

Payments Maturity Model

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This paper introduces a concept developed by Dovetail through years of working with banks on their payments systems. The Payments Maturity Model (PMM) helps banks develop a structured approach to renovating their payments systems in preparation for a challenging future. It offers a way of benchmarking current systems as a precursor to identifying what needs to be done to ensure that your institution can cope with the rapidly changing landscape in payments.

We were driven to create the model by the unsatisfactory state of affairs currently faced by many banks. Many of the systems still in use were created back in the mists of time. Over the years, they have been patched and altered as mergers and acquisitions dictated – and they have been amended and ‘improved’ in the struggle to cope with ever-increasing legislation and regulatory change.

The result is that many payments systems are in an unmanageable state, delivering barely minimum performance – certainly far short of what today’s sophisticated clients are demanding.

To make things worse, the pace of change is increasing. Looking forward, banks face changes as the PSD is implemented, SEPA evolves in Europe, IAT is introduced in the US and with new initiatives around mobile payments and e-invoicing.

The challenge is in finding a way forward that makes the most of what you have, whilst preparing you for an unknown future. And all at an acceptable risk level.

That’s where the Payments Maturity Model begins to help.

The big questions

The PMM can provide a framework in which to analyze the big issues:

- What do your clients really want from your payments offering?
- How should you position yourself: in-house manufacturer or just a distributor of services?
- What systems does your chosen strategy require?
- How do your systems compare today?
- What are your strategic options?
- How will you proceed?

Growing demands from customers, increased competition and the acceleration of regulatory change have created a situation where a critical assessment of payments capability is now essential. The risk of operational failure grows as old designs and architectures creak under growing complexity. Newer, open technology architectures offer promising cost and time efficiencies that need to be explored.

The Payments Maturity Model can help address these issues. It will assist in developing an objective view of the way ahead, leading to a logical plan to move through various levels of maturity until your payments system reaches its desired state.

This paper describes the factors driving the need to begin the payments transition, offers detailed information on the Payments Maturity Model and on the basic steps that can be followed to help you assess your current state and develop your plan for overcoming the challenges of processing payments in tomorrow’s environment.

The growing demands on payments

Global trading expansion, not only by major corporations but also by internet supported small business operations has significantly changed both payment requirements and the volume of transactions. In parallel, the threat of money laundering, terrorist financing, fraud and other illicit activities has grown. Monitoring and tracking regulations have been promulgated around the world, increasing the burden on all banks to maintain an understanding of and be fully compliant with the laws of each country and region in which they operate.

While the principles of payments processing are fundamentally the same, the urgency, finality, value and delivery destination often require very different processing paths. Customer understanding of funds flows – and their desire to more precisely control those flows – has led to a need for greater payment flexibility. More payment product types with more customer selected options are becoming the norm. Yet, processing of these types must still be on a commercial basis. Being able to deliver commodity aspects of the product cost effectively, as well as value-added aspects desired by customers, is an ability few banks have mastered. Increasing the breadth of payment offerings to global clients and being more cost efficient, are two key factors driving the move to converge processing of different payment types.

Payment Change Drivers

- Expanding global reach
- Ever increasing customer demands
- Increasing regulation
- Increasing competition
- Accelerating industry standard changes
- Increasing pressure on profit margins

Of course all these expansions, demands, regulations, and changes must be accomplished in an environment demanding reduced risk, lower costs and greater operating efficiency.

Banks are looking for a payments solution that meets the following criteria:

- Simple to use basic functionality with the richness to offer value-added services
- Able to onboard new clients quickly and easily and accommodate their preferences
- Easily rolled out to new markets
- Robust and scalable enough to process large volumes
- Offer a cost-effective platform for high straight-through processing rates
- Open enough to interact seamlessly with, and service other bank products for all payments.

Today, banks have less than they want. Currently deployed solutions often consist of processes and systems built around individual payment types. Each combination of solutions may be simple to use and even to change, but collectively they are difficult to maintain. Roll-outs to new markets are complex, time consuming and risky. Large transaction volumes can be processed, but at the cost of having separate hardware to accommodate each possible peak. There is minimal sharing of resources between payment types. Support for other bank products is provided independently for each payment type. No two bank payment environments are exactly the same, which makes change even more difficult.

Today's requirements dictate a business/operational/technical concurrence that combines interactive components addressing the universal needs of the organization.

Where are we now?

New payment service channels (e.g. internet, mobile) offered by non-traditional financial institutions and some banks are more accessible to many people and more responsive to the customers' personal needs.

As banks operate over wider geographies, the separation between processing payments and the function of the gateways used to communicate with the settlement networks grows. The recent establishment of the Single European Payment Area (SEPA) demonstrates how even new schemes intended to simplify processing lead to extra complexity and extended periods of parallel running with existing schemes. More significantly, SEPA has put margin pressure on Euro commodity payments processing which increases competition and the need to innovate and add value.

Transparency of payment transactions across all payment types and regions has become the regulatory mantra as has the

operational need to more tightly manage operational and credit risk.

Silo processing is a major hurdle to monitoring customer transactions collectively. Introducing new payment features often requires changing each payment system and process. Roll-outs to new geographies require implementing multiple systems and processes; and with each rollout, the chance of operational failure is increased.

Regulatory requirements, increasing competition, greater pressure on margins, growing operational risk, and the recent proving of new, improved technologies have converged to drive banks to re-assess how they provide payments. The collective impact of these dynamics makes now the right time for determining a bank's future course.

The Payments Maturity Model

The PMM is the outcome of what we have seen in bank payments infrastructures when building, maintaining and renovating payment systems – and of the many discussions with banks about creating their business cases for evolving to future state payments infrastructure (both the successful ones and those that did not succeed in getting budget)!

To create the Payments Maturity Model, we reviewed historical changes to the payments process and compared them to the current processes. We also considered banks' views on their desired future state and what they are striving to achieve today. Lastly, we incorporated our industry and technical knowledge to enhance the processing opportunities available today and in the future.

To assist in our assessment, we defined the key constituencies in a bank's payment operation:

- Sales
- Product Management
- Operations
- Technology

Each of these constituents has an active role in the delivery of payments products to customers, and each has a vested interest in ensuring the process is cost-effective and efficient.

As the processes were assessed, each constituent's role, commitment, activities and ability to perform the activities was considered. When we combined the analysis with the ability to measure and verify the achievement of process goals, the differing processes began to fall into maturity categories.

These categories were carefully defined as shown on the following pages.

Payments Maturity Model Levels

Fragmented Payments – A bank with multiple sites, defines and delivers various payments products based on the local organization, processes, and systems. Service levels vary by product, from place to place and day to day. Internal standards are inconsistent.

Payments Silos – The bank defines a common set of payment products; each branch varies the offering based on its customer requirements and the local Operations and Technology capability to deliver. The grouping of support for each product is referred to as a Payments Silo, and may be defined differently by different banks. Some establish silos by payment value (e.g. low value bulk payments, high value payments), others by channel (e.g. international versus domestic payments), yet others by customer type (e.g. retail, wholesale, institutional).

Silos create a specific focus from both sales and product perspective, but a multiplicity of support needs. There is standardization within but not across silos. Different processes and systems support each payment type within a silo; and systems and processes often differ between silos.

MIS-Managed Silos – The bank continues to operate independent silos, but mandated reporting supported by enterprise management information (MIS) and decision systems is established. This improves the product delivery service level through the sharing of best

practice, permits liquidity management across silos and reduces sales competition between silos. Global product offerings and enterprise-wide management are restricted by the ability to access the range of systems and data required to support decision-making. The enhancements in management and control come at increased cost.

Payments Hub – The bank has implemented standards from a product and process perspective across the organization. Multiple systems still support the breadth of products, but there is only one system supporting each payment type. Support for systems may not be centralized, but the processes used in each location are the same. The organizational infrastructure reinforces one set of standards for delivering high, low, bulk, international, and domestic payments anywhere on the globe.

Universal Payments – The bank’s payments products are independently defined and personalized to meet individual customer requirements. Processing is performed by a single logical system that supports payments as a suite of products while also providing payments-related services to other parts of the bank. The ability to differentiate processing steps for each individual payment by value, time of day, urgency, destination, and other customer sensitive criteria establishes the personalization demanded by customers. Operations and technical support can be located in multiple places since system access is independent of physical location and operating procedures are consistent globally.

The Payments Maturity Model

SALES				
Fragmented Payments	Payments Silos	MIS-Managed Silos	Payments Hub	Universal Payments
'Me too' products competing on price, offered as bulked ACH-like or individual wire payments.	Products vary based on capability of particular silo. Onboarding multi-product customers is difficult.	Greater visibility across the silos permits some product 'suites' to be offered.	Standardized products across the organization with types optionally delivered as bulked or single transactions. Onboarding is less time consuming.	Customer personalization of products is available and promoted. Onboarding is simplified.
High costs mean high prices and lost sales.	Within silos costs are identified, leading to varying prices and potentially competition between silos.	Product pricing is standardized. Competition between silos is reduced.	Costs and profit margins on standard payment products are known and drive price setting.	Premium pricing is an option warranted by differentiated product offerings.
Poor visibility into the level of service provided to customers.	There is visibility into the level of service provided to customers within region or product silo.	The level of service provided to customers is visible.	Service levels are defined and reportable.	High service levels are consistently met.

PRODUCT

Fragmented Payments

Separate product definitions in each region.

Customer access and clearing channels are based on criteria such as pay type or system supporting a pay type.

New products, enhancements or rollouts to new locations are costly, and time consuming.

Customization of products is uncontrolled and often promoted during the onboarding of new customers.

Payments Silos

Separate product definitions in each silo still exist.

Customer access and clearing channels are still being dictated.

Time and cost of change is better controlled because of standards. New locations still a problem.

More control over the promises made during onboarding exists within the scope of the silo, but not universally.

MIS-Managed Silos

Standard products can be defined, but different products still produced by each silo.

Some commonality in customer access channels based on customer segment. Exception processing provides routing to alternative clearing channels.

Time and effort required for new products, enhancements or locations is definable, but not universally controlled.

More control over the promises made during onboarding exists across the silos.

Payments Hub

Standard payment products are defined and implemented across the organization.

Homogeneous user experience is introduced by customer segment; and alternative routings are semi-automated.

Time and effort required for new products and enhancements is definable and controlled. Cost of rollout is identifiable.

Visibility to products being offered helps control customization arising from onboarding; and standard product is redefined to include heavily used customizations.

Universal Payments

Payments are positioned as a service, offering selectable criteria to the customer that include delivery method, timing, priority and price differences as choices. Payment convergence and personalization are key market differentiators.

Homogeneous user experience by customer segment is available as is automated smart routing decisions made at payment submission and re-assessed if circumstances change.

Inherent flexibility in the system and processes make many of the costs fixed, increasing profit margins. Expansion into new markets is rapid.

Much of the control over product changes is moved into the product group, resulting in richer products and less customization.

OPERATIONS

Fragmented Payments

Processes vary by payment type and region. Exception processing is the norm.

Separate processes for each payment type eliminates staffing synergy and makes training harder.

Risk is high with the visibility into the disparate liquidity pools and exception processing negating operational controls.

Payments Silos

Procedures exist by payment type within region or product silo and exception processing can be isolated. STP within some silos for some payment types.

Staff sharing amongst products or across silos almost non-existent, although single systems per payment type allows for training of product processes within silos.

Operational risk has improved and liquidity within a silo can be identified.

MIS-Managed Silos

Procedures standardized by payment type within region or product silo. Best practice including STP and exception processes are shared between silos with common systems.

Operational synergy between payments silos is developing based on information sharing and the training of common practices.

Visibility into payments silos permits liquidity pools to be better managed and reduces operational risk.

Payments Hub

STP exists for most payment types based on standard procedures across the organization, but the ability to route between types is still limited.

Some operational efficiency is established with more frequent sharing of staff and best practices between payments types.

Fewer common and exception processes as well as the sharing of information between processes reduces operational risk. Liquidity management requires MIS linkage between the hubs.

Universal Payments

STP exists for and between payment types. Exception processing is a defined step, staffed by well trained personnel.

Efficiency is optimized as staff is cross trained on payment specific functions and deployed based on business continuity, cost, processing coverage and other business needs.

The single payments system maximizes the timely visibility of the liquidity pool and control points are closely defined and automatically monitored, resulting in operational risk being easily managed.

TECHNOLOGY

Fragmented Payments

Multiple systems and infrastructures. Must make and test mandated changes for each payments related system.

Support of multiple systems as well as customizations to accommodate new or enhanced products require a vast array of IT skill sets.

Hardware configurations are maximized to meet peak processing days and there is very limited sharing of common IT services.

Payments Silos

Single system for each payment type within region or product silo must be maintained.

While some sharing of skill sets may occur between regional silos if common systems are used, customizations still require more extensive IT skills.

Some sharing of common IT services occurs within silos, but hardware is still generally maximized to meet processing peaks for each payment type.

MIS-Managed Silos

Each payments system within each silo and the MIS system must be maintained.

Additional and different IT skills are needed to support the MIS system with no reduction because silo processing still exists.

Increased knowledge and control permit the sharing of some common IT and payment related services such as messaging. But, MIS system and integration support requires additional IT resources.

Payments Hub

A single system for each payment type is now maintained. MIS system linked to each payments system is still needed.

IT skill sets are reduced based on a fewer number of systems being maintained and customized.

Consolidation permits IT sharing and reduces the demand for replication of common services.

Universal Payments

A single system processing single, bulk, low value, high value, international, domestic, retail, wholesale, and institutional payments is maintained. Management information is automatically generated.

A single set of high level IT skills is required to support the single system. Many product related changes are made by the Product or Operations group through user accessible flow changes.

Universally accessible common IT services facilitated by SOA implementation, permits dynamic IT resource pooling that minimizes the demand for hardware and related peripherals.

Payments Maturity Model Analyzed

Each PMM level is distinct.

Fragmented Payments – this level often persists where payments are used to support other banking products and services rather than as a standalone set of products. Payments are considered a back office necessity and the support costs are often bundled into general operations overhead.

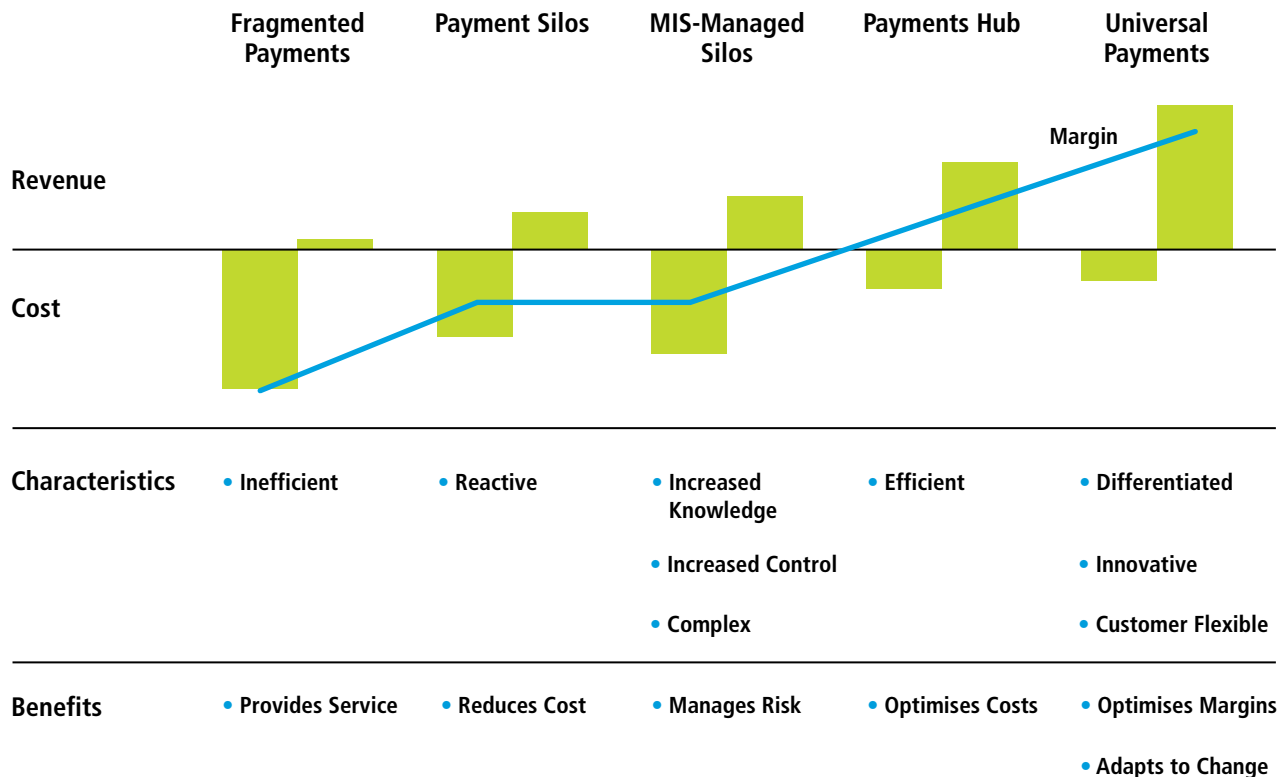
Payments Silos – at this level products are defined and sales generated, though sometimes at the expense of underbidding other silos within the organization. Operational and Technology controls are weak and costs are high.

MIS-Managed Silos – at this level, MIS improves decision making and controls resulting in reduced operational and credit risk. But the improvement comes at a higher cost in supporting the MIS infrastructure and process.

Payments Hub – this level positions a bank for dealing with many of today's payments change drivers. It achieves efficiency through the simplification and often standardization of basic payment functions. But it is not yet truly innovative – customer personalization and the ability to flexibly address future challenges have not been built in.

Universal Payments – with today's existing capabilities, at this level of maturity a bank has established payment processes and a related infrastructure that is adaptable to change, service oriented, faster to market, manages risk, and supports differentiated products at premium prices. It is only at this level that a bank can really compete on cost efficiency and innovation.

Each key group can identify improvements related to their area as the bank progresses through levels of maturity.



Sales – Customer offerings are limited in the early maturity levels to individual commodity products that are costly to produce. Service levels are often poor and generally un-measurable. With each step up the maturity model, the ability to offer related and even suites of products improves as does the ability to offer ever higher service levels including the capability to measure and report the service levels to the customer. Simplifying and personalizing onboarding of new customers reduces costs. More importantly, it permits premium pricing. The combination helps this group reach its strategic growth goals.

Product Management – At the Fragmented Payments level, product management is unable to define and deliver common products across the organization. As the process matures, standards are implemented, but time to deliver remains an issue that is only addressed when the Payments Hub level is reached. The ability to provide customer preferences does not become an economically sustainable reality until the Universal Payments level is reached.

Operations – Many operations personnel resist change, arguing that it increases risk. But reputational risk and credit exposure risk are at their peak when a bank is operating at the Fragmented Payments and Payments Silo levels. Efficiency is below optimum with activities performed multiple times across product lines. Once the Universal Payments level is reached, enhancements in STP, optimum use of staff and reduced risk (including the visibility of the liquidity pool) all contribute to greater reliability in the payments operation.

Technology – Increased technology maturity gives more sharing of resources by defining common services. Consolidation – and the resulting decrease in the number of systems that must be annually updated to comply with mandatory changes – frees up funds for investment in innovation that leads to competitive advantage. SOA increases the efficient and cost-effective support for payments as a function so necessary to other bank products and, once the Universal Payments level is reached, enables payments products to demand premium pricing.

Using the Model

Using the Payments Maturity Model as a comparative measurement tool, we have found the following steps invaluable. None will come as a surprise; you probably already use similar ones in other aspects of strategic planning.

Define your drivers – Gaining broad agreement on why you want or need to change is essential so that each decision built into the payments change plan can be vetted against your key business drivers. For example, to respond to increased price competition and pressure on margins, seek action that will increase efficiency and help differentiate your products without spending too much. However, if increasing regulations means you are facing regulatory sanction, speed of moving to a more mature level will be more important than cost. The drivers described earlier in this document may prove useful in defining your own.

Define your desired maturity level – Having determined why you want to change, involve representatives from all the affected parties to incorporate their thoughts on the 'target' state they want to achieve. This could simply be a level of the maturity model or a mix of in-house and outsourced functions to deliver the desired capabilities. The group should define in detail both what they want to deliver and how they envision doing so. The Payments Maturity Model can be used to help describe various states with their pros and cons.

The Universal Payments level may not be the right choice for all organizations. While it has the most benefits and provides the processing structure to meet future market needs, the time and resources necessary to achieve it are not for everyone. A bank's desired maturity level may be somewhere between two of the Payments Maturity Model defined levels.

Determine your current maturity level – By comparing what you do today to the Payments Maturity Model, you should quickly find that some combination of the five defined levels reflects your current payments process. This quick analysis should be followed by a validation work session with representatives from all the affected parties. Each can review and comment on how their current maturity level is reflected in the model. The resulting

composite review provides the basis for determining the scope of what has to change to reach the desired future maturity level. During this initial and subsequent work sessions, the barriers to change will also be identified.

Develop a stepped action plan – Based on the determination of the bank's current maturity level including the known barriers to change, a series of actions must be defined, the work effort sized, and the cost estimated. Planning will be iterative as more information about the existing process level is discovered. Interim goals can be established, allowing the bank to raise its processing level in manageable phases while continuing to move towards its ultimate state.

The normal review and reassessment stages in the plan will help ensure that changes in market place, technology, and regulations can be accounted for during the project. The project process should be as flexible as the resulting payments process.

Meeting the challenge

Banks face significant challenges in providing payments services to their customers. Those challenges are not going away – in fact, they are growing at an ever increasing pace. And with them, the demands on payments systems will continue to grow. Going forward, developing a payments system strategy will become more urgent and more complex to implement. A strategy can be articulated by answering some simple questions:

- Where are you today?
- Where do you need to be in three years?
- How do you get there?
- What is the cost of change?
- What is the cost of not changing?

The PMM is a tool that can help shape and manage the response. But, you must also be willing to change!