Vendor Insight

Singularity: Integrating BPM and case management for the Microsoft platform

Neil Ward-Dutton

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Today, a new breed of adaptive or dynamic case management platforms, often working side-by-side with core BPM technology capabilities, combines the traditional virtues of case management approaches with more flexible task management and execution facilities, as well as more sophisticated monitoring and optimisation options. Singularity is one vendor attacking this opportunity. Importantly, it has decided to combine support for an adaptive case management style of work with a ‘model first’ structured process management style as favoured by many mainstream BPM technology providers, in one product line.

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Summary

Look beyond ‘model-first’ BPM approaches for the broadest knowledge work support

The classic ‘model first’ approach favoured in many mainstream BPM technology products, which leads customers to first create models and then deploy them into the operational environment as structured software applications, works well for many types of business processes. However, other processes – including processes that are associated with some of the most thorny and business-critical activities that companies carry out, including those related to customer service, product and service development and service delivery – don’t fit this mould well; although some aspects of the work in question can be described in detail for people to carry out, many aspects of what needs to be done can’t be predicted accurately or structured in advance of the work occurring. In these scenarios, case management frameworks are a much better fit.

Singularity’s offering provides a broad set of capabilities spanning BPM and case management which makes particular sense for companies with deep Microsoft technology investments

Singularity is one vendor attacking this opportunity. Importantly, it has decided to combine support for an adaptive case management style of work with a ‘model first’ structured process management style as favoured by many mainstream BPM technology providers, in one product line.

The offering is tightly tied to the Microsoft technology platform; seamless interoperability with Microsoft business applications and tools is a key foundation of Singularity’s proposition.

If you’re a company with a deep investment in Microsoft’s technologies, platforms and applications and you’re looking for a platform that you can use to address a variety of process improvement scenarios with software tools, you should include Singularity’s offering in your considerations.
The BPM vs. case management debate

Over the past handful of years, as Business Process Management (BPM) technology has become more widely accepted and implemented in industry, it’s being utilised increasingly to improve processes and practices that revolve around ‘knowledge work’ rather than manufacturing. As more and more knowledge work scenarios are explored and tested for potential help through automation, however, it’s become clear that not all such processes are alike. Some processes, although driven by knowledge workers, are largely predictable; here, the goal is often minimising cost and maximising quality by driving predictability and repeatability. The classic ‘model first’ approach favoured in many mainstream BPM technology products, which leads customers to first create models and then deploy them into the operational environment as structured software applications, works well here.

However, other processes – including processes that are associated with some of the most thorny and business-critical activities that companies carry out, including those related to customer service, product and service development and service delivery – don’t fit this mould well; although some aspects of the work in question can be described in detail for people to carry out, many aspects of what needs to be done can’t be accurately predicted or structured in advance of the work occurring. Here, tools that instead take a more goal-driven approach that revolves around the completion of a less structured set of tasks is more appropriate. In these scenarios, case management frameworks are a much better fit.

Historically, case management technologies provided some freedom in support of work related to long-running business opportunities or issues, such as claims – enabling chunks of work to be carried out in a variety of ways as a part of dealing with an individual ‘case’. However, these technologies typically fell short in terms of support for the level of task flexibility that’s needed, and also in support for the continuous improvement that today’s BPM technology platforms typically offer through sophisticated monitoring and optimisation tools. Today, though, a new breed of adaptive or dynamic case management platforms, often working side-by-side with core BPM technology capabilities, combine the traditional virtues of case management approaches with more flexible task management and execution facilities, as well as more sophisticated monitoring and optimisation options.

Singularity is one vendor attacking this opportunity. Importantly, it has decided to combine support for an adaptive case management style of work with a ‘model first’ structured process management style as favoured by many mainstream BPM technology providers, in one product line.
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Background

Singularity Ltd, a UK-based BPM and case management technology provider, is a relatively long established company in this space having been founded in 1994. It currently has around 260 employees in offices in the UK, USA (New York), Singapore and India (Hyderabad).

Singularity’s customer base currently numbers around 350 worldwide and is concentrated primarily in financial services, telecoms and government. The company is privately held and doesn’t disclose detailed financial performance, but states that it’s been profitable every year since 1994.

The company’s main offering is its TotalAgility platform, which is currently at version 5.2. This platform is available as an on-premise licensed product, as well as being offered on a Saas basis. As well as providing technology products, Singularity also offers a portfolio of professional services aimed at helping customers to deliver value quickly using its technology.

Inside TotalAgility

Singularity’s TotalAgility platform is a sophisticated offering that covers all the broad categories of capability that are commonly associated with BPM Suites, namely graphical process design tools, a process runtime engine, a set of integration connectors, a process portal for process participants to manage their work in, a performance reporting environment and process optimisation tools. In addition there’s good simulation functionality and a very well-developed set of case management capabilities that are tightly integrated into the toolset and runtime environment. The offering is tightly tied to the Microsoft technology platform, and seamless interoperability with Microsoft business applications and tools is a key foundation of Singularity’s proposition.

Whether delivered as an on-premise product, in the cloud or on a hybrid cloud/on-premise configuration, Singularity’s technology has just two main components – the Builder and the Workspace:

- **Builder** is an integrated analysis and design environment that brings together a range of tools covering high-level modelling and design of processes and task forms, specifications of rules, process simulation and process testing.
- **Workspace** brings together task management for process and case workers, administration tools for process and case managers, and monitoring dashboards and optimisation tool interfaces.

As a consequence of Singularity’s deep commitment to the Microsoft technology platform, there’s a range of alternatives available both at design time and runtime if customers want to take advantage of their existing investments. As an alternative to designing process models using the BPMN-compliant design tool within Builder, models can be imported from Microsoft Visio. As an alternative to using the task management features and interfaces and monitoring dashboards natively provided by Workspace, tasks and dashboards can be delivered via Microsoft Outlook, SharePoint WebParts or Dynamics CRM WebParts. Deep integration with SharePoint and Dynamics CRM mean that Singularity can offer customers of these Microsoft applications access to sophisticated workflow, process management and case management capabilities that they wouldn’t otherwise have.

For customers with significant operational integration requirements, Singularity encourages customers to choose the on-premise option; to date, it’s been using its SaaS delivery option largely as a way to help customers get started with its technology and learn about what’s possible.
Many of the standout capabilities of the Singularity technology platform relate to its case management scenario support. The following capabilities are particularly noteworthy:

- **Rich organisational models that drive work assignment.** Increasing awareness of the power of organisational modelling is spreading through the BPM technology vendor community, but Singularity’s sophistication here is particularly strong. Task assignment, delegation, escalation and quality checking are all driven from declarative models of organisational roles and groups — depending not only on role/group membership, but also individuals’ stated skills, clearances and competency levels for particular types of task. Business calendars that dictate the availability of resources and help with calculation of deadlines can be defined down to the individual level, too.

- **Case folders as containers for more than tasks and data.** Many BPM technology platforms supporting case management scenarios implement the concept of a case folder as a container for process elements, tasks and data — but Singularity goes further. With the Singularity platform it’s also possible to specify performance tracking milestones, together with models of roles and responsibilities that drive task assignment and information visibility, at the case folder level — making it possible for case processing to be specified in very rich ways using declarative models rather than coding.

- **Dynamic process behaviours.** Cases are structured to include multiple process ‘fragments’, which case workers are able to select at will in order to progress a case in line with the particular situation as it unfolds, although designers can constrain choices based on important policies or pre-requisites that might need to be in place (for example, a process fragment used to close an insurance claim case might be unavailable for selection until a separate approval process has completed). On top of this, though, individual process fragments can be changed ‘in-flight’ as needs dictate. Tasks can be redone, skipped or cancelled and new tasks can be created and instigated as needed. Inter-process dependencies can be specified based on either internal events (such as the achievement of a given milestone) or external events (such as the arrival of an email, notification from a legacy system or posting of a document to a repository), and it’s also possible to have Singularity automatically re-calculate case schedules and milestones dynamically in line with events. It’s also possible to design optimisation tasks and processes that are triggered when certain performance conditions are reached, and which then reassign or reprioritise case work or even reconfigure running processes and tasks to (for example) expedite their completion.

In release 5.2, Singularity introduced a set of mobile client applications for iOS (iPhone and iPad) and Windows 7. As well as enabling process and case workers to access their task lists and complete tasks, the applications enable workers to use camera features on mobile devices to capture images and save them to central case folders managed by Singularity.

Support for HP’s TRIM and the CMIS standard extends Singularity’s support for case management scenarios by enabling customers to use existing document and records management investments as both sources and archives for key case documents in regulated scenarios.

**Agile services**

As a complement to its products, Singularity offers a set of related professional services to help customers get value from their investments in Singularity technology quickly:

- **getagile.** This is Singularity’s product implementation method, and it’s delivered by Singularity consultants to create working business process implementations in under 90 days. As the name suggests the approach uses a number of Agile development concepts to deliver iteratively and collaboratively; but in addition the method is fronted by a ‘hothouse’ phase that pits teams against each other to create competing initial prototypes that are then judged before being refined by all involved.

- **stayagile.** This is Singularity’s 24x7x365 customer support offering. Support covers both core technology products, and the deliverables of any projects conducted by Singularity staff as part of a getagile implementation.
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- **masteragile.** This is Singularity’s range of training and knowledge transfer services. Training is delivered off site in a one-to-many fashion; alternatively Singularity offers ‘boot camp’ programmes that are run at a client site, specifically tuned to a client’s needs, running for 12 days.

**Placing Singularity in the BPM technology market**

For a number of reasons (not least, because early adopters of BPM technologies tended to be at the very top end in terms of company size) the majority of BPM technology platform vendors deliver their offerings atop Java platforms rather than as Microsoft-based tools. Singularity has been a Gold Certified Microsoft partner since 2004, though, and competes here against vendors like Global 360 (recently acquired by Open Text¹), K2, Ultimus Technologies and PNMSof.

The availability of BPM and case management capabilities as part of one integrated product, though, sets Singularity apart from these other players. Interestingly, Singularity cites one of its other key competitors as Appian: another vendor with a very broad platform offering and strong integration points into key Microsoft tools like SharePoint, albeit based on Java rather than the Microsoft platform. Moreover, Singularity is placing increasing emphasis on its ability to extend customers’ existing investments in SharePoint and Dynamics CRM, rather than purely promoting itself as a standalone ‘pure play’ BPM and case management technology vendor. Out-of-the-box integration with Microsoft’s SharePoint, Dynamics CRM, Visio, Office, Lync, BizTalk, Exchange and Active Directory make it a compelling consideration for any company with a deep commitment to Microsoft-based business technology infrastructure.

**Future plans**

Singularity cites its current business as being primarily driven by a combination of continuing growth in the BPM sector and rapid growth specifically in the case management market; rapid adoption of Dynamics CRM and SharePoint are also having a strong ‘pull through’ for Singularity in terms of interest.

Although Singularity’s heritage is in the UK, it’s increasingly focused on North American prospects – around 50% of its sales opportunities are currently in North America. Recently delivered support for multi-lingual environments has enabled it to broaden its geographical scope further. It’s now looking to grow further in the US, Australia and India (among others).

Trends that are heavily influencing Singularity’s product plans include cloud computing, mobile and social computing. In addition, it’s currently exploring ways of embedding more advanced analytics capabilities into customer implementations to help drive more intelligent processes.

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What should you do?

If you’re a company with a deep investment in Microsoft’s technologies, platforms and applications and you’re looking for a platform that you can use to address a variety of process improvement scenarios with software tools, Singularity’s TotalAgility and LiveAgility provide a strong combination of capabilities. Because Singularity’s technology bundles in good case management capabilities with a strong range of BPM technology fundamentals it currently stands apart from the other providers of BPM Suites with products based on the Microsoft stack.

There are larger vendors playing in this space, but if you value integrated tools and platforms and the long-term cost of ownership benefits that can come from working with a small set of products in a consistent fashion, you should strongly consider what Singularity has to offer.