

# Review of payroll and rostering solutions

Queensland Health

September 2010

A photograph of a hospital hallway. On the left wall, there is a vertical list of directional signs. The top sign is a large brown sign with white text that reads 'Ambulatory Treatment Unit', 'Intensive Care Unit', and 'Intensive Care Waiting'. Below it are several smaller, light-colored signs with dark text, including 'Outpatient Services', 'ICU Waiting Room', 'Intensive Care Unit', 'Ambulatory Treatment Unit', 'Pre-Op', 'Outpatient services', 'Main Lobby', 'Restrooms/Telephones', 'Elevator To Patient Rooms', 'Inpatient Admitting', 'Gift Shop', and 'Cafeteria'. To the right, a wooden door with a glass window is slightly ajar, revealing a glimpse of another room. The floor is light-colored and polished.

Ambulatory Treatment Unit  
Intensive Care Unit  
Intensive Care Waiting

In March, 2010, Queensland Health went live with a new payroll and rostering solution for all staff in every location across the state.

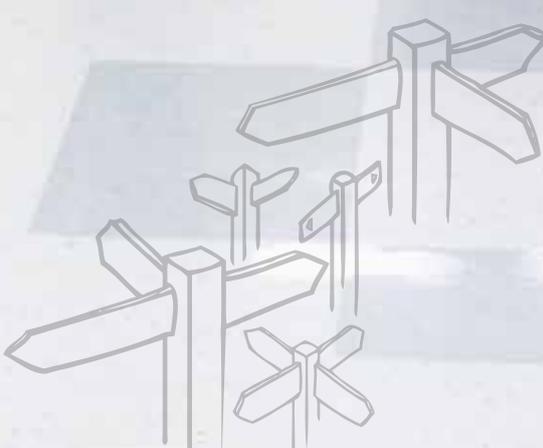
Queensland Health engaged Ernst & Young in August 2010 to conduct a review of the payroll and rostering systems.



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Our report may be relied upon by Queensland Health for the purpose of the review on its rostering and payroll solution only pursuant to the terms of our engagement letter dated 2 July 2010. We disclaim all responsibility to any other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the contents of our report, the provision of our report to any other party or the reliance upon our report by any other party.



# 1. Executive summary

In July, 2010, Queensland Health engaged Ernst & Young to conduct a review of its payroll and rostering systems to establish their ongoing suitability for Queensland Health, and to ascertain what potential options are available to resolve the recently experienced payroll problems.

Ernst & Young did not undertake a review of the root causes of the problems being experienced. However, the review was undertaken cognisant of the origins of these problems. To inform our findings, we undertook:

- ▶ Extensive consultation and engagement with a broad range of Queensland Health staff stakeholder groups and all 13 Queensland Health unions to gain a comprehensive understanding of the issues and their origins. Specifically, Ernst & Young listened, observed and spoke with staff in 8 payroll processing locations across regional and remote Queensland during the duration of the review
- ▶ A vendor analysis to understand systems solution options, their suitability for Queensland Health's ongoing and future requirements, the commercial conditions necessary for a successful implementation and maintenance of an ongoing business relationship
- ▶ A peer review of other health care organisations, locally and internationally, to understand the approach and systems utilised elsewhere

Our extensive consultations with staff identified ongoing people, process and technology issues with the current solution. These issues are currently managed through the Payroll Improvement Program "PIP", however, their complexity means this approach is not sustainable in the long term without ongoing and significant additional resource investment. Further, we consider that the solution in its current state is not able to effectively respond to the National Health Reform Agenda, the introduction of Local Health and Hospitals Network<sup>1</sup> and the need for integrated workforce information.

Our vendor analysis across the payroll and rostering software market found that:

1. SAP can provide an appropriate payroll solution for Queensland Health. This is because SAP has a:
  - ▶ Large local, national and global skill base that exists to support the SAP Payroll solution
  - ▶ Mature presence in both the national and global healthcare industry
  - ▶ Significant local, national and global implementations that exist for the SAP Payroll solution in related industries
  - ▶ Demonstrated commitment to ongoing investment in its healthcare solution

SAP is also currently being used by Queensland Health for its Finance solution, minimising potential integration impacts.

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<sup>1</sup> The Council of Australian Governments (excluding Western Australia) recently announced major reform to how health and hospital services will be managed into the future. These reforms will be delivered through the National Health and Hospitals Network, with each State working closely with their Commonwealth counterparts to understand the specific impacts of the reforms.

2. There is no clear market leader of rostering products used in the Australian or international health care sector. Rather, there are several “like” products currently being used. Further, there is no dominant payroll and rostering solution which is specifically designed to work together for the health care sector, although some product owners certify their products operate successfully together
3. Whilst recognising and understanding the current issues in the existing rostering system, Workbrain, the analysis indicates that these problems should be able to be fixed and the solution improved to adequately meet the needs of Queensland Health’s rostering requirements
4. The replacement of the Workbrain system component of the solution with an alternative software product would place additional burden on staff and require significant effort and investment from Queensland Health. For example, this effort would include additional reconfiguring, testing and staff training over and above fixing the Workbrain solution. This would result in additional burden to staff on top of their daily duties, potential further delay in resolving award interpretation for staff and risking a continued loss of confidence in Queensland Health’s ability to resolve the situation

Central to the findings of this report is the need for comprehensive support for any subsequent project activities conducted by Queensland Health. This support will be required in the form of change management, training planning and execution to support staff and minimise negative impacts, create consistent and broadly disseminated communication, and effective, targeted training and education. This would include refresher training for all staff participating in the implementation of payroll and rostering processes.

A peer review highlighted the unique characteristics of Queensland Health’s rostering and payroll structure when compared to others - Full Time Equivalent (FTE) size, large geographic distribution and importantly, the complexity of its industrial awards. The peer review also identified key “success themes” in implementations of similar solutions with the major success theme being, many of the health care sector solutions have been developed to operate on a “local” level technology platform of around 5,000 - 15,000 staff (e.g. at the District or Hospital level).

From the findings of the staff consultation, vendor analysis and peer review, we generated a list of options available to Queensland Health to rectify current payroll errors:

- ▶ Option 1 - Stabilise the existing solution environment (i.e. invest in the current solution through the fixing of existing system issues)
- ▶ Option 2 - Stabilise and optimise the existing solution environment (i.e. undertake an “optimise” project of the current systems to resolve all current issues and improve usability at the local level)
- ▶ Option 3 - Replace the existing rostering system whilst retaining the current payroll system
- ▶ Option 4 - Replace all existing rostering and payroll systems
- ▶ Option 5 - Outsource the payroll function to an external organisation
- ▶ Option 6 - Do nothing (i.e. no further investment in the current systems)

These options have been analysed and evaluated for the risk they presented to Queensland Health in terms of:

- ▶ Successful delivery of effective payroll and rostering services to support Queensland Health staff
- ▶ Overall impact on payroll, administrative and IT support staff
- ▶ Ability to support changes in the health care sector, both State and Federal
- ▶ Commercial risks inherent in the software vendor commercials and contracts

Based on the options assessment above (informed by the findings from our consultation and engagement with Queensland Health staff and unions, vendor analysis and peer review) **the most effective and efficient, lowest risk option** for delivering solution outcomes in relation to removing staff “pain” and better supporting the payroll process is:

### **Option 2 - Stabilise and optimise the existing solution environment**

The key components of the most effective and efficient, lowest risk option include:

1. The re-implementation of the Queensland Health solution should be conducted as a new program with a defined and agreed vision (that also considers the Finance solution vision), in parallel to ongoing activities of PIP. This program was established to stabilise the current systems and implement fixes that can provide some immediate relief to payroll operators and recipients. It should be noted that this new program will need up to 3 years to achieve the ultimate vision and be fully rolled out to all Queensland Health districts/divisions, however during this time there will be ongoing issues prioritisation and fixes
2. The re-implementation of the rostering system, Workbrain, with realigned functionality and comprehensive improvements to the underlying supporting technology platform
3. Once the majority of current stabilisation activities have been achieved, Queensland Health should also look to transition PIP resources into the optimisation project to allow for continuity of existing knowledge and skills
4. In response to the issues encountered with the centralised rostering and payroll business model, Queensland Health is implementing a new payroll operating model and is currently piloting this model in two sites, with the objective of providing improved services at the district/hospital/divisional level. Therefore, any activities to address current issues should be fully scoped and conducted in line with the objectives of this new business payroll operating model
5. Urgent confirmation is required that:
  - a. Detailed analysis to confirm that current system issues can be resolved by the vendor in a timely manner
  - b. Appropriate commercial and service level agreements and suitable contracts can be negotiated with the system vendors, including access to locally skilled resources

**Note:** If the outcome of these urgent confirmation activities drastically affects the feasibility and increases the risk profile, Queensland Health should adopt Option 3

- Replace the existing rostering system (whilst retaining the current payroll system).

The **recommendations** that Ernst & Young make that need to be followed for the successful implementation of the most effective and efficient, lowest risk option include:

1. Immediately initiate the Queensland Health optimise project to confirm the implementation roadmap and plan including the following key activities:
  - a. Commence development of a detailed “Program Management Plan”
  - b. Establish a robust governance model in alignment with the Queensland Audit Office recommendations.
  - c. Incorporate and clearly identify the consideration of lessons learnt from the current solution, both from the past and in the present, and embed into relevant activities in the roadmap
  - d. Review and implement robust commercial arrangements for system development and support
  - e. Mobilise the project team for the Optimise Project Initiation Phase, which needs to minimise impact on current stabilisation activities and resources (including skilled Workbrain and SAP resources)
  - f. Conduct business requirement collection and confirmation, together with a detailed “fit” gap analysis (this includes formal documentation and progressive sign offs)
  - g. Prioritise investment activities between the Optimise Project Initiation Phase and other related projects to maximise Queensland Health’s Return On Investment (ROI)
2. In line with the new payroll operating model, design the new solution at the “local”, or decentralised, level, in particular taking rostering back to the local/district/divisional level to:
  - a. Address the issues that have been experienced through the centralised model, i.e. the loss of localised processing knowledge in relation to local working conditions and challenges
  - b. Allow Queensland Health to support their own eHealth agenda and respond to changes in the Health sector, Federally (as in the case of National Health Reform), and at a State level (in terms of legislative change and industrial changes)
3. Ernst & Young recognises that substantial work to address current payroll issues (through PIP) has already occurred to date. Queensland Health should continue this work alongside a formalised issue prioritisation strategy
4. Establish a global Workbrain healthcare working group to share and leverage existing improvements in the solution

Ernst & Young would like to extend its sincere appreciation and thanks to the following stakeholders and organisations, for their time, information and support throughout the review process (listed alphabetically):

- ▶ Other professional service organisations
- ▶ Peer healthcare sector agencies
- ▶ Queensland Health clinical staff
- ▶ Queensland Health non-clinical staff
- ▶ Queensland Health payroll and administrative staff
- ▶ Queensland Health union representatives and their members
- ▶ Software vendors

## 2. Introduction and scope

Queensland Health employs approximately 78,000 employees in 200 locations across Queensland. In 2007, a decision was made to adopt SAP HR/Payroll and Workbrain (“the solution”) to support Queensland Health’s payroll and rostering functions respectively. As shown in *Figure 1* below, the solution was intended to be an interim one and would be delivered under a centralised rostering and payroll model with no improvement of existing business processes. Any enhanced system functionality, such as the ability for employees to book their own leave through Employee Self Serve (“ESS”), was to be built at a later date.

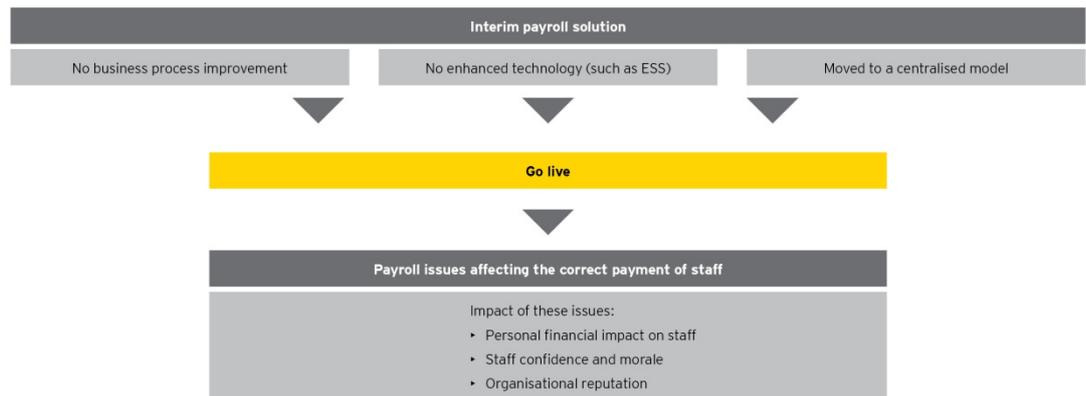


Figure 1: Current situation

On 8 March, 2010, the solution went live. Since then Queensland Health has experienced significant payroll errors resulting in staff being overpaid, underpaid, or not paid at all. In June, 2010, the Auditor-General of Queensland conducted a review of the Queensland Health information systems governance and control in relation to the Continuity Project. The findings of this review were published in a report titled “Report to Parliament No. 7 for 2010 information systems governance and control, including the Queensland Health Implementation of Continuity Project” (the Auditor-General Report).

The Auditor-General Report identified a number of factors with the implementation of the new payroll and rostering solution which have contributed to the payroll issues being experienced by Queensland Health. In response to the financial distress this caused many employees, Queensland Health undertook immediate action to stabilise the payroll and rostering solution and to make payments to those staff who were underpaid, or not paid at all. This was achieved through the establishment of the Payroll Stabilisation Project (“PSP”), which has now evolved into PIP. Both of these are operationally focused to pay staff correctly as soon as possible.

### 2.1 Scope and approach

In parallel to the above, a joint statement<sup>2</sup> was released on Tuesday June 29, 2010 from the Premier and Minister for the Arts, The Honourable Anna Bligh and the Deputy Premier and Minister for Health, The Honourable Paul Lucas which stated that Ernst & Young had been engaged by Queensland Health to provide a review of the most commonly deployed payroll and rostering solutions in the national and international healthcare sector. This statement formed Ernst & Young’s Terms of Reference for this engagement.

<sup>2</sup> Joint Statement: Premier and Minister for the Arts The Honourable Anna Bligh and the Deputy Premier and Minister for Health The Honourable Paul Lucas Tuesday, June 29, 2010

The joint statement further outlined the intention for Queensland Health to work with Ernst & Young in consultation with staff and unions to confirm the most suitable roster and award interpreter configuration that delivers staff the payroll outcome they deserve as quickly as possible. This may involve reconfiguring the current systems or introducing alternatives, however it should be noted this review was not intended to be a system procurement exercise. Accordingly, whilst this review has considered the origin of the current issues in making this assessment of ongoing system options, it is not a review of the root causes of the original project problems.

Ernst & Young’s approach to this engagement was to assess the options available for stabilising and optimising the current environment, and determining which of these delivers the most effective and efficient, lowest risk outcome in relation to removing staff “pain” and better supporting the payroll process.

This approach has been provided in *Figure 2* below:

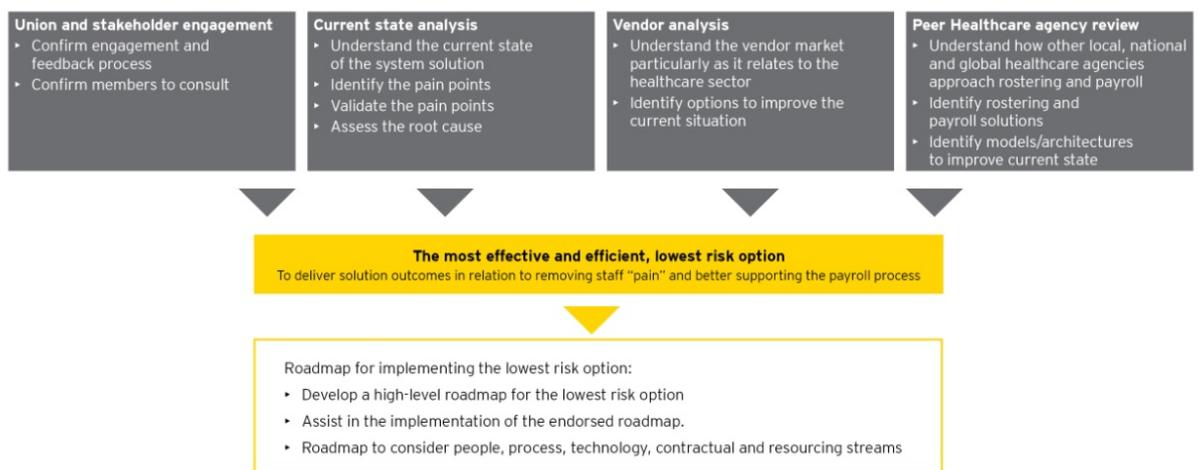


Figure 2: Ernst & Young approach to the review

The information outlined in Figure 2 and comprehensive consultation with unions and their members assisted with the analysis of the solution options.

### 2.1.1 Out of scope items

The following were out of scope for this review:

- ▶ Vendor analysis of specific Queensland Health business requirements against software functionality
- ▶ The configuration and customisation of the current systems
- ▶ The SAP finance system - however this has been taken into consideration as part of our solution options assessment in relation to impacts on integration
- ▶ Costing studies or exercises for the implementation of the new rostering and payroll solution for Queensland Health
- ▶ A system procurement process

### 2.1.2 Assumptions

The information, findings and recommendations contained in this review are based on the following assumptions:

- ▶ The recommendations will be implemented as a matter of priority
- ▶ Business requirements for the current known system issues will be confirmed, and signed off in the next 6 months
- ▶ A 'solution' in this report implies people, process and technology "connectivity" or integration, as each are interdependent for the successful delivery of any technology enabled business transformation project

## 3. Current state assessment

This section provides a summary of the key “pain points”<sup>3</sup> gathered through an extensive stakeholder consultation and engagement process (including discussions with unions, clinical, non-clinical and administrative and payroll and technical support staff).

Although the focus of the review was to assess the system options available for stabilising and optimising the current environment, it is important to understand both the people and the business processes that the systems are supporting. Therefore, to identify all relevant issues, feedback was sought and captured from the people, process and technology perspectives.

The information below is summarised and presented for a broader stakeholder audience. Ernst & Young’s approach to this process followed a rigorous methodology to gain a comprehensive understanding of the current state.

### 3.1 Approach

Our approach to understanding the current Queensland Health solution is represented in *Table 1* below:

Table 1: Approach to current state

 <p><b>Step 1</b> Existing documents and reports</p>	<p><b>Step 1: Existing documents and reports</b></p> <p>In consultation with Queensland Health staff, we identified relevant documentation which informed our review process.</p>
 <p><b>Step 2</b> Consultation with unions</p>	<p><b>Step 2: Formal discussions with unions</b></p> <p>At the request of the Queensland Premier and the Health Minister we held joint briefing sessions with unions to confirm our engagement approach, understand their issues with regard to the current solution and identify members to participate in the consultation process.</p>
 <p><b>Step 3</b> Consultation with stakeholders and members</p>	<p><b>Step 3: Consultation with stakeholders and union members</b></p> <p>Based on the briefing and feedback received in Step 2 above, we consulted with staff at eight payroll processing sites (“hubs and spokes”) within Queensland Health including regional and metropolitan areas. We also consulted with other key stakeholders including the union delegates, Nurse Unit Managers, non-clinical and support staff and staff within PIP within Queensland Health.</p>
 <p><b>Step 4</b> Validation of information gathered</p>	<p><b>Step 4: Validation with key stakeholders</b></p> <p>The field data obtained in Step 3 was assessed and validated through a consultation process that included staff within the payroll state wide operations team. This validation process also included feedback from solution vendors.</p>

<sup>3</sup> A pain point in the context of this review has been defined as anything that restricts the effective completion of an activity, both inside and outside the technology.

### 3.2 Extensive Queensland Health staff and stakeholder consultation and engagement

The Ernst & Young review team consulted and engaged broadly across stakeholder groups and geographic locations to gain a comprehensive understanding of the issues and their origins. This was intended to assist the review team in identifying people, process and technology issues. This consultation and engagement was a critical step in this review to provide Queensland Health staff and stakeholders with the opportunity to contribute to the future rostering and payroll solution. The process for consultation and engagement of staff was developed and agreed with Queensland Health and the 13 Queensland Health unions.

Specifically, Ernst & Young listened, observed and spoke with 8 payroll processing locations across regional and remote Queensland for a day. These locations have been provided and identified in the map of Queensland below:

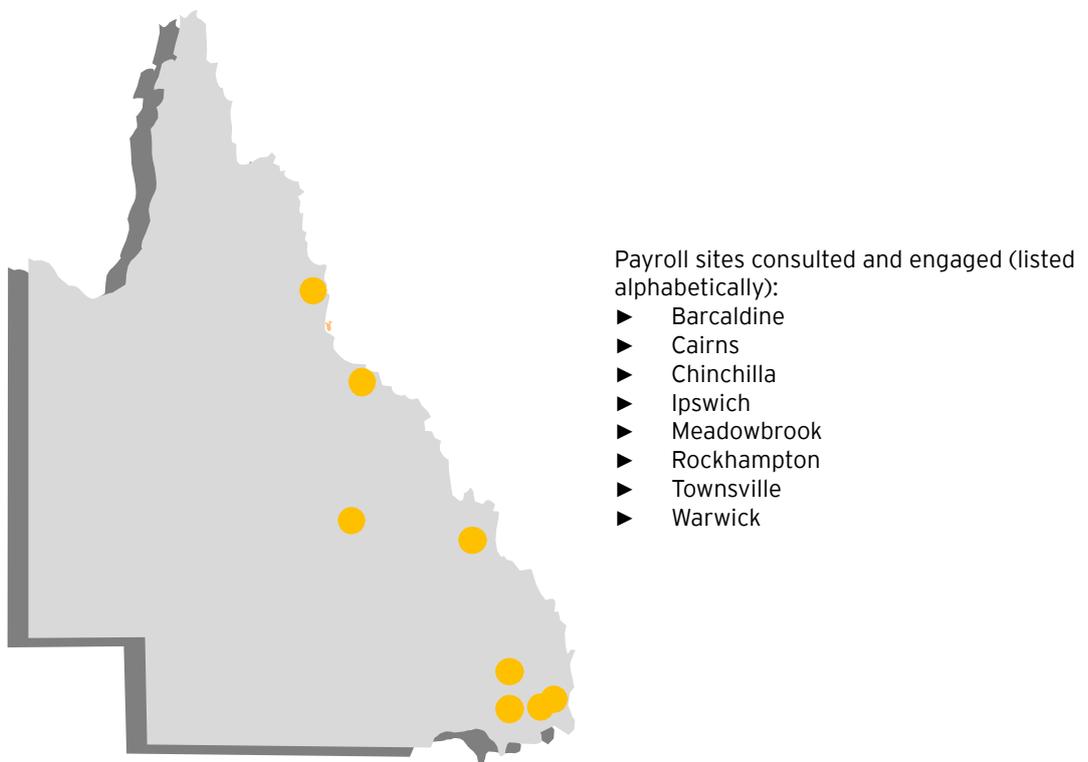


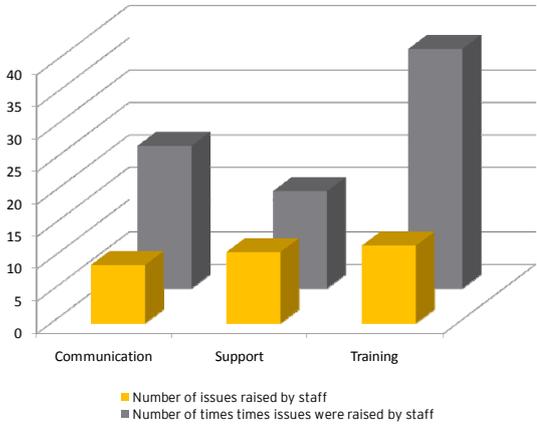
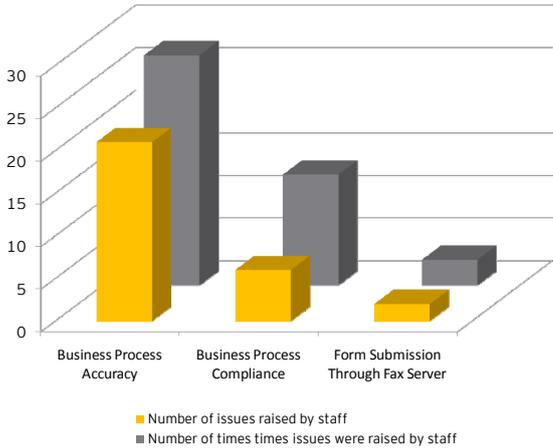
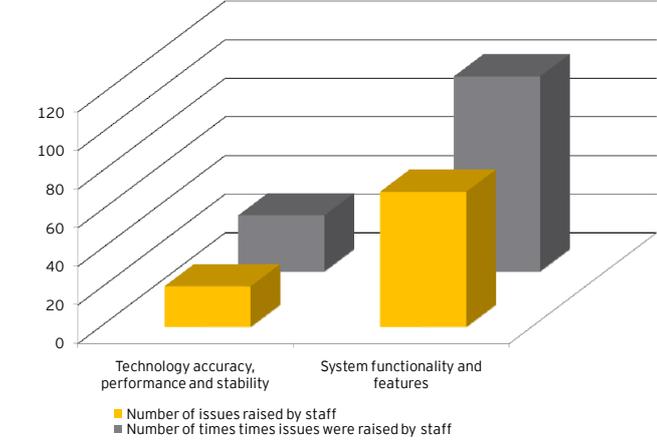
Figure 3: Areas Consulted and Engaged

### 3.3 Current landscape and pain point summary

Presented in *Table 2* below is the range of pain points communicated to the review team from the stakeholders interviewed.

The yellow columns indicate the number of pain points found in the labelled category and the grey columns indicate how many times the pain points in the labelled category were raised.

Table 2: Pain point summary

 <p>Number of issues raised by staff Number of times issues were raised by staff</p> <table border="1"> <thead> <tr> <th>Pain Point</th> <th>Number of issues raised by staff</th> <th>Number of times issues were raised by staff</th> </tr> </thead> <tbody> <tr> <td>Communication</td> <td>12</td> <td>30</td> </tr> <tr> <td>Support</td> <td>14</td> <td>24</td> </tr> <tr> <td>Training</td> <td>15</td> <td>45</td> </tr> </tbody> </table>	Pain Point	Number of issues raised by staff	Number of times issues were raised by staff	Communication	12	30	Support	14	24	Training	15	45	<p><b>People</b></p> <ul style="list-style-type: none"> <li>▶ Lack of training in both SAP and Workbrain, including an understanding of how information flows between both systems</li> <li>▶ Clarity of communication of solution fixes from Queensland Health to end users are not timely and inconsistent</li> <li>▶ Staff morale has been negatively impacted and staff have reported a loss of pride in their work</li> <li>▶ Staff receiving incorrect payments are reporting financial distress and frustration</li> </ul>
Pain Point	Number of issues raised by staff	Number of times issues were raised by staff											
Communication	12	30											
Support	14	24											
Training	15	45											
 <p>Number of issues raised by staff Number of times issues were raised by staff</p> <table border="1"> <thead> <tr> <th>Pain Point</th> <th>Number of issues raised by staff</th> <th>Number of times issues were raised by staff</th> </tr> </thead> <tbody> <tr> <td>Business Process Accuracy</td> <td>24</td> <td>34</td> </tr> <tr> <td>Business Process Compliance</td> <td>8</td> <td>20</td> </tr> <tr> <td>Form Submission Through Fax Server</td> <td>4</td> <td>10</td> </tr> </tbody> </table>	Pain Point	Number of issues raised by staff	Number of times issues were raised by staff	Business Process Accuracy	24	34	Business Process Compliance	8	20	Form Submission Through Fax Server	4	10	<p><b>Process</b></p> <ul style="list-style-type: none"> <li>▶ Centralised rostering and payroll business model has led to loss of localised processing knowledge, for example in relation to local working conditions and challenges</li> <li>▶ Paper-driven business processes do not adequately allow for efficient data processing (such as rosters being developed on paper or Microsoft Excel and then entered manually into Workbrain, resulting in the double handling of rosters)</li> <li>▶ The current technology (fax server) used to accept rosters, shift changes and overtime etc has proven to be an inefficient way of managing payroll items. The fax server also crashes periodically.</li> </ul>
Pain Point	Number of issues raised by staff	Number of times issues were raised by staff											
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Pain Point	Number of issues raised by staff	Number of times issues were raised by staff											
Technology accuracy, performance and stability	35	65											
System functionality and features	85	135											

These pain points have been recognised by Queensland Health and the known system issues logged for resolution. It should be noted some pain points will require a re-development of the current system or changes to the underlying technology platform for their effective resolution. For those pain points that can be addressed in the shorter term, it is considered critical that the ongoing PIP continues.

**Recommendation:** Ernst & Young recognises that substantial work to address current payroll issues (through PIP) has already occurred to date. Queensland Health should continue this work alongside with a formalised issue prioritisation strategy

Section 3.3.1 below provides details of a scenario designed to illustrate some of the key issues above in a practical sense.

### 3.3.1 Pain point scenario

Figure 4 below provides a scenario (rostering concurrent employees) to clearly demonstrate the real impact on staff and what the review recommendations will look to solve.

The red dots indicate areas in the process where pain points are being experienced and have been labelled by letter and described to the right of the illustration.

Sally is a concurrent employee, she works at a metropolitan facility as a part time, registered nurse in a surgical ward and in another role, provides casual relief to another department in the same facility. Under the current configuration Sally has two Workbrain employee IDs one for each of her roles.

John, Sally's Line Manager for her role as a registered nurse in the metropolitan area submits her roster to the Shared Service Provider for Monday, Tuesday and Thursday shifts. Following this submission, Julie, Sally's Line Manager for her relief role submits her AVAC (used by non-rostered staff to report hours worked) to the Shared Service Provider for Monday, Wednesday and Thursday shifts. Workbrain does not alert the payroll roster plotter that Julie is a concurrent Queensland Health staff member, or that she has already been allocated shifts for both Monday and Thursday in her alternative position.

This can result in Sally being paid in both positions for both conflicting days if the form submitted for the position she did not work in is not received in time for processing within the pay cycle.

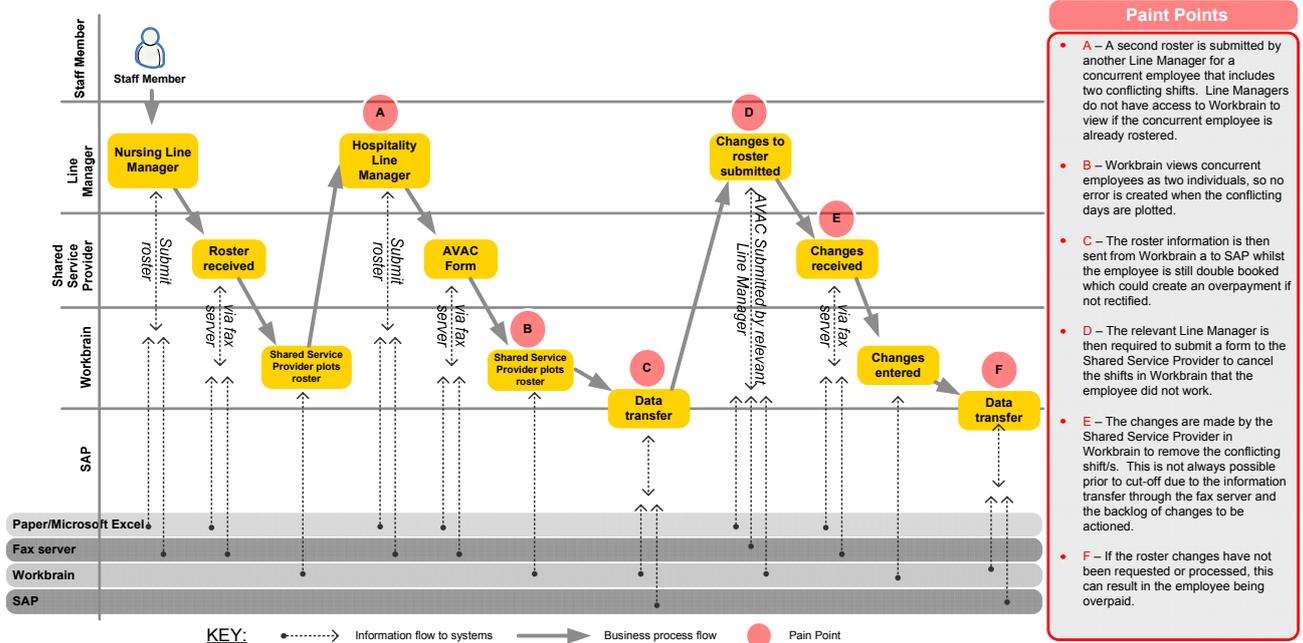


Figure 4: Pain point scenario

### 3.4 Conclusion

Based on the information provided above, the following “current state” themes clearly emerge:

- ▶ A large number of the pain points identified are training, communication and change management based. In particular, the lack of training has in some cases resulted in the misuse of Workbrain and SAP
- ▶ The technical issues within the solution fall into the following categories:
  - i Centralised rostering and payroll technology platform
  - ii Management of concurrent employees
  - iii Leave management
  - iv System performance
  - v Flow of information between Workbrain and SAP (interfaces)
- ▶ There is a preference amongst Queensland Health payroll staff for the system to be retained if the technical challenges can be resolved
- ▶ The pain points identified are consistent across the 8 payroll sites that were consulted and engaged
- ▶ If the key recommendations of this report are not commenced, and clear progress communicated to all stakeholders, Queensland Health will continue to see staff stress and workplace impacts
- ▶ Finding a solution that comprehensively supports Queensland Health’s size and complexity, such as award structures and working conditions, is difficult. The Program to resolve current issues will require a significant undertaking by Queensland Health which will need to be managed via two projects: stabilisation and optimisation (note: this will form part of the roadmap which has been provided in a later section of this report)
- ▶ The solution in its current state may not be able to effectively respond to the National Health Reform Agenda and the introduction of National Health and Hospitals Network. Although Information and Communications Technology (ICT) considerations are unclear, it is important to understand the potential implications for the current solution, such as the localised management and autonomy of solutions, which could include rostering and payroll

**Recommendation:** The design of the new solution be flexible and robust to allow Queensland Health to respond to changes in the in the Health sector, both federally, as in the case of National Health Reform , and at a State level in terms of legislative change and industrial changes

**Recommendation:** Incorporate and clearly identify the consideration of lessons learnt from the current solution, both from the past and in the present, and embed into relevant activities in the roadmap

## 4. Vendor analysis

### 4.1 Approach

In parallel with the current state assessment, the Ernst & Young review team commenced an analysis of key vendors for both the payroll and rostering systems components respectively. Vendors were either identified as part of Ernst & Young's market research or through the vendors making direct contact with the Queensland Government or ourselves.

As an outcome from the Current State Assessment above, it was identified that the majority of the current system issues being experienced by Queensland Health were a result of the configuration of the current setup of the time and attendance and rostering solution.

In relation to payroll, literature reviews conducted by Ernst & Young for Queensland Health, and discussions with the payroll vendor SAP indicated a:

- ▶ Large local, national and global skill base exists to support the SAP Payroll solution
- ▶ Mature presence in both the national and global healthcare industry
- ▶ Significant local, national and global implementations exist for the SAP Payroll solution in related industries
- ▶ Demonstrated commitment to ongoing investment in its healthcare solution

Given these strengths and the fact that SAP is currently used by Queensland Health for its finance solution (minimising potential integration impacts), the review team concluded that, on the assumption that the recommendations of this report are implemented by Queensland Health, SAP can provide an appropriate payroll solution for Queensland Health. This meant that a significant focus of the vendor analysis was on the rostering solution market (however the vendor analysis did review alternate payroll systems).

Whilst the above provides a level of comfort to Ernst & Young, Queensland Health's requirements are complex. Therefore one of the key recommendations is to define clear checkpoints to marry the system's functionality versus the documented and signed off business requirements.

It should be noted that whilst an understanding of the current systems was being gathered, Ernst & Young was contacted by other payroll system providers who were also interviewed to allow a better end to end solution understanding.

Our approach to the rostering vendor analysis is outlined below:

#### **Step 1: Identify and conduct interviews with vendors**

Ernst & Young undertook a national and global literature review of rostering products with a proven track record in the healthcare industry. This review identified that there was no single dominant rostering system within the healthcare industry, however, the following major vendors were identified with strong healthcare experience:

- ▶ Infor (owner of the Workbrain system)
- ▶ Kronos
- ▶ Integrated Workforce Solutions (IWS)

- ▶ Allocate
- ▶ AMS
- ▶ RosterOn
- ▶ Microster

These rostering vendors were then interviewed to obtain a high level overview of the rostering solutions. For completeness, our interview process included vendors who made unsolicited contact, as well as those we identified and approached directly.

### **Step 2: Analyse discussions and documentation**

The objective of Step 2 was to analyse the documentation gathered against the known high level Queensland Health system requirements and current pain points. This review included assessing product overviews and corporate profiles as well as considering the outputs of interviews conducted by the Ernst & Young review team.

### **Step 3: Shortlist vendors**

Those vendors that had adequate healthcare experience were then shortlisted via a two stage process:

- ▶ Stage 1: Assessment against key criteria to determine suitability for Queensland Health
- ▶ Stage 2: Corporate assessment to determine ongoing investment of the product in the healthcare sector

As part of Stage 1 of Step 3 we identified the following three mandatory criteria for our first round shortlisting process:

- ▶ National and local presence and resources for support in Brisbane
- ▶ Credentials of Queensland healthcare sector clients, and therefore a knowledge of the Queensland award structures
- ▶ Proven Australian healthcare sector experience

The rostering solution vendors that did not satisfy these mandatory criteria were not shortlisted in this first round. In the instance where two or more vendors satisfied the above mandatory criteria, the following “highly desirable” criteria were used as a key differentiator:

- ▶ Demonstrated global presence and experience in the healthcare industry
- ▶ Experience in other industries in Australia that have implemented our target vendor solutions
- ▶ The number of resources and support the vendors have to offer nationally and the locations they are based
- ▶ GISC 5 accredited (Government Information Technology Contracting Framework, version 5). This is administered by GISC Services which works closely with both Government agencies and the ICT industry to simplify the purchasing process. The

GITC terms and conditions are designed to remove uncertainties and inconsistencies in contractual procurement arrangements

Following the assessment against the key criteria (Stage 1) we conducted a corporate assessment (Stage 2). The purpose of this review was to focus on their corporate background in terms of their:

- ▶ Key offerings
- ▶ Their target markets and industries
- ▶ Customers and business partners that they engage with
- ▶ Growth strategy
- ▶ Financials
- ▶ Level of experience and credentials in the healthcare industry
- ▶ Commitment to the Australian market

In summary this review was to establish their suitability as a business partner for Queensland Health.

#### **Step 4: Conduct healthcare client interviews**

In parallel to the company information review, we asked those shortlisted vendors that had adequate healthcare sector experience to provide client contact points (the outcome of these interviews are provided in the peer analysis section). The purpose of these interviews was to understand:

- ▶ The relationship, responsiveness and support of the respective vendor
- ▶ The complexity and organisation size in comparison with Queensland Health
- ▶ The rostering functions
- ▶ The effectiveness of the solution

## **4.2 Conclusion**

Based on the assessment and process outlined above, the following rostering vendors were shortlisted for consideration as options for Queensland Health. These vendors demonstrated that they met all the mandatory criteria and whose client references provided feedback that the systems were able to meet their respective business requirements.

- ▶ Kronos
- ▶ Workbrain

**Note:** Should Workbrain be unable to address the current critical system issues or negotiate a suitable commercial arrangement with Queensland Health, Queensland Health should further investigate a suitable replacement using the outcome of the vendor analysis as a starting point

### 4.3 Key themes

Key themes that emerged from the vendor analysis include:

- ▶ Rostering challenges in Australia appear to be based around access to skilled resources
- ▶ The rostering solution market has no clear leader
- ▶ The leading rostering solutions are developed offshore, increasing the challenge to meet regulatory and operational requirements in Australia
- ▶ No dominant payroll and rostering solution which is specifically designed to work together for the healthcare sector, although some product owners certify their products' operating compatibility

## 5. Peer analysis overview

This section provides a summary of information and feedback from discussions held with peer healthcare agencies in Australia and around the globe. A primary objective of these discussions was to identify any similar organisations around the world with a payroll and rostering solution similar in size and scale to that of Queensland Health. It was also to understand key success factors and lessons learnt in implementing their systems. The review team also wanted to understand how other healthcare agencies approach rostering and payroll functions and if any of these approaches could be leveraged for developing an improved future state for Queensland Health.

Ernst & Young also held discussions with two other organisations outside the healthcare sector that use similar systems to Queensland Health.

The healthcare agencies and other organisations that Ernst & Young held discussions with cannot be named for commercial-in-confidence reasons. However, the organisations consulted included major Australian healthcare agencies, overseas major healthcare agencies as well as a retail organisation and a service delivery organisation with similar complexity to Queensland Health.

### 5.1 Approach

The approach taken to identify, interview and analyse the information gathered from agencies and other organisations is outlined below in *Table 3*.

Table 3: Approach to peer analysis

 <p><b>Step 1</b> Identify peer agencies</p>	<p><b>Step 1: Identify peer agencies</b></p> <p>Ernst &amp; Young utilised its existing client base and its discussions with vendors to identify peer healthcare agencies and other organisations within Australia and globally that had similarities to Queensland Health.</p>
 <p><b>Step 2</b> Understand the agency</p>	<p><b>Step 2: Understand the agency</b></p> <p>We developed a standard set of questions to:</p> <ul style="list-style-type: none"><li>▶ Understand the organisation and its complexity compared to Queensland Health</li><li>▶ Gather information about its approach to rostering and payroll functions</li><li>▶ Identify the current solutions in place and how effectively they are supporting the organisation</li></ul>
 <p><b>Step 3</b> Validate information</p>	<p><b>Step 3: Validate information</b></p> <p>We collated and documented the information from Step 2 and where required, asked each organisation to validate this documentation.</p>

**Step 4**  
Analyse and  
identify key  
differences

#### Step 4: Analyse and identify key differences

Following the validation process, the information was analysed to identify any key differences in approaches and whether these could be leveraged for future optimisation activities.

## 5.2 Summary of peer analysis

Queensland Health's centralisation of its rostering and payroll function for 78,000 staff and underlying technology platform, based on the range of healthcare agencies we have consulted with, is rare in the world in terms of size and scale. Many of the healthcare industry solutions have been developed to operate on a "local" level system solution on an underlying technology platform for 5,000 - 15,000 staff (e.g. at the District or Hospital level).

Other clear themes that emerged from our peer healthcare agency review:

- ▶ Annual leave is typically managed by the payroll system effectively reducing the need to exchange information between solutions, which can affect system performance and availability (within Queensland Health, annual leave accumulation resides in the rostering system)
- ▶ Similar to the current configuration in Queensland Health, award interpretation predominately occurs in the rostering solution to allow for real time interpretation of awards (such as allowances) against hours worked
- ▶ Most healthcare agencies manage rostering at a district or hospital level and use Employee Self Service (ESS) functionality (this means that employees can carry out activities such as managing and requesting their own leave and reviewing their rostering details). ESS ultimately reduces the administration effort and number of paper driven transactions
- ▶ Most healthcare agencies utilise Manage Self Service (MSS) functionality (whereby line managers can plot and publish their own unit's rosters), reducing administration effort and the double handling of rosters
- ▶ Other healthcare agencies in Australia and globally have seen benefit from biometric devices such as swipe cards and finger print scanners. Such devices electronically track exceptions in rosters such as staff sick days or overtime, as opposed to manually submitting a form for processing

The key themes above suggest that Queensland Health has opportunities and areas to further improve and enhance its payroll and rostering solutions. Some of these themes could be leveraged and applied in the current system to provide improvements to Queensland Health. It is recommended, therefore, that Queensland Health establish relationships with peer healthcare organisations to maximise this opportunity. It should be noted that some of these opportunities, such as the use of biometrics, would require significant change both technically and organisationally.

**Recommendation:** Design the new solution at the "local", or decentralised, level, in particular taking rostering back to the local/district/divisional level

**Recommendation:** Establish a global Workbrain healthcare working group to share and leverage existing improvements in the solution

## 6. Solution options assessment

This section uses the information gathered in the previous sections to inform the assessment of the solution options (“options”) available to Queensland Health to effectively reduce the risk of ongoing impacts on the current solution.

Therefore, each of the options identified below has been assessed against their ability to stabilise, improve and enhance the current Queensland Health rostering and payroll environment to support the complete, accurate and prompt payment of staff.

The definition of a “solution” in the context of this report refers to people, process and technology challenges as each are interdependent for the successful delivery of any technology enabled business transformation project.

Merely focusing on ‘fixing’ the systems, and not improving people aspects (e.g. change management and training) and business process aspects (e.g. reliance on paper based processes) may stabilise the IT environment, however it will not drastically improve information quality nor a robust and flexible environment to respond effectively to changing requirements. This would include responding to the requirements of the National Health Reform, and in particular, the National Health and Hospitals Network (NHHN).

Provided below is our approach to assessing available options.

### 6.1 Approach to options assessment

The objective of the options assessment is the identification of the most effective and efficient, lowest risk option for Queensland Health as opposed to an assessment made purely on the basis of cost or functional benefit. Ernst & Young has taken a rigorous methodological approach to identifying these options and consulted broadly with stakeholders to gain a better understanding of the implications of future change.

A summary of our approach is outlined in *Table 4* below:

Table 4: Approach to solution options assessment

 <p><b>Step 1</b> Identify options</p>	<p><b>Step 1: Identify options</b></p> <p>Identification of possible options is based on:</p> <ul style="list-style-type: none"><li>▶ Analysis of current state information and engagement with key stakeholders on their issues with the current solution</li><li>▶ Analysis of the current rostering and payroll market</li><li>▶ Workshops with key stakeholders to discuss available options and their potential configurations</li></ul>
 <p><b>Step 2</b> Assess options</p>	<p><b>Step 2: Assess options</b></p> <p>The resulting list of options has been assessed against risk principles that consider the organisation, its people and processes and the available technologies.</p> <p>Options which scored a high risk against the risk assessment principles have been automatically excluded from additional consideration.</p>



### Step 3: Analyse refined options

Options which scored a moderate or low risk against the assessment principles were shortlisted and further assessed against:

- ▶ Option capability assessment: analyse if the option is capable of addressing the key issues identified by Ernst & Young during site visits, stakeholder engagements and the payroll state wide operations team ( this team is responsible for addressing issues escalated from Queensland Health payroll processing hubs)
- ▶ Option risk and impact assessment: analyse the strengths, weaknesses, people impacts, process impacts and implementation risks



### Step 4: Determine the most effective and efficient, lowest risk option

The outcome of **Step 3: Analyse refined options** is to provide the most effective and efficient, lowest risk option for Queensland Health for delivering solution outcomes in terms of removing staff "pain" and better supporting the payroll process.

## 6.2 Step 1: Identify options

The options available for Queensland Health include:

### Option 1 - Stabilise the existing solution environment (i.e. invest in the current solution through the fixing of current system issues)

This Option includes retaining SAP and Workbrain but implementing system enhancements and configuration changes to address key issues. In addition, it includes improving system infrastructure capability to relieve performance and accessibility issues. This option excludes any major changes to the underlying technology platform. It may include realignment of business processes to functionality enhancements.

### Option 2 - Stabilise and optimise the existing solution environment (i.e. undertake an "optimise" project of the current systems to resolve all current issues and improve usability at the "local" level)

Under this option SAP and Workbrain would be retained by Queensland Health. This option differs from Option 1 in that it includes two concurrent projects: stabilise and optimise. The scope of the stabilisation project is the same as **Option 1 - to enhance system and infrastructure capability**. The optimise project, however, includes changes to the underlying technology platform to reduce system dependencies, streamline processing and enable efficiency improvements.

More specifically, leave and separation will be managed by SAP rather than Workbrain. In addition automated forms processing and Employee Self Service (ESS) and Manager Self Service (MSS) will be introduced. ESS/MSS provides an avenue for employees and managers to directly interact with the technologies e.g. Enter leave or view leave balances from a web site.

This option will be designed in line with the implementation of a new payroll operating model which is currently being piloted in two sites, with the objective of providing improved services at the district/hospital/divisional level. This option will also require effort in the people, process and technology layers of the solution to achieve alignment and integration. Enhancement to change management, communication and training are seen as critical activities for this option.

### **Option 3 - Replace the existing rostering system (whilst retaining the current payroll system)**

This option retains SAP as the payroll system but substitutes the current rostering system, Workbrain, with an alternative rostering solution. The replacement system would be selected using the results of the shortlisting process conducted and described in *Section 4 - Vendor analysis* as a starting point.

This option will involve work streams in the people, process and technology layers to achieve alignment and smooth transition. A significant amount of effort is required around the rostering functions to cater for the change in system.

Like Option 2, this option will be designed in line with the new payroll operating model, i.e. at the "local", or decentralised, level.

### **Option 4 - Replace all existing rostering and payroll systems**

Replace both the rostering system, Workbrain, and the payroll system, SAP. The roster replacement system will be selected using the results of the process conducted and described in *Section 4 - Vendor analysis* of this report.

This option will involve work streams in the people, process and technology layers to achieve alignment and smooth transition. A significant amount of effort is required as existing knowledge of the current solution would be lost (such as training materials and system expertise).

### **Option 5 - Outsource the payroll function to an external organisation**

Outsource payroll processing to an experienced and well established commercial vendor. This involves partnering with the vendor to implement changes and system enhancements.

This option will involve work streams in the people, process and technology layers to achieve alignment and smooth transition. In addition to the potential implementation of another new solution, a significant amount of effort is required specifically around business processes, establishing maturity around IT Service Management (ITSM), focused contract management and Service Level Agreements (SLAs). This is required to integrate payroll processing with the overall HR function and business.

This option includes work streams for critical project components such as business process improvements, enhancements to the current communication and change management functions, training and rigorous testing both technically and by users.

### **Option 6 - Maintain status quo of the current systems (i.e. no further investment in the current systems)**

Continue with the current SAP and Workbrain solution configurations and make no significant changes to the current rostering and payroll systems. This option excludes improvements to the current approach to communication, change management and business process improvement activities.

### 6.3 Step 2: Assess options

The options identified above have been assessed against six key principles with the overall objective of identifying the most effective and efficient, lowest risk option for Queensland Health for delivering solution outcomes in terms of removing staff “pain” and better supporting the payroll process.

These principles include:

1. **Impact on staff** - an option is high risk, if implemented, if it has a negative impact on district and payroll staff and other stakeholders, and potentially results in significant workplace impact or increases in average staff turnover
2. **Implementation timeframe** - an option is high risk, if implemented, if it takes in excess of 3 years to fully implement and achieve the specified vision
3. **Business fit and strategic alignment** - an option is high risk, if implemented if the solution is misaligned with the overall strategic direction of Queensland Health
4. **Solution effectiveness risk** - an option is high risk, if implemented, if it cannot address the current pain points that are being experienced by end users of the solution
5. **Stability risk** - an option is high risk if implemented if it continues to be unstable (e.g. system crashes and inaccessibility)
6. **Performance and scalability risk** - an option is high risk, if implemented, if it does not perform or is not of scale to respond to changing business requirements or the expected long term growth of Queensland Health

Table 5 provides a summary of the outcome of **Step 2: Assess options** has been outlined below:

Table 5: Summary of options assessment against risk principles

		Principle					
		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
High							
Medium							
Low-Medium							
Low							
<b>Summary of options assessment against risk principles</b>							
		Medium	Medium	Medium	High	High	High

Any options that had an attached high risk (i.e. a red circle) were not considered for further assessment, therefore the options that scored a medium risk or below have been refined for **Step 3: Analyse refined options** component of this options assessment which has been provided below.

For the detailed assessment against all risk principles refer to *Appendix A - Detailed solution options assessment*.

## 6.4 Step 3: Analyse refined options

Based on the analysis above, the refined options for assessment include:

- ▶ Option 1 - Stabilise the existing solution environment
- ▶ Option 2 - Stabilise and Optimise the existing solution environment
- ▶ Option 3 - Replace the existing rostering system

The refined options are put through a series of assessments to determine their capability to provide a reliable and scalable payroll solution for Queensland Health. The outcome of these assessments highlighted the most effective and efficient, lowest risk option for Queensland Health.

- ▶ **Option capability assessment:** analyse if the option is capable of addressing the key issues identified by Ernst & Young during site visits, stakeholder engagements and the payroll state wide operations team. This team is responsible for addressing issues escalated from Queensland Health payroll processing hubs
- ▶ **Option risk and impact assessment:** analyse the strength, weakness, people impacts, process impacts and implementation risks

Table 6 below summarises the options capability and risk and impact assessments. For the detailed assessment refer to *Appendix A - Detailed solution options assessment*.

Table 6: Summary of refined options

Option 1 - Stabilise the existing solution environment	
Outcome:	Not preferable, not the most effective and efficient, lowest risk option
Explanation:	<ul style="list-style-type: none"> <li>▶ Short term fixes does not provide Queensland Health with a reliable and scalable payroll solution for future growth</li> <li>▶ May provide a stable environment in the short term, however requires significant investment to operate long term</li> <li>▶ Application maintenance can be costly due to the amount of system customisation</li> <li>▶ Issues inherent in the current situation will not be addressed</li> </ul>
Option 2 - Stabilise and Optimise the existing solution environment	
Outcome:	The most effective and efficient, lowest risk option for delivering solution outcomes in relation to removing staff "pain" and better supporting the payroll process.
Explanation:	<ul style="list-style-type: none"> <li>▶ Provides Queensland Health with a reliable and scalable payroll solution for future growth, such as effectively responding to the requirements of the National Health Reform</li> <li>▶ Involves stabilisation as well as optimisation. Two projects to yield the best outcome for Queensland Health for both the short and long term</li> <li>▶ Significant reuse of already established assets, including reuse of training materials and leveraging of existing system knowledge. This would result in a lower cost when compared to Option 3</li> <li>▶ Existing system vendor has a detailed knowledge of existing solution and the existing Queensland Health payroll issues and award structures</li> <li>▶ Will provide in the long term reduced data entry and reliance on paper based business processes that could lead to staff payments errors</li> </ul>
Option 3 - Replace the existing rostering system	
Outcome:	Not preferable, not the most effective and efficient, lowest risk option
Explanation:	<ul style="list-style-type: none"> <li>▶ High risk of separating Workbrain from the existing environment and introducing a "new" system into the current system environment</li> <li>▶ Additional effort of remediating the impact of separating Workbrain from the existing solution environment and the effort required to design and implement significant proportion of the solution</li> <li>▶ Minimal reuse of established assets such as training materials and system expertise</li> <li>▶ Queensland Health employees and HR officers have to adjust and adopt to a new system again</li> <li>▶ The new vendor would have a "learning curve" in relation to developing an understanding of the current payroll issues facing Queensland Health</li> </ul>

## 6.5 The most effective and efficient, lowest risk option

Based on the methodological approach to assessing the solution options, **Option 2 - Stabilise and Optimise the existing solution environment** - has been identified as the most effective and efficient, lowest risk option for delivering solution outcomes in relation to removing staff “pain” and better supporting the payroll process.

The most effective and efficient, lowest risk option for delivering solution outcomes in relation to removing staff “pain” and better supporting the payroll process is:

### *Option 2 - Stabilise and optimise the existing solution environment*

Option 2 provides both short term stabilisation as well as a platform that has the ability to handle future growth. Short term stabilisation is provided by improving the current system functionality without making fundamental changes to the underlying technology platform. Stabilisation is accelerated through the reuse and refinement of existing assets leading to lower change management efforts and stress for Payroll officers.

Option 2 extends Option 1 to address inherent issues with the current solution design. This includes:

- ▶ Improvement of current system functionality and reduction of paper based business processes
- ▶ The opportunity to build on the existing assets and the lessons learned reduces the cost and risk profile of Option 2
- ▶ A better, and “localised” environment that has the ability to handle future growth catering for the changing needs of Queensland Health and State Government requirements, such as the National Health Reform

Whilst Option 3 (replace rostering system), has the capability to ultimately achieve the same outcome as Option 2 (stabilise and optimise), it does have a higher risk profile (under our definition), particularly in relation to the impact to staff of a new system required to be implemented. Additionally, the lack of knowledge of how the new rostering system will operate and perform in the Queensland Health environment introduces an additional layer of risk to the outcomes.

The time and effort associated with Option 3 is considered the highest of the three options. This is mainly due to the lack of capability to reuse existing assets as well as the impact on SAP of removing Workbrain from the solution. Additionally, payroll officers are not familiar with the new system, resulting in the need for a fresh training program and change management.

## 6.6 Key commercial and contractual considerations

It is recommended that Queensland Health immediately conducts a review of the commercial and contractual agreements in relation to Workbrain and SAP HR. Depending on the outcome of the review, the feasibility and risk profile of Option 1 (stabilise) and Option 2 (stabilise and optimise) may need to be reviewed.

It is recommended that at a minimum the following contractual considerations be clarified:

- ▶ Current SAP and Workbrain licensing agreements and their impact on Queensland Health
- ▶ Obligations and commitment of vendors, in particularly Workbrain, to provide appropriately skilled resources locally as required
- ▶ The warranty and problem resolution processes including timelines and execution
- ▶ Obligations and responsibilities for management of the interface to clearly allocate accountability for system upgrades
- ▶ Initiate commercial negotiation as necessary
- ▶ If Queensland Health does not have autonomy over the current solution, determine the contractual boundaries and determine if variations to Option 1 or 2 are feasible. Option 3 will need to be reassessed in light of contractual and commercial clarifications

**Recommendation:** Review and implement robust contractual arrangements for system development and support

## 7. Findings

Queensland Health operates in a dynamic and complex environment which requires responsive and flexible supporting systems to efficiently assist with roster and payroll processing. It is important to note that the systems are the enabler of Queensland Health's services. It is the people, process and policies that will drive the behaviour of the systems.

It is widely acknowledged that the existing solution does not provide sufficient support for Queensland Health's rostering and payroll function. Therefore, the Queensland Health solution, in particular Workbrain, is to be re-implemented and be conducted as a separate Program to be made up of stabilise and optimise projects with a defined and agreed vision. This solution vision and design also needs to consider the Finance Solution vision, particularly as it relates to integrating key aspects such as costing and Activity Based Funding (ABF).

Both projects are to be conducted in parallel, with the stabilise project looking to ongoing activities of PIP, which has already been established to stabilise the current systems and implement fixes that can provide some immediate relief to payroll operators and recipients.

Once the majority of current stabilisation activities have been achieved, Queensland Health should also look to transition PIP resources into the optimisation project to allow for continuity of existing knowledge and skills.

It should be noted that this new Program will need up to 3 years to achieve the ultimate vision and be fully rolled out to all Queensland Health Districts, however during this time there will be ongoing issues prioritisation and fixes.

Based on our lowest risk assessment approach we recommend **Option 2: Stabilise and optimise current solution** (Workbrain and SAP). This option provides:

- ▶ Both short term stabilisation and a scalable platform for future growth and response to the National Health Reform Agenda
- ▶ Accelerated stabilisation through the reuse and refinement of existing assets
- ▶ Lower change management efforts and stress for Payroll officers

Through the capability, risk and impact assessment outlined above, this option has a demonstrated capability to address immediate concerns as well as providing an environment that has the ability to respond and cater for long term growth. To ensure sustainable momentum, Queensland Health must conduct the stabilisation and optimisation projects concurrently. In addition, the alignment of people, process and technology are seen as critical to the success of the payroll solution.

## 7.1 Recommendations

In addition to the adoption of lowest risk option, provided below are Ernst & Young's recommendations to Queensland Health which are linked to better practice. These recommendations have also been referenced throughout this report.

1. Immediately initiate the Queensland Health Optimise Project to confirm the implementation roadmap and plan to deliver the future state including the following key activities:
  - a. Commence development of a "Program Management Plan" considering:
    - i Confirming the underlying technology platform optimisation and design
    - ii Establishing the end state vision of Queensland Health payroll solution and specify transitions
    - iii Defining impact and alignment to the stabilisation project
  - b. Establish a robust payroll solution governance model based on, at minimum, the following principles:
    - i Clear separation of roles, responsibilities and accountabilities for the stabilisation and optimisation projects, in particular:
      - ▶ Stabilisation project is executed by PIP and sponsored by the DDG of HR
      - ▶ Optimisation project is executed by the CIO and sponsored by the DDG of HR
    - ii Defined Key Performance Indicators
    - iii Establish an optimisation project steering committee group
  - c. Incorporate and clearly identify the consideration of lessons learnt from the current solution, both from the past and in the present, and embed into relevant activities in the roadmap
  - d. Review and implement robust contractual arrangements for system development and support (refer to *Section 6.6 - Key commercial and contractual considerations* for activities that should occur at minimum).

**Note:** Should Queensland Health be unable to negotiate a suitable commercial arrangement with Workbrain, Queensland Health should further investigate **Option 3 - Replace the existing rostering system**, using the outcome of the vendor analysis as a starting point.
  - e. Mobilise the project team for the Optimise Project Initiation Phase, this mobilisation needs to minimise impact on current stabilisation activities and resources:
    - i This mobilisation to include the availability of skilled SAP and Workbrain resources as per commercial and contractual negotiations
  - f. Conduct business requirement collection and confirmation, and a detailed fit and gap analysis. In addition to this:

- i The business requirements are to be formally documented, and must include formal checkpoints and progressive sign offs
    - ii A realistic budget is to be developed, and confirmed based on the sign off on business requirements to determine the effort required to deliver the full program of work
  - g. Prioritise investment activities between the Optimise Project Initiation Phase and other related projects to maximise Queensland Health's ROI
2. In line with the new payroll operating model, design the new solution at the "local", or decentralised, level, in particular taking rostering back to the local/district/divisional level to:
- a. Address the issues that have been experienced through the centralised model, i.e. the loss of localised processing knowledge in relation to local working conditions and challenges
  - b. Allow Queensland Health to support their own eHealth agenda and respond to changes in the Health sector, both Federally, as in the case of National Health Reform, and at a State level in terms of legislative change and industrial changes
3. Ernst & Young recognises that substantial work to address current payroll issues (through PIP) has already occurred to date. Queensland Health should continue this work along with:
- a. The development of an issue prioritisation strategy and criteria to assist with release scoping and definition for the stabilisation project. This strategy needs to include assessing and consolidating current issues against a formalised set of prioritisation principles
  - b. Identifying resources (such as resources from the implementation project and current HR payroll officers)
  - c. Leveraging lessons learnt to date
  - d. Incorporating and embedding relevant activities within the roadmap
  - e. A review and revision to existing change management, communication and stakeholder engagement plans
  - f. Keeping stakeholders well informed of direction and progress. Change management, including training needs, must be aligned to the stabilisation releases and future technology platform optimisations
  - g. The implementation of strong commercial arrangements with Infor (Workbrain system vendor) to successfully deliver fixes

**Note:** Should Workbrain be unable to address the bugs and issues, Queensland Health should further investigate **Option 3 - Replace the existing rostering system**, using the outcome of the vendor analysis as a starting point.

4. Establish a global Workbrain healthcare working group to share and leverage existing improvements in the solution. This provides the potential opportunity for Queensland Health to achieve greater economies of scale for Workbrain enhancements. A Canadian healthcare organisation has expressed interest in this. It is worth noting the healthcare organisation and Workbrain are well progressed on the journey to resolve some of the key issues currently faced by Queensland Health.

Queensland Health should act immediately to implement the above mentioned recommendations

## 7.2 Critical Success Factors for the recommendations to work

At a minimum, the following critical success factors should be taken into consideration and applied as relevant to the recommendations above:

1. Defined and signed off business requirements
2. Align all the stabilisation and optimisation projects with the Queensland Government Project Management Methodology
3. The solution vision and design is to consider impacts and interdependencies to related systems, including, the Queensland Health finance system
4. The solution design is to fully consider the two week payroll cycle timeframe requirements for Queensland Health, including supporting appropriate time for error corrections prior to payroll generation
5. Mature, comprehensive and consistent testing approach. Plan sufficient testing time and formal sign off at the end of each testing stage.
6. Clearly articulated Statement of Works and formal sign off of key documentation
7. Design and implement a comprehensive change management and training activities to support the program
8. Effective, consistent and timely communication
9. Implement separate Steering Committees for the Stabilisation and Improvement and Stabilisation and Optimisation Programs
10. Implement the solution progressively in a controlled, staged manner
11. Establish conditions for cooperation early on with stakeholders and effectively manage expectations
12. Alignment of people, process and technology
13. Leverage the current learnings and solution expertise and from PIP and transition into the optimisation project of the program
14. Enforce resource availability, in particular mandatory staff training courses
15. Strong commercial arrangements and ongoing management with the system vendor

## 8. Conclusion

This report has identified that the lowest risk option is for Queensland Health is to stabilise and optimise the existing solution, SAP and Workbrain.

This involves maintaining Workbrain as the rostering system and SAP as the main HR/Payroll system. This will be conducted within two projects:

- ▶ The ongoing PIP stabilisation program will continue to look at technology capability enhancements to address existing issues
- ▶ The optimisation project will look at the solution technology platform to enable efficiency and scalability for the future

Both projects will require synchronisation and alignment of the people, process and technology layers of the solution. This report has also highlighted key contractual considerations and Queensland Health's autonomy over the solution as key issues that need to be immediately investigated and clarified.

### 8.1 High level roadmap

Queensland Health Payroll and Rostering solution will be centred on the solution roadmap towards the two concurrent projects within a single program. This roadmap will need to outline the key activities and against an approximate timeframe.

**Recommendation:** Immediately initiate the Queensland Health Optimise Project to confirm the implementation roadmap and plan to deliver the future state including the following key activities:

- a. Commence development of a Program Management Plan
- b. Establish a robust payroll solution governance model
- c. Incorporate and clearly identify the consideration of lessons learnt from the current solution, both from the past and in the present
- d. Review and implement robust contractual arrangements for system development and support (refer to Section 6.6 - *Key commercial and contractual considerations* for activities that should occur at minimum)
- e. Mobilise the project team for the Optimise Project Initiation Phase, this mobilisation needs to minimise impact on current stabilisation activities and resources
- f. Conduct business requirement collection and confirmation, and a detailed fit and gap analysis
- g. Prioritise investment activities between the Optimise Project Initiation Phase and other related projects to maximise Queensland Health's ROI

Provided in *Figure 5* below are the immediate activities that, at a minimum, provide the basis of initiating the program of work in line with recommendations provided in the previous section. Further activity will need to occur to confirm the roadmap below and also define further activities of work in the optimisation project.



# Appendix A Detailed solution options assessment

Section 6 - Solution options assessment identified the most effective and efficient, lowest risk option for Queensland Health is **Option 2 - Stabilise and optimise the existing solution environment**. This appendix provides the detailed assessment results of **Step 2: Risk assessment principle results** and **Step 3: Analyse refined solution options**, as well as additional reasoning behind other option exclusions.

## Step 2: Risk assessment principle results

Table 7 below assesses each solution option in terms of the probability of being unable to satisfy the risk principle and description.

Any solution option rating **high** against any of the risk principles will be excluded from further assessment.

Table 7: Options assessment against risk principles

	Principle					
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Impact on staff						
Implementation timeframe						N/A
Business fit and strategic alignment						
Solution effectiveness risk						
Stability risk						
Performance and scalability risk						
Summary						

## Excluded options

Based on the above assessment, *Table 8* below summarises options that are excluded:

**Table 8: Exclusions**

Option	Exclusions
Option 4 - Replace all existing rostering and payroll systems	<ul style="list-style-type: none"> <li>▶ Long term, delayed results</li> <li>▶ Does not leverage established knowledge and systems (such as training materials and system expertise)</li> <li>▶ High implementation risk</li> <li>▶ Unpalatable to stakeholders unless Workbrain proven unfixable</li> </ul>
Option 5 - Outsource the payroll function to an external organisation	<ul style="list-style-type: none"> <li>▶ Staff lacking confidence in third party operators who have limited knowledge of Queensland Health</li> <li>▶ Does not enable Queensland Health to rapidly initiate changes due to the involvement of commercial vendor - contractual issues and process flows changes can be time consuming</li> <li>▶ Unlikely to be as responsive and integrated as an internal payroll function</li> </ul>
Option 6 - Maintain status quo	<ul style="list-style-type: none"> <li>▶ Further staff financial and morale impacts</li> <li>▶ High potential for industrial action</li> <li>▶ Current pain points such as performance stability will not be addressed</li> <li>▶ High number of workarounds and errors that are unsustainable</li> <li>▶ Unable to effectively respond to changing legislation and requirements</li> </ul>

## Step 3: Analyse refined solution options

Based on the analysis above, the refined options for assessment include:

- ▶ Option 1 - Stabilise the existing solution environment
- ▶ Option 2 - Stabilise and Optimise the existing solution environment
- ▶ Option 3 - Replace the existing rostering system

The refined options are put through a series of assessments to determine their capability to provide a reliable and scalable payroll solution for Queensland Health. The outcome of these assessments highlighted the most effective and efficient, lowest risk option for Queensland Health.

- ▶ Option capability assessment: analyse if the option is capable of addressing the key issues identified by Ernst & Young during site visits, stakeholder engagements and The payroll state wide operations team (this team is responsible for addressing issues escalated from Queensland Health payroll processing hubs)
- ▶ Option risk and impact assessment: analyse the strength, weakness, people impacts, process impacts and implementation risks

*Table 9* below assesses each option's ability to address the some of the key issues that were found as part of:

- ▶ Ernst & Young's site visits
- ▶ Stakeholder engagements
- ▶ The payroll state wide operations team

Table 9: Option capability assessment

Issue description	Option 1	Option 2	Option 3
Current Workbrain capability does not support management of <i>concurrent employees</i> . Workbrain in its current form does not support: <ul style="list-style-type: none"> <li>▶ Identification/flagging of a concurrent employee</li> <li>▶ Roster restriction enforcement to avoid duplicate roster</li> <li>▶ Accurate calculation of work details for each role for the employee</li> </ul>	●	●	●
Current Workbrain capability does not provide flexible and efficient <i>leave processing</i> . More specifically: <ul style="list-style-type: none"> <li>▶ Leave has to be entered/amended sequentially (by date)</li> <li>▶ Transfer of leave balances for employees holding multiple roles requires multiple transactions (e.g. one transaction to reduce leave balance and another transaction to increase leave balance)</li> </ul>	●	●	●
Current solution does not provide sufficient flexibility in processing <i>employee termination</i> . More specifically: <ul style="list-style-type: none"> <li>▶ Flexibility to amend data of separating/separated employee. Currently employee need to be reinstated for any amendments (e.g. shift changes)</li> </ul>	●	●	●
Current Workbrain capability does not provide a flexible mechanism to adjust employee <i>meal breaks</i> .	●	●	●
Current solution does not comprehensively support <i>pay in advance</i> processing. More specifically post the payroll cut off in Workbrain: <ul style="list-style-type: none"> <li>▶ A pay in advance cannot be requested</li> <li>▶ An amendment in a staff members pay cannot be requested</li> </ul> Employee can be overpaid by SAP in the situation where an employee deduction was increased (e.g. annual health insurance premium increases) after the deduction was made as part of a pay in advance	●	●	●
Current solution results in <i>inconsistent leave balance</i> in Workbrain and SAP.	●	●	●
Current solution does not adequately support <i>data requirements of business processes</i> . More specifically: <ul style="list-style-type: none"> <li>▶ SAP to Workbrain data flow needs to be more frequent</li> <li>▶ Leave balance cannot be obtained in a timely manner to support leave payout without termination</li> </ul> Work details from Workbrain to SAP currently run 5 times per day. There is too much data in each run, containing a significant amount of errors and needing significant reconciliation efforts.	●	●	●
Current solution suffers from performance issues in the lead up to payroll runs.	●	●	●
Current solution does not support efficient processing. A number of payroll functions involve a number of processes e.g. termination, leave amendments, etc.	●	●	●
Current solution does not scale well with increase usage and data processing.	●	●	●
Ability to effectively handle and respond to the requirements of the National Health Reform agenda, in particular the introduction of Local Health and Hospitals Network	●	●	●
<b>Overall</b>	●	●	●

**Notes:**

- ▶ For Option 3, it should be noted that it is assumed system customisations will be made where the system is not capable of addressing the cause of issues
- ▶ Based on the above capability assessment, Options 2 and 3 provide Queensland Health with a better opportunity to establish a stable and scalable payroll solution. Whilst

Option 1 is capable of addressing the majority of the key issues, it does not provide a scalable platform for future growth and addressing the future needs of Queensland Health

The tables below provide the option risk and impact assessment for all three remaining options.

Table 10: Option 1 assessment

Option 1 - Stabilise the existing solution environment	
Strengths	Weaknesses
<ul style="list-style-type: none"> <li>▶ Lowest implementation cost - does not involve significant technical change in comparison with other options</li> <li>▶ Lower learning curve for payroll staff. Payroll staff has become familiar with the current systems and will be able to make use of the enhancements easily</li> <li>▶ Lower training and change management as user has a degree of familiarity with the system</li> <li>▶ Current training materials can be reused</li> </ul>	<ul style="list-style-type: none"> <li>▶ Apply fixes will not address underlying architectural issues, such as data inconsistencies between two systems</li> <li>▶ Does not provide a scalable platform for responding to changing government requirements such as the National Health and Hospitals Network</li> <li>▶ Performance issues cannot be fully addressed</li> <li>▶ Legislative reporting will remain difficult, such as the reporting of employee leave balance to Queensland Treasury due to concurrent employees holding two balances in Workbrain</li> <li>▶ Elevated cost of system maintenance due to higher level of system customisation</li> </ul>
People risks	Process risks
<ul style="list-style-type: none"> <li>▶ Change management including training and communication insufficiently revised to address current issues which could result in industrial action</li> <li>▶ Staff perception of change will be low as the system remains largely the same</li> <li>▶ Morale and confidence in the system will require time to establish</li> <li>▶ Payroll processors become further frustrated with the cumbersome system</li> </ul>	<ul style="list-style-type: none"> <li>▶ Data to be entered by roster staff, increasing opportunity for error (e.g. interpretation of roster forms)</li> <li>▶ Data needs to be manually entered by roster staff, increasing workload</li> <li>▶ Process efficiency improvements will be limited due to system dependencies</li> </ul>
Implementation risks	
<ul style="list-style-type: none"> <li>▶ Subject matter experts may not be readily available as they would be occupied with payroll processing and change management activities such as training</li> <li>▶ Likely to enter into a never ending recurring loop of continuous system enhancements</li> </ul>	

Table 11: Option 2 assessment

Option 2 - Stabilise and optimise the existing solution environment	
Strengths	Weaknesses
<ul style="list-style-type: none"> <li>▶ Low to moderate learning curve for payroll staff. Payroll staff has become familiar with the current technologies and will be able to adjust accordingly with relative ease</li> <li>▶ Leverage knowledge of the current environment in making improvements. Opportunity to directly adopt lessons learned</li> <li>▶ Vendor has detailed knowledge of existing solution and Queensland Health environment</li> <li>▶ Provides opportunity to eradicate the inherent issues in the current solution technology platform</li> <li>▶ Streamlined and more efficient processing</li> <li>▶ Reduced system dependencies and consolidated data to better support business processes</li> <li>▶ Opportunity to empower employees with technology to enable direct access to data and data</li> </ul>	<ul style="list-style-type: none"> <li>▶ Two concurrent projects will require a high number of resources</li> <li>▶ Technology platform optimisation will require more implementation time, upwards of 18 months</li> <li>▶ Significant amount of change management, staff and union consultation effort is required to provide ESS/MSS support to end users</li> </ul>

Option 2 - Stabilise and optimise the existing solution environment	
<p>entry</p> <ul style="list-style-type: none"> <li>▶ Involves stabilisation as well as optimisation. Two projects to yield the best outcome for Queensland Health for both the short and long term</li> <li>▶ Reuse established assets such as training materials</li> <li>▶ Leverage the core competency of each system</li> <li>▶ Provides a scalable platform for responding to changing government requirements such as the National Health and Hospitals Network</li> </ul>	
People impacts	Process impacts
<ul style="list-style-type: none"> <li>▶ Reduce the demand for staff to have detailed knowledge of both technologies</li> <li>▶ User familiarity with the technologies</li> <li>▶ Directly address people's concern</li> <li>▶ Payroll officers will have to adopt to changes from optimisation</li> </ul>	<ul style="list-style-type: none"> <li>▶ Streamlined and more efficient processing</li> <li>▶ Changes to existing processes</li> <li>▶ Moderate amount of revision to existing processes and documentation</li> </ul>
Implementation risks	
<ul style="list-style-type: none"> <li>▶ Need to secure skilled Workbrain resources for two projects</li> <li>▶ Subject matter experts may not be readily available as they would be occupied with payroll processing and change management activities such as training</li> <li>▶ Strong and robust change management is required</li> <li>▶ Consistent and constant consultation and engagement with unions and end users on ESS/MSS is required</li> <li>▶ Synchronisation of two concurrent projects</li> </ul>	

Table 12: Option 3 assessment

Option 3 - Replace the existing rostering system	
Strengths	Weaknesses
<ul style="list-style-type: none"> <li>▶ Offers a "fresh start" in the minds of supporting stakeholders</li> <li>▶ Provides a scalable platform for responding to changing government requirements such as the National Health and Hospitals Network</li> <li>▶ Has a Queensland Health Awards template that has been implemented at a Queensland healthcare agency</li> </ul>	<ul style="list-style-type: none"> <li>▶ A complete new system that Queensland Health and HR staff to understand and be trained in</li> <li>▶ Minimal reuse of existing assets, particularly around rostering training materials</li> <li>▶ Significant amount of change management effort is required</li> <li>▶ Involves architectural changes that will add to implementation time</li> <li>▶ Will require significant amount of resources to redevelop business processes, training material, system design and testing</li> <li>▶ Does not provide short term stabilisation</li> <li>▶ Impact on SAP and the overall solution to remove Workbrain</li> <li>▶ High cost</li> </ul>
People Impacts	Process Impacts
<ul style="list-style-type: none"> <li>▶ Going on the journey again can be draining on payroll staff</li> <li>▶ Higher levels of resistance to change owing to change fatigue</li> <li>▶ Staff need to adopt and learn to use the new system</li> </ul>	<ul style="list-style-type: none"> <li>▶ Streamlined and more efficient processing</li> <li>▶ Significant amount of revision to existing processes and documentation</li> </ul>
Implementation Risks	
<ul style="list-style-type: none"> <li>▶ High risks with an unfamiliar system</li> <li>▶ Extensive and comprehensive end to end, performance and scalability testing is required</li> <li>▶ Complete recreation of project collateral will be a drain on resources e.g. training materials and communications</li> <li>▶ Subject matter experts may not be readily available as they would be occupied with payroll processing and change management activities such as training</li> <li>▶ Significant amount of change management, stakeholder engagement and consultation is required</li> </ul>	

### Option 3 - Replace the existing rostering system

- ▶ Synchronisation of two concurrent projects

## Summary of appendix

The information provided in this Appendix further supported the most effective and efficient, lowest risk option for Queensland Health being Option 2 - Stabilise and optimise existing solution. A Summary of this information has been provided in *Section 6.5 - The most effective and efficient, lowest risk option.*

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