customers have high expectations when it comes to service levels. Volumes are high, and customers expect the best from you.

Highly available and highly fault-tolerant platforms are an absolute necessity.

The Enterprise Java technology platform that underlies TBOSS is proven to deliver the reliability that a typical Service Provider demands:

(24 * 7 * 365, and 99.99% guaranteed up-time).

High availability support, a super-configurable load balancing scheme, and built-in support for transaction-scheduling makes TBOSS an enormously stable vertical solution.

Reliability

...a core component



Automation

...super-smart working



Ability to define and implement a high level of automation increases the efficiency of the TBOSS system.

In turn, this plays a key role in overall return on investment.

The more elegant the automation, the smarter, and more cost-effectively your Business processes will work.

Central to TBOSS is a model-driven activation framework supporting Operational (e.g. Network and Content Services) and Business (e.g. Customer & Billing Management), driven by a rules-aware Product/Service Catalogue and controlled by BPM Engine.

The Catalogue provides a comprehensive model of product definitions, their dependencies, pricing structures, and more.

Dynamic behaviour enhancement allows the inclusion of processing components bound to the hierarchy of the Catalogue. Such components take care of validation, event triggered business processes, billing calculations, and much more.

The TBOSS BPM Engine allows you to automate complex and long-term processes. You do not have to dream about it, just do it automatically!

The result of all this? An unprecedented level of cohesion between product definitions and automated business processes. If this sounds too good to be true then treat yourself to a demo!

Functional Architecture

...flexible, while robust

TBOSS employs a Service Oriented Architecture (SOA) model.

This is due to the fact that the diverse nature of the various domains (Billing, Customer Care, Mediation, Provisioning, Core Network etc,) in a modern Communications business has seen a shift towards SOA.

The basic SOA approach focuses on the interoperability of loosely coupled systems through well defined, open interfaces.

TBOSS' role in this architecture is to orchestrate both internal and external systems, together with its own Service Provisioning functionality, into a set of cohesive business processes for Service Management.

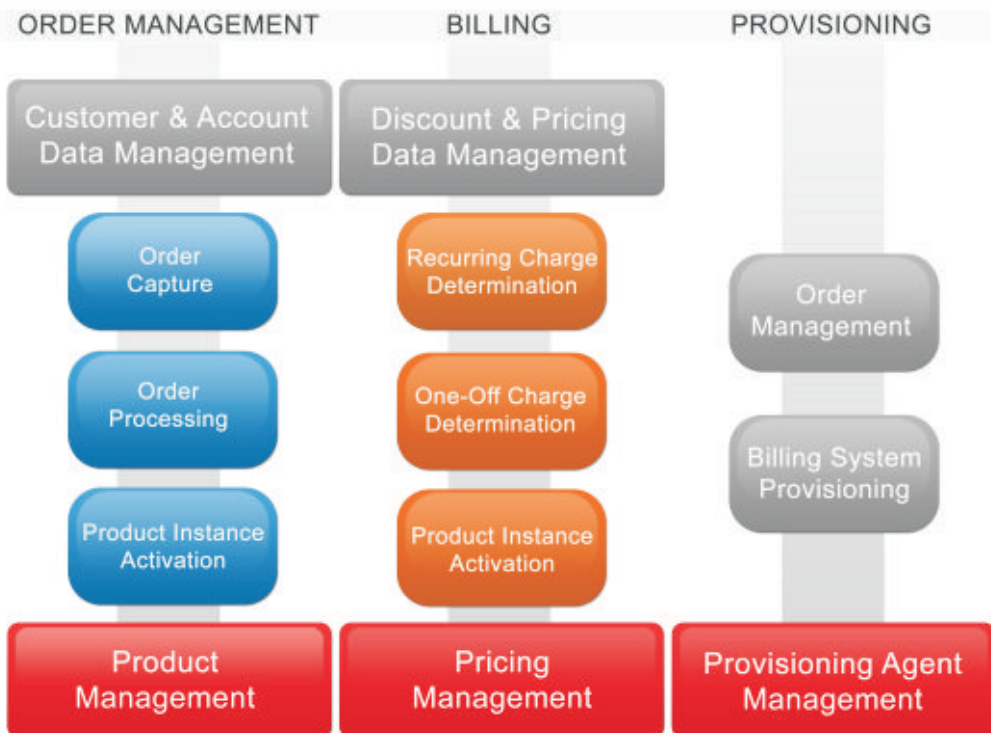
Since it plays an orchestration role between order management, service provisioning,

and billing, TBOSS has to be flexible enough to meet the system requirements for many disparate services. Our SOA solution makes the core TBOSS framework a dynamic service orchestration platform customized for an OSS/BSS domain. Relevant provisioning services can be seamlessly orchestrated according to the TBOSS framework configuration.

The resultant business processes and data services can easily be exposed to other systems, for example, a Self-Care web portal may invoke a TBOSS service to provide customers with order tracking functionality.

This makes TBOSS not just an orchestrator of business processes, but a provider of key business services as well.

TBOSS Functional Architecture



Functional Architecture
TBOSS has been architected with attention to flexibility.

While all the touch-points in the Order Management cycle are addressed, the choice of how much of the functionality to utilize is left to you.



Business Process Management ...removing functional silos

Business Process execution lies at the heart of TBOSS, and many of these processes cut across the complete OSS/BSS domain model.

An innovative, model-driven communication hierarchy within the business process definitions makes the surrounding SOA composition more efficient and well organized, and is one of TBOSS' unique features.

There are three basic levels of business processes in TBOSS as shown in the diagram below.

Let's examine how this is achieved, starting with the management of Core Business Process.

Core Process Framework

The Core Process Framework is a self-contained set of common process functionality, shown in

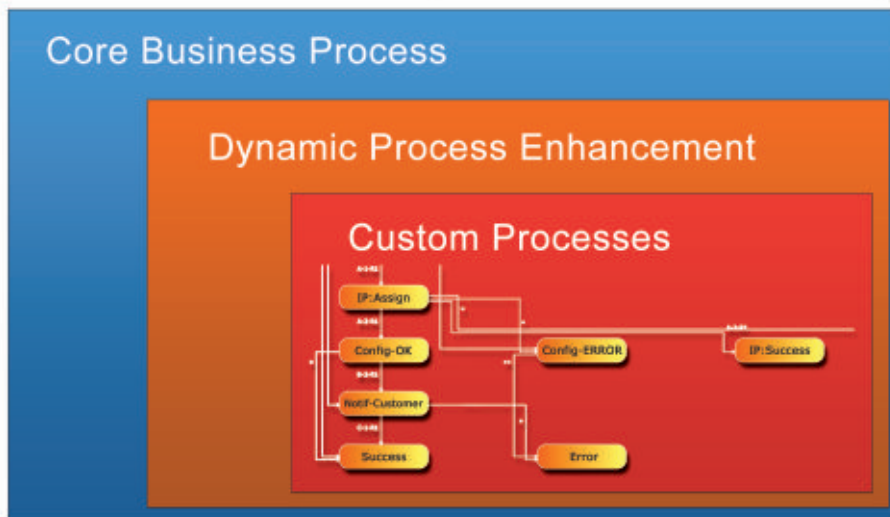
the diagram as Core Business Process, the set of domain-specific processes that TBOSS understands 'out-of-the-box'.

This layer is closely bound to the solution model. It is stable and closely tuned to the underlying technology.

Typical services provided by the Core Process Framework include:

- Order capture
- Order decomposition
- Order persistence
- Order distribution
- Completion of service provisioning
- (close-out activities)
- Product instance state management
- Product instance activation
- Product instance billing activation

TBOSS Nested process Hierarchy



Process Flexibility

TBOSS offers customization of Business process at every level.

In business terms this lends extreme agility; while at the technology level it means shorter lead times and reduced complexity.

"Removing blockages between functional areas of the business during the Service Management process is a vital element to efficient, low-cost operation in the Communications sector."

TBOSS was built for this purpose.



Additional Processes

...the Process is your business

The Product and Service Catalogue is an extremely powerful component that sits at the centre of the TBOSS business architecture. It is much more than a collection of business entities definitions. It covers data relating to templating, associations and dependencies, and behaviours.

The Catalogue has its own deployment lifecycle, independent of the core framework and other custom services.

The Catalogue is managed outside of the running production system and hot-deployed on-demand. This is done via an external injection of updates into a fully operational system without causing any downtime whatsoever.

Dynamic Process Enhancement

The complex domain model of the Catalogue has the capability to bind business logic processing plug-ins to events on entities of the catalogue, such as products, prices, and campaigns.

Product definition is then an information based definition together with business process fragments driven by the instantiated entities lifecycle.

Thanks to a product definition hierarchy, it's possible to bind business logic into any level of the product catalogue hierarchy so that a common process can be specified for a family of products or services.

The implemented type of business logic plug-in is highly flexible and may be any of the following:

- Java POJO
- WebService/SOAP
- Web Services/REST
- BEA WebLogic Integration Java Process Definition
- CORBA
- (IIOP/RMI) etc.

Custom Process Definition

The preferred way of defining custom processes is by Business Process Management (BPM). TBOSS provides its own BPM engine and BP modeling tools or you can reuse general BPM platforms that you are probably running - Weblogic, Websphere MQ, JBOSS jBPM etc.

But there are many reasons why to use the TBOSS BPM solution:

- It was primary designed for ordering and provisioning processes
- It is tightly coupled with other TBOSS modules, especially with Provisioning Agents and the Product/Service Catalogue
- The business process definitions (workflows) are hot-deployable and support inheritance, dynamic injections of sub-workflows and versioning
- Visualization of workflow instances in TBOSS Console
- Tools for BP modeling, visualizing and analyzing are available

Provisioning Agents

An agent is an encapsulation of process logic in charge of a target service provisioning or network management system dedicated to it.

Agents are robust and flexible Java-based components with access to all the features of TBOSS. There are no limitations to what an agent can provision.

TBOSS includes a host of pre-built agents designed for all major service types.

In a Broadband environment, for example, agents may provision any or all of :

ADSL, IPTV, IP VPN, Server Hosting, E-mail, Web Hosting, antivirus software, IP addresses, modems, and dial-up internet access services.

Most Flexible

There simply isn't anything as flexible, simple-to-manage as the TBOSS business process model. Why settle for less?



Provision the Future

Whether you are far along the road to next-generation networks or just starting out, no one knows where the path will ultimately lead.

Maintaining core Service Provisioning capability along the way requires a highly flexible approach that embraces change.

TBOSS delivers exactly the flexibility you need, via its architecture and its use of modern tools such as Business Process modeling.

Reliability is also a key factor that you'll need, and which TBOSS delivers.

Automation, as we have seen, is elegantly addressed by the TBOSS solution.

TBOSS, in conjunction with your OSS/BSS vision, will allow you to Provision the Future today.



ABOUT

Emeldi Group

The Emeldi Group is a specialist provider of value-added Business and IT Consulting services as well Integrated Software Products to the Communications & Media Sectors, with offices in London, UK, and Prague, Czech Republic. The group comprises 3 distinct companies, each one offering a high level of synergy with the others, and all dedicated to enhancing and developing the Emeldi Brand and the experience of our customers.

Business Areas

We are especially active in the Communications & Media sectors, while we also have clients from other industries. All our clients tend to be users of leading-edge, total-integration solutions, and consulting services, of which Emeldi is a specialist provider.

Whitepaper Author

Emeldi Group

* further Whitepapers are available from our website

Further Information

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