

Project Justification – Applications Enhancement Factory

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Document Control

Change History

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Note: Printed copies of this document are uncontrolled.

Document Review

This document has been reviewed by the following parties prior to approval:

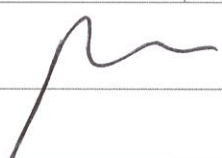
Reviewer Name	Role	Date
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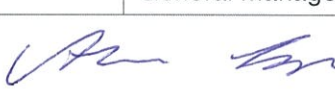
Document Approval

Approval of the Project Justification for the Applications Enhancement Factory is provided by the signatories shown below.

Changes to this document will be coordinated and approved by the undersigned or their designated representatives via project change management.

The undersigned acknowledge they have reviewed and approved this document.

Approver Name	Approver Title / Role
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1. Project Description

The Applications Enhancement Factory is an agile means for delivering a steady pipeline of mostly non-discretionary small to medium application initiatives for the Multinet Gas (MG) business.

2. Objectives/Purpose

MG has a projected pipeline of small to medium initiatives that fall outside contracted day to day support activities. These are typically of a size that require an appropriate level of approval, prioritisation, governance and delivery oversight but are not large enough to be classified as projects running under a formal project management / development methodology.

These initiatives fall into one of the following categories:

- Regulatory & Stakeholder/Customer obligations
- Business Support
- Governance and Compliance.

Historically, there has been a high demand for these works with the majority being non-discretionary. The nature, complexity and size of these works do not fit within the boundaries of a normal support contract and an ad-hoc approach to their delivery is neither cost effective or efficient.

Whilst the “factory” approach to Change Requests (small application enhancements) has been adopted by UE & Multinet Gas (UE & MG) since early 2012, the concept of a dedicated ‘Factory’ was introduced in January 2013 to meet the ongoing demand and avoid the recurring cost of quotation, mobilisation, resource search and one-off delivery. It uses a core of dedicated resources but also leverages the Applications Service Provider support teams, off-shore capability and a wider consulting base to provide a platform for the cost effective, transparent and agile delivery of these essential works. The enhancement factory supports both UE & MG requests however, only MG components and costings are reflected in this paper.

The initial Enhancement Factory agreement with UE & MG’s Applications service provider was short-term but with the consistent demand and projected pipeline, a longer term (three year) contract was agreed commencing January 2014, at a significantly reduced rate and with a number of additional benefits.

3. Strategic Alignment

3.1. National Gas Rules Alignment

The project aligns to the following National Gas Rules (NER) capital expenditure criteria:

- Rule 79 (1) the capital expenditure is such that would be incurred by a prudent service operator acting efficiently in accordance with accepted good industry practice, to achieve the lowest sustainable cost of providing services;

- Rule 79 (2) (c) (i - iv) the capital expenditure is necessary to maintain the safety and integrity of services, to comply with a regulatory obligation and to maintain the capacity to meet the levels of demand for existing services.

The Application Enhancement Factory has been determined by UE & MG as being the most prudent and efficient means of delivering the range of small application enhancements that fall between application support and projects, but are still critical to the business. Every enhancement delivered by the Applications Enhancement Factory meets one or more of the requirements under Rule 79 (2) (c).

3.2. Multinet Gas Strategic Themes Alignment

The Enhancement Factory directly aligns with all MG Strategic Themes, in particular, those related to regulatory readiness and compliance with market, stakeholder and customer obligations. The "Factory" is the primary delivery mechanism for small Change Requests and related works.

Specific examples of strategically aligned initiatives delivered through the Factory include:

- Addition of new Retailers
- Bi-lateral testing with Retailers
- Regulatory tariff and reporting requirements
- Defects related to Meter read processing and sending data to market
- Automation of manual activities.

4. Options

A number of options were considered in developing the most appropriate model for delivering applications enhancements. The most effective approach for commercial, strategic and knowledge is to deliver these through the incumbent Applications Service Provider. Within this approach, there are 3 potential options listed in Table 4.1 below along with a summary of the benefits and/or impacts of each option.

This model was assessed in November 2013 and as such, the options listed here are represented as they were at that time. The As-Is model in November 2013 was one of 3-6 month rolling contract extensions. This is further discussed in Section 6.

No.	Option	Duration	Benefits / Impacts
1	As-Is Model	3-6 month extensions	<ul style="list-style-type: none"> • Requires 3-6 month renewal review • Higher cost to UE/MG • Some challenges in maintaining continuity of IP
2	T&M Model	On demand	<ul style="list-style-type: none"> • Slow ramp up time • Required skills and IP not always available • Highest cost model • Not 'fit for purpose' with current pipeline

No.	Option	Duration	Benefits / Impacts
3	Longer Term Flex Model	3 years with disengagement option	<ul style="list-style-type: none"> Lowest cost – leverage discount from longer term commitment No ramp up time Retained IP Leverage off-shore abilities to yield greater cost savings Rotate staff from BAU to enhancement factory thereby increase BAU knowledge Develop flexible model with minimum guaranteed commitment and ability to ramp up/down to offset changing requirements

Table 4.1. Options Assessed

5. Economic Evaluation

As assessed during March 2016. Actual costs to date for the selected option (Option 3) are tracking to forecast. It is expected that yearly costs for 2017 and beyond will be similar to 2016.

No.	Option	Duration	Actual Cost (2014)	Actual Cost (2015)	Expected Cost (2016)	Expected Total (2014-2016)
1	As-Is Model (MSA rates)	3-6 month extensions	\$899,549	\$765,848	\$765,848	\$2,431,245
2	T&M Model (Consulting rates & ramp up)	On demand	\$1,349,323	\$1,148,772	\$1,148,772	\$3,646,867
3	Longer Term Flex Model (discount on MSA of 10% - 12%)	3 years with disengagement option	\$790,675	\$589,801	\$641,136	\$2,021,612

Table 5.1. Option Cost Estimates (MG Portion)

Notes:

- The Enhancement Factory operates across both UE & MG. An estimate of MG only costs are reflected here
- Q1 of 2014 operated as a 15 FTE model to facilitate handover and complete 2013 works in progress. The remainder of 2014 and H1 2015 operated as a 12 FTE model.
- From H2 2015 the Enhancement Factory has operated as 10 FTEs
- This evaluation does not take account of intangible costs (inefficiencies)
- A factor of 50% has been applied to the T&M model to reflect consulting rates and also incorporates an estimate for start up costs (i.e. assumption is that FTEs assigned may not have any previous experience of the MG environment)
- Assuming forecast 100% utilisation.

6. Proposed Solution

During November 2013 an assessment of options was performed to determine the most cost effective and fit for purpose model to deliver the portfolio of small non-discretionary and high value initiatives.

Delaying the work was not an option. To ensure MG meets regulatory requirements and stakeholder/customer obligations, much of this work is not discretionary and would incur penalties, cause customer and market participant complaints and generally inhibit MG's ability to respond to these obligations.

Following the non-discretionary logic above, the 'Do Nothing' option at the time was an on demand, time and materials model that offered a high cost, high lead time solution with delayed delivery that was not considered fit for purpose.

The As-Is model of that time, had provided the agility and efficiency needed but at a price point that could be significantly improved with a longer term investment. As such, with a strong pipeline of work and no signs of that weakening, a 3 year flex model was adopted delivering a significant cost reduction, a ramp up and ramp down capability and incentive for the Service Provider to provide additional value.

It is expected that with regulatory change, customer and stakeholder driven requirements for improvements will continue beyond the life of this contract (2016 +) and this model or an improved variation will need to be re-negotiated. It is further expected that similar options only would be investigated. Other models such as the engagement of a different vendor from the in situ Service Provider or bringing the function in-house are neither cost effective nor feasible.

Solution Scope:

- MG IT and Accenture currently operate a quarterly delivery cycle for releases which provide enhancements to MG's core Enterprise IT Applications/systems. This includes SAP ISU, SAP ERP, WebMethods, Cognos BI, GIS, Sharepoint and legacy systems.
- The Enhancement Factory consists of 10 dedicated resources with relevant competencies to quote and deliver enhancements through an on-shore and off-shore shared model. The team consists of technical resources, a Project Manager, a Business Analyst and a part time allocation for an Enterprise Architect. Approximately 40% of an internal IT resource is also directly allocated to the delivery of MG enhancements.
- Prior to the current agreement, the Enhancement Factory operated with 15 FTEs. This was reduced in line with the projected pipeline and can be uplifted if demand and budget permit.
- Enhancement requests are submitted, assessed and prioritised by a business owned and IT chaired steering committee called the Application Change Control Board (ACCB). The ACCB consists of stakeholder representatives from all relevant business units (Customer Market Services, Service Delivery, Finance, Shared Services, Asset Management and IT). All work delivered by the Enhancement Factory must be channeled through and approved by the ACCB.
- Delivery is managed and reported by IT according to the priorities set by the ACCB.

7. Historical Outputs

This section provides a 12 month sample of spend, enhancement works and breakdown of categories. Specific points to keep in mind when reading:

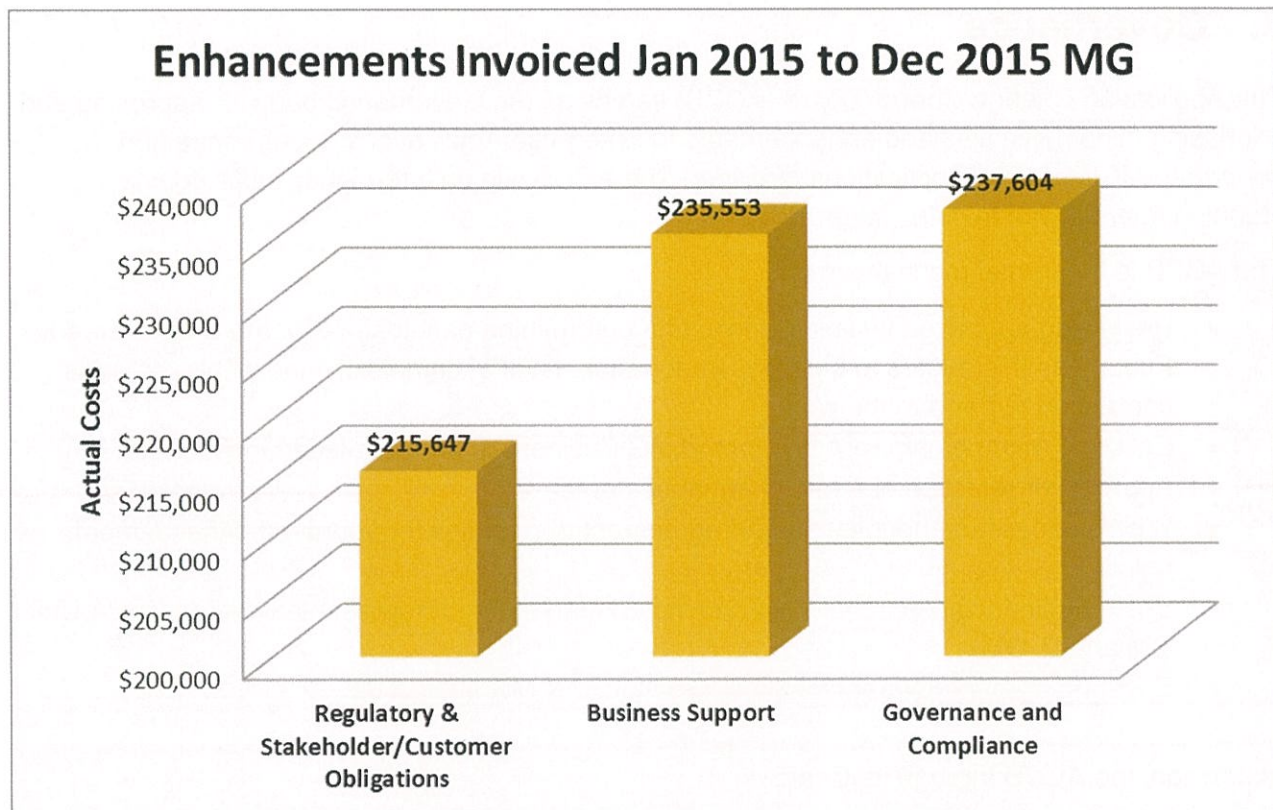
- The data reflects enhancements invoiced between January 2015 and December 2015
- Due to our invoicing cycle, this effectively means it only reflects all works performed between December 2014 and November 2015
- The nature of the model employed means invoicing provides for enhancements completed and deployed to production as well as works in progress
- The criteria used to categorise enhancements are shown in Table 7.1.

Category	Category Candidate Criteria
Regulatory and Stakeholder / Customer Obligations	<p>In support of direct regulatory requirements (AER, NER, AEMO).</p> <p>In support of Stakeholder and Customer Obligations</p> <ul style="list-style-type: none"> • New retailers / participant testing • Required information or reporting to support this • Remediate legacy and project related functionality or unfulfilled scope • Billing and market data changes <p>Service Provider and sub-contractor obligations.</p>
Business Support	<p>Automation of manual activities to significantly improve service to customers</p> <p>Reporting improvements to support business decision making and improve timeliness and quality of information.</p> <p>This category also contains some defect resolution and requested reworks.</p>
Governance and Compliance	<p>To support Audit requirements or external non-regulatory compliance</p> <p>Augment and improve governance managing enhancement process</p> <p>New tariffs.</p>

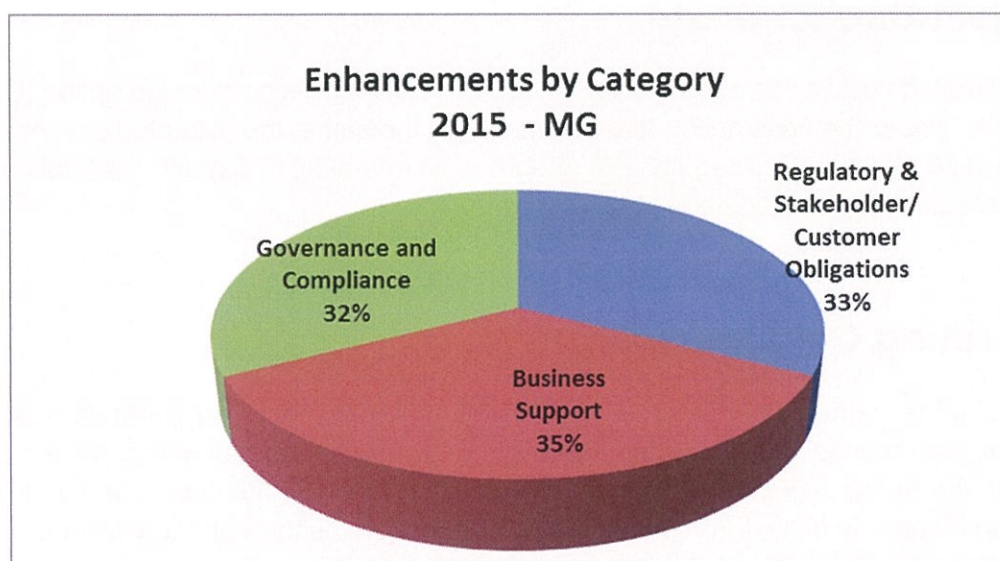
Table 7.1. Enhancement Categories

Category	MG Volume	%age by Cost	Actual Cost
Regulatory & Stakeholder / Customer Obligations	12	31.3%	\$215,647
Business Support	13	34.2%	\$235,553
Governance and Compliance	12	34.5%	\$237,604
Total Enhancements Invoiced	37	100.0%	\$688,804

Table 7.2. Enhancements Invoiced between Jan 2015 to Dec 2015



Graph 7.1. Enhancements Invoiced between Jan 2015 to Dec 2015



Graph 7.2. Enhancements – Category by Volume

8. Governance

The Application Change Control Board (ACCB) serves as the Governance body for approving and prioritising minor initiatives and enhancements to Enterprise Applications under contracted support to MG's primary applications' provider. The ACCB sits on a fortnightly basis against a standing agenda with minutes taken.

The ACCB is the formal mechanism for:

- Reviewing submitted Initiative Brief's and determining candidature for the Enhancement Factory as this relates to business importance, level of complexity and within the skills contracted to perform the work
- Ensuring membership reflective of the MG Business is represented in the ACCB
- Approval or rejection of relevant enhancements
- Where necessary, negotiation and agreement of priorities for approved enhancement builds
- Ensuring financial approval from nominated management representatives (Business Unit GM and IT GM)
- Ensuring agreed governance is followed to UE & MG standards.

In addition, the ACCB through its Chair:

- Ensures there is alignment between enhancement requirements and scope
- Monitors build progress to ensure delivery in agreed timelines
- Monitors Portfolio Financial performance
- Stores all relevant documents (Initiative Briefs, Estimates, Meeting minutes, approvals) and a register of works' status
- Recommends processes and delivery improvements to enhance delivery to business.

9. Project Capital Costs

The total estimated cost of this agreement for 2014-2016 for the recommended option (Option 3) is \$2,021,612. Under the assumption that volume stays the same, the expected cost of a similar model beyond 2016 would be \$696,487 per annum (cost in real 2017 \$s) and the total for the 5 year period Q1 2018 to Q4 2022 is **\$3,482,434**.

10. Operating Cost Impact

The nature of enhancements performed under this model means that they generally have no significant impact on ongoing IT operational costs. However, the operating cost impact of discontinuing the Enhancement Factory model would be a much higher cost to serve, delayed delivery or an inability to deliver non-discretionary enhancements through the lack of a knowledgeable and agile enabling workforce to perform this work.

All work performed by the Enhancement Factory is classified as capital expenditure as it delivers business improvements to capital investment (software applications). Any change to this approach would result in a significant step change in MG's IT opex expenditure forecasts.

11. Timeframes

Q1 2018 to Q4 2022

12. Risks and Opportunities

The primary risk to the MG Business is the inability to meet expected turnaround times for regulatory change and customer/market obligations. MG would also lose the opportunity value of an agile and ready workforce to introduce small operational improvements.

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