Whitepaper series: 2 of 3

Efficient fund operations
The Dynamic Operating Model

By Geoff Hodge,
CEO of Milestone Group

milestone group

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Geoff Hodge, CEO of Milestone Group, examines the fundamental but often overlooked need for a dynamic operating model to achieve business effectiveness and competitiveness in fund servicing. In this second whitepaper of the series, he examines the limitations of traditional approaches to operating model design and execution, and discusses the emerging recognition that the best route to a dynamic operating model is to take a fund-centric approach.

Operating models are no longer simply a choice of administration approach, but are a key driver of execution capability that directly contribute to business agility and performance. It is now critically important to understand how to recognise and design for the dynamic nature of modern fund servicing operational environments.

The highly competitive current environment means that fund product innovation is front and centre in the race to attract fund flows. Operating models are under pressure to be dynamic and responsive; able to support an agile, efficient, transparent organisation delivering competitive products and service levels to its clients within acceptable operating risk parameters. They must be easy to adapt in the face of unexpected events and demands, without the need for expensive and time consuming transformation, or the need to go back to the drawing board! This is equally true of in-house and outsourced capabilities.

Role of Operating Models

In the broadest sense, an operating model defines how the vision and strategic plans of a business will be realised through the organisation of resources, processes and key supply and client relationships across all business functions.

For the purpose of this paper, we will define the fund servicing operating model as 'a clear expression of the organisation of operational people, processes, technology, data and key outsourced relationships to support business critical functions and processes in an efficient and effective manner'.

Traditional Fund Servicing

Operating models in the funds industry started life fairly simply, and were largely a product of the way that labour markets evolved. They were organised to reflect the core labour groups undertaking departmental functions and processes supported by dedicated technology platforms. Investment operations used portfolio management systems, fund accounting groups used fund accounting systems, and transfer agency groups used transfer agency systems. The focus was on getting the job done, with margins wide enough to support a relatively labour intensive approach to operational functions.

Over time, evolving product and functional demands led to the introduction of manual processes and spreadsheets and other tactical or function-specific solutions. This evolution has led to the relatively inflexible and fragmented operating models that have become common across the global investment industry today. *Figure 1* depicts a fairly typical expression of an investment firm's operating model that has followed this path.

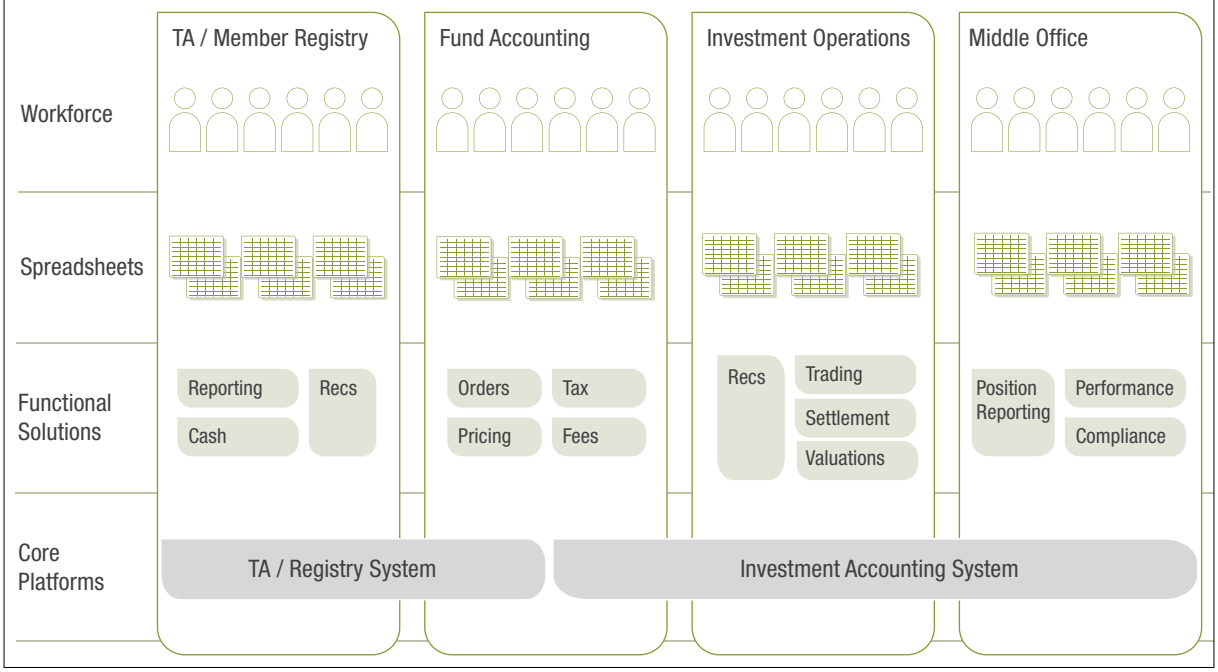
While the operating model may have all of the functional capability to operate the business, it is not geared up to be transparent, efficient or quick to market with new products – not to mention the overhead associated with achieving effective operational risk management. It is typically effort and time intensive to adapt models that have evolved this way.

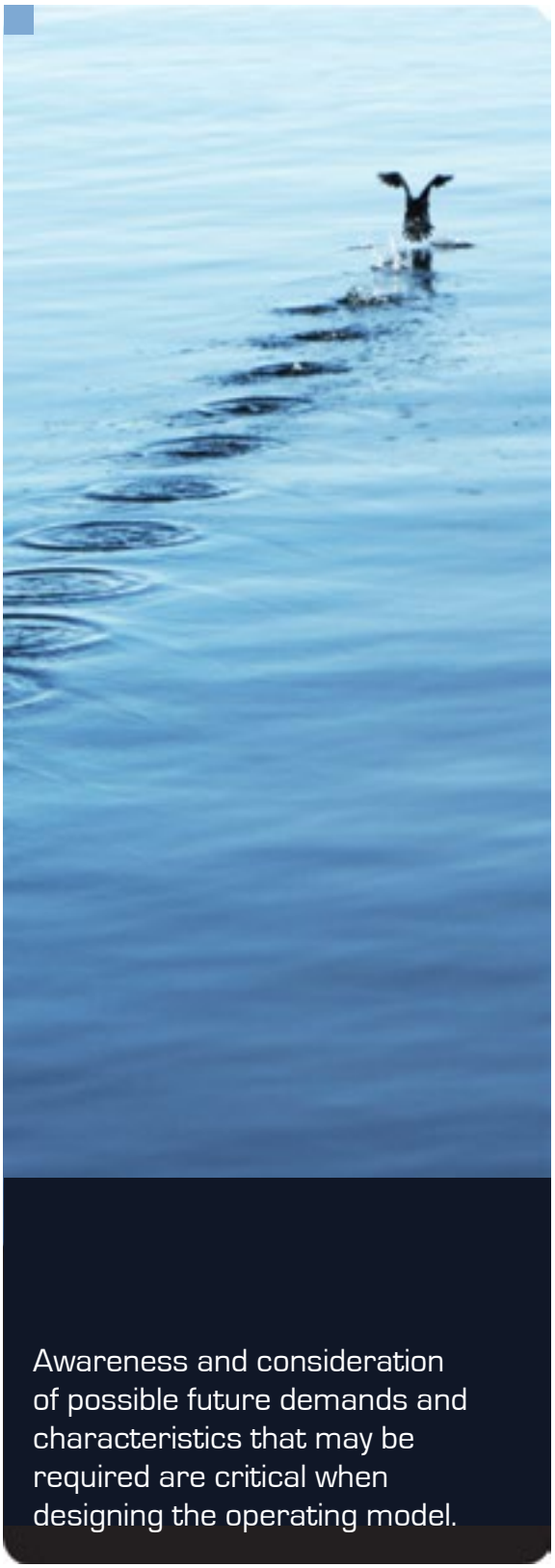
In practice, operating models are normally revisited in times where there is cost pressure. The motivation may be to improve margin by reducing cost, or to deliver new products or enhanced service/quality levels at a similar or reduced cost.

A further complication is that most operating model schematics simply do not show all of the moving parts, surround technologies and especially spreadsheets, and this can disguise the real economic value of moving to a new operating model.

Operating models also remain an important reference point and tool for the organisation to 'know' its operational 'identity', and for staff to have parameters within which to operate and problem solve. Trouble arises when the operating model no longer has all of the characteristics required to deliver the best operational possibility, yet staff continue to be guided by it, making less than ideal choices for their shareholders and clients. Worse still, such a problem may only become evident further down the line leaving the organisation vulnerable to a sudden deterioration in its competitive position.

Figure 1: Typical Operating Model





Awareness and consideration of possible future demands and characteristics that may be required are critical when designing the operating model.

The passage of time brings new and sometimes dramatically different demands on operating capability. This may manifest itself as new products to support, new regulatory reporting requirements or tax changes, or new client specific servicing requirements.

Awareness and consideration of possible future demands and characteristics that may be required are critical when designing the operating model to avoid limitations, rigidity and extra costs and effort that may otherwise be incurred.

The time for change is now

To understand what has led to the elevated need for more dynamic operating models in fund servicing, it is worth briefly examining some of the often stated major 'changes' experienced by the industry over the last 5 or so years. Some are more generic, while others have been a particular feature since July 2008. These include:

1. Competitive pressures – When it comes to dealing with competitive pressures, the 'weapon of choice' in the industry has been product innovation. The humble concept of the pooled investment, or mutual fund, has now spawned many new and sometimes complex fund structures. These include FOFs, multi-manager, renovated unit linked life products, hedge fund of funds, cross border pooling, product platforms and wraps etc. The operational and technological challenges presented by these fund product structures both demonstrate the limitations of today's rigid operational models, and can guide efforts to improve them.

2. Product maturity cycle – It is very normal for markets to evolve from being simple, high margin in early years, to more complex, competitive and with lower margin as products mature.

This phenomena is described in more detail on page 3 of the previous whitepaper in this series 'Efficient Fund Operations – Decision Making for a Leaner Future'.

3. Regulatory change – Regulators are demanding increased transparency and enhanced reporting in a number of areas including disclosure, risk management, investor equity, capital adequacy, investment compliance and product fitness for client. Their demands are putting direct pressure on operating model design for transparency, product 'look through' and reporting capabilities.

4. Global financial crisis – This is noted for completeness, but is merely a catalyst, and perhaps an accelerator, of the type of change that operating models need to contemplate and accommodate.

This combination of margin pressure, product innovation and regulatory pressure has put asset management and fund servicing businesses under varying levels of stress. They need to find new sources of efficiency, support new products and services, and respond to the need for greater transparency, all in shorter timeframes than their operating model is geared to support.

This confluence of demands has exposed the need to recognise the central role of the fund product itself in designing an effective and agile operational infrastructure.

Learning from others

If we want to examine an external example of an innovative response to this type of challenge, we need only look as far as the operating models supporting interest rate derivatives businesses from the late 1980s through to the mid-1990s. At the beginning of that period, capital markets operating models were built around product silos. Typically, operational units with low levels of functionalisation were organised around an expanding array of interest rate products such as interest rate swaps, FRAs, FRNs, futures contracts etc. Each of these products not only spawned a dedicated operational team, but also unique technology platforms.

The advent of structured products that also spanned currency, fixed income, and ultimately other instruments further exposed the fact that operational and technology groups simply could not manufacture new systems at the rate that new products were being developed. Operational groups became dependent on 'tactical' solutions to augment core platforms leading to the proliferation of spreadsheets and other surround technologies introducing risk and inefficiency during a period of rapid growth. The alternative was to 'shoe-horn' structured products into systems that were not designed to accommodate them, leading to other forms of operational risks and key person dependency, and ultimately lack of transparency, errors and financial loss.

Operating models of capital markets businesses at that time were not dynamic enough to deal with the rate of operational change demanded by the rapid rate of product innovation.

The key insight in that example was the realisation that a 'building block' approach delivers far greater flexibility than an approach built on product or functional silos.

Interest rate products could be assembled from a finite set of building blocks including known and unknown cash flows, yield curve components, optionality etc, that allowed the construction and support of a wide range of products sharing common operational processes and technology architecture. The approach fundamentally changed operating

model capabilities and allowed a more rapid rate of product innovation to be supported. It is no surprise that the leaders in interest rate derivatives technology today are direct descendents of that breakthrough.

A parallel situation is faced by funds businesses and their administrators today.

Avoiding design limitations

A major constraint in operating model design is the set of self imposed boundaries often defined by the experience and imagination of those involved in that design process. In a world of 'project offices' and under resourced line management functions, there is often some distance between those designing how the business should work, and those that have to operate it.

The logical design framework followed is typically:

1. Understand the current model – often involving a significant amount of low value documentation of workflow maps
2. Identify key functions and processes
3. Identify new technology options
4. Map new technology to existing functions
5. Explore outsourcing, near/offshoring options
6. Explore external technology costs
7. Create functional schematic
8. Prepare business case based on conservative implied head count/cost savings or outsourcing quotes to fund the project

The result of this logical but incomplete approach is, more often than not, a series of schematic diagrams laying out traditional functional departments and related headcounts, a systems architecture / application layout and some representations of key processes. Instead, it needs to be an expression of how existing and future products will be supported, and convey how the operating model will perform, rather than simply stating its components.

The key is to bring this plan into the real world by identifying a comprehensive set of 'target metrics', within which the operating model will be required to operate to support competitive business performance. They include meaningful measures of efficiency, control, service, and the 'dynamic' of how these metrics respond to change – a measure of business and product agility.

The level of granularity and completeness of target metrics will have a direct impact on the transparency and alignment of stakeholder interests, and therefore determine the competency of the operating model once implemented. Metrics may include unit cost, capacity utilisation, peak through-put, process and segment cycle times, rework and defect rates, process latency, target recovery time and service measures. They operate as a check list to design features that should be considered in the operating model.

Unintended consequences

As with most design activities, it is easy to become so focussed on the detail and process that we lose sight of the big picture, and create 'unintended consequences'. These may only make themselves visible once the model has been rolled out. It is important to consider whether the design features of the operating model that help to deliver say, a low unit cost, can also support the required service outcomes in terms of 'line of sight' to client (transparency), SLA times, rework levels and quality.

This point is perhaps best illustrated with a contemporary example of an unintended design consequence, and how the application of target metrics could identify misalignment and avoid such an outcome.

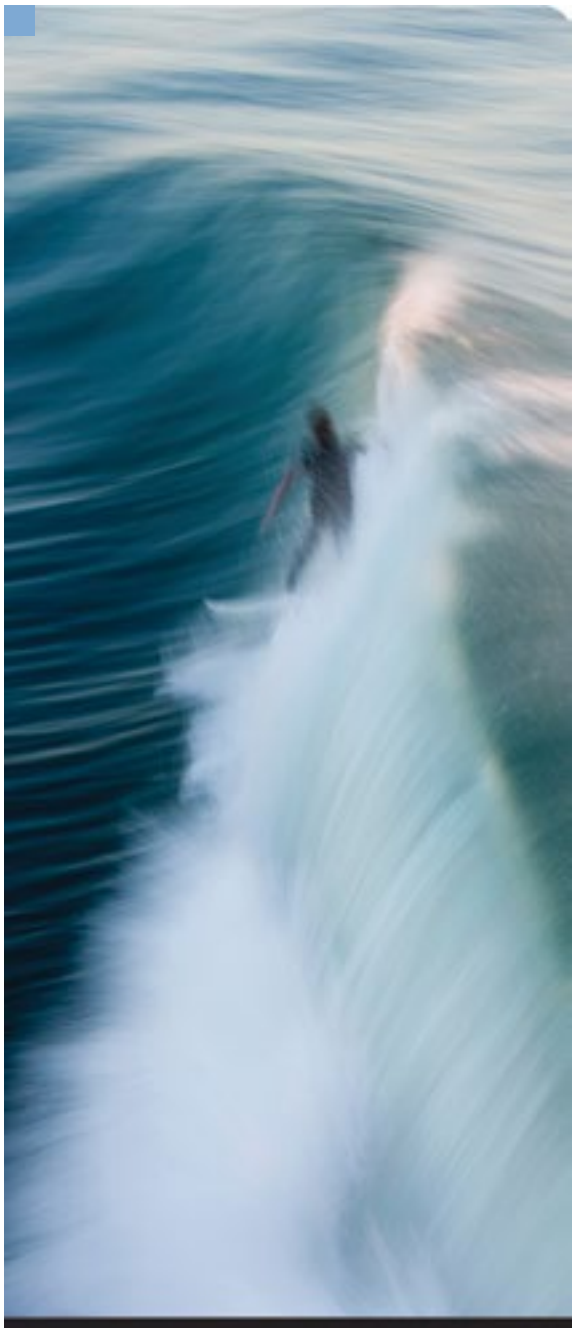
Most fund accounting software is designed to be operated by users who have a strong understanding of the relevant funds products, related processes, the application and how to deal with processing anomalies

and service interruptions. Service quality metrics were established in these environments usually encompassing up/downtime, service interruption frequency tolerances, response/resolution cycles and root cause pattern analysis.

The more recent trend towards offshoring, outsourcing and hybrid forms of distributed processing models, has increased the physical and often domain knowledge 'distance' between technology and operational functions and the businesses they support. One of the often reported consequences of this trend is a real or perceived deterioration in service levels due to lower skill levels being involved in diagnosing and remediating service interruptions. Longer and more convoluted communication chains also inherently put pressure on SLA response times and transparency from an end user perspective. The response is often to look at people or technology as the culprit.

In fact, it can be determined that these service level impacts can actually be an outcome of the operating model design that could have been contemplated and addressed at the time at which the model was constructed. Again, the tool of choice to identify whether the target operating model will perform in accordance with expectation is a complete and appropriate set of metrics. Target operating metrics can be very powerful in guiding effective operating model design. They can be effective in specifying a 'destination', compared with simply heading in a 'direction'; both will move you from where you are – in only one case will you know when you have arrived!

In practice, given many of these operating models have already been deployed, technology solutions and monitoring tools are being augmented 'after the event' to be able to operate effectively in support of more highly distributed operating models with their unique challenges.



Target operating metrics can be very powerful in guiding effective operating model design.
They can be effective in specifying a 'destination', compared with simply heading in a 'direction'.

The Dynamic Operating Model

Whether arising from product innovation, regulatory decree or market conditions, change seems to bring with it the overhead of significant effort, organisational stress and cost. The objective of the Dynamic Operating Model is to deliver an operational design that is capable of quick and effective responses to future requirements, eliminating inertia and the high cost of change historically experienced within the funds industry.

A truly 'dynamic' operating model should allow an organisation to make the following statements with confidence:

- Here is how we support today's business and how we are performing.
- Here is how we will support tomorrow's known business and how we will perform.
- Here are the building blocks that will allow us to adapt and be efficient within control and service boundaries for those things we do not yet know about.

In the presence of a dynamic operating model we would expect to be able to observe that:

- Technology contains the building blocks necessary to deal with change.
- People are skilled 'knowledge' workers and problem solvers, with excess capacity held in systems rather than needing 'new' labour to scale or handle new products.
- Processes are embedded in flexible and transparent technology and can be modified independent of processing location or input sources or output destination.

The critical feature of the dynamic operating model is, therefore, the recognition of the need to deal with product and process variability through time.

Barriers to a dynamic model

Automation is increasingly a fundamental objective and building block in support of an efficient operating model. The most significant barrier to automation is complexity. Complexity in fund servicing is an expression of how frequently humans need to interact with a process to make it operate effectively and the extent of knowledge and mental activity (business rules) required during that interaction. It is the most common argument put forward to explain why operating models in fund servicing continue to be relatively dependent on people. Expressions such as 'you don't understand', 'it is highly specialised', or 'it's part science and part art', are indicative of an operating model that has too much domain knowledge invested in people, as opposed to being embedded in automated solutions. Complexity is therefore an expression of the mismatch between operational requirement and operating model design.

There are a number of 'friction points' that are typically seen as points of complexity. These may arise at the hand-off points between one function or logical area of domain knowledge and another. For example, compliance, transfer agency, accounting, investment operations analytics and client or regulatory reporting all have interface points often characterised by manual hand-offs, concentrations of labour and risk of error. The common denominator is often the fund product for which all stakeholders

are undertaking their respective tasks. If there was a way to capture the centralised perspective of the fund product itself, then perhaps the various functions and processes could interact more simply and smoothly, anchored around a common fund product record.

To explore this possibility we would need to resolve two common barriers to effective and innovative design:

1. Domain knowledge – The extent to which the people (and ultimately the model) embody a sufficient level of domain knowledge and experience to fully assess the real world business implications and impacts of design decisions at a detailed level.

2. Design consistency – The extent to which all elements of the operating model are designed with exactly the same priorities in mind, and interact to support those priorities.

The latter relates to organisational and change management disciplines and will not be discussed in detail here. It is noteworthy, however, that granular and complete target metrics are a critical tool in ensuring that stakeholders responsible for various components of the operating model are fully aligned. Operating model performance metrics will assist alignment of design across technology infrastructure, application selection, process design and organisation of people and functions.

By taking a product centric approach to operating model design, it is possible to dissolve these barriers, achieve a simpler and more agile operating capability and liberate people from unnecessary complexity enabling them to add more business value.

Getting domain knowledge into the 'stack'

This brings us to the primary role of domain knowledge, and how to identify where to install it most effectively within the operating model.

Domain knowledge is a key ingredient for operational effectiveness and encompasses interactions between fund product, process and function and all relevant stakeholders to the level required to operate the business.

Traditional operating model design in fund servicing focuses on process and function being increasingly captured in technology, with significant amounts of product related knowledge still residing in the heads of the people that operate them.

Figure 2 shows a simple operating model 'stack' and indicates where we would expect to see a shift to greater use of technology for this purpose rather than labour.

Starting from the bottom of the stack:
Infrastructure – refers to physical technology infrastructure and systems operations, functions which are typically reasonably well automated.

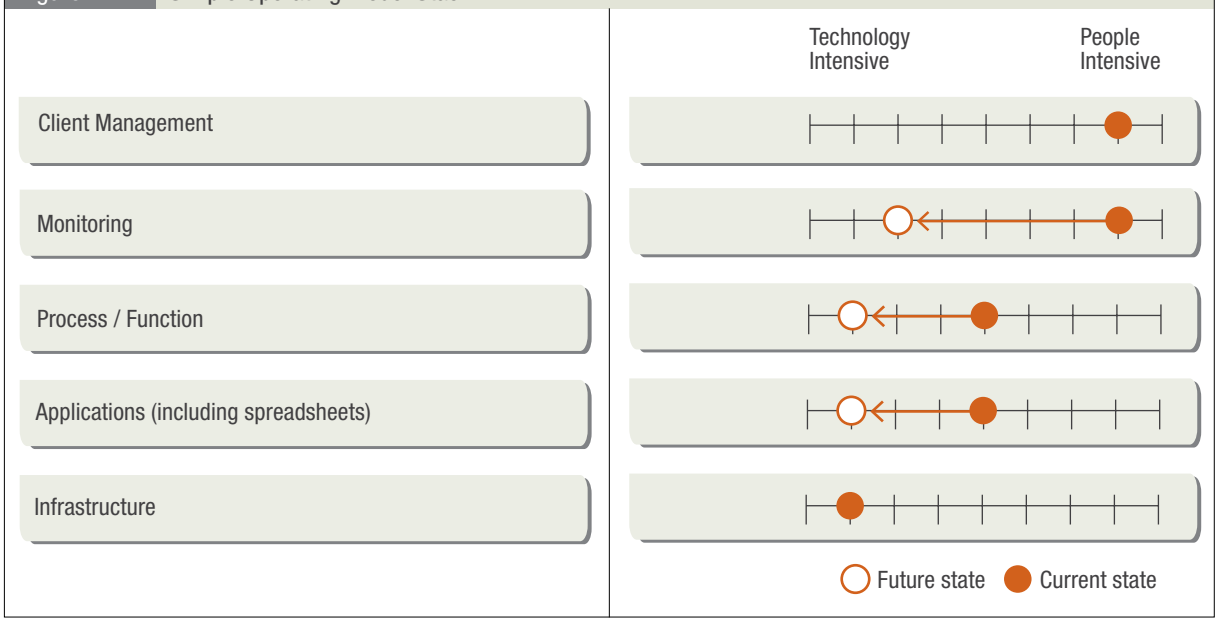
Applications – include core systems, spreadsheets and semi-manual point solutions, where there remains significant opportunity to increase automation and reduce reliance on labour.

Process / Function – is the operational layer that interacts with underlying applications and is where the opportunity exists to release labour and improve unit cost, operational risk profile and capacity management.

Monitoring – covers the oversight of operational processes and the quality of their outputs and highlights an opportunity to automate more monitoring functions that are often the domain of expensive, scarce and often key resources.

Client management – remains a people intensive servicing activity.

Figure 2: Simple Operating Model Stack



Overall, we expect to see less dependency on people in the layers of monitoring, process/function, and application levels of the operating model stack. This can only be fully exploited if the operational 'building blocks' or repositories for product and domain knowledge are designed into the operating model at the application layer.

'Fund centric' operating model design

The fund centric approach to operating model design echoes the evolution of derivatives systems described earlier. The premise is that if the fund product structure can be completely represented within the software application layer of the model, then undertaking any function or process that requires a working knowledge of that product can now be completely automated.

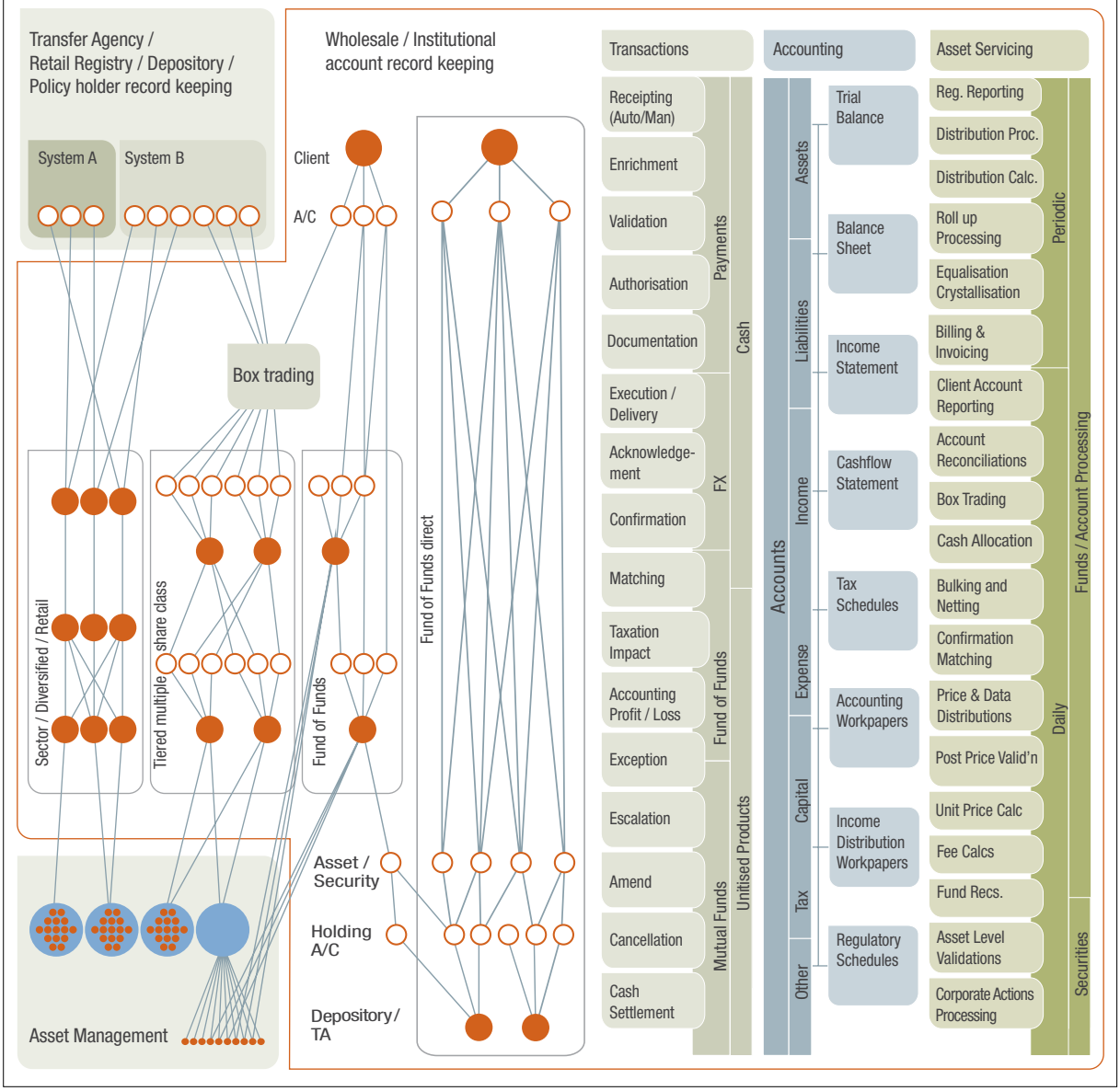
From a design perspective, this allows focus on the 'flow of money' through the product structure rather than on individual processes and functions. Processes and functionality therefore become 'commodities' that can be added, modified or subtracted from the operating model, rather than being treated as discrete systems or solutions.

The approach is dependent upon correctly identifying the underlying 'atomic level' building blocks required to assemble any pooled investment product structure. It then requires these components to be able to operate in conjunction with relevant processes and functions across the business.

Figure 3 is a representation of the technology layer of such a model where various complex fund product structures exist and are accessible to transaction, accounting, and asset servicing processes and functions that require an understanding of those products.

Transfer agency, registry, policy holder systems and asset management systems are represented for completeness, but the key design feature to note is that the single, primary record of fund products co-exists in the core systems architecture with the automated operational processes and functions that require an understanding of those products.

Figure 3: Fund Centric Operating Model



The effect of this is a manifestly simpler, more agile and dramatically more efficient environment for addressing change that 'corporatises' product knowledge in an operational form. Under this model, there are fewer data hand offs, reconciliations, and manual interventions because the product record is 'aware' of its attributes and relationships with other funds, and it can therefore orchestrate relevant processes and functions on its own behalf, both in relation to its investors and its investments.

This is a powerful construct that is applicable in a range of investment businesses in the real world. Some recognisable examples include life companies, multi-managers and fund of funds, and fund distributors.

Figure 4: Life Company Operating Model

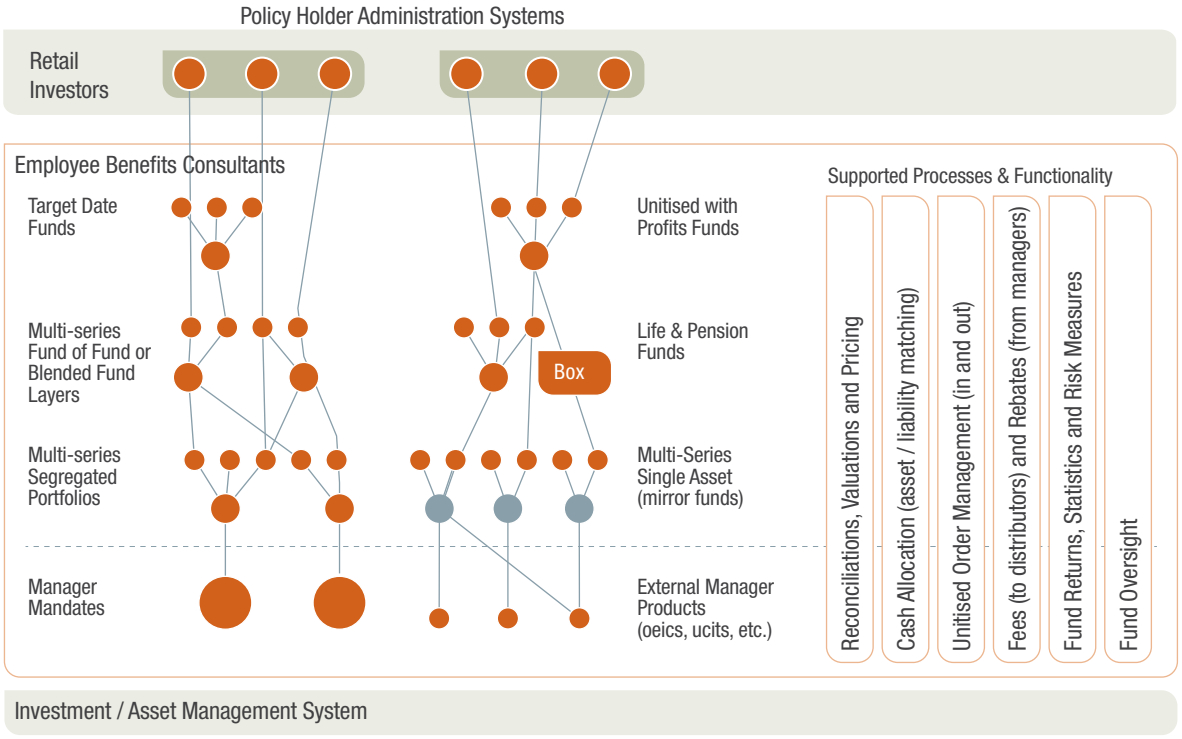
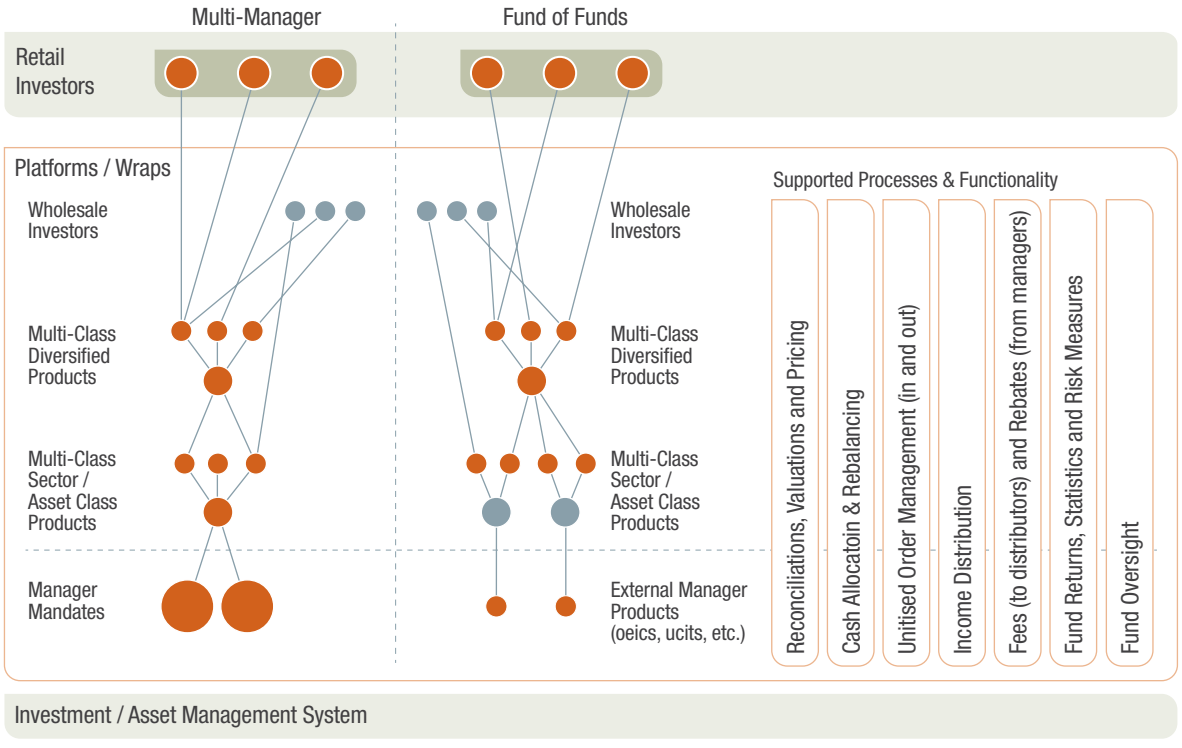


Figure 5: Multi-Manager / Fund of Funds Operating Model



Figures 4, 5 and *6* show a simple representation of how this model might appear in each of these types of business. They show how a common set of standard processes represented vertically on the right hand side of each figure can operate in conjunction with the relevant product structure. Another way of expressing this is that the product structure can call upon common supporting infrastructure and processes to manage its inflows and outflows.

An outcome of this approach is that all product related data is now stored in the core platform in an operational form, and is available to a wide range of stakeholders without the need for separate data warehousing infrastructure and related data management tools.

It is self evident that the value of this approach is multiplied where organisations are dealing with multiple pooled investment products or business divisions.

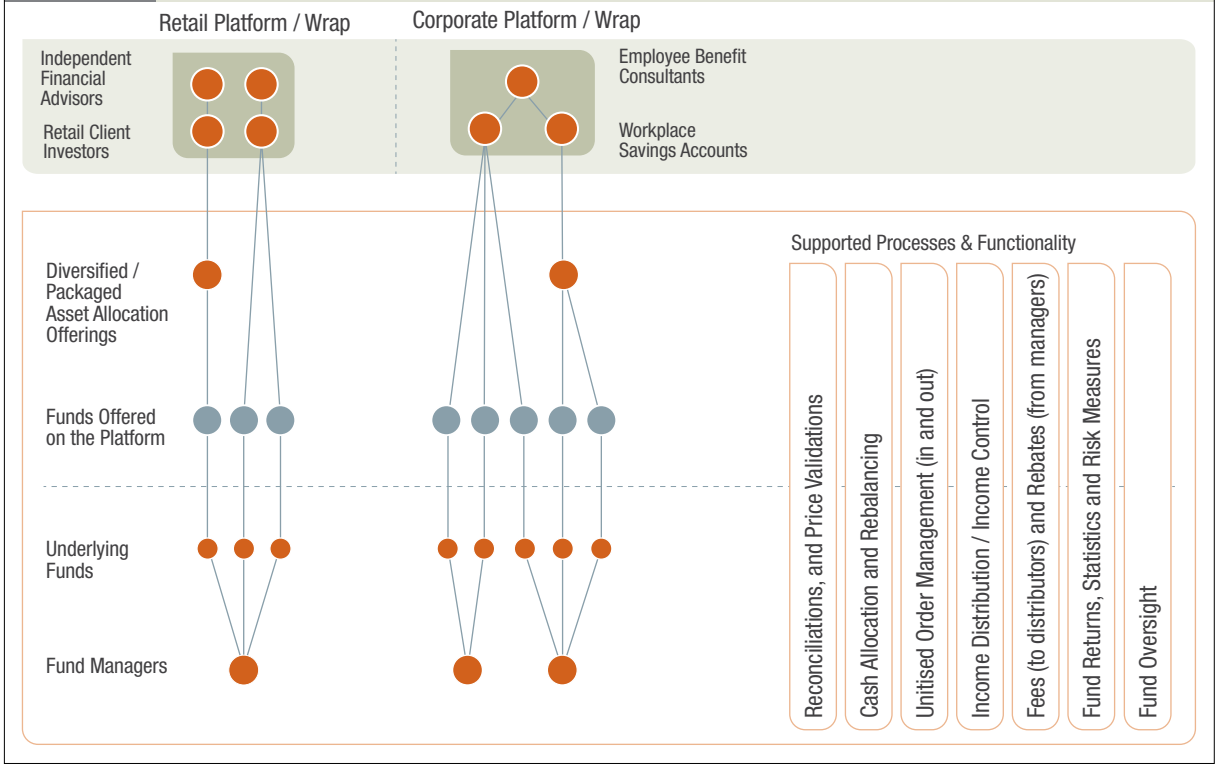
Revisiting the Distributed Operating Model

We have mentioned the increased use of distributed operating models as a means of leveraging existing capabilities and accessing lower cost labour, together with some of the challenges presented by these models.

Building upon the fund product centric or 'dynamic' model, we can examine the dimension of geographic distribution.

To do this, *Figure 7* shows a series of processes or functions that are geographically distributed. Each high level process is common across products and can be looked at across geography to determine where it is best undertaken.

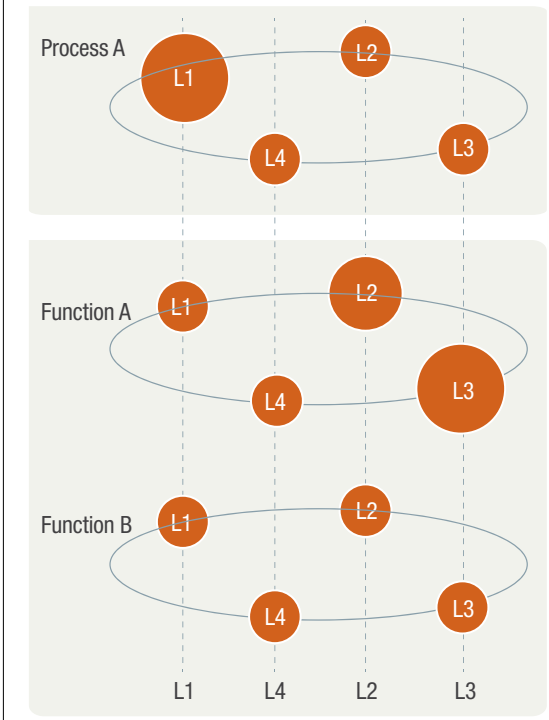
Figure 6: Platforms & Wraps Operating Model



There are a number of factors that will determine the right distribution of operational infrastructure at a point in time including political stability, skill and depth of labour market, cost of labour and rate of increase, physical infrastructure, time zone, client perception etc. It is critically important that operating model design allows for changes to processing location without the need for a major overhaul of technology and process layers.

In *Figure* 7 the size of the disc representing each operating location (L1 - L4) in relation to that process or function indicates the relative scale with which that centre participates in that activity. For a given process or function, we would first look at which centres need to be supported by this process, and then at what degree of natural competency exists in that centre. This would determine whether there is a net business benefit in developing that location into a centre of excellence, compared with allowing it to have a local support capability, or requiring it to operate as a satellite or client of another centre of excellence in relation to that process.

Figure 7: Distributed Operating Model



In this example, Process A may represent the valuation process where Location 1 is the centre of excellence. Other locations act as satellites and only perform an interface role with local clients and perhaps undertake some oversight functions.

Function A may represent reconciliations, which in this example is undertaken at Locations 2 and 3. This may be related to a range of factors including expertise in these centres, the desire to load balance, or time zone benefits arising from splitting the activity over two primary sites. Function B in *Figure* 7 may represent client management which in this example is undertaken locally by each operating centre.

In practice, it is not uncommon for the design activity to arrive at a similar distribution of functions across geography where those functions have close proximity from processing and product or client knowledge perspectives.

Importantly, the characteristics of the fund product centric operating model described above are the same characteristics required to deliver simplicity and flexibility to deal with a range of challenges normally associated with various forms of a distributed model.

Specifically, having designed a product centric and dynamic model which co-locates the primary record and understanding of the fund product with associated processes, functions and fund data can address a range of challenges normally associated with distributed operating models. These include:

- Transparency and 'line of sight' challenges from client management and regulatory perspectives.

- Workflow, process status and time zone challenges.
- Data management, operational storage, aggregation and consistency.
- Client and regulatory reporting challenges.
- Oversight, SLA monitoring and compliance.

There is a compelling argument for incorporating a fund product centric approach when considering distributed operating model design as this can greatly increase the simplicity of operation and flexibility to accommodate change.

Conclusion

The funds industry is reaching for a more cost effective and dynamic operating paradigm that can deliver the flexibility and transparency required in the face of margin pressure and evolving regulatory demands.

This whitepaper has explored some of the limitations of traditional operating models and how these create friction, frustrate transformation and constrain business performance. It has also addressed the drivers behind the need for change now, and a breakthrough in thinking required to ensure that the next cycle of investment in operating models does not recreate a facsimile of current operating capabilities.

The Fund Centric Operating Model is proposed as a candidate to achieving dynamic and enhanced business performance, and is characterised by a shift toward recognising the flow of money through the product structure, and away from individual processes and functions.

The approach has parallels with observations of the evolution of operating models in the interest rate derivatives market and is relevant to a wide range of investment businesses that operate, distribute or administer fund products.

The key conclusions that can be drawn from this discussion are:

- Dynamic operating models anticipate change and shift focus to the flow of money and away from functional silos.
- Performance metrics are a key tool in the design and operation of dynamic operating models.
- Traditional static operating model design will not deliver desired operational performance.
- Dynamic models also solve common challenges relating to geographically distributed operations.

There is a compelling case that increased demand for real transformational change in fund servicing will only be met with a fresh and innovative approach to operating model design, both within and across corporate boundaries. Expect that fundamental assumptions relating to design and incremental change will be directly challenged as operating models respond to the need to be dynamic.

The Fund Centric Operating Model is proposed as a candidate to achieving dynamic and enhanced business performance, and is characterised by a shift toward recognising the flow of money through the product structure, and away from individual processes and functions.

Milestone Group is a global provider of investment technology solutions for fund oversight, fund processing, fund distribution, tax & accounting and investment analytics.

London
68 Upper Thames Street
Vintners' Place
London EC4V 3BJ
United Kingdom
+44 20 7019 7190

Luxembourg
12 Rue Leandre Lacroix
Luxembourg L1913
Luxembourg
+352 2033 2570

Boston
225 Franklin Street
17th Floor
Boston MA 02110
USA
+1 617 986 0300

Sydney
Level 21
9 Castlereagh Street
Sydney NSW 2000
Australia
+61 2 8224 2600

Hong Kong
Cambridge House
Level 8 Taikoo Place
979 King's Road
Island East
Hong Kong
+852 2293 2629

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