

A Report for Manitoba Public Insurance

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PDR 2019 Executive Summary

Context and Background

In response to an order from the Public Utilities Board (PUB), MPI contracted Gartner to assess the Physical Damage Reengineering (PDR) program as follows: The PUB ordered that in the 2020 GRA, the Corporation shall file an update, prepared by Gartner, to its 2018 PDR report.

Team Members and Data Sources

For this assessment, the Gartner team is comprised of the Vice President, Solution and Pricing (who also led the 2018 assessment), and an experienced Associate Director. In addition, the Gartner team who conducted the assessment in 2017 assisted this year's team by supplying additional context, as needed.

The team reviewed several key program artifacts including the following:

- Car Parts, Loss of Use and Optimized Repair status reports
- MPI-generated value management analysis which provided data and analysis supporting the Management analysis and recommendations
- MPI provided financial analysis spreadsheets
- Project Close-out reports for Optimized Repair and Distributed Estimating – Direct Repair Plus

In addition, Gartner was on site May 30, 2019 and interviewed key individuals including the Executive Director, Auto Physical Damage Management and team members, the Corporate Business Architect, the head of the Value Management Office (VMO) and the head of the Enterprise Project Management Office (EPMO).

Program Structure and Disposition

For five years MPI has been on a journey to improve service to Manitobans in three areas:

- Physical damage
- Loss prevention / road safety
- Customer service

The PDR program was a large part of the strategy to achieve these objectives. MPI reports that it has now completed and operationalized the PDR program.

Gartner has reviewed the financial analysis and project close out reports, agrees with MPI's financial assessment and confirms that MPI has transitioned PDR to operations.

Comparison between 2018 and 2019 Reviews

At the time of the 2018 review, MPI was developing plans to complete the final two projects within the PDR program. In 2019 MPI successfully completed the two remaining PDR projects for \$351,720 less than the forecast budget.

Table 1: PDR 2019 Actual Cost vs. Budget for 2018/19

Line Item	2018/19 Budget	2018/19 Actual
CCRS Cancellation	\$925,000	\$773,147
PDR Completion	\$1,100,000	\$900,133
Totals	\$2,025,000	\$1,673,280

MPI has continued to apply value management discipline to the PDR project and has refined future benefit projections based on 2018/19 actuals. MPI plans to continue to track PDR benefits for the next several years to assist management in tracking its accountabilities. The refined projections indicate total benefits to 2022/23 to be \$1.7 million less than the 2018 projections.

Table 2: PDR Projected Benefit Stream 2018 vs. 2019 Actual and Projected Benefit Stream

	2017/18	2018/19	2019/20	2020/21	2021/22
2018 Projections	\$5,480,260	\$5,974,276	\$ 6,756,868	\$7,809,942	\$7,790,757
2019 Actual and Projections	\$5,976,190	\$5,379,889	\$6,245,404	\$7,030,815	\$7,416,057

The assessments of the Net Present Value (NPV) of PDR by MPI and Gartner are very close.

Table 3: 2018 vs. 2019 NPV Analysis

2019 NPV Analysis (MPI)	2019 Updated NPV Analysis (Gartner)
-\$49.72M	-\$49.96M

Gartner Perspective

MPI has successfully concluded the PDR program and transitioned the program to operations.

Gartner has reviewed the latest iteration of the PDR Value Management/Business Case data and related assumptions. Gartner's independent analysis, based on the more detailed data available, supports the current value projections.

MPI continues to mature its value management capabilities and its project management disciplines. This provides MPI with an improved, enterprise wide view of project outcomes, benefits and relationships between projects that should assist MPI manage large, upcoming projects.

Gartner recommends that MPI continue value management support of the PDR program, as MPI currently intends, to support the ongoing accountability for benefits achieved from PDR and to support the expansion of the PDR program to cover additional perils and parts sources.



PDR 2019 Close Out Review

Context and Background

In response to an order from the PUB, MPI contracted Gartner to assess the PDR program as follows: The PUB ordered that in the 2020 GRA, the Corporation shall file an update, prepared by Gartner, to its 2018 PDR report.

The 2018 report provided an assessment of the PDR program including:

- Project costs
- Status of remaining PDR program projects
- Comments on Customer Claims Reporting Service (CCRS) cancellation
- A commentary on Project management and the evolution of the property and casualty industry derived from Gartner Research.

Gartner is pleased to provide this update as requested by MPI. The 2019 Gartner Report covers the following areas:

- Final Project costs
- Final Benefits streams and Gartner's current NPV calculation
- Intangible Benefits
- A commentary on MPI's application of previous Gartner advice
- A commentary on MPI's stated intention to move to "Hybrid Agile" development for future projects

Gartner Consulting provides fact-based consulting services to help clients use and manage IT to enable business performance by bringing together research insight, benchmarking data, problem-solving methodologies and hands-on experience to improve the return on IT investment.

Evaluation Approach

For this assessment, the Gartner team is comprised of the Vice President, Solution and Pricing (who also led the 2018 assessment), and an experienced Associate Director. In addition, the Gartner team who conducted the assessment in 2017 assisted this year's team by supplying additional context, as needed.

The team reviewed several key program artifacts including the following:

- Car Parts, Loss of Use and Optimized Repair status reports
- MPI-generated value management analysis which provided data and analysis supporting the Management analysis and recommendations
- MPI provided financial analysis spreadsheets
- Project Close-out reports for Optimized Repair and Distributed Estimating – Direct Repair Plus

In addition, Gartner was on site May 30, 2019 and interviewed key individuals including the Executive Director, Auto Physical Damage Management and team members, the Corporate Business Architect, the head of the VMO and the head of the EPMO.

Prior PUB orders specified five key areas (Progress of pilots to date, Timing of full implementation, Project costs, Maintenance costs, Savings / benefits to be realized). Given that the program is complete, we address here the final overall program costs and projected benefits and make some observations about large program management at MPI.

PDR Financial Analysis

PDR Final Year Costs

MPI has declared the PDR program complete and all capabilities have been transferred to operations. In 2019 MPI successfully completed the two remaining PDR projects for \$351,720 less than the forecast budget.

Table 4: PDR 2018 Budget Projection vs. 2019 Actual

Line Item	2018/19 Budget	2018/19 Actual
CCRS Cancellation	\$925,000	\$773,147
PDR Completion	\$1,100,000	\$900,133
Totals	\$2,025,000	\$1,673,280

PDR 2018/19 Benefits Stream

MPI continues to mature its value management capabilities and its project management disciplines. This leads to an improved, enterprise wide view of project outcomes, benefits and relationships between projects that will help MPI manage large, upcoming projects. MPI has applied this discipline to update the projected benefits stream using 2018/19 actual benefits to improve the accuracy of the benefit projection of benefits. In addition, MPI has identified measures such that MPI can continually monitor to assess if the benefits are being achieved.

The refined projections indicate total benefits to 2021/22 to be \$1.7 million less than the 2018 projections. Table 5 provides the updated benefits stream with 2018/19 actuals and projections to 2021/22.

Table 5: Updated Benefits Analysis

Note that while the analysis below is limited to 2021/2022, MPI has developed cost/benefit projections to 2039/40.

Savings Category	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
Internal Efficiencies 2018 Report	\$1,278,360	\$ 924,526	\$1,343,115	\$1,720,248	\$1,648,821
2019 per MPI	Actual: \$1,774,290	Actual: \$1,082,285	Planned: \$1,478,651	Planned: \$1,924,121	Planned: \$1,924,121
Note 1: 2017/18 includes \$1,000,000 one-time software saving Note 2: MPI continues to evaluate internal efficiencies attributable to the PDR Program					
Labour Rate Differential: 2019 = 2018	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Note: Labour Rate Differential is the \$3 million reduction in labour rates from providing Mitchell to shops, last year of benefit is in 2022/23					
Parts Savings	\$ 600,000	\$1,050,000	\$1,370,000	\$2,000,000	\$2,050,000
2019 per MPI	Actual: \$600,000	Actual: \$520,000	Planned: \$973,000	Planned: \$1,267,000	Planned: \$1,650,000
Note 1: 2018/19 parts savings are actuals and reduced from 2018 planned savings due to the delayed implementation of Car Parts Pro and is prorated into 2019/20. Note 2: Projected savings and actuals will be updated by MPI with a new reporting dataset that is being completed. This will shift reporting to "ready to pay" vs. the current source "paid data" to align with other PDR reporting					
Predictive Analytics	\$ 83,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
2019 per MPI	Actual: \$83,000	Actual: \$323,000	Planned: \$250,000	Planned: \$250,000	Planned: \$250,000
Actual savings less than 2018 forecast so MPI has reduced the forecasted future benefit as reported by Special Investigation Unit (SIU)					
Loss of Use	\$ -	\$ -	\$ 43,753	\$ 89,694	\$ 91,936
2019 = 2018 Loss of Use staffing reductions - 1.5 FTE saving due to automation of certain claim process efforts					
Claims Audit Recoveries	\$ 518,900	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
2019 per MPI	Actual: \$518,712	Actual: \$454,604	Planned: \$500,000	Planned: \$500,000	Planned: \$500,000
Claims audit recoveries due to Direct Repair component of PDR are tracking close to forecast					
2018 Totals	\$5,480,260	\$5,974,276	\$ 6,756,868	\$7,809,942	\$7,790,757
2019 Totals	\$5,976,190	\$5,379,889	\$6,245,404	\$7,030,815	\$7,416,057

Observations on the Benefits Stream

Parts

Parts savings drop from 600k to 520k in 2019, and then are projected to rise to \$1.2M in 2019/20 as MPI has phased in the parts capabilities and plans to support additional suppliers and sources. It is important that PDR operations continue to focus on ensuring MPI achieves the projected savings and collect and share lessons learned across MPI to improve future benefit estimates. It is equally important that value management provide an impartial review of claimed benefits to ensure appropriate accountability.

Predictive Analytics

Predictive analytics has been in place for several years and MPI continues to improve its algorithms that identify potentially fraudulent transactions that should be investigated further. However, benefits have not materialized in the amounts that MPI anticipated.

This is a common occurrence, our research finds that in many organizations despite the implementation of modern analytics and business intelligence (BI) solutions and the adoption of data science, analytics initiatives often struggle to deliver the expected business impact.

We encourage MPI to continue to identify and prioritize the target business outcomes that will be supported by analytics, and the KPIs required to measure these achievements. This will enable MPI to further develop and support the delivery of business outcomes with the right set of data and analytics capabilities.

MPI will need to create a holistic and integrated analytics landscape across PDR and other programs including the Legacy Systems Modernization (LSM) Program that can blend disparate functions to support sophisticated use cases and allow a continuous expansion of functionality and use cases.

PDR Final Costs and NPV

The completed actuals and refined benefits project an NPV of -\$50M.

Table 6: 2019 NPV Analysis (\$000's)

Fiscal Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Benefits							\$ -	\$ 5,976
Costs								
Actual or Budget	\$ (40)	\$ (1,346)	\$ (3,788)	\$ (11,831)	\$ (10,128)	\$ (7,903)	\$ (10,447)	\$ (9,506)
Ongoing Costs				\$ (4,870)	\$ (4,982)	\$ (5,080)	\$ (5,160)	\$ (7,271)
Total	\$ (40)	\$ (1,346)	\$ (3,788)	\$ (16,701)	\$ (15,110)	\$ (12,983)	\$ (15,607)	\$ (10,801)
Non-discounted cashflow	\$ (40)		\$ (5,174)	\$ (21,875)	\$ (36,985)	\$ (49,968)	\$ (65,575)	\$ (76,376)
	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16
	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
	\$ 5,380	\$ 6,245	\$ 7,031	\$ 7,416	\$ 7,601	\$ 4,716	\$ 4,834	\$ 4,955
	\$ (2,025)							
	\$ (10,803)	\$ (8,393)	\$ (6,916)	\$ (7,088)	\$ (7,263)	\$ (4,441)	\$ (4,549)	\$ (4,659)
	\$ (7,448)	\$ (2,148)	\$ 115	\$ 328	\$ 338	\$ 275	\$ 285	\$ 296
	\$ (83,824)	\$ (85,972)	\$ (85,857)	\$ (85,529)	\$ (85,190)	\$ (84,915)	\$ (84,630)	\$ (84,333)
10 Yr Post Initial Go Live NPV *	\$ (49,966.0)							
Cost of capital	9.5%							
2.5% inflation applied to benefits after 2021/22								
Labour rate benefit (\$3M / year) ends in 2022/23								
Ongoing costs are primarily software licensing and support, with some additional labour for Direct Repair operations								

Financial Analysis Comments

For five years MPI has been on a journey to improve service to Manitobans in three areas:

- Physical damage
- Loss prevention / road safety
- Customer service

The PDR program was a large part of the strategy to achieve these objectives.

In 2018 MPI Management provided a restated analysis of the PDR cost and benefit projections to the MPI Board. As a result, MPI cancelled the CCRS project within the PDR program and developed a plan to complete and close-out the PDR program by mid-2019.

At the time of the 2018 Gartner review, MPI was finalizing plans to complete the two final projects within the PDR program. The 2019 results of that work are as follows:

- MPI completed PDR for \$351,720 less than the forecast budget (see table 4).
- MPI has continued to apply value management discipline and has added several staff to the team to keep up with demand
- MPI has utilized this discipline to refine future benefit projections based on 2018/19 actuals.
- NPV has improved very slightly to -\$49.7M (MPI)

MPI is continuing to analyze the expanded use of capabilities developed in PDR to cover additional perils, and to access safe, less expensive parts. To support these endeavors the Value Management Office will continue to monitor the operational use of PDR capabilities to document the value achieved and to ensure the resulting savings are captured and understood. At some point, likely in 2-3 years, the cost/effort of ongoing value management analysis will surpass its incremental value, at which point further value management support should end.

PDR Intangible Benefits

PDR has delivered intangible benefits to Manitobans and to Repair Shops.

Manitobans are seeing:

- Faster service through more complete and accurate estimates, fewer appointments and repair shops with higher authority to execute repairs without requiring prior MPI approval
- Lower costs through access to safe, lower cost used parts and assemblies

Repair Shops are seeing:

- A common Key Performance Indicators (KPIs) set across repair shops that allows them to monitor their improvements vs. past performance and against other repair shops KPIs. This will enable them to reduce costs and improve time to repair.
- Recognition of their capabilities from MPI through an increased authority level to perform higher cost repairs without prior approval. This enables shops to be more competitive by providing better service.
- A more collaborative relationship with MPI through Shop Relationship Advisors (SRAs) who assist shops in navigating through the complexities of MPI while remaining compliant with MPI's policies and procedures.

This improved collaboration is the means to deliver more value creation for Manitobans. MPI now has tools to ensure that the joint value sought is well-defined upfront, and to determine how it will be captured and distributed.

Ongoing Use of Best Practice Advice

Gartner has provided recommendations to MPI management in quarterly reviews going back as far as the December 2016 review. All these recommendations were based on Gartner Research's ongoing development of best practices. Some were specific to the ongoing PDR program and some best practices MPI can apply to future programs. Some of the changes Gartner has observed in MPI's processes that reflect value management / benefits realization recommendations provided in past reviews include:

1. Retroactively include specific projects in the value management process, despite an MPI policy that only projects initiated after the advent of the value management framework should follow that framework.

Status: MPI is using value management on all new projects and continues and will continue to evaluate PDR for several years going forward as the capabilities are spread across further perils, parts sources etc. MPI has added additional staff to the value Management team. As a result, Gartner believes MPI is showing a strong commitment to value management as a core discipline of improved program delivery.

2. Expand the value management role beyond advisory and facilitation to include hands on support for organizational units in their development of business cases, baselines, processes, and reporting for value management. Extending it to include value management engagement during project execution (e.g. review of the development of value tracking and measurement into solution deliverables).

Status: MPI will be dedicating a value management team member to the upcoming LSM Program. To remain objective, the team member will not report to the program. Gartner endorses this investment and encourages MPI leadership to continue to enable the Value Management team to be able to “speak truth to power”.

3. Development of communication, measurement processes and tools which make it clear that business owners are accountable for benefits realization.

Status: MPI is developing education for project sponsors. It is important that sponsors understand and commit to the benefits realization and tracking program and are held accountable for achieving those benefits within the context of MPI’s overall business evolution. Benefits will evolve over the course of a complex program and the program, and its sponsors, will need to adapt the program as the facts emerge about how benefits can and cannot be realized.

Conclusions

The PDR program has now transitioned to operations.

The LSM Program will take five years or more. During that time there will be little funding or IT resources to enhance current systems. As such, it is important that the PDR-provided capabilities and processes are sufficiently flexible and scalable to meet the business needs over this period.

Our discussions with operational managers and executives that are now being supported by PDR provided systems and processes indicates:

- they believe they have a capable tool set
- they intend to expand the use of these capabilities to cover other perils
- they intend to expand access to additional sources of quality, lower costs parts
- they plan to enhance the use of analytics to assist both MPI and Repair Shops.

Planned ongoing relations between value management and the operational PDR program will help MPI:

- Determine how the application of PDR capabilities to new areas in MPI can deliver operational savings
- Assist MPI in making management accountable for savings
- Provide insight into whether the PDR capabilities are continuing to meet business needs.

Finally, in our May 2019 meeting, MPI did not share any plans with Gartner to provide an online/mobile accident reporting capability as conceived in CCRS. As stated in the 2018 report: “Gartner sees technology advancing in Mobility and Customer Support. MPI’s customers are no longer tethered to, nor expect, service primarily from, a computer. Instead, they are tied to mobile devices, text messaging and social media.” Thus, Gartner believes that, as mobile and

other customer support capabilities emerge in other jurisdictions, MPI may need to make an investment above that planned in the LSM Program to deliver capabilities equivalent to those available elsewhere.



Appendix: Moving to Agile

Evolving Program Development at MPI

The PDR program has been a significant learning experience for MPI. As MPI embarks on its next major program, LSM, there are several lessons learned from PDR that will help MPI improve its program delivery capabilities.

The CCRS Case Study

CCRS provides a case study for the value of using agile techniques vs. waterfall when developing new or expanded capabilities. CCRS was based on a hypothesis that enabling clients to enter their own accident information through an automated system would reduce MPI's costs while improving client service. Thus, a significant investment was made in purchasing software and a traditional waterfall development process was initiated. Many months later, MPI learned that the intended solution wouldn't deliver the benefits expected and a \$16M write off ensued.

Contrast this to an alternate, more exploratory, approach enabled by the agile development methodology. MPI could have used a Hypothesis-Driven approach to think about CCRS as a series of experiments to determine whether the expected outcome could be achieved. Getting more quickly to an understanding that MPI would still need a substantial call centre and that clients would struggle to correctly document an accident would have saved months of time and millions of dollars.

The use of Agile processes fundamentally reduces delivery risk because it means that work product is delivered to, and is validated by, business stakeholders early and often. Gartner views Agile processes as a requirement for exploratory or experimental work, but also as a superior delivery approach for traditional projects that would have been delivered using waterfall-based methods in the past.

As part of MPI's initial steps in developing the LSM, the Enterprise Project Management Office has engaged with Gartner Research to apply Gartner Research on scaling Agile processes to the enterprise. The EPMO recognizes the importance of having executives across MPI understand the necessary changes in process and culture and be committed to these changes. Gartner believes this education and commitment is a fundamental requirement for the LSM Program to meet its goals.

Evolving to Agile

Gartner divides software development methods into three broad categories:

Waterfall takes a set of (allegedly) clear and stable requirements, predicts how much the project will cost and, using a sequential work breakdown structure, decides how long the project will take, and how many resources it requires. A recent evolution is incremental waterfall methods, which also address a set of clear and stable requirements, but the work is broken into a set of fixed-time, fixed-resource and fixed-cost waterfalls. These are repeated with discipline concurrently or purely sequentially, with no discipline overlap. Each increment includes design, construction and testing activities. If the project is large enough, there may be multiple teams all working in an incremental method, with cross-team dependencies planned for and mapped. Organizing work in this manner produces more-transparent progress than waterfall because the completeness of the software from each increment can be assessed.

Iterative builds on incremental waterfall by adding an explicit opportunity for feedback after each increment or iteration. This allows for the early detection and resolution of problems in the requirements. The iterative approach uses waterfall, task-based planning with fixed time and

resources (where, for example, software is delivered every six weeks to three months). Done correctly, the iterative approach assumes that requirements cannot be frozen before construction begins. Known requirements are realized and implemented using short cycles of analysis design and implementation, enabling the system to evolve over time.

Agile uses fixed-time, fixed-resource methods that plan delivery based on feature decomposition rather than time sequence (in the form of a work breakdown structure). Agile projects do not require a clear set of requirements at the beginning, as the feedback from the customer is used to determine the best solution during the project. Every iteration (usually called a “sprint”) has its own set of requirements to deliver. Because of the need for constant feedback, the time periods here are shorter than for iterative (usually two to four weeks). Such rapid feedback loops allow this functionality to easily handle projects where the solution is not known upfront and allows the team to learn about the “real” requirements over time. This class of methods may also include lean/Kanban approaches, which don’t focus on iterations but do share the same planning and cultural needs.

Traditional waterfall and incremental waterfall methods are primarily project delivery models in which a project is a collection of business requirements. Iterative or agile methods can be used in project mode, but are designed as product delivery methods, where a certain product (application) is released to production on a regularly scheduled basis.

This means that the move to a product-oriented delivery model requires the use of a more-agile delivery method, and most clients we talk to on this topic are moving to agile, not to iterative.

For some organizations, the cultural and organizational impediments to shifting to an agile delivery process across the organization are just too much to handle in a short period of time. For others, there is simply not enough support from business stakeholders to make the change. They are “stuck” on waterfall methods. To understand how they can get somewhat more agile, some history is necessary.

The emergence of waterfall methods was an attempt to apply engineering principles to software development. The traditional waterfall is based on two seemingly simple premises, both of which must be present for delivery success:

1. There is a single set of requirements and delivery options that describe what the business wants to do (requirements) and how it will be delivered (analysis and design).
2. The specifications do not change, or change only minimally (and perhaps predictably), during the construction and test phases of the project, subject to a strong change management process.

The second premise is a source of amusement and dismay to those who develop and/or deploy software solutions. There are always changes to a project. The key to a reliable delivery method lies in minimizing the number of these changes when a set of functions is under construction and testing. This is a fundamental issue, and the difference between waterfall and agile. Waterfall is based on defined process control, which works well when all the variables are known and controllable, such as in mechanical engineering. However, waterfall fails when there is a degree of uncertainty. In such cases, empirical engineering processes are superior because they use continuous feedback to adjust the process as needed.

The first premise is highly debatable. Things change within the business requirements (when new regulations or processes come into play, for example), requirements are wrongly specified (defects of commission), and some are not apparent or are forgotten (defects of omission). There are multiple options for the actual delivery — especially regarding usability, look and feel — that aren’t apparent until the software is developed. An engineering solution to requirements

would typically involve building prototypes to determine the suitability of business or technical requirements, or further exploring the proposed solution before actual construction has occurred. Although those are best practices for requirements management, most projects simply use a business requirements document in text-only format. As MPI discovered as it developed CCRS, the issues with the solution were discovered only when the prototype was finally tested with actual clients and the test group indicated they would use the online service as an extension to call centre services and not as a replacement. Thus, the predicted call centre volume decreases and corresponding cost reductions would not occur.

Furthermore, traditional waterfall projects carry increased risks over longer time frames. The risk of finding a requirement defect in testing always exists, and the longer the duration of the build/test phases, the higher the risk that requirements will change. Because iterative and agile methods use short, tight time periods, this risk is minimized.

The traditional waterfall method simply breaks down under the fallacy of its assumptions. Certain techniques can be employed to lessen the impact (see Gartner Research paper “Apply These Seven Lessons From Agile to Mode 1 Development”). There will, however, still be adverse impacts on scheduling and budgeting unless the durations of the construction and test phases of the project are constrained.

There are three potential solutions here:

1. Limit the duration of any waterfall project: Gartner recommends no longer than 90 days and we understand that multiple waterfall efforts may be required to deliver interdependent, large groups of functions.
2. Break the waterfall into increments. For a nine-month project, this might result in three three-month deliverables, or four two-month deliverables with a final test. After each of the increments, usable software should be available. This minimizes the impact of requirements defects (of omission or commission), since the short cycles allow feedback and learning, rather than waiting for the end of the project.
3. Move to agile or iterative, or a mix of both. Many organizations do this in their initial transition to agile. Essentially, they use very short cycles to allow clients to see the software as it's being created, using product demonstrations. This may not be “true” agile, but as the organization learns that's just fine.

Be cautioned that the shift to a true agile method requires substantial cultural changes. In any event, put software in the hands of the business (or let them look at it, at least) more frequently to avoid the big-design-upfront trap. Requirements should be revisited on a regular basis, enabling the development teams to learn through the process.

These approaches require changes in the interaction patterns between the members of the application team and their business colleagues that typically can't be forced on the business. Understand the facts and use them to craft a story for change. In most organizations, there is fertile ground in the business for changing the way applications are delivered, so the transition can begin with a few application teams without requiring all teams to change at the same time.

Hybrid Agile Forms

There are also many hybrid methods, most of which combine agile and iterative practices. They're commonly referred to as “wagile,” “scrumfall” or “waterscrum.” Many fail because they rely on establishing the requirements upfront, and in fact focus on establishing a plan upfront. This may be OK with limits on duration of the overall work. For digital transformation and more exploratory work, such as CCRS, that require faster time to market and more flexibility, the

attempt to lockdown requirements over a series of iterations eliminates the early stakeholder feedback that is one of the primary benefits of an agile approach. Even in traditional Commercial off the Shelf implementations, such as Enterprise Resource Planning (ERP) or Claims and Policy Management, requirements need to be revisited over the life of the project or product effort. This isn't just a trap for hybrid methods — it can occur in iterative methods as well.

Using one of these hybrids, however, allows the organization to practice some of the Agile techniques while remaining in a project-based world. Requirements can be elicited and documented using storytelling techniques. Developers and testers can work closely together on small pieces of work. Short delivery cycles (sprints) can be used, and a daily standup employed to talk about progress.

The problem with staying in this model in the long term is that the key issues that Agile delivery solves aren't fixed. The ability to accept change is limited, since requirements are defined upfront. The amount of risk in the work is still carried until the final delivery date. The ability to "course correct" is also limited.

Gartner doesn't recommend staying in this hybrid model for the indefinite future. While it is a good place to practice, and even to build business engagement and start the cultural shift necessary to move to agile but overall, its benefits are limited.



**Appendix (From MPI):
PDR Business Case Assumptions**

Last Updated: May 28, 2019**Key Assumptions:**General

- PDR project budget consists of:

Project Name	To Feb 28, 2018	Budget 2018/19	Project Costs 2018/19	Total
PDR	\$52,810,724	\$1,425,000	\$1,673,280	\$54,484,003
Predictive Analytics	\$2,178,614		0	\$2,178,614
Totals	\$54,989,338		\$1,673,280	\$56,662,618

- The \$52.8M PDR project costs includes: \$16.08M for CCRS costs (this latter total was written off in 2017/18 with decision to suspend CCRS project.)
- The \$1.425M estimated costs for 2018/19 consists of:
 - \$925K for CCRS wind-up costs
 - \$500K budget for Parts
- Predictive Analytics project costs added to the PDR cost/benefit analysis because the benefits have always been included in our presentation to Board and PUB. For instance, the Gartner 2017 report submitted in 2018 GRA shows PDR benefits related to Predictive Analytics reaching \$1M per annum by 2019/20. This has been reduced to \$250K (plus CPI factor) into future years.
- Financial Analysis begins in 2010/11 at the start of the project ongoing operating costs and financial benefits begin in 2017/18.
- Benefits Gross up as a percentage of Salary is 30%
- 2.5% inflation rate applied to annual cost and savings estimates
- Discount rate has remained as 9.5%, risk of future benefits achievement still remains, and projections continue to be adjusted annually

1. **Optimized Repair – DE (See updated D. Korosciil May 2019 PowerPoint presentation with 2018/19 actuals which impacted these original assumptions)**
 - **The \$81 Direct Repair premium** paid to shops is only in effect for 2018/19, contractual obligation. There is also a residual forecasted DR premium of \$1.6M for FY 2019/20.
 - **Mitchell Licensing** – Per Alex Ramirez, Mgr Vendor Management, Annual Mitchell Licensing Fees for PDR excluding CCRS start in 2013 [REDACTED]. We reduced by [REDACTED] which represents the savings in not having to pay Nugen Licensing fees for their software solution previously used by MPI. Subsequent years add CPI 2.5%.
 - **Mitchell Licensing** – Per Alex Ramirez, Mgr Vendor Management, CCRS licensing costs, [REDACTED]
 - **Mitchell Licensing** - The ongoing annual Mitchell Licensing expense is reduced [REDACTED] beginning in 2023/24 under the assumption that MPI will no longer pay for shop licenses at that point in the contract.
 - **Mitchell Licensing** – Mitchell Licensing credit of [REDACTED] has been negotiated
 - **Reallocation of staffing to DR and SRM** - Results in additional staff costs of \$475k to \$500k (i.e. Claims Audit Administrators, Shop Relationship Advisors, Claim Audit Coordinator and Supervisor, PD Estimate Auditors and elimination of Estimating Support Clerks, Glass Audit Supervisor and Estimators).
 - **SOPC Business Analyst Support** - required for preparing monthly performance measure reporting; program reporting, trend analysis and severity analysis. Forecasted costs of \$220k in 2017/18 and 2018/19 reducing to \$93k in subsequent years
 - **Transportation and Office Supplies** - amounting to \$24K in 2018 budget, increased to \$29K in subsequent years. Also tablet expense of \$80k only in 2018/19 (for SRAs and ARIs)
 - **Internal efficiencies** – Staffing efficiencies of \$278k in 2017/18; \$924,526k in 2018/19; \$1,478,651k in 2019/20 and to \$1,924,121k in subsequent years. Relates to Estimate Reviewer role FTE savings from reduced number of estimates (i.e. Earned Approval Limits to increase)
 - **Claims Audit Recoveries** -\$518k based on 2017/18 actuals, and \$454K on 2018/19 actuals, Forecast \$500k in future years.
2. **Labour rate differential – MPI payment of Mitchell Licensing Fees for Body Shops** - Consistent with what was reported by Gartner in 2018 GRA, an annual cost avoidance of [REDACTED] which represents MPI's payment of licence fees for the shops. [REDACTED]. The labour rate savings coincides with this time period.
3. **Partner Portal Project** - Represents additional annual IBM support and licensing fees and PUMA and PMIS ARCs. Annual costs of \$827k less avoidance of \$28,000 in annual

Omada licensing costs no longer needed. Of the \$800,000 only 25% is attributed to PDR (Remainder is for HSDE, Customer Self Serve, Brokers and other users). Total annual cost is \$200,000.

4. **PDR – Car Parts** –

- See Mitchell Licensing assumption above
- Annual Parts savings reported as \$600,000 in 2017/18 and \$520,000 in 2018/19, \$973,000 2019/20 then \$1.3million in 2020/21.
- Diamond standard parts actuals for 2018/19 are pending at this time.
- Projected savings and actuals will be updated once new reporting dataset is completed. Shifting reporting to *ready to pay* instead of the current source which is *paid* data to align with other more robust Physical Damage reporting.

5. **Predictive Analytics**

- Predictive Analytics project costs are now included in PDR project.
- Additional ongoing IT support and licensing costs are estimated at \$273k for 2017/18 and \$165K for 2018/19. In 2019/20 and beyond annual costs are estimated at \$200K.
- 2017/18 benefit of \$83,000 and beginning in 2018/19, \$323K in 2019/20 and an annual \$250k in claim recoveries as a result of predictive analytics activities

6. **Loss of Use/Claims Processing Unit** –

- Due to automation of certain claim processes and effort as a result of LOU, there will be a Claims Processor FTE reduction of 1.5.
- The savings will amount to \$44k in 2019/20 (half year) and \$90k in the years to follow

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