

TECHNOLOGY AUDIT

MooD Solutions

The Salamander Organization

BUTLER GROUP VIEW

ABSTRACT

MooD® Solutions, from Salamander, are live, interactive, architecture-driven software applications that deliver agile support to strategic processes focused on changing, rather than running, an organisation. The solutions are designed, configured, and deployed using the MooD Enterprise Business Architecture software platform. Whilst the target market and focus area of each solution is different, the overarching principle of all of these solutions is the same – exploit the proven, scalable MooD platform to create an enterprise business model of the organisation that synchronises real-time and near real-time sources of operational information to provide insight and control over key operational processes. MooD Solutions bring an innovative, architecture-based approach to these organisations, providing the strategic ‘Planning’ support that is missing from typically operations-focused Enterprise Resource Planning (ERP) systems, and would add significant value to any organisation considering the use of BI or other decision support and governance tools. A number of the key MooD Solutions have been developed by Salamander working jointly with partner organisations. In Butler Group’s opinion, this is providing partners with innovative opportunities to extend their market reach and competitiveness. The target market for MooD Solutions is mid-sized to large organisations with complex asset and infrastructure portfolios and a planning/investment horizon from a few months through to 20 years.

KEY FINDINGS



Impressive presentation and data visualisation capabilities.



Strong support for the MoDAF architectural framework.



Real-time operational data is linked to the enterprise business model.



The MooD Solutions are licensable in their own right.

Key: Product Strength Product Weakness Point of Information

LOOK AHEAD

Going forward, Salamander’s plans include strengthening its partner network and further exploiting the MooD platform to develop more process- and vertical-specific solutions focusing on the same scale of organisation and problem. These plans will specifically seek to exploit the technology of MooD Active Enterprise, introduced with the forthcoming MooD platform release, and supporting interactive Web effects.

FUNCTIONALITY

Solution Analysis

MooD Solutions are live, interactive, architecture-driven software applications developed with the MooD Enterprise Business Architecture software platform to deliver agile support to specific business processes, such as campaign planning, business performance or capability management, and portfolio trade-off analysis. The solutions that have been built and deployed by Salamander and their partners at the time of writing this Technology Audit include: Through Life Capability Management (TLCM) Robust Acquisition inclusive Decision Environment (TRAiDE), Control Room, Agile Campaign Planner, Business Performance Optimisation, and Information Assurance Platform.

The software platform is the key underpinning component of these solutions and enables the construction of an enterprise business model which establishes key interdependencies between the elements of the business. It exploits these to present a range of insightful views and interactive effects to diverse user communities within the enterprise, to direct and inform key decision-making activities. In support of this, the platform is capable of absorbing the inherent complexities of the operational context (including organisations, locations, people, processes, and path-of-information flow), the system architecture (such as definition of interfaces, data specifications, and protocols), and the supporting standards, as well as the portfolio of planned change and its projected impact upon these elements.

The solutions described above are in accordance with Salamander's 'architecture-enabled applications' view of Enterprise Architecture. An 'architecture-enabled application', by definition, integrates real-time, or near real-time data with the Enterprise Architecture thereby blending the models with interactive components and actions, as well as domain specific method and content. In doing so, a MooD solution aims to achieve what many architecture modelling solutions have previously failed to achieve – to meet the needs of the senior business decision maker in respect of business critical activity.

The underpinning enterprise business model provides such solutions with the transparency and agility to adapt with a changing business process – significantly closing the gap between the respective concerns of optimal business operation and sustainable business change. By presenting a sufficiently abstract, real-time, and an easy-to-change view of the enterprise, MooD Solutions offer a much more powerful mechanism than the use of the ubiquitous spreadsheet, or other bespoke modelling solutions, when it comes to aggregating and analysing data relating to the architecture.

For all practical purposes, a MooD solution behaves as a Web application that exploits and manages updates across data held in the MooD repository. The MooD repository is a database that holds all structural and configuration data relating to the enterprise business model, in addition to operational application data, which may in turn be synchronised with current data from a diversity of other systems. In many cases, the MooD solution is responsible for providing a common and connected view over the assets of the business, their current performance, operating dependencies and change/investment options, in a form not otherwise available to business decision-makers.

It is this visualisation capability that Butler Group considers to be a particular strength of the offering and the key to supporting strategic, planning, or investment based processes, where there is likely to be a higher degree of tailoring required over data, visualisation, and functionality requirements for diverse user groups, and a higher degree of evolution of both processes and data over time.

The reason behind this is typically the close connection between performing such processes and changing the way in which they work; one consequence of a strategic decision is very often the need to adapt the continuing decision process. The inherent agility of architecture-enabled applications plays into this space, and the visual impact offered through the MooD platform is considered to be particularly effective.

The MooD platform and the solutions that have been developed around it closely tie themselves to one of many supported Enterprise Architecture frameworks. Butler Group would like to stress the importance of these frameworks and believes that they serve as a useful starting point to define an Enterprise Architecture. While there are a number of industry sector-specific, role-specific, and even region-specific architectures today, Butler Group identifies the solutions' strong support for the Ministry of Defence Architecture Framework – MoDAF – as its strength given the fact that Salamander's primary target market is the Defence, Security and Resilience domain, including major industry players. Apart from MoDAF, the solutions can also support The Open Group Architecture Framework (TOGAF), along with Salamander's own proprietary Business Architecture framework (SBA), and Service Architecture and Engineering (SAE) frameworks.

Each of the MooD Solutions shares a common high-level architecture based on the MooD platform. Differences between solutions are determined by the selection of platform components and how they are configured. All the solutions have common capabilities concerning user permissions and personalisation, reporting, navigation, and integration with external systems. Solutions can be implemented as 'locked down' application instances, or can be provided with full end-user configuration for in-house extension and integration.

Whilst Butler Group's Technology Audit on the MooD platform (published 28 April 2009) covers these aspects in more detail, a brief introduction to the platform, as well as the associated components, is discussed here. The Active Enterprise (formerly called Business Integration Server) is an integral component of the MooD solution architecture and helps maintain and publish an enterprise business model. The Active Enterprise is comprised of the MooD Active Publisher (a component that provides an environment for assembling Web applications around the enterprise business model), and the MooD activation components (a set of data integration mechanisms for getting content into and out of the solution, interoperating with external tools that provide additional data manipulation functionality). The enterprise business model is created through the use of the MooD Business Architect, a Windows-based application by which users specify and populate meta-model, relevant content (the data that populates the structure – e.g. business processes, dashboard structures, organisation charts, and project portfolios) and associated metrics framework.

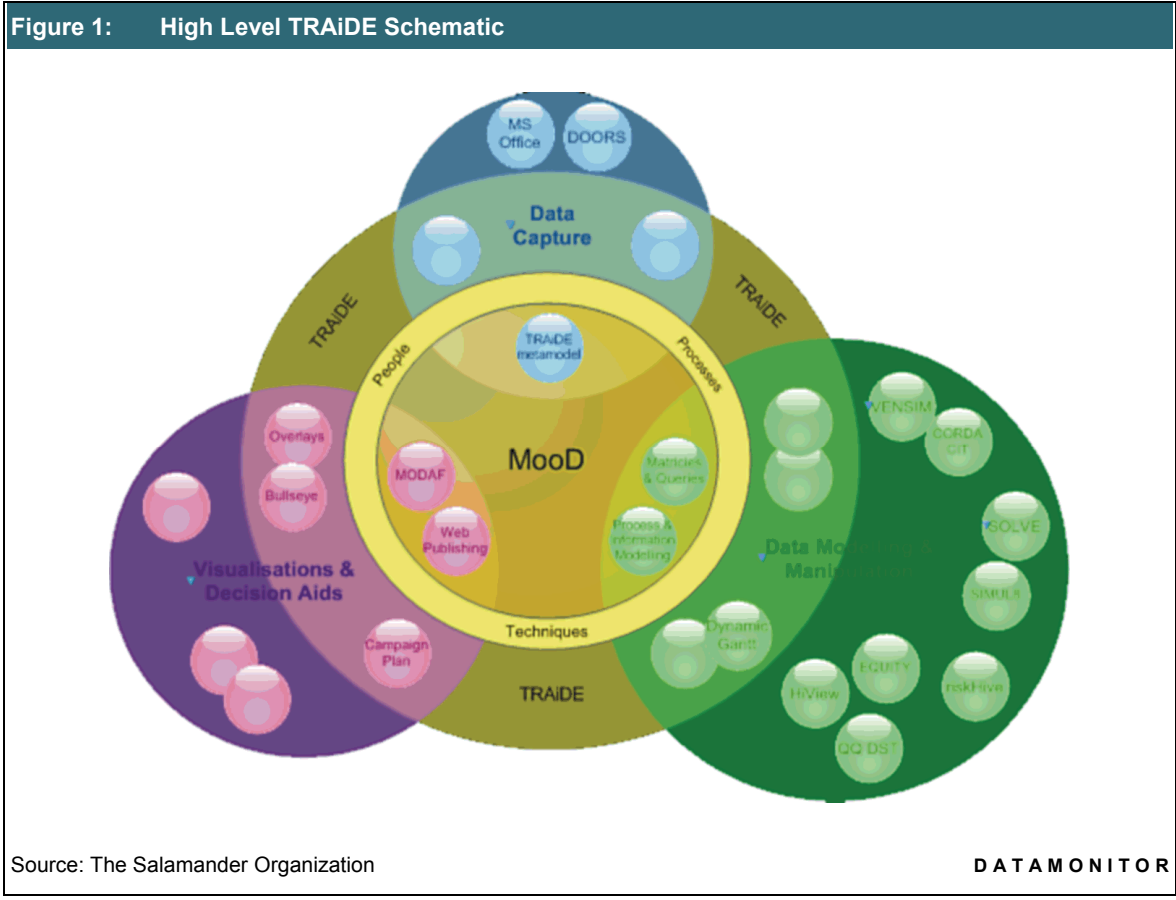
Two key components that lend the powerful visualisation capabilities to the MooD Solutions are Active Templates and Action Panels. While Active Templates are Web templates used to provide the look-and-feel around the solution (along with common functionality such as login/logout mechanisms, pop-up Web forms for editing, and security), Action Panels are interactive components that provide additional functionality to MooD Web users, such as buttons to initiate actions either in MooD or in other tools, or graphs that can be manipulated for 'what if' exploration.

Solution Operation

The solutions that make up Salamander's current portfolio include:

TRAiDE: TLMC is an approach adopted by the Ministry of Defence (MoD) and other defence organisations to deliver the required military capabilities across all Defence Lines of Development (i.e. equipment together with the personnel, doctrine, training, etc., needed to deliver the intended effect). This approach is extensively used by the MoD to assess and budget military spending, as well as measuring whether the investments meet the current and future requirements of military forces. Salamander, in partnership with BAE Systems, has developed the TRAiDE solution which aids organisations in military and defence in strategic decision-making.

The solution enables the capture of data from multiple disparate sources to form a structured, unified visual model for analysis. BAE Systems visualises the approach using the graphic shown in Figure 1, which clearly demonstrates the inclusive nature of TRAiDE in supporting interoperability with a range of relevant tools and systems needed to compose a decision environment capable of addressing the complexity of this problem domain. TRAiDE assists its users – senior acquisition decision makers – in performing: change impact analysis; cost, risk, and performance investigation and management; trade-off analysis; and capability gap identification. The solution is currently being considered for use internally within BAE Systems' business units.



Control Room: This is a solution similar in scope and purpose to TRAiDE. Developed with and used by Lockheed Martin, Control Room aims to provide a Web-based solution to aid enterprises in the application of systems engineering to collaborative decision-making. The solution is built on the MooD platform and offers business stakeholders a platform to carry out definition, cost, risk, and performance analysis, whilst also providing the ability to compare it against alternative solution architectures.

Business Performance Optimisation: The solution aims to provide organisations with a single way for continuously monitoring and assessing organisational performance, and in doing so, identifying performance gaps at a strategic level. Salamander adopts a five step approach to Business Performance Optimisation:

- **Strategy alignment:** This step involves articulating and presenting organisational strategy in a well defined and measurable approach, while also providing the ability to map each strategy against its objectives and underlying projects.
- **Enterprise business model:** The second phase involves the creation of an enterprise business model detailing the metrics, relationships, and interdependencies between strategy, objectives, projects, resources, people, and organisation specific processes.
- **Analyse business performance:** By exploiting the solution’s ability to capture and present real-time information in a manner that makes most sense for business stakeholders, the solution aids in identifying the gaps between actual and expected planned performance across business units, geographical regions, and operational units.
- **Root cause analysis:** Once identified, the next logical step is in identifying the reasons for gaps between actual and expected performance. The solution adopts a continuous approach to root-cause analysis, aiding organisations in identifying the source of performance degradation.

- Bridging the performance gap: This is the final step towards realising the benefits of having a tool that aids in Strategic Performance Management (SPM). It involves providing business decision-makers with the ability to make decisions in real-time, helping with creation of new projects, and modification of existing projects. These new projects (or modified ones) can be added to the existing portfolio and automatically updated across the entire enterprise's business model, providing all stakeholders (business and technical) with a single source of truth at the same time.



Information Assurance Platform: This solution has been developed in conjunction with EDS Vistorm. The solution is currently being used by EDS Vistorm as an operational governance solution. By presenting risk, SLA, project-level (including progress of ongoing projects, their deviation from expected progress, and the personnel involved) and budgetary information through a Web-based dashboard, the solution helps in ongoing performance monitoring, as well as creating a strategic roadmap that can optimise operational performance. The solution, as with other solutions, is based on the MooD platform, thereby maintaining a single view of information related to processes, information, and associated data, and also offers drill-down capabilities for lower level managers/technical staff.

agile Campaign Planner (aCP): Salamander's partner Agile Ideas has developed a solution in conjunction with the MoD to provide a planning and decision support system. The solution provides a planning environment which addresses the needs of decision-makers faced with understanding complex conflicts and confrontations. This is achieved through the use of real-time generation and sharing of planning ideas, along with the visualisation of outcomes and availability of analytical capabilities.

Solution Emphasis

Each of the MooD Solutions has a specific area of focus and is initially targeted at organisations in a particular vertical market. However, in Butler Group's opinion, the common overarching emphasis of all of these solutions is the same – exploiting the capabilities of the scalable MooD platform to capture and establish the relationships between related elements internal and external to the organisation. Once defined, the underlying enterprise business model provides a common and consistent visual framework for monitoring performance, managing change, and improving business performance.

DEPLOYMENT

The initial guidance for installation of the MooD platform is usually provided by Salamander's services or by the company's partners. The resources required for implementing the MooD Solutions would typically demand project management, business analysis, and technical consultancy expertise. Once deployed, customers can operate, manage, and configure the software themselves, develop skills in-house, or employ their preferred partner. Post-implementation, as with any deployed software application, administration and data governance management roles are typically required to maintain the solution. Such resources can either be provided in-house or outsourced.

The MooD platform can be implemented in a modular manner according to business priorities. The standard parts of the offering include Business Architect for configuration, and a database (Microsoft Access, SQL Server, or Oracle). Additional optional modules include Performance Activation (threshold calculations), Business Orchestration (test orchestration, integration through WSDL, XSD, BPEL), and the Active Enterprise environment.

In terms of implementation time, deploying the MooD Business Architect software platform as a standalone modelling tool typically requires two days of training, whereas implementing the full architecture-based solution can take around six to twelve weeks depending on the size and complexity of the project. The MooD platform is inherently modular as it is based on a pluggable architecture for major solution components, such as panels and activators. Additional modules containing further components can be merged into a live system as and when the organisation demands.

With respect to the deployment timescales for MooD Solutions, The Salamander Organization states that the average implementation time of a pilot project is around four to six weeks, while a departmental deployment might take around three to four months.

Training for the Business Architect module is provided through two-day courses either at the customer's site or at Salamander's office. Solution development and support training is carried out in the context of a project or partnership and is customised according to the needs of Salamander's customers.

The MooD platform software is deployed on a Microsoft client infrastructure and can function out of the box without dependencies, other than the .NET framework. Supported databases include Microsoft SQL Server, Oracle, and Microsoft Access. Integration with legacy systems is provided through pluggable Synchronisation Activators; components that can interface with various data types and structures to enable importing, mapping, and synchronising of data. An API is also available to support interoperability with bespoke formats, where this is required.

PRODUCT STRATEGY

The target market for Salamander's MooD Solutions are organisations in the Defence, National Security, and Resilience markets, as well as organisations with asset-intensive infrastructures and a planning/investment horizon from a few months (e.g. military operations planning) through to between five and 20 years (e.g. energy companies). In terms of geographies served, Salamander focuses primarily in the EMEA region; however, the company's partner network is global.

The route to market for Salamander's MooD platform is both direct and through partners. The company has established business partnerships and Value Added Reseller (VAR) agreements with Capita Group Plc, HP, Detica, Agile Ideas, BAE Systems, Lockheed Martin, and EDS. Salamander is also a recognised member of the MoDAF community.

The licensing structure for the MooD platform is perpetual and licenses are offered on a per server and per user basis. Annual maintenance and support cost for the MooD Solutions range from 20% to 30% of the initial license fee depending on the solution that has been implemented. An annual maintenance and support contract entitles customers to all product updates and upgrades, including technical support during UK business hours.

In terms of licence/services split, Salamander states that an entry-level deployment or a 'pilot' project typically contains a small software licence component constituting 20% of the overall project value, while the remaining 80% is made up by services. A medium-sized deployment would cost around UK£250,000 with the licence/service split being 60/40. For partner solutions, the revenue to Salamander is close to 100% software, with services delivered by the partner. Some of the company's largest deployments have run into over UK£750,000 with licenses contributing to almost 60% of the project value.

Each solution is implemented on a version of the underlying MooD platform, and Salamander states that it encourages partners to upgrade regularly to the latest version as it is released. However, it must be noted that each solution has its own release strategy.

COMPANY PROFILE

The Salamander Organization is headquartered in York in the UK, with a sales office in London, UK. The company is privately held and has 80 employees. The employee split across functional departments is as follows: 25% R&D, 5% Sales & Marketing, 60% Support & Services, and 10% Administration. Salamander's MooD platform, the company's flagship product, was developed through a combination of software engineering and executive input by its founders. MooD initially targeted a small number of markets and aimed at providing them with high-value solution to aid in their Enterprise Architecture efforts. The company has continued to operate on this model – targeting a small number of markets and creating, where appropriate, partnerships to create and exploit IP implemented on top of the MooD platform. The company currently has 200 organisations using the MooD platform, spread across a user base of around 6,500, whilst the number of organisations currently deploying its solutions is approximately 15, all of which are large with significant user numbers.

SUMMARY

The main area of focus for Enterprise Architecture tool vendors has been in the provision of unified repository-based modelling tools, which primarily address the requirement for documenting the existing architecture, and communicating the future architecture across the IT organisation and business. However, an area of growing importance, especially for senior management, is usable deliverables from Enterprise Architecture moving the spotlight very much towards strong analytical and simulation capabilities. Salamander positions itself across both these areas, being a provider of a strong portfolio of tools and solutions for both business users and IT professionals, offering the benefits of unified and role-based access to real-time enterprise information.

By addressing the business need for improved accountability over major strategic and planning decisions through the use of Mood Solutions that are developed in conjunction with its customers and partners, Butler Group believes Salamander differentiates itself well from most other vendors whose focus usually lies either in modelling or analytics. Another issue many organisations have with using an architectural approach is how to get started and deliver value to the organisation quickly. The availability of ready-built, industry-specific solutions can greatly assist in reducing deployment times and rapidly provide senior management with deliverables which address their principal issues.

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