

TECHNOLOGY AUDIT

M₃O Suite v2.1









Vitria Technology

BUTLER GROUP VIEW

ABSTRACT

The Vitria M₃O Suite (the name reflects the elements of the product: Model, Manage, Monitor, and Optimise) is a Business Process Management (BPM) solution that is designed to enable better collaboration between organisational and IT users within the enterprise. The solution has a dual focus; firstly of creating a single process model that can be updated at both the business and the technical level in a supported collaborative environment. The second major aspect of M₃O is the use of data within the processes to create operational intelligence, with high levels of customisable visualisation. These views of the processes that create the operational ecosystem are not simply representations of how a process is working, they provide an entry point for making modifications of a process that is also reflected straight into the process model. The solution utilises Web 2.0 technology and the Adobe Flex library that allows the user to design and build flexible and highly customisable GUIs, from which users can monitor and manage the product operation.

KEY FINDINGS

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|  Uses BPMN that is deployable straight to the runtime environment. |  Model documentation is layered to provide a role-specific view. |
|  Can use both internal and external data to provide complex views. |  Provides drill-down for root-cause analysis straight from the dashboards. |
|  Can mix real-time and historical data for contextualised analysis. |  Does not support SQL Server as a repository database. |
|  The product is available as both a traditional installation and by using the SaaS model. |  Built on a SOA architecture. |

Key:  Product Strength  Product Weakness  Point of Information

LOOK AHEAD

Vitria sees items such as Tag Clouds and searching of modelling artefacts, semantic modelling in searches and vocabularies, 3-D visualisation of process models at runtime, and runtime policy-based process governance (among many others) as areas for exploring in future releases.

FUNCTIONALITY

Product Analysis

The Vitria M₃O Suite (the name reflects the elements of the product: Model, Manage, Monitor, and Optimise) is a Business Process Management (BPM) solution that is designed to enable better collaboration between organisational and IT users within the enterprise. One of the promises of BPM is how organisations can take domain expertise in both non-technical and technical areas and bring them together in a way that is meaningful to both types of users. This is the premise upon which Vitria M₃O has been designed. The non-technical users can work directly with process models utilising a GUI that is intuitive to their domain expertise, using an understandable business vocabulary, and multi-layer visualisation. The deployment of these models is then completely seamless; cutting out any possible misunderstanding of functional requirement.

The M₃O Suite is comprised of elements that handle:

- BPM.
- Business Event Monitoring (BEM).
- Business Activity Monitoring (BAM).
- Integration.

Vitria has a long history in the exception management space, and it is hardly surprising, given this fact, that its aim with M₃O is to increase organisational agility and responsiveness through event and exception management. This idea of event and exception management is not new in the BPM space, but the real measurement of the effectiveness of such solutions lies in how organisations can respond to these events/exceptions based upon an understanding of, and access to, both real-time and historical data. Without the inclusion of data from past events then any response is not based upon a strong foundation. M₃O also has an added advantage in that it allows collaboration between business analysts and IT to ensure a consistency and viability of the proposed response. This leads to both predictable and measurable outcomes of any event/exception.

Vitria M₃O is one of a new breed of BPM solutions built on Web 2.0 technology, and Vitria sees this as an important aspect of its solution; providing a greater degree of flexibility for the end user with the provision of a richer set of interfaces than is available with more static solutions. The Web 2.0 technology also brings to the mix a more collaborative environment alongside a greater degree of relevant documentation. This last point is one of those seemingly minor enhancements that when one comes to study more closely develops into a real benefit. Models created in M₃O can be annotated at several levels – perhaps best described as role-based. Thus both the business analyst and the IT person responsible for the technical management can annotate a model for reasons of clarity. In order for this annotation to stay relevant, M₃O allows the user to filter the annotation so that they only see what is relevant to their role.

M₃O is more than a set of pretty interfaces or a collaboration environment for building and deploying process models. The heart of the solution is the real-time analytics engine – the M₃O Operations Book – which provides the data to the end user through a series of customisable dashboards from which remedial action can be taken. It includes a robust and sophisticated Complex Event Processing (CEP) engine to provide real-time insight by filtering, correlating, aggregating and visualising real-time events.

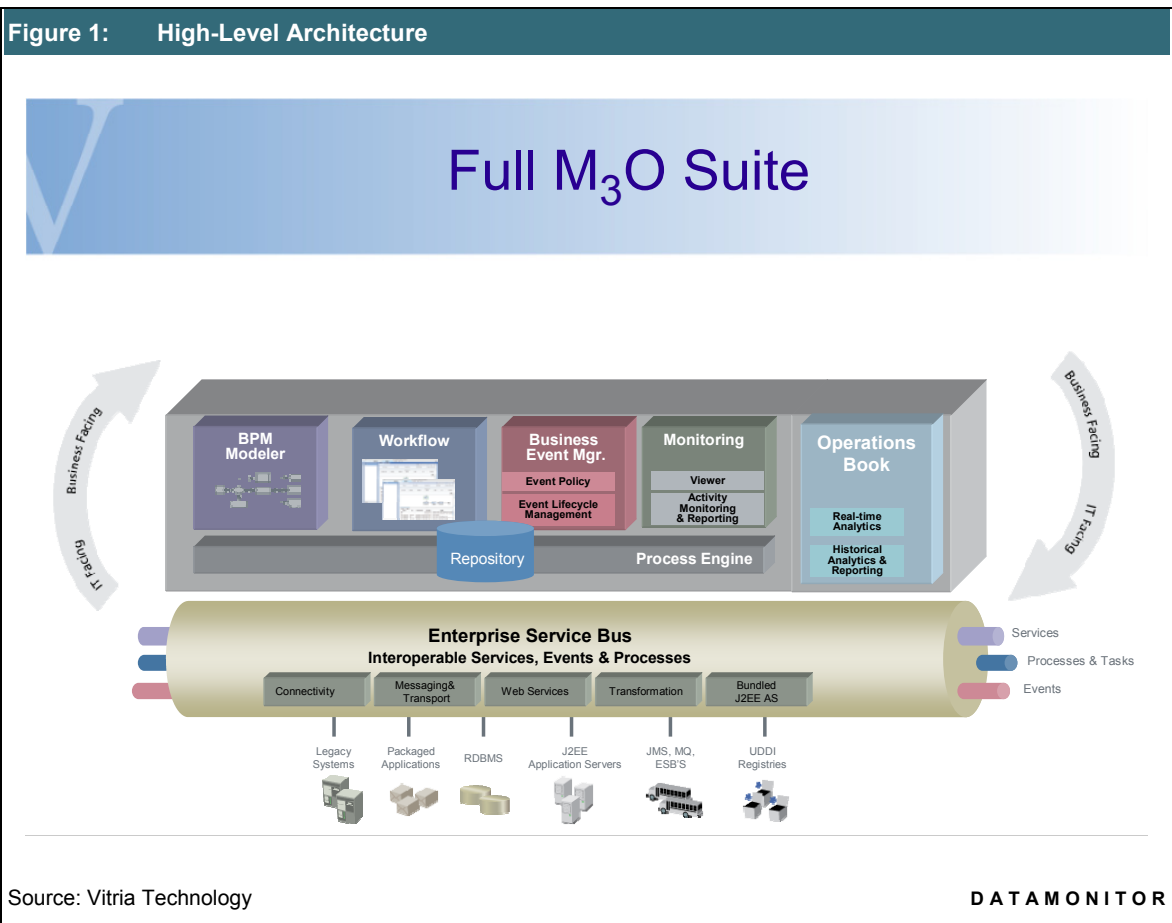
This is far more than process monitoring (which has always been more of a technical solution), it is event monitoring alongside actionable event handling; which makes for a powerful combination and true-purpose BPM.

Product Operation

Vitria M₃O Suite is an out-of-the-box, tightly-integrated suite of BPM, BEM, BAM, and Enterprise Service Bus (ESB) capabilities.

Vitria M₃O is a Web 2.0 application that can be deployed as both a traditional Installation and also by using the SaaS model. With SaaS, Vitria M₃O supports multi-tenancy via the concept of business environment. The Vitria M₃O server supports the creation of multiple environments. Each environment is isolated and protected from other environments, and can be assigned its own set of users that have different privileges and security policies. When a user logs in, the User Interface (UI) determines the business environment that the user belongs to and shows a user-specific dashboard. The operation and management UI is specific to each environment and only shows the business-environment specific content. Web services can be used for integration with any external SaaS vendor.

The architecture diagram below depicts the core components of the suite: BPM (including workflow), a business event manager, monitoring capabilities, and advanced analytics via M₃O Operations Book. All of this resides on top of a common repository for sharable artefacts. Connectivity is enabled via the ESB and its connectors.



The BPM Modeler element of M₃O utilises Business Process Modelling Notation (BPMN) as its graphical standard for creating the process models, and the GUI is built using the Adobe Flex library in support of Rich Internet Application (RIA) interfaces. The whole tenet of M₃O is the use of a shareable model held within the repository, and to this end Vitria has removed the disconnect between the business analyst model and the technical deployment model by creating a deployable BPMN model; this ensures that changes to any model, whether they be by the operational person or the IT function, are reflected back into the model seamlessly. This includes any documentation/annotation of the model – one model exists to represent the process at the design stage, the deployment stage, and the runtime environment.

By utilising Web 2.0 technology the BPM element includes a group calendar; an IM-based persistent team-messaging capability that not only enables users to effectively collaborate by messaging each other and organising discussion threads into different forums, but also serves as a knowledge-sharing repository where users can search on and publish information based on topics (using the pub/sub model). Any created process model can be linked to wikis or blogs. In addition, the system supports Really Simple Syndication (RSS) feeds so that users can get real-time access to blogs.

There is a full range of simulation capabilities within M₃O, including both time- and cost-based performance indicators, activity-based costing, and bottleneck analysis.

The Business Event Manager is designed to sense, analyse, and – most importantly – respond to events that occur anywhere within the organisation. One of the key aspects of event management is to take it in context of a larger imperative – true event management should not be seen as a reactive fire-fighting exercise. With the M₃O suite there is *joined-up* event monitoring/management with a full audit trail of the action taken and the ability to tie event management into organisational policy; this helps align response to a specific event to a more extensive organisational requirement.

M₃O Operations Book takes real-time and historical data and presents the information to the end user. Further to this it allows the user to then drill down into the underlying root cause of the issue by looking at the process. The remedial action taken can be viewed in respect of the larger process picture; understanding the dependencies between processes, thus ensuring that the said action is not going to negatively impact other processes.

The interface for the data presentation is both rich and highly customisable, and can introduce external elements based on Web services. For example, metrics on multiple operational centres can be displayed within a Google map to provide high levels of visualisation – this is but one simple example of how both internal and external data can be used to provide high levels of context to what is effectively raw data.

The M₃O Suite is built using a Service Oriented Architecture (SOA) paradigm, and comes with its own ESB for creating a distributed messaging system. It can also use pre-implemented ESBs from third-party vendors if this is required. Therefore the M₃O Suite is deployable within any given SOA framework.

Product Emphasis

M₃O Suite is classified by Vitria as next-generation BPM, and whilst this might be arguable in respect of the fact that many organisations still have to come to terms with *this* generation BPM, there is no doubt that the M₃O Suite takes BPM to a new level of functionality with a concentration on working within a collaborative environment, and the use of powerful analytics to make sure that process management has a meaning to the organisation.

Care has been taken to ensure that the metrics displayed have relevance to specific user groups and are not simply displays of data or information, but can be utilised to rectify abnormal or unwanted conditions. With a strong architectural foundation, the M₃O suite is deployable across a range of infrastructures and will certainly aid organisations in removing the disconnect between IT and the rest of the organisation.

DEPLOYMENT

Vitria implementations are typically implemented by customers in an architect or high-functioning analyst position. These persons typically have modelling skills; the ability to visually model schemas, queries, and business processes. Third-party systems integrators can also be brought in to perform this role.

The time for implementation is dependant on the scope of the project; components of the M₃O Suite can be implemented in a matter of days. Typical M₃O BPMS (one of the available components discussed later) implementations are designed to be completed in a matter of days and weeks, not months. Deployment can be modular in approach and the M₃O suite *feeds off itself* by allowing the M₃O modelling environment to capture requirements and enable real-time model design, allowing team members to rapidly prototype and iterate with user feedback.

Ongoing management of the solution requires an administrator to maintain the server software, although this would not be considered a full-time role. The skills this person should have include a working knowledge of application servers, relational database concepts, and business process modelling. Vitria provides online and public courses to assist in this area.

Vitria offers a variety of training and certification programmes for customers and partners. For convenience the company provides them in classroom, online, or self-paced settings, to accommodate different learning styles and needs. Classroom training is offered at Vitria's headquarters in Sunnyvale, CA, at field locations around the world, and on-site at a customer's location.

Vitria provides two levels of ongoing annual maintenance and support: Expert and Enterprise levels. Expert-level support includes a number of key features for mission-critical application integration support needs. Enterprise support includes the provision of full access to Vitria's network of technical support professionals, with guaranteed response times, regular incident report summaries, and support of multiple customer contacts.

The solution can be deployed on the following platforms:

- RedHat Linux.
- IBM AIX.
- HP UX.
- Sun Solaris.
- Windows 2003, Windows XP, and Windows Vista.

Components of the M₃O Suite will also run on the following application servers, and support the following relational database products:

- BEA WebLogic, IBM WebSphere, JBoss.
- Oracle, MySQL, PostgreSQL.

Perhaps surprisingly for a product that is deployable on the Windows platform, there is no support for SQL Server as a repository.

In respect of legacy integration, Vitria M₃O Suite fully supports SOA-based connectivity for packaged, legacy, and custom applications. Vitria M₃O Suite is Java EE Connector Architecture (JCA) 1.5 compliant and supports bi-directional connectivity. Its connector can *generate* as well as *consume* events. It enables connectivity with legacy applications through native protocols and interfaces, and Web services for encapsulating legacy protocols (e.g. via mainframe connectivity protocol). Interfaces are configured using an adapter kit that is GUI-based, which eliminates the need for coding. Adapters are metadata-driven and enable discovery by introspection of business objects in external applications.

M₃O Suite is comprised of four major components, plus additional connectors. The components include the M₃O BPMS, M₃O Business Event Manager, M₃O Operations Book (Operational Intelligence), and M₃O Enterprise Service Bus. Each of these may be purchased separately, and are licensed on a CPU core model. Additional connectors to third-party databases and back-office applications may be optionally purchased.

PRODUCT STRATEGY

The Vitria M₃O Suite has no specific vertical market focus, with the solution being relevant to a wide-range of organisations, typically those that want to create a process-based architecture allied to the use of operational intelligence; factors that impact all modern organisations. There is no major focus on company size, with the solution being seen as having relevance to both the large enterprise and Small to Medium-sized Enterprises (SME) market.

Return On Investment (ROI) measurement is dependant upon customer requirements; with cost savings, process agility, and ensuring the maintenance of Service Level Agreements (SLAs) being the types of metrics most often required. Vitria has proven ROI instances across all of these areas.

Although BPM in its initial concept was about round-tripping of processes to create both optimum and managed processes, the M₃O Suite delivers on this conceptual promise; delivering sophisticated use of BPM rather than just BPM itself. In this context Vitria believes that Operational Intelligence and Operational Governance are both key opportunities and very relevant current market issues. A fact that Butler Group agrees with wholeheartedly.

The product is sold through both direct and indirect channels. In addition to Vitria's worldwide direct sales force, the company leverages system integrator/consulting partners worldwide and has extensive resellers in Europe, Asia, and Latin America.

Key business partnerships that support the product include:

- Accenture.
- BearingPoint.
- Capgemini.
- Cognizant Technology Solutions.
- EDS.

Technology partnerships include:

- RedHat.
- AmberPoint.
- Adobe.
- iWay.

Vitria software solutions can be licensed either on a subscription (SaaS) or a perpetual basis. For perpetual payment, software is priced by the number of CPU cores on which the software component(s) run.

Vitria provides two levels of ongoing annual maintenance and support. Expert-level support, offered at 18% of standard list price, and Enterprise-level support, offered at 24%.

Vitria has a clear roadmap for future development, which is also customer driven, Vitria sees items such as Tag Clouds and searching of modelling artefacts, semantic modelling in searches and vocabularies, 3-D visualisation of process models at runtime, and runtime policy-based process governance (among many others) as areas for exploring in future releases.

COMPANY PROFILE

Vitria was founded in 1994 and has over ten years experience the BPM field, and now employs over 200 people. It is headquartered in Sunnyvale, California, and has a global presence with offices across the United States, Canada, Brazil, England, Spain, Germany, Korea, Singapore, Japan, and China. It is a privately-held company having come out of being public in order to help facilitate the vision that has culminated in the release of M₃O.

Key clients within a total customer base of over 200 that use the product include:

- AT&T.
- Blue Cross Blue Shield Association.
- Cuperion.
- Hypo Real Estate.
- Royal Bank of Canada.
- STA Andorra.
- Toyota Korea.
- XM Satellite Radio.

SUMMARY

The M₃O Suite from Vitria brings to the BPM market a highly-usable, well-designed, and immensely-functional set of capabilities. The promise of BPM has always been to allow organisations to create processes that are adaptable, and in many cases this has been done across a range of products and solutions. What Vitria has done with M₃O is take two key aspects of the BPM lifecycle – modelling and optimisation – and delivered a solution that more than fulfils any conceptual promises of the paradigm as a whole.

In the modelling space, Vitria utilises the power of Web 2.0 technology to create a collaborative environment allied to a deployable BPMN model that ensures the disconnect between IT and the business analyst (to use a general term) is reduced. There is *one* and *only one* model that exists for a process, and changes to that model, from wherever they come, are instantly reflected within the repository.

At the other end of the spectrum (or the lifecycle) there is the issue of optimisation. M₃O takes events of any given process and presents the outcomes through a series of customisable dashboards. Presentation of this information is only one part of the picture – knowing what is happening within a process is only a small part of the picture – M₃O allows remedial action to be taken; again with regard to the process model.

The overall effect of M₃O is to provide users, both technical and non-technical, with the power to ensure that the processes that are used to run the organisation are truly agile and adaptable and can be used with a range of data and information to create a process-centric ecosystem.

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