Report of the Ministerial Inquiry into the Novopay Project

New Zealand Government

CONTENTS

Foreword

The schools payroll manages the pay for the staff of 2,457 New Zealand schools. The payroll distributes a great deal of taxpayers' money – over $4 billion each year – to a large number of people – approximately 110,000. The Novopay project, the development of which began in 2008 with implementation in August 2012, was conceived to replace the existing, aging service.

The impacts of the well-publicised Novopay failures have reverberated across New Zealand. Every state and state-integrated school in the country has been affected. Dealing with the aftermath has distracted school staff, principals, boards of trustees, the Ministry of Education and Ministers from other important concerns.

This state of affairs and the wider disruptions that were caused were avoidable. It is clear to us that important lessons from the past, in particular those arising from the 1996 education payroll implementation difficulties and the INCIS experience in 2000, should have been learned, but were not.

Although there has been valid criticism of the Novopay project, we stress that not all public sector projects of this nature encounter issues as serious as Novopay has. There are numerous examples of high complexity, high value projects that have been delivered effectively, on time and on budget, by other agencies.

The problems with Novopay have affected public trust and confidence in the Ministry of Education, and also the wider public sector. This will take time to restore. All public sector entities are charged with responsibilities on behalf of Parliament, Ministers and taxpayers, and must exert every effort to ensure that they deliver the services they are expected to, within the law, on time, and within budget. In this case, the Ministry of Education failed to meet its obligations.

There were many factors that contributed to the Novopay failures. It is our overall view that weaknesses in project governance and leadership allowed the service to go live with a number of significant risks which the Ministry and its vendors were over-confident of managing. When these risks resulted in service issues Post-Go Live, the Ministry and its vendors were overwhelmed by their nature and scale. Over the course of the project, Talent2 had missed agreed milestones or deadlines, which eroded trust and confidence in its ability to deliver. The nature of the service that the Ministry was seeking also diverged from the original proposition. Efforts to stabilise the service continue.

Despite the problems, we observed a strong commitment to delivering a successful project and some significant individual efforts. The future of the schools payroll system now looks more positive. We are confident that there is scope to address the weaknesses that we have found. Our findings and recommendations are mostly addressed at matters that emerged through the design and delivery of the project. Some of them, however, have relevance for the wider public sector, and other similar projects. We commend them to the attention of all those with public sector leadership roles.

We also assess that the Ministry of Education has much to learn from this long-running process. The Acting Secretary for Education has already taken steps to deal with some of the issues that have arisen. Every effort should be made to support the Acting Secretary, and his successor as Secretary, to drive the Ministry to the improved performance level necessary so that all elements of the education sector can properly fulfil their critical roles in contributing as effectively as possible to New Zealand's future.

We are conscious of the important and growing role of technology in the efficient delivery of services to New Zealanders in both the public and private sectors. It is critical that public and private sector entities collaborate effectively to bring the required expertise to bear.

Murray Jack

Sir Maarten Wevers, KNZM

Executive Summary

The Ministry of Education's vision was to replace the Datacom schools payroll system with a modern, technology-based solution which would provide greater functionality, a better user interface and more useful information about the national schools workforce. The initial business case in 2005 was revisited in 2007, resulting in the recommendation of a Business Process Outsourcing model.

Although there were a number of matters which might have been handled better, the outcome of the procurement process was not inappropriate. On 22 April 2008 the Ministry selected Talent2 as the preferred vendor. The contract that was then negotiated between the Ministry and Talent2 was complex, and when signed on 11 August 2008 it still had significant schedules incomplete.

Work commenced on the requirements for the schools payroll project in October 2008. This process was lengthy, and was never actually completed. Even after Go Live, new requirements were being discovered. There was little direct customer (boards of trustees) or user (principals and school administrators) involvement in the definition of the requirements, and Datacom's involvement was minimal.

During the service design and development phase project delays emerged. Milestones and deadlines were missed. The project had by this stage shifted from implementing a configured package software solution towards a heavily customised solution, and was therefore increasingly moving away from the original strategy, business case and basis for procurement. Requirements definition, design, development and testing activity were all occurring in parallel, making it very difficult to maintain a known level of quality.

The Ministry and Talent2 were concerned about the quality and pace of software development and testing. This resulted in Talent2 sub-contracting two local companies, Asparona and Assurity, at its own cost to provide additional capacity and capabilities for custom development and testing from December 2010.

During the service design and development phase, the intended pilot and phased rollout of the service were removed from the project plan.

Some important areas of functionality were not fully tested prior to Go Live. Some types of testing were not completed to the original scope, on the basis that testing could be completed after Go Live, or that the risks of not doing the testing had been adequately mitigated. Not all System Integration Testing criteria were met.

The Ministry understood that changes to business processes and roles within schools in relation to payroll administration were expected. However, it underestimated the impacts of the changes required of the schools by the introduction of the new payroll service. The execution of the change management plans which the Ministry did have was inadequate, and roles were unclear. The engagement with the payroll service's customers and users was also insufficient.

At the 9 February 2012 meeting of the Project Board, the Novopay Business Owner indicated that a Go Live date of 14 August 2012 was the "absolutely last preferred date". At this time the project defined two Confidence Points, endorsed by PricewaterhouseCoopers, which were intended to act as project stage gates.

Due to the uncertainties over achieving a successful Go Live, the Ministry developed contingency options with Datacom, which by 30 June 2012 had lapsed.

The real Go Live decision was made on 31 May 2012, despite the Confidence Point Two criteria not having been met and schools not being ready. Project governance and leadership allowed a combination of significant risks to be carried into Go Live and overestimated the ability of the Ministry, Talent2 and schools to manage them.

A 5 June 2012 paper, which invited Ministers English, Parata and Foss to approve the continuation of the project following Confidence Point Two, misrepresented its state.

On 15 August 2012, the Go Live decision was confirmed even though: it was clear that not all testing had been completed; systems development was continuing through the code freeze right up to Go Live; the sector was not sufficiently ready; the Service Centre had failed some of its tests and was not fully ready; and the crucial End of Year/Start of Year process had not yet been fully developed or tested.

On 20 August 2012, nine years after the commencement of the schools payroll project, the Novopay system went live, with the first pay run on 5 September.

After Go Live, as the risks became issues and the issues rapidly escalated, both the Ministry and Talent2 found themselves unprepared and overwhelmed. The lack of adequate support for schools resulted in significant stress and required additional time and effort from schools and the Ministry to manage the payroll. It also contributed directly to additional errors and system defects, through missed, inaccurate or duplicate transaction processing, and poorly-controlled system changes.

The Ministry and Talent2 have since made significant efforts to stabilise the payroll service and correct errors. The subsequent creation of a dedicated Ministerial portfolio for Novopay, and the appointment of a new Acting Secretary gave a much sharper focus to addressing the issues and improved the key relationships.

We observed a number of issues that emerged in the way in which the schools payroll project was executed.

The Ministry did not establish the quality of governance required for a complex project of this nature. The lack of discussion by the Project Board about the State Services Commission's guidelines for the management and monitoring of major IT projects was a major failing. There was a large degree of turnover in key project leadership positions throughout. The lack of a Programme Director with overall accountability reporting to the project's Senior Responsible Officer meant that the Project Board and the Business Owner were the effective points of integration for programme planning and management.

Talent2 missed agreed milestones and deadlines. The Ministry had cause to invoke breaches of the contract for non-delivery from as early as 2010, but did not exercise this option. Rather it engaged in discussions with Talent2 with a view to improving performance. Talent2's inability to deliver consistently against milestones led to a loss of trust and confidence in its ability to deliver the solution. Talent2's approach to the project was in some respects narrow, with Talent2 responding to Ministry requests without fully challenging their reasonableness. The Ministry did not have the commercial experience to manage the vendors in a project of this nature.

It has been generally recognised by the people to whom we have spoken that the project culture and the relationship between the Ministry and Talent2 were not always healthy, and that this affected the effective forward momentum of the project. The relationship between the Ministry and Talent2 did not prove sufficiently constructive or transparent to manage the underlying risks in the project effectively.

Notwithstanding the range of assurance activities across this project, there was no overall accountability for Independent Quality Assurance, its scope did not encompass the entire project, and it was not provided continuously. Ministers, central agencies and the Ministry placed confidence in the assurance activities being undertaken.

The Novopay project has cost materially more than estimated. Benefits have yet to be fully realised, and in some cases may not be. The complete cost of implementing and establishing Novopay, including the real costs to all stakeholders, substantially exceeds the reported overruns to date. Value for money thinking and expenditure control have been weak.

The former Secretaries for Education took an unwarranted level of comfort from the governance of the Novopay project. The lack of engagement with the project by the Ministry's Leadership Team and Audit and Assurance Committee, and the weaknesses in the project's governance,

are matters for which a Chief Executive must take accountability. Neither the reputational risks for the Ministry, nor the implications for confidence in the wider public sector should Novopay not succeed, seem to have been fully appreciated.

The Ministry was not always willing to take or act on advice, and at times demonstrated misplaced optimism about the state of the project.

Much of what we saw on the Novopay project was consistent with the findings of a 2011 Performance Improvement Framework review of the Ministry.

The Ministry's relationship with the schools sector has in recent times been uneasy. The levels of trust between the Ministry and the sector that were necessary to ensure the success of the project were not always evident. If it was intended as such, the Payroll Reference Group was not the right body to represent users.

We reviewed the papers submitted to Ministers and presented to Cabinet, to understand the information, risks and advice that were presented and where decisions were made, and found that Ministers were not always well served. Reporting to Ministers has been inconsistent, at times unduly optimistic and sometimes misrepresented the situation.

The State Services Commission has acknowledged that, as a consequence of its involvement with the Project Board and efforts to get the project over the line, it was not able to exercise its monitoring role properly, as it had lost its detachment from the project. We are also surprised that the financial management of this project seems not to have attracted greater attention.

The Government Chief Information Officer can and should play an important role in the setting of standards for ICT projects and improved requirements for assurance, in order to mitigate the risk that the serious issues that emerged in the Novopay project are repeated.

The problems encountered in delivering Novopay were not unique. Issues which were outlined in the report of the Ministerial Inquiry into INCIS[1] 13 years ago have been evident. The recommendations of a March 2013 report produced for the UK Government by its Lead Non-Executive, Lord Browne of Madingley, on improving the delivery and control of major projects are also relevant to New Zealand public sector agencies.[2]

Notwithstanding the significant commitment and efforts of those involved, we conclude that the Novopay project has not met expectations, and has led to negative consequences for ICT projects and the public sector. Novopay should not, however, be regarded as symptomatic of all public sector ICT projects. Our key findings are summarised on the following pages, together with recommendations and important lessons learned.

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1   Ministry of Justice, *Ministerial Inquiry into INCIS*, November 2000.
2   Lord Browne of Madingley, *Getting a Grip: How to Improve Major Project Execution and Control in Government,* 26 March 2013.

Executive Summary

Recommendations

Ministry of Education

The Ministry of Education should:

1. Complete, as a matter of priority, the activities required to stabilise the current schools payroll service, including the remediation of defects, support for schools and backlog clearance; and conclude a revised commercial arrangement with Talent2

2. Ensure that it has the capabilities to fulfil its responsibilities for the execution of the schools payroll service

3. Re-examine the service delivery model for the schools payroll service, to ensure that it is sustainable and affordable in delivering quality services to boards of trustees and their employees

4. Engage with boards of trustees, and subsequently with sector representatives, to modernise the collective agreements in the sector in order to reduce the complexity they provide for the schools payroll

5. Re-examine the requirements of the current schools payroll to remove unnecessary practices and complexity, for example banking staffing, the single payslip, and End of Year/ Start of Year processes

6. Strengthen its leadership and governance capabilities. Key areas for focus are the Leadership Team, the Audit and Assurance Committee and the Internal Audit function

7. Develop and improve relationships with the schools sector as a matter of priority, to a stage where there is trust and confidence.

ICT and change projects in government agencies

8. At the inception of major projects, agencies should give consideration to the full range of options for meeting their business needs, including, wherever possible, necessary process simplification and re-design

9. Contracts should be designed with discrete stage gates and off-ramps. In particular, there should be a discrete phase for the development of requirements prior to a commitment to the full solution

10. Agencies should take a robust approach to risk identification and mitigation for major projects. This should include consideration of the impacts of a combination of risks (including external risks)

11. Agencies should use appropriate best practice methodologies for project governance and management, design, development and implementation. Agencies should be ready to draw on the expertise of others in areas where they have less capability

12. For projects with significant business impacts, agencies should ensure the engagement with, meaningful involvement of, and adequate preparation of users

13. Agencies must ensure that every high risk project has ongoing and robust quality assurance that is independent, covers the entire project and has a reporting line directly to the Chief Executive.

Monitoring and oversight

14. The Office of the Government Chief Information Officer (GCIO), in its allocated responsibility for the functional leadership in information and communications technology (ICT) under *Better Public Services*, should continue on the path on which it has embarked, to strengthen the strategic leadership, oversight and monitoring of Government ICT projects with a particular emphasis on projects designated as high risk. This should continue to be supported by the State Services Commission (SSC), the Department of the Prime Minister and Cabinet, the Treasury and the Ministry of Business, Innovation and Employment.

15. SSC and the GCIO should strengthen capability at leadership levels in public sector agencies to lead and manage major ICT projects and take advantage of new technologies.

Key Findings

Overall findings

- The problems with Novopay have affected public trust and confidence in the Ministry of Education, and also the wider public sector.

- Weaknesses in project governance and leadership allowed the service to go live with a number of significant risks, which the Ministry and its vendors were over-confident of managing.

Key findings: Project lifecycle

- The schools payroll environment is overly complex as a result of an accumulation of historical changes. There was no serious attempt to simplify collective agreements or Ministry or school business processes before embarking on the Novopay project. This was an underlying cause of later problems.

- The strategic decision to change from purchasing software to an outsourced service was valid, but the rationale was simplistic.

- Customers' perspectives, particularly those of the boards of trustees, were insufficiently considered in the business case.

- The Ministry's requirements for the outsourced service, as outlined in the Request for Proposal, were too high level to convey the full complexity of the required solution.

- The 'agree to agree' approach, involving a deferral of agreement on key contract schedules without a defined scoping phase to develop requirements fully, was poor practice for a project of this nature.

- The process of gathering user requirements was poorly managed and took too long.

- The failure to involve users appropriately was a key weakness. The Ministry was negotiating on behalf of the users in the schools sector without an appreciation of all of their requirements.

- Neither the Ministry nor Talent2 adequately recognised, in a timely manner, the change in the nature of the project from a configured package to extensive customisation. Not only did this compromise the original intent, it required expertise and disciplines for which the main parties were ill prepared.

- The decisions to remove the pilot and staged rollout, due to timeline pressures, were ill-advised and counter to good practice. Both were feasible and, had they been conducted, would have exposed issues before a much larger number of schools were affected at Go Live.

- Adherence to the 20 August 2012 Go Live date severely compromised the completeness of the testing programme.

- The Ministry underestimated the impacts of the changes required of the schools by the introduction of the new payroll. The execution of the change management plans which the Ministry did have was inadequate, and roles were unclear.

- The engagement with the service's customers (boards of trustees) and users (principals and school administrators) was insufficient.

- The actual Go Live decision was made on 31 May 2012, despite the Confidence Point Two criteria not having been met and schools not being ready.

- There is no evidence that the Ministry approached Datacom with a formal request to extend the existing contract for a further period.

- Due to the uncertainties over achieving a successful Go Live, the Ministry developed a contingency option with Datacom, which by 30 June 2012 had lapsed.

- The 5 June 2012 paper to Ministers English, Parata, and Foss following Confidence Point Two misrepresented the state of the project.

- On 15 August 2012, the Go Live decision was confirmed when it was clear that:
  - Not all testing had been completed
  - Systems development was continuing through the code freeze right up to Go Live
  - The sector was not sufficiently ready
  - The Service Centre had failed some of its tests and was not fully ready
  - The crucial End of Year/Start of Year process had not yet been fully developed or tested.

- Project governance and leadership allowed a combination of significant risks to be carried into Go Live, and overestimated the ability of the Ministry, Talent2 and schools to manage them.

- A lack of adequate support resulted in significant stress and required additional time and effort from schools and the Ministry to manage the payroll. It also contributed directly to additional errors and system defects, through missed, inaccurate or duplicate transaction processing, and poorly-controlled system changes.

Key findings: Project execution

- The Ministry did not establish the quality of governance required for a complex project of this nature.

- The lack of discussion by the Project Board about the *Guidelines for the Management and Monitoring of Major IT Projects*[3] was a major failing.

- There was a large degree of turnover in key project leadership positions.

- The lack of a Programme Director with overall accountability, reporting to the project's Senior Responsible Officer, meant that the Project Board and the Business Owner were effectively the points of integration for programme planning and management.

- Talent2's inability to deliver consistently against milestones led to a loss of trust and confidence in its ability to deliver the solution.

- The Ministry did not have the commercial experience to manage the vendors in a project of this nature.

- The relationship between the Ministry and Talent2 did not prove sufficiently constructive or transparent to manage the underlying risks in the project effectively.

- Notwithstanding the range of assurance activities across this project, there was no overall accountability for Independent Quality Assurance, its scope did not encompass the entire project, and it was not provided continuously.

- Ministers, central agencies, and the Ministry placed confidence in the assurance activities being undertaken.

- Consulting firm PricewaterhouseCoopers (PwC) had a range of different engagements with the project, some of which resulted in confusion about its responsibilities on the part of key players. For example, Ministers, Secretaries and central agencies at varying times assumed that PwC was providing Independent Quality Assurance across aspects of the project.

- While the engagement documentation was clear, the risk of conflict of interest arising from aspects of its roles was not well managed by PwC. For example, PwC was clearly viewed and treated by the Ministry as a full Board member, despite its own assertions to the contrary and the perceptions of other Board members.

- The Novopay project has cost materially more than initially budgeted. Benefits have yet to be fully realised, and in some cases may not be. The complete cost of implementing and operating Novopay cannot yet be determined.

- The former Secretaries for Education took an unwarranted level of comfort from the governance of the Novopay project.

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3   State Services Commission, *Guidelines for Managing and Monitoring Major IT Projects,* 2002. They were superseded in September 2011 by the *Guidance for Monitoring Major Projects and Programmes.*

- We found no evidence of the sustained and focused attention on the project from the Ministry's leaders that we would have expected. The Leadership Team did not clarify its own role in relation to the project.

- The Ministry was not always willing to take or act on advice, and at times demonstrated misplaced optimism about the state of the project.

- The levels of trust between the Ministry and the sector that were necessary to ensure the success of the project were not always evident.

- Ministers were not always well served by the quality of advice about the project from the Ministry.

- As a consequence of its involvement with the Project Board and efforts to get the project over the line, SSC was not able to exercise its monitoring role properly, as it had lost its detachment.

- We are surprised that the financial management of this project seems not to have attracted greater attention.

Lessons Learned

The following are some lessons that we believe would have value for those embarking on future major projects.

- Clearly define the problem and identify and evaluate all options, including the opportunities to remove complexity and transform business processes, at the project conception stage.

- Once the project is approved, robustly consider critical competencies for successful execution and whether they are available internally or are better satisfied by the use of appropriately qualified advisers, consultants or contractors.

- Do not start projects until the required capabilities are in place or identified.[4]

- Ensure that detailed due diligence is undertaken, and that vendors' competencies are fit for purpose.

- Have clearly defined contractual stage gates for project deliverables with effective off-ramps for use when performance falls short of expectations.

- Avoid entering into contracts with significant 'agree to agree' provisions, particularly those related to the definition of requirements.

- Ensure that executive accountabilities, roles and responsibilities are clear and carried out efficiently within the governance and management structures.

- Appoint a single Programme Director reporting to the Programme Sponsor, with responsibility for project delivery, to whom all delivery components report.

- Rigorously monitor and report project progress and finances.

- Involve relevant users of the service or system in the development of requirements, testing and implementation, in a meaningful way.

- Manage key vendors at strategic and operational levels, and enforce contract terms where performance indicates this is required.

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4   This point is also made by Lord Browne of Madingley in his 2013 paper *Getting a Grip: How to Improve Major Project Execution and Control in Government.*

- For critical systems, ensure that implementation strategies allow for pilots or staged rollouts.

- Fully complete an appropriate testing programme unless impact analysis suggests that the risks of not doing so are low and manageable.

- Ensure that project quality assurance is independent, covers the full scope of project activities and has a direct reporting line to the Chief Executive.

- Ensure there is a viable contingency plan that enables risks and possible delays to be managed appropriately.

- When assessing risks, always consider the implications of a combination of them arising and plan accordingly.

- Long-duration projects will rarely meet the expectations established at their inception.

- Have the courage to query or stop projects that are clearly in trouble or where their likelihood of success has been compromised. Do not delay in raising your voice.[5]

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5   This point is also discussed by Lord Browne of Madingley.

Introduction

1. Background

The Ministry of Education provides payroll processing services to approximately 110,000 teachers and support staff employed at state and state-integrated schools in New Zealand. In 2003, Cabinet agreed to the Ministry's proposal to upgrade its aging payroll system. Following an extended period of development, the replacement system, Novopay, went live on 20 August 2012. When the first pay round was run on 5 September 2012, approximately 5,000 staff were underpaid and 15 people were not paid at all. Since then there have been ongoing problems with achieving accurate payroll payments through Novopay. While the majority of staff have received the right amount of pay at the right time, a significant minority have not. The persistent payment problems have created considerable stress across the education sector, for an extended period of time, and have diverted the attention of teaching and administrative staff in schools, principals and boards of trustees, the Ministry of Education and Ministers away from achieving the Ministry's and schools' objectives. The Novopay issues have distracted the sector's attention from its rightful focus – improving educational outcomes for students.

2. Purpose of the report

On 4 February 2013, the Minister Responsible for Novopay the Hon Steven Joyce announced a Ministerial Inquiry into Novopay. We were tasked with examining the issues that arose leading up to, during and after the implementation of Novopay, and with determining why the project had not succeeded as originally intended. We were also asked to assess whether the governance and management of the project had been sound and had accorded with appropriate practice. The Minister required advice on steps to address the ongoing performance of the Novopay system, and public and stakeholder confidence in it.

Our terms of reference were issued on 20 March 2013, and are set out in Appendix 1 of this report.

3. Scope of the Inquiry

The scope of our Inquiry encompassed the lifecycle of the project, from the initial 2003 consideration of the need to replace the schools payroll system through to the 2012 rollout of Novopay and the resulting problems. We considered: the robustness and suitability of the model given the employment arrangements within the schools sector; the relationships between the various parties involved; the way in which the project had been designed and implemented; the adequacy of change management and sector readiness; and the suitability of user support arrangements. We also examined the business benefits that were envisaged for the new payroll system, and the extent to which these were delivered.

Broader policy issues about contracting arrangements in the wider state services lie outside the scope of this Inquiry. Any that arise from this review will be addressed by the Chief Executive of the Ministry of Business, Innovation and Employment (MBIE), in conjunction with the Government Chief Information Officer (GCIO) and the central agencies, the State Services Commission (SSC), Treasury and the Department of the Prime Minister and Cabinet (DPMC). Similarly, we did not specifically consider the technical stability of the Novopay software platform itself or its adequacy for the payroll task, as this has already been reviewed by the independent Novopay Technical Review.[6]

In the course of the Inquiry, some matters relating to the administration of the schools payroll were brought to our attention which, while outside the scope of our Inquiry, gave us cause for concern. These have been raised separately with the Acting Secretary for Education.

4. Approach to the Inquiry

The indicative timeframe for the conduct of this Inquiry and the delivery of conclusions was three months. This was deliberately time constrained. The Minister intended the Inquiry to be swift, to enable the rapid implementation of its recommendations as part of addressing current issues. We reviewed many hundreds of documents, invited and considered a large number of written submissions, and conducted more than 50 formal interviews. As well as visiting a small selection of schools, we invited schools and principals to provide submissions. A total of 475 schools, administrators and education sector groups took the opportunity to do so.

Further details about the information sources we have used are provided in Appendix 2.

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6   Deloitte, *Ministry of Education Novopay Technical Review*, 19 March 2013.

This was not an exhaustive evidentiary process. Our approach was to define a baseline approach for a project of this nature, and compare Novopay with that baseline, or best practice. Our baseline was developed using a 'Systems Development Lifecycle' model, designed for the delivery of outsourced solutions such as Novopay. This model provided the basis for investigating the phases, tasks and deliverables of the Novopay project.

We phased our approach. We began with document discovery, then conducted a round of structured interviews with key personnel before firming up our conclusions and recommendations. We also considered the findings of the March 2013 independent Novopay Technical Review. We tested our findings and recommendations with two independent advisers, Dr Russ Ballard and Stuart Wakefield.

We were supported by a Secretariat comprising a small team of analysts and administrative support from across government and Deloitte New Zealand.

Murray Jack was not involved in the investigation of, analysis of or development of findings about the role of consultancy firm PricewaterhouseCoopers (PwC); and Sir Maarten Wevers similarly took no part in the investigation of, analysis of or development of findings about the role of DPMC.

5.   Structure of the report

This report is in two parts. The first part follows the lifecycle of the Novopay project, beginning with the business case and concluding with the decision to go live with the Novopay system and the problems that followed immediately after rollout. We then consider issues that arose with the execution of the Novopay programme – such as those relating to project governance and management, assurance, benefits and costs, the Ministry of Education's leadership and culture, its relationship with the schools sector, and the roles played by external agencies in the project.

Our findings in each section are outlined as we go. Our key findings, which have been highlighted in bold in the body of the report, have been summarised in pages 9–12.

A number of technical terms and abbreviations are used in this report. A short glossary is provided in Appendix 3.

Project Lifecycle				
1. The business case: The Ministry's strategic vision	**2.** Procurement	**3.** The contract	**4.** Service requirement definition	**5.** Service design and development
6. Testing	**7.** Change management and sector readiness	**8.** Decision making: the lead up to Go Live	**9.** Post-Go Live: September 2012 – March 2013	**10.** Remediation

Project Execution				
1. Project governance	**2.** Project management	**3.** Vendor management	**4.** Assurance	**5.** Benefits and costs
6. Leadership	**7.** Culture	**8.** Relationship with the sector	**9.** Ministers	**10.** The central agencies

Diagram 1: Outline of report

6.   Acknowledgements

We wish to record our thanks to all those who assisted with our work. In particular we appreciate the support provided by staff, current and past, of the Ministry of Education, Talent2, Datacom, Asparona, Assurity, PwC and independent contractors to the Ministry. All of our requests for documentation were met. Many individuals provided information and made themselves available for interview.

We would also like to acknowledge the contributions of Ministers, past and present, officials from other government departments, the external advisers, and representatives from schools and user groups who put time and thought into providing written submissions and other input to our investigation.

This Inquiry took place during a time of considerable turmoil and challenge, as intensive efforts were made to stabilise and remediate the Novopay system. We are grateful that everyone we spoke to or approached nevertheless generously gave time to assist us.

Chapter One: Context

1. Delivering major projects in Government

Following the failure of the Police INCIS project in 2000,[7] Cabinet directed that a set of detailed guidelines were to be published, governing the management of major projects from then on.

The guidelines were published in 2002 by SSC[8] as *Guidelines for Managing and Monitoring Major IT Projects*. The guidelines: set out the importance of ensuring that major IT projects were aligned with departments' and Government's strategic direction; outlined the information that should be included in business cases; clarified the roles and responsibilities essential to ensuring the sound governance and management of projects; and specified the principles and practices of managing major projects to ensure that risks to Government were mitigated. The importance of risk management was stressed, along with the importance of contractual relationships with vendors and the need for effective peer review and Independent Quality Assurance (IQA).

The guidelines were written to ensure that one consolidated resource was available to inform Chief Executives, monitoring agencies and others of best practice. They were clear, however, that the accountability for planning and implementing major IT projects lay with the Chief Executives of the agencies concerned, and the accountability for providing assurance and advice to Ministers continued to rest with the two responsible monitoring agencies: SSC and Treasury.

Not all major government projects fail. There have been a number of successful, and challenging, business transformation and ICT projects undertaken by state sector agencies in recent years, including:

- Identity verification services (Department of Internal Affairs)
- Working For Families and KiwiSaver (Inland Revenue Department)
- Landonline land survey and title service (Land Information New Zealand)
- SmartGate automated passenger processing service (Customs).

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7   Ministry of Justice, *Ministerial Inquiry into INCIS*, November 2000.
8   State Services Commission, *Guidelines for Managing and Monitoring Major IT Projects,* 2002. They were superseded in September 2011 by the *Guidance for Monitoring Major Projects and Programmes.*

2.   The schools payroll

'Payroll' encompasses the decision-making and processes surrounding the payment of monies due to be paid by an employer to an employee, including salary, wages, bonuses, allowances and deductions. Its effective and proper execution is closely linked to the design and implementation of human resources (HR) policies, which – *inter alia* – establish the eligibility for payments and the rates of those payments. The terms of employment and collective agreements governing the workplace are also critical influences on payroll implementation.

Payroll is one of the most regulated operations of any enterprise, and requires scrupulous compliance with a complex set of legislative and employment terms and conditions. Those responsible for payroll must be able to assure employees that the right amounts are being paid to them at the right times and to the correct bank accounts, and that the right deductions are being made and transferred to the right places. Employees, understandably enough, are entitled to place high levels of confidence in the payroll systems operated by their employers, and are usually highly responsive to payroll errors and irregularities. An effective and accurate payroll service is a core element of the employment relationship.

Factors that must be taken into account in payroll administration in New Zealand include: the calculation of leave entitlements (including annual leave, public holidays, sick leave, study leave, parental leave and leave without pay); KiwiSaver and other superannuation payments; student loan deductions; ACC requirements; child support deductions; mortgage repayments; and taxable and non-taxable allowances. Payroll staff must ensure that all legislative and contractual obligations are met and that systems are able to be kept up to date when external changes are made.

The New Zealand Education Service Payroll (ESP) is one of the largest in New Zealand, involving the distribution of approximately $4.2 billion each year[9] to 90,000 people every fortnight and up to 110,000 people in the course of a year, across 2,457 state and state-integrated primary and secondary schools. An essential feature of the current system is that it is the Ministry of Education that provides and manages the payroll service, even though it is not the employer of school staff (they are employed by the boards of trustees at the schools at which they work).

Each school has a payroll administrator, who may be full- or part-time and may or may not have other duties, who is responsible for ensuring that correct data is entered into the system and checked before each pay period. Every school principal also has a role in interacting with the system, for example to approve leave applications. This means that at least 5,000 people need to be able to understand how the payroll system works, and be able to input data accurately.

Around 30% of the New Zealand school workforce are employed in flexible positions, and several thousand of these staff work at more than one school. Because of the way that the employment arrangements are structured, staff may have more than one employer,

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9   Information from the Ministry of Education, as at 22 May 2012.

as every school equates to a different employer. The payroll system must accommodate all the payments due to an individual by all the employers (schools) for which he or she has worked during the pay period. Ministry practice is to ensure that each such employee receives a single consolidated pay and one payslip, which sums up all their hours and applicable allowances, across all the schools for which they work. The payees fall into the following broad categories:

• Principals

• Permanent teachers

• Relieving teachers

• Non-teaching staff.

Some payees have multiple roles, spanning more than one category.

> **Box 1: Single payslip**
>
> Maintaining a single payslip means that an employee has a consolidated view of their earnings and their tax and other deductions, such as KiwiSaver, student loan repayments and union subscriptions. Although it is neither a legal nor a collective agreement requirement, the single payslip is a long-established practice in the education sector, pre-dating *Tomorrow's Schools.* Inland Revenue has advised us that, for tax purposes, the Ministry of Education is the employer.

Schools vary greatly in size and number of staff. All but the smallest schools have more than one category of payee, and most have many types. The volume and complexity of payroll activity therefore vary between schools – one size does not fit all. Payroll administration is generally carried out by a general administrator, but larger schools may have a dedicated payroll staff member (or even more than one). In smaller schools, the principal might administer the payroll. The time and specialised expertise available to perform payroll activities varies between schools. The preponderance of schools served by the payroll system are primary – where the scale is much smaller than that of secondary schools. Access to broadband is not uniform. Some remote schools are reliant on satellite links. Schools run a number of different information technology (IT) operating systems, of varying degrees of modernity.

The Ministry of Education is the Government's lead adviser on New Zealand's education system. The Ministry describes its two key roles as driving performance in New Zealand's education sector, and improving effectiveness and efficiency in the delivery of the Ministry's services. The Ministry: operationalises the Government's education policy; is the main regulatory body for education matters; manages industrial relations with education employees; and administers the schools payroll.

Most school staff are paid directly by the Ministry from a specific appropriation. However, schools are also able to fund staff from their operating grants, which are provided to boards of trustees to cover school running costs.

Operating grants are expected to cover maintenance, utilities, class funding (such as support staff for special schools) and relief teachers. Surpluses and deficits arising from under- and over-expenditure on the employment of relief teachers are a Board responsibility to manage from year to year as part of the overall financial management of the school.

The schools payroll was consistently described by all those involved in the Novopay project as different from other payrolls in New Zealand, and highly challenging to manage. Talent2 described it as "incredibly complex", while a senior Ministry official characterised the employment environment in schools to us as "demanding".

There are 15 different national collective employment agreements in operation across the education sector (also known as awards),[10] alongside individual employment agreements. Taking into account the variety of allowances, leave provisions and other employment conditions with impacts on pay that all of these employment agreements contain, the number of possible permutations for individual pays has been calculated as being as high as 10,000. There are more than 1,500 unique rates of pay possible across all agreements; under the secondary teachers' collective agreement alone there are more than 30 allowances for which an individual could be eligible.

As described above, the Ministry does not in fact operate one single payroll, but 2,457 individual payrolls (ie one per school) involving a set of complex, interrelated business rules. Some of these rules are specific only to the education sector. More than 2,000 staff have jobs covered by two or more collective agreements. Some of the collective agreements include provisions affecting a small number of people. The current system of allowances and awards incorporates provisions negotiated progressively through different collective agreements over many years.

There are some features of the schools payroll that are not typically found in other payrolls. These include:

• Banking staffing for the management of school staffing entitlements

• Service accumulation

• Managing holiday pay[11]

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10   Outlined in Appendix 4.
11   Some school staff are paid for 52 weeks and others for 40 weeks. Holiday pay may be paid as a lump sum, or paid out during the course of the year.

- Single payslip

- End of Year/Start of Year process

- Large number of pay changes at each pay period.

Box 2: Banking staffing

Banking staffing is a practice that creates flexibility for schools to manage their staffing entitlements over the period of a year. It has been likened to managing an annual budget. Schools may use their annual staffing allocations at any time during the year to:

- Store up 'credit' (ie where entitlements are underused), for use when schools know that they will need extra staffing

- Go into 'overdraft' (ie entitlements are overused), when schools need to draw on extra staffing before enough credit has been stored.

Boards may, within the banking staffing year, choose to:

- Anticipate up to 10% of their staffing entitlements

- Save up staffing to use later in the year ('banking' staffing)

- Operate their staffing usage on a full-year basis – no saving and no overdraft in each pay period.

The implementation of complex new payroll systems will always create a certain number of errors, at least at the beginning. Errors and anomalies were reported by the Ministry during the life of the predecessor to Novopay, operated by Datacom. We have not inquired into this issue, which lies outside the scope of our Inquiry.

Complex payrolls are managed successfully for other New Zealand workforces, including those in the public sector. Some points of comparison with the health sector, of comparable size and payroll expenditure, are outlined below. While there are many differences between the two payrolls, the key point is that the schools payroll is not the only complicated payroll in New Zealand's state sector.

Box 3: Comparison between education and health payrolls		
	Education	**Health**
Individuals on the payroll	110,000	82,300
Total spend per annum distributed through the payroll	$4.2 billion[12]	$5.1 billion[13]
Employers in the sector	2,457 boards of trustees	20 District Health Boards (DHBs)
Number of payrolls in the sector	One, operated by the Ministry of Education	Each DHB operates its own. In Auckland a shared services organisation runs two for the three DHBs; the West Coast DHB payroll is run by Canterbury DHB
Payroll platforms in use	Novopay	16 use either AMS LEADER or Northgate PS Enterprise. The remainder use Star Garden, Datacom, Pay Global or PeopleSoft
Degree of customisation of payroll	Significant. Managed by the Ministry	Significant. Managed by individual DHBs
Number of collective agreements in the sector	15	14 national or near-national 7 regional 71 local/single DHB
Percentage of staff on collective agreements	Approximately 76%	Approximately 80%

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12   As at May 2012.
13   During the course of calendar year 2012.

Box 3: Comparison between education and health payrolls		
	Education	**Health**
Issues creating complexity in managing payroll	Overlap of allowances and awards

End of Year/Start of Year

Banking staffing

Annualised staff[14]

Service accumulation

Significant pay-to-pay variability in an individual's total earnings

Premium payments for time worked outside ordinary hours (penal rates) or in excess of ordinary hours (overtime rates)

Relief teachers

Single payslip

Employees employed by several schools and/or undertaking roles covered by different agreements | 24/7 environment

Rostering and rotating shift systems

On-call rosters

Unpredictable demand for services

Significant pay-to-pay variability in an individual's total earnings

Premium payments for time worked outside ordinary hours (penal rates) or in excess of ordinary hours (overtime rates)

Exigencies of service delivery (on call, call back, minimum break penalties, etc). These often differ between agreements |

Characteristics that complicate the ESP include End of Year/Start of Year, annualised staff, the single payslip, service accumulation and banking staffing.

It is important to acknowledge that the schools payroll is not just a computer system. It also encompasses: the business processes required to generate and maintain the master data and input data that drive pay and leave calculations; the reporting of payroll information; the control environment and decisions that ensure the right amounts are paid to the right people in the right way; and the support that is provided to different types of user to ensure that they are able to perform their tasks effectively and confidently. Taken together these activities, along with the system, comprise the schools payroll service.

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14   Term-only employees, who receive their annual leave as part of their regular salaries.

3. Payroll systems: Comparing Novopay with Datacom

The Novopay education payroll service went live on 20 August 2012, with the first pay run executed on 5 September 2012. The service is fully outsourced by the Ministry to Talent2, which provides a payroll software engine and staff to operate the wider payroll system. School administrators use a web-based user interface to enter new and amended payroll requests (such as new staff and timesheet information) and download reports that inform the administration of the schools. Payees do not use the system directly at all – they receive payslips via email (or post) and contact their school administrators if they need anything further.

The previous payroll service provided by Datacom was similar to Novopay in terms of scope and the nature of the interactions with individual payees. From a school administrator perspective, however, the Novopay service has a narrower scope. Novopay has not been designed to provide advice or assistance with employment or payroll decisions, such as how or whether a certain allowance should be applied to a staff member. In contrast, Datacom operated an account management model, providing dedicated payroll clerks to the schools who knew how the schools worked. A payroll administrator could pick up the phone and seek advice from a payroll clerk whom they knew, or leave a problem with Datacom to resolve.

The model that was negotiated by the Ministry with Talent2 was more online, with less hands-on account management, and with the onus being transferred to school payroll administrators to understand the collective agreements more than they had to with Datacom.

The Novopay service was specifically purchased and designed to operate as a rules-based software engine, delivering a standardised service based on a set of specific rules drawn from legislation, employment agreements and Ministry policy. The Novopay service introduced web-based processing to schools, whereas the Datacom service was principally delivered through transactions that were submitted using paper forms scanned and emailed to three Datacom service centres in Auckland, Wellington and Christchurch. Some steps were taken to bring Datacom services online from 2007.

The table on the next page compares the two services in terms of scope and set-up.

Box 4: Comparison of Datacom and Talent2 services		
Aspect	**Datacom**	**Novopay**
Service model	Dedicated payroll contact for a school. Payroll and other advisory support	Service Centre (voice or email) Online self-help Other advisory support not provided
Data entry	Paper forms, faxed to processing centre for entering	Some transactions can be done either online or through an electronic form from the Novopay website; some transactions can only be done through electronic forms
Communication	Phone, fax, email	Email, phone
Support	Tollfree phone	Tollfree phone Email or web for self-help
Reporting	Limited	Generated online
Service centres	Number: Three Headcount: 163[15] Combined customer support and pay centres	Number: Three Headcount: 120[16] One customer support centre;[17] one pay centre

4. Timeline

The schools payroll project commenced with business case development in January 2003, with the contract being finalised in August 2008. The actual Novopay system project commenced in October 2008, and ultimately went live on 20 August 2012. In all, the schools payroll project spanned nearly 10 years.

A timeline for the project is provided on the next page.

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15   Figure provided by Datacom in May 2013.
16   Figure provided by Talent2 in May 2013.
17   A two-tier model makes deeper expertise available at the second layer.

JANUARY
2003

January 2003 - July 2005: Business case and Procurement for Software only

July 2005: Design and Implementation Planning Commences

OCTOBER
2008
Project Starts

July 2005 - April 2006: Design and Implementation Planning

May 2006: Initial T2 and Datacom Proposals for Outsourced Payroll Received

May 2006 - July 2007: Revised Business Case

August 2007: Cabinet Approves Business Process Outsourcing

August 2007 - August 2008: BPO Procurements and Contracting

11 August 2008: Contract Signed

28 May 2010: Contract Variation #1

27 September 2010 Original Go Live Date

October 2008 - September 2012: Project

27 September 2010: Original Go Live date

November 2010: Project Reset

2 October 2008 - 5 September 2012 Project

19 October 2011: Contract Variation #2

September 2012 - February 2013: Post-Go Live

20 August 2012: Go Live for the First Pay Run 5 September

2 April 2012: Confidence Point #1

March 2013 - December 2013: Remediation

31 May 2012: Confidence Point #2 and Effective Go Live Decision

30 June 2012: Datacom Contingency Option Expires

DECEMBER
2013

15 August 2012 Go Live Decision Confirmed

Diagram 2: Timeline of the Novopay project

5.   Schools payroll 1989 – 2003

Prior to 1989, the New Zealand Department of Education[18] delivered the schools payroll using its own software. In the mid-1980s a new customised system was introduced. The transfer to the new software was not problem-free, and blocks of staff were not paid during the transition.

When support for that software ceased, the Ministry of Education contracted out the operation of the schools payroll, signing a contract with Datacom in August 1995. Datapay was introduced in 1996. The transfer to the new system was again difficult. The project ran late. On the first pay run, none of the employees paid by direct credit was paid because of a contractor error, and throughout the implementation period dissatisfaction was expressed by school employees about non-payment and incorrect payments. It took Datacom some time to embed its understanding of how the schools payroll operated, and to develop the necessary transactions and other processes within Datapay.

Schools engaged directly with Datacom on most aspects of the management of payrolls. They also relied on Datacom service staff for expert advice on the correct application of the employment terms and conditions to school employees. Because the interface with the Datapay system was manual, a certain degree of latitude was possible in the timing of processing. Additionally, Datacom was running three different service centres, each of which was dealing with the same issues for the schools for which it was responsible (and, according to the Ministry, sometimes reaching different conclusions). Over time, customs and practices and workarounds, to fit outliers into the processes, developed. Errors were generated, resulting at times in significant over- and under-payments. These were identified in external audit reports, which expressed concerns about the management of the schools payroll.

6.   The need for a new system: 2003 – 2007

In 2003 the Ministry began to consider the need to replace Datapay, which was becoming an aging system, considered no longer fit for purpose, and not expected to be commercially sustainable beyond June 2007.[19] A business case was developed to assess the Ministry's options for a replacement. One option included upgrading Datapay to extend its life beyond 2007. Alternatively, a new package could be sourced, which would modernise and increase the functionality of the payroll processes. The Ministry proceeded to acquire a new payroll system.

In February 2005 a consortium of Synergy (now Fronde) and Talent2 was selected as the preferred vendor. A proposal submitted by IBM and Datacom, based on an upgrade of the

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18   The Department was replaced by a decentralised Ministry of Education in 1989, as part of the *Tomorrow's Schools* reforms.

19   In fact, the Datacom system remained in operation – albeit with some upgrades – until Novopay went live in September 2012.

existing Datapay system, was $20 million cheaper than the Talent2/Synergy bid. It was not chosen because it was considered to involve an unacceptable level of technological risk, as Datapay was unsustainable and lacked modern functionality. The Ministry intended to take an unbundled[20] approach, by purchasing software licences and hardware from Talent2 that would be used by in-house Ministry staff.

The original 2005 business case recognised this payroll project as significant in time, cost and scope, and noted the impacts that inadequate project management and governance would have. SSC also graded the project as high risk, because of the known complexities of the schools payroll and the history of problems in introducing new payroll systems to the sector.

The implementation of the Datapay payroll system, in 1996, did not proceed smoothly, resulting in payment delays for a large number of teachers when it first went live. In planning its approach to the new payroll project, the Ministry stated that it recognised the importance of good management and governance, and had planned its strategies to mitigate the lessons learned from the 1996 rollout. The Ministry was particularly alert to the risks of problems during the transition from Datapay to the new system. The consideration of options for implementation assessed that a 'Big Bang' model, whereby the new payroll service would be rolled out to all users at the same time, was unacceptably hazardous. In a paper for Cabinet on the project dated 6 May 2005, the Ministry explicitly recognised the impacts of a failure during rollout, and outlined its intended mitigation strategies as including:

• An eight-month staggered implementation

• Parallel runs of the new and existing systems

• Ensuring internal capabilities to manage implementation and operation

• Extensive communication and change management with the schools.

In practice, as we outline later in this report, there was only a very limited, or inadequate, implementation of these quite appropriate strategies.

In December 2005, after the initial project had been signed off by Cabinet and the project was embarked upon, the Ministry asked PwC to review the original business case and validate its assumptions after an incoming project manager raised questions about the underlying business rationale. PwC concluded that some of the issues about the sustainability of the Datapay software had been overstated, and that upgrade options were actually available for the existing Datapay system. This called into question the Ministry's premise that upgrading Datapay was too risky. It also indicated that the need to identify and install a replacement payroll system was not as urgent as initially thought, because Datapay could be maintained for longer than previously expected.

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20 'Bundling' is a marketing strategy, common in the software industry, that involves offering a number of products for sale as one combined package.

The PwC conclusions led to three crucial, inter-linked developments between January and July 2006. First, the Ministry and Talent2 continued to work together on the design and implementation planning of the new software system, under a preliminary contract signed in 2005. This work was completed in May 2006.

Meanwhile the Ministry re-evaluated its position with respect to the purchase of an in-sourced system, and eventually decided to overturn that strategy by moving to a full Business Process Outsourcing (BPO) approach. This would mean one primary vendor, which would have full responsibility for all aspects of the delivery of schools payroll services. Shifting more responsibility from the Ministry to an external provider was judged to allow for the presentation of more economically competitive proposals, offering an annual cost reduction of $4.6 million compared with the in-sourced model (for which the Ministry had already started to carry out implementation planning with Talent2). This was, in effect, a return to the model that the Ministry had been operating with Datacom.

Finally, as a consequence of the strategic re-appraisal, Talent2 and Datacom were asked to present revised bids for the provision of a payroll service. These were received in May 2006 (at the same time that the design and implementation planning, based on the previous model, was completed). The revised Talent2 proposal was compared with Datacom's bid based on a new software platform. Talent2 was again selected as the preferred vendor. At that stage the Ministry's contract with Datacom was due to expire in mid-2008.[21] Datacom told the Ministry that it was migrating other customers to the new platform, and that services on the existing Datapay system could not be guaranteed beyond 2011.

The change in project scope meant that a proportion of the anticipated expenditure would go to the vendor rather than the Ministry (because the system would be operated by the vendor's staff rather than the Ministry's). An exemption from the *Mandatory Rules for Procurement by Departments*[22] would therefore be required if the Ministry were to award the new contract directly to Talent2, rather than returning to market. Although returning to market would have involved additional costs and delays to the project, following internal and legal advice the Ministry's Leadership Team decided to cancel the existing tender and proceed with a new tender for BPO payroll services. In August 2007 Cabinet rescinded its May 2005 decision that the Ministry should own and operate the replacement schools payroll system, and agreed that it could start the acquisition of a BPO service, under existing funding appropriations.

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21 This was in the end extended, first to 2009, then again to mid-2011, and finally to mid-2012.
22 Ministry of Business, Innovation and Employment, *Mandatory Rules for Procurement by Departments*, 18 April 2006.

Chapter Two:
The Project Lifecycle

1.   The business case: The Ministry's strategic vision

The Ministry's vision was to replace Datapay with a modern, technology-based solution that would provide greater functionality, a better user interface and more useful information about the national schools workforce. A new online payroll system was expected to increase efficiency through automation, improve consistency through standardised business rules, and improve payroll accuracy. The principal rationale underlying the business case was the replacement of aging technology, not the desire for greater value for money.

The main source of expertise about the schools payroll was within the Datacom service centres – the Ministry did not have full visibility of how the payroll was being managed. The Ministry recognised this in the business case, expressing a desire to rebuild the Ministry's understanding of the payroll system.

The first business case proposed the replacement of the existing service with an in-sourced software solution. Subsequently, this business case was revisited based on a continuation of the BPO model.

In introducing the case for a continuation of the outsourced service model, the Ministry described the provision of payroll services as being an "excellent candidate for outsourcing".[23] The Ministry believed that it had built up sufficient internal expertise around its current payroll system, and understood the processes well enough, to be able to manage an outsourced payroll. The business case took a like-for-like replacement approach, however, and did not consider alternative delivery models (such as schools accepting full responsibility for paying salaries, a 'hub and spoke' payroll administration model, or clustered service provision).

We were told that the complexity of the employment agreements created problems when the Datacom system was implemented in 1996, and was considered to be one of the underlying

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23   Ministry of Education, *Schools Payroll Revised Stage Two Business Case*, November 2007.

causes of ongoing issues with that system. The Ministry was aware of these problems. The option of consolidating and simplifying the collective agreements prior to encoding the rules into the new payroll system was, we understand, discussed with Ministers and the SSC, but not documented in the business case.

Findings

- **The schools payroll environment is overly complex as a result of an accumulation of historical changes. There was no serious attempt to simplify collective agreements or Ministry or school business processes before embarking on the Novopay project. This was an underlying cause of later problems.**

- **The strategic decision to change from purchasing software to an outsourced service was valid, but the rationale was simplistic**. This view is reinforced by the lack of a range of options that would have exposed assumptions, risks and opportunities.

- The drivers for change to a new outsourced payroll service were soundly based, and sat well within the Ministry's wider intention to improve organisational efficiency.

- **Customers' perspectives, particularly those of the boards of trustees, were insufficiently considered in the business case**.

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2. Procurement

Although, as outlined above, the question of finding a replacement for the Datacom payroll service arose as early as 2003, and formed the basis of the initial procurement process, this Inquiry focuses on the procurement process conducted in 2007-08, for the service that has been delivered.

The Registration of Interest process shortlisted four respondents. Three responses were received in response to the subsequent Request for Proposals (RFP).

The RFP set out the requirements for the Ministry at a high level.

As the Ministry had been working with Talent2 since 2003 following the earlier procurement process, and Datacom as the incumbent, it needed to ensure the probity and appropriateness of the 2007-08 procurement process. Ministry staff who had no involvement with Talent2's earlier work wrote the RFP questions with assistance from HR Solutions Limited. PwC was engaged to monitor and report on the procurement process. PwC reported the process as consistent, fair, well constructed and compliant with the evaluation plan and relevant guidelines.[24]

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24   Including those promulgated by the Office of the Auditor-General, the SSC, Treasury, the (then) Ministry of Economic Development and the Ministry's own internal procurement procedures.

The Ministry evaluated the proposals following its documented evaluation plan at a high level, but not with respect to detailed weightings documented in the annex to the plan. The reasons for departing from the detailed weightings were not documented. The way that pricing was weighted also deviated from the plan, and did not align with the distribution of costs over the lifecycle of the solution. This did not have a material impact on the evaluation result, as the finance weighting only accounted for 8% of the final scoring.

In the course of our investigation, we noted:

- Of the 345 questions evaluated, 220 had their scores changed during moderation; the reasoning for the changes is undocumented in 145 cases. This changed the relative positions of the respondents between the 'individual evaluation' and 'moderation' stages

- There was no probity register.

On 22 April 2008 the Ministry selected Talent2 as the preferred vendor.[25]

The Ministry project team advised the Ministry's Internal Audit team in 2010 that, while it had carried out due diligence on Talent2, this process had not tested whether Talent2 had delivered an equivalent system for an equivalent client. The Ministry had visited the Australian department store chain Myer, proposed by Talent2 as its reference site. The Myer payroll is smaller and simpler than the Ministry payroll, although with a number of rostering and shift patterns that add complexity. The Ministry noted after the site visit that it was clear that the assistance from Talent2 for transition and change was likely to be limited, and the Ministry would have to be the expert on its own business. This site visit accounted for 15% of the Ministry's overall evaluation score.

Findings

- **The Ministry's requirements for the outsourced service, as outlined in the RFP, were too high level to convey the full complexity of the required solution.**

- Despite giving the site visits a very high weighting, the Ministry did not treat them with the formality required. Valuable lessons which were identified on the visit were not adequately reflected in the Ministry's approach to the project.

- The tender documents did not make the overall roles and responsibilities clear enough, and did not provide an appropriate process to define the scope and requirements progressively.

- As there were assertions of bias in the procurement process, we specifically considered this question but found no evidence of this.

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25   The contract was signed by Minister Carter on 11 August 2008.

3.   The contract

The Ministry put significant effort into preparing for the contract negotiations. The intent was to get the best result for the Ministry within the approved funding envelope – rather than the best value for money. The Ministry engaged an external negotiator, negotiated hard, and was pleased with the outcome. Talent2 assessed later that it had under-priced the contract.

After a two-week negotiation period the contract was signed by Minister Carter on 11 August 2008. A number of schedules, covering for example service definitions (including requirements), the project plan (including the implementation date) and the invoice plan, were not agreed at the time of the contract. The contract did not provide for a discrete scoping phase to develop these items.

The contract was prepared by an external legal firm and was reviewed by the Ministry's National Contracts unit and legal team. There is no government guidance on or requirement for peer reviews of contracts.

The contract contained a target of 16 March 2009 for the completion of the schedules. The schedules were not added until 21 January 2010. In the end, a complex structure of at least 40 contractual documents was produced. Two variations and one amendment to the contract were agreed at later stages, primarily driven by project delays and debates over the contracted scope.

The contract contained the normal performance management mechanisms, including material breach and termination clauses. It contained 75 detailed Key Performance Indicators (KPIs), of which four were classed as critical. The penalty for non-performance during operational years was fixed at 5% of the monthly invoice.

The contract contained a number of clauses regarding HR, including a section covering the selection and allocation of key personnel, Talent2's responsibilities and the specific requirement for the appointment of a Talent2 Account Manager and a Service Delivery Manager.

Findings

- **The 'agree to agree' approach involving deferral of agreement on key contract schedules without a defined scoping phase to develop requirements fully was poor practice for a project of this nature.**

- The parties took an approach to the negotiations that was not suitable for the long-term, strategic relationship that was being entered into. There was too much emphasis on the total fixed price and KPIs. Apparent 'wins', and associated 'losses', during the contract negotiations contributed to and exacerbated later relationship and delivery problems. We are surprised that Talent2 agreed to a fixed price up front, given the level of uncertainty.

- The contract did not have appropriately escalating mechanisms for performance management. The KPIs were impractical and did not support a mature approach to the relationship.

4.   Service requirement definition

Work commenced on the service requirements in October 2008. This process was lengthy, and was never actually completed. Even after Go Live, new requirements were being discovered.

The Ministry and Talent2 had by this time spent two years defining the requirements for the abandoned software-only option, and had then completed an outsourcing business case, tender process and contract. Notwithstanding this, the project had very little structured material to work with. At this point the service schedules had not been agreed.

From October 2008 to late 2010 the project defined many requirements, with the intention of using the functionality of the ALESCO product. The project, however, was finding it difficult to reach a stable, agreed baseline set of requirements that could be managed under change control.

In an attempt to reach a mutually acceptable baseline, in 2010 and early 2011 the project re-elaborated many of the requirements and the focus shifted increasingly to replicating the existing practices and system functionality.

There was little direct customer or user involvement in the definition of the requirements, and Datacom's involvement was minimal. The Ministry did set up a Payroll Reference Group (PRG) as a vehicle for engagement with the sector as a whole, but it played a limited part in the requirements' definition. The PRG is discussed in greater detail later.

The Ministry provided its own staff as subject matter experts (SMEs) for the definition of requirements. As the Ministry controlled access to Datacom and schools, Talent2 had very little engagement with other sources of information.

The Ministry had difficulty providing sufficient SMEs with adequate knowledge, and there were many examples of SME input being incomplete, inaccurate or contradictory. Talent2 had a great deal of difficulty understanding the requirements and aligning them with its system functionality.

As a result, a great deal of rework was required, both during this phase and later in the project. In the period 2008 – 2010, the project suffered clear slippage against the planned timeframe.

Findings

- **The process of gathering user requirements was poorly managed and took too long.** This was evidenced by the ongoing difficulties in reaching a stable baseline, the insufficient use of Datacom expertise and the insufficient SME capabilities.

- **The failure to involve users appropriately was a key weakness. The Ministry was negotiating on behalf of the users in the schools sector without an appreciation of all of their requirements.**

- The Ministry progressed towards customising the Novopay service to reflect existing practices, rather than taking advantage of the inherent capabilities in the new software. This approach had the effect of slowing the project down, constraining the benefits' realisation and complicating relationships and future upgrade options.

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5. Service design and development

While requirements continued to be developed, the project began designing and developing the service. This involved work on the business processes, IT systems and Talent2's payroll processing teams.

Project delays continued. Milestones and deadlines were missed. Talent2 replaced its project manager and introduced some additional staff.

The project had by this stage shifted from implementing a configured-package software solution towards customised software, and was therefore increasingly moving away from the original strategy, business case and basis for procurement. This was not a conscious decision – rather it was driven by the increasing influence of Ministry SMEs. More and more, the project was recreating the legacy processes and system.

Talent2's posture was to deliver what the client wanted, even though this was at odds with what it had signed up to deliver.

The requirements' definition, design, development and testing activity were all occurring in parallel, making it very difficult to maintain a known level of quality.

As a consequence of concerns about the project's progress, the Ministry carried out a technical review of the project and engaged PwC to carry out a more in-depth assurance exercise. PwC recommended significant changes to reset the direction of the project. [26]

Around the same time, the Ministry and Talent2 were concerned about the quality and pace of software development and testing. This resulted in Talent2 sub-contracting two local companies, Asparona and Assurity, at its own cost to provide additional capacity and capabilities for custom development and testing from December 2010. This reflected Talent2's lack of progress on software development, and the increasing level of customisation required.

Asparona discovered significant weaknesses in the development work that had already been completed. The challenges of remediating this work while new, complex requirements continued to arrive, would lead to another two re-baselined plans, further delaying the Go Live.

During this stage the intended pilot and phased rollout of the service were removed from the project plan. These decisions were to have major ramifications later on. The Ministry had earlier told the Parliamentary Education and Science Select Committee that both would happen, but did not advise of their removal.

The Steering Committee approved the replacement of the pilot in February 2012. The Committee agreed that all pilot objectives could be met by the use of the Novopay Beta environment for training. These objectives, as defined in the project's Testing Strategy, were:

- Create champions within the school workplace (these were to become the Novopay Online Specialists)
- Demonstrate the Novopay solution to a wider audience of school users.

The Ministry informed us that the Project Board endorsed the use of the Beta environment as an equivalent alternative approach, but we found no documentation of this discussion by the Board. Talent2 felt that this was a reasonable decision, and still views a pilot as having been impractical. However, Talent2 did note at the Steering Committee level that the Beta environment covered only online functionality and not the wider solution.

We found no documentation of the decision to condense the staged rollout to a single 'big bang' implementation.

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26   PricewaterhouseCoopers, *Ministry of Education Educational Services Payroll Project*, 19 October 2010.

Findings

- **Neither the Ministry nor Talent2 adequately recognised, in a timely manner, the change in the nature of the project from a configured package to extensive customisation. Not only did this compromise the original intent, it required expertise and disciplines for which the main parties were ill prepared.**

- Talent2's engagement with the Ministry at this stage of the project was more passive than we would have expected. It did not adequately push back on the Ministry's increasing desire to replicate the existing payroll system.

- **We find that the decisions to remove the pilot and staged rollout, due to timeline pressures, were ill advised and counter to good practice. Both were feasible and, had they been conducted, would have exposed issues before a much larger number of schools were affected at Go Live.**

- The decision processes in relation to the pilot and the staged rollout were not sufficiently formalised, which was inappropriate given the materiality of the matters at hand. We note that, despite earlier assurances to the Parliamentary Education Select Committee that the project would take extra time, if required, to get things right, this was not done.

- The objectives for the use of the Beta environment as a substitute for the pilot did not cover the primary *in situ* testing function that a pilot would typically perform.

- While Asparona provided significant impetus and capabilities, it did so within a project environment that was not conducive to success.

6. Testing

While the requirements' definition, design and development continued, testing began on some parts of the system. This was early in the project, and concerns were soon raised. By December 2009 Talent2 was advising that the project would not be delivered on time because of delays with testing.

An independent review of the project by Extrinsic, commissioned in December 2009,[27] highlighted a large number of issues, including confusion about roles and responsibilities, a problematic project management structure, and inadequate testing practices that were not coordinated between teams. The report advised that the original target dates for the delivery of the new system[28] were unachievable.

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27   Extrinsic, *The Ministry of Education Project Novopay Review Report*, 29 January 2010.
28   27 May 2010 for the South Island, and 27 September 2010 for the North Island.

A year later, in November 2010, a PwC report identified a similar set of issues to those in the Extrinsic report.

At this time, Talent2 engaged Assurity as a sub-contractor to support testing. Echoing the previous reviews, Assurity found that the project had:

- Unclear testing responsibilities

- No coherent or integrated testing approach

- Few test artefacts and limited repeatable testing

- Inadequate requirements or architectural artefacts

- Poor traceability between design documents and testing done

- Too few experienced and skilled people.

Assurity established a new testing model that significantly improved the management and robustness of the testing work.

In December 2011 the Ministry engaged Assurity directly to manage User Acceptance Testing (UAT) on its behalf, with the tests being executed by Ministry employees and contractors. Assurity managed its dual role transparently and with due precautions to prevent conflicts of interest. A very limited number of users from the schools sector were involved in UAT.

As Go Live grew closer, the timeframe for testing became compressed due to the failure to meet preceding project milestones. As a result the scope of testing was reduced.

Some important areas of functionality (including service accumulation and End of Year/Start of Year) were not fully tested prior to Go Live. Some types of testing were not completed to the original scope, on the basis that testing could be completed after Go Live or that the risks of not doing the testing had been adequately mitigated. Inconsistencies were also observed between the tested software and the software actually deployed.

A number of test milestones were reported as 'met' in status reports, including the Confidence Points and Go Live decision, although the original scope had been reduced and not all tests were completed. This was done on the basis that there were action plans to address the resulting risks adequately.

Not all System Integration Testing (SIT) criteria were passed, and a number of third-party interfaces either failed or were not available to test. A number of scenario tests for the Service Centre also failed.

A four-week code freeze was planned prior to Go Live. This is a period where no system changes are made in order to ensure that the state of the system at Go Live is known and stable. This was scheduled to start on 18 July 2012. On that date, however, Assurity reported 197 defects, of which 10 were severity 2. As testing was not yet complete (and had been reduced in scope), this was not a comprehensive view of the system defects. This was not in accordance with the Go Live decision criteria, which required that there be no severity 1 or 2 defects that could affect the accuracy of payroll. As a result, the code freeze was reduced to two weeks in order to fix defects. Fixes to defects were still being released up to the time of Go Live.

Findings

- **Adherence to the 20 August 2012 Go Live date severely compromised the completeness of the testing programme.** Testing was reduced in scope and quality expectations were lowered.

- Neither the Ministry nor Talent2 demonstrated the level of capability required to plan, manage and execute effective testing. As a consequence of poor requirements definition, early testing was wasted. It was on the introduction of Assurity that testing practices began to meet the expected level of good practice.

- The increasing level of customisation made testing more difficult but also more important. The abandonment of the phased rollout and the pilot increased the project's dependency on testing. Neither the Ministry nor Talent2 fully appreciated this increased dependency.

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7. Change management and sector readiness

The business case clearly stated that "overall change management at schools is [a] Ministry responsibility, although the vendor may deliver change management services". The Ministry understood that changes to business processes and roles within schools in relation to payroll administration were expected.

The original contract, by contrast, stated that Talent2 would "manage and undertake" change management, end user documentation, training documentation and delivery, with "input and participation" from the Ministry. It went on to state that "the supplier will manage the change management programme".

The Project Initiation Documents (PIDs) allocated responsibility for change management between Talent2 and the Ministry. Talent2 was assigned responsibility for managing the training component, while the Ministry was responsible for sector readiness. This arrangement was incorporated into the first contract variation on 28 May 2010.

A Change Impact Assessment was carried out by the Ministry in December 2011.

The final system training plan was developed between October 2011 and January 2012, and proposed an online approach. The PRG was consulted on the content of the training, and expressed concern that its feedback did not make it into the training modules developed by Talent2 with Ministry involvement.

In February 2012 there was a realisation of the need for more face-to-face engagement with users. Existing networks within school regions were used to help build expertise.

The Ministry identified a group of 88 Novopay Online Specialists, who were experienced payroll administrators from various regions and school types and had agreed to become local support on Novopay for their schools and networks. Talent2 provided face-to-face training for the Novopay Online Specialists on 2-4 April 2012.

The Novopay Beta environment was also made available for users to practise with. The Beta environment reflected the system at the time – although at this stage there were defects and the functionality was incomplete. There were significant changes made to the system before it went live.

The Business Owner reported to the Board on 10 May 2012 that the project had been well promoted in the sector, with good feedback about the newsletters.

In May 2012 a survey was sent to more than 5,700 authorised users to assess the state of sector readiness. Only 1,500 (26%) responded. The survey showed that, while most users were aware of Novopay, only a small percentage (14%, or 210 people) understood the impacts of the changes that Novopay would bring.

System training was made available in June 2012. The Ministry initially measured the effectiveness of the training by the number of users who had registered for the online training, irrespective of whether they had actually undertaken the training. A new measure was agreed that measured how many people had completed the initial 'Module 0' (the first of six training modules available). The Ministry believed that this basic module would give users sufficient information to use the online Novopay functions and that any further support required could be provided by the Ministry.

Findings

- **The Ministry underestimated the impact of changes required of the schools by the introduction of the new payroll service. The execution of the change management plans which the Ministry did have was inadequate, and roles were unclear.**

- Given the level of change that the Ministry envisaged for schools, including the move to an online system and greater ownership of their HR arrangements, **the engagement with the service's customers (boards of trustees) and users (principals and school administrators) was insufficient**.

- The Ministry had overall responsibility for sector readiness other than system training, which was the responsibility of Talent2. We would have expected sector readiness preparations to include training that covered the changed responsibilities and roles, better communications and stronger support both during the project and in the period following Go Live.

- The system training was not well suited to the school environment. Talent2, with the Ministry's involvement and approval, took its standard approach to software training. The variations between schools warranted a more sophisticated approach than the one-size-fits-all approach used.

- It was evident before Go Live that many schools did not understand and were not ready for the changes to their roles. Some schools were also not prepared from a technological perspective, and found the move to an online system challenging. These problems contributed to the overwhelming volume of post-Go Live calls and manual forms being submitted to the Service Centre.

8. Decision-making: The lead-up to Go Live

At the 9 February 2012 meeting of the Project Board, the Novopay Business Owner indicated that a Go Live date of 14 August 2012 was the "absolutely last preferred date". At the same meeting the Board was advised that the SIT milestone had slipped by five weeks. At that meeting, all agreed that they remained committed to achieving the Go Live date.

At this time the project defined two Confidence Points, endorsed by PwC, which were intended to act as project stage gates, in order to give the Ministry greater control. The Confidence Points had explicit criteria; however, they did not articulate the implications of not meeting the criteria or the proposed actions should the criteria not be met.

The project re-baselined the plan and confirmed 14 August 2012 as the planned Go Live date, with the first pay date on 5 September. This date was later pushed back to 20 August.

A PwC quality assurance report of 1 March 2012 on the re-baselined plan noted staffing issues and the absence of contingency time; a number of other concerns were noted by the Board and added to the report.

By March the majority of the project work streams were rated 'green' in status reports to the Board, with the exception of Training, Construction and Service Readiness (amber) and Testing (red).

Confidence Point One

Confidence Point One was scheduled for 2 April 2012. At that date two of the four criteria had not been met: SIT, and the completion of a crucial design specification. The Board was told that there was still a chance of success if the outstanding requirements could be delivered within the next few weeks, and accordingly it recommended continuation through the stage gate. Talent2 had the view that the milestones had been met despite the incomplete testing, and that there was a risk of the project getting "stuck in perfection". Talent2 told us that in its view the missed milestones did not at the time present significant issues.

Box 5: Confidence Point One	
Requirement	**Reported to pre-Board**
Contractual SIT milestone to be met	Deemed as not met
Functional Design Specification (FDS) 79 to be constructed and tested (FDS 79 was a critical FDS that brought all the software together)	Deemed as not met
Payroll Verification Comparison Tool to be ready	Ready
Data conversion activities to be completed	Confirmed as completed but to be verified

At Confidence Point One there were 102 open defects, and multiple testing phases to be completed to prove that the product would work as specified. It was clear that there would be defects remaining at Go Live. The project was also concerned about the readiness of schools at this time, and the level of support staffing.

As Confidence Point One had not been met, a warning letter was delivered to Talent2 with a request to deliver the outstanding deliverables by 18 April. No notice of breach of contract was issued, and the project continued.

Subsequently the Ministry and Talent2 agreed that the SIT milestone could not be met and the milestone was moved to Confidence Point Two due on 31 May.

Independent Advice

In response to a Ministry request to the cross-government ICT Council[29] (comprising mainly departmental Chief Information Officers [CIOs]) for collegial advice, three members offered in April 2012 to assess the project. They each reviewed a separate aspect of the project, based on some documentation and a one- to two-hour interview with relevant project team members. The reviewers did not see each other's feedback nor did they see what was represented to the Project Board as a result of their efforts. They told us that they had not expected their advice to be cited as formal input to the Go Live decision, and had not agreed with the way their advice was presented once it became public in February 2013.

At the same time a PwC partner based in Australia, with experience in the implementation of the Queensland Health payroll, was engaged to perform a high-level review.

The findings of the four reviewers can be summarised as:

- **Testing and acceptance**: noted the lack of a unified view of the testing programme amongst stakeholders and a need to prioritise and compress testing to focus on high-value areas due to time constraints; concluded that it was feasible to have a well tested system in place by mid-August; recommended additional go/no-go decision points and the consideration of a phased implementation

- **Preparedness for Go Live**: the readiness capability for Go Live and service delivery is not, and is very unlikely to be, at a level required for fit-for-purpose outcomes

- **Ongoing service delivery**: concerned at the gap in payroll verification results and a lack of clarity about the forward development pipeline post Go Live; advised pushing harder for an option to extend Go Live to be able to deal with outstanding testing and fixes

- **Proposed service relationship management model**: an adequate framework does not exist or at least is not evident in documentation and conversations

- **Adequacy of service standards and measures for Talent2**: Service Level Agreements and KPIs are not robust and require a complete rewrite

- **Proposed future structure of the Ministry's ESP unit**: the structure is not clear; the relationships between Talent2 and ESP are unworkable and unsustainable.

This advice was represented to Ministers following Confidence Point Two as supporting the decision to progress.

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29   See Appendix 5 for details about the Council.

Confidence Point Two

In the lead-up to Confidence Point Two, a System Readiness Memo sent to the Business Owner at the end of May outlined the lack of functional readiness and the large number of system defects.

An SIT Summary Report released by Assurity on 22 May 2012 explained the tests that had been completed and the outcomes, including the tests that had failed. A number of outstanding defects were carried forward to the next phase of testing. Ultimately SIT was never completed to the original scope. Because of the time limit imposed by the August Go Live date, the Ministry agreed to accept the completion of test phases despite SIT not having been completed and a higher-than-expected number of defects remaining.

The assessment of Confidence Point Two was completed on 31 May 2012, with seven of eight points deemed either to have been met or expected to be met by the UAT planned for June.

Box 6: Confidence Point Two	
Requirement	**Reported to pre-Board**
Contractual SIT milestone to be met	Met
FDS 79 to be constructed and tested	Met
Payroll Verification Comparison Tool to be ready	Met
Data conversion activities to be completed	Met
Payroll verification	Close to completion
Security and performance testing	Deemed complete
Training materials and documentation	Deemed complete
Service Centre ready for training	Deemed complete
Retrospective processing SIT	Close to completion
Novopay Assurance Programme	No major issues
Business continuity plan and disaster recovery testing	Deemed complete
Formal UAT end-to-end testing and UAT 32 pay cycle testing	Not met

Talent2 stated that it was satisfied that system controls were robust and appropriate.

When the results of Confidence Point Two were briefed to Ministers on 5 June, the paper contained inconsistent statements. The Minister of Finance, Minister of Education and Associate Minister of Education were told that: "The Novopay Board recommends proceeding with Novopay. This is based on its assessment of the project, according to the following criteria (known as Confidence Point Two) having been met."[30]

Later in the report it was stated that "As at Tuesday 5 June, all criteria associated with Confidence Point One have been met and seven of the eight criteria associated with Confidence Point Two have been met, or are close to being met. The formal User Acceptance Testing is now scheduled to be completed in June."

Ministers were also told in the report that four independent advisers had assessed Novopay for readiness to proceed to Go Live: "On balance, while they noted some matters still need to be addressed, they recommended that the programme should continue." The Ministry expressed confidence in the project to proceed to Go Live. A series of assurances was given to the Ministers about the ability to rectify outstanding defects before the Go Live date, and any issues Post-Go Live. Cabinet approval for the project to continue with a planned Go Live date in August was granted on 5 June.

The Ministry's Chief Internal Auditor reported to the Project Board that he was unable to provide assurance on the full inclusion of system and manual controls. The Ministry advised that it relied on assurances from Talent2 that all system controls were in place.

The Business Owner made it clear to us that once Confidence Point Two was accepted there was no turning back, and most parties to whom we spoke confirmed that Confidence Point Two was the real Go Live decision (as opposed to the decision taken in August). The Ministry still had the Datacom contingency option available, but the acceptance of the two Confidence Points would have made it extremely difficult to justify breaking the Talent2 contract.

> **Box 7: Back-up options**
>
> Owing to the uncertainties about achieving a successful Go Live, the Ministry developed contingency options with Datacom. Because of ongoing delays in the schools payroll project, extensions had already been agreed to the outgoing contract with Datacom under the existing terms – first to 30 June 2011 (agreed in December 2007) and then to 30 June 2012 (agreed in August 2010). From September 2010 the Ministry began to consider two separate options: an *extension option* (to extend the Datacom contract until Novopay went live successfully) and a *contingency option* (to renew the Datacom contract if the Novopay solution were abandoned). Talent2 was aware that this work was underway but was not involved and did not know the details.

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30   Ministry of Education, *Education Report: Novopay – final recommendation following 31 May Confidence Point*,
     5 June 2012

Box 7: Back-up options

The extension option

In an internal email dated 18 July 2011, the Ministry noted four contract extension options submitted by Datacom. These were discussed at pre-Board meetings.[31] The Ministry's preferred option was for the Datacom operation to cease on 30 November 2012. Datacom had also offered an option to extend the contract to June 2013, where the Ministry could pay an "insurance premium" (effectively an early termination charge) to bring the termination forward if required. In an *Education Report* prepared for the Minister, dated 10 August 2011, there was mention of four options being analysed. Only the Ministry's preferred option, which was also supported by Datacom, was described.[32]

The Ministry and Datacom agreed on 12 October 2011 that the existing contract would be extended to 30 November 2012. This date provided a two-week fall-back option if the Go Live failed. At a 9 February 2012 meeting between the Ministry and Datacom, the Ministry confirmed that there would be no further extensions. At no point from the signing of the last extension in October 2011 did the Ministry approach Datacom regarding options for a further extension. The Ministry advised us that Datacom did not make any proactive offer to extend.

The contingency option

In mid-2011 the Project Board approved a Ministry team to pursue a contingency option in the event that Novopay failed implementation. The Ministry had determined that it would need at least five years to procure and implement a replacement service. A conditional contract for the contingency option was signed with Datacom on 23 May 2012, for a fixed price for at least five, and up to 13, years. The contingency option involved migrating the schools payroll to Datacom's new Datapay system (its replacement for the existing Datapay system). The Ministry's option to enact this contract expired on 1 July 2012.

The Ministry understood at the time that, if adopted, the cost of the Datacom contingency proposal, estimated at $202.9 million for 10 years, would be above and beyond the estimated costs of a successful Novopay implementation and ongoing operation. If the Novopay contract were cancelled and the Datacom contingency implemented, further additional funding would be required.

The Ministry decided that if Talent2 failed to meet the defined milestones or if a further delay to Go Live were required, the engagement with Talent2 would cease and the Datacom contingency plan would be used. From 23 May until 30 June 2012, the Ministry therefore retained a contingency plan in case of a complete Novopay project failure, but did not maintain an option for project extension in case of a project delay.

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31 See Governance section for discussion of the pre-Board meetings. Datacom was not present at these meetings.

32 Ministry of Education, *Education Report: Draft Cabinet paper on extension of contract for Schools Payroll Service*, 10 August 2011.

The final stretch

The project became locked into a 'big bang' Go Live on 20 August 2012, and there were intense efforts to make the service as ready as possible.

The Project Board noted in July 2012 that the communications to the sector seemed to have made the change to Novopay seem straightforward and that the users were not prioritising Novopay training over their daily workloads; in 13% of schools no-one had done any training.

From 30 June the Datacom contingency option had expired, leaving the project with no fall-back plan to cover the abandonment of Novopay.

There were still issues relating to UAT, and around 200 defects outstanding. Acceptance criteria for specific Go Live procedures were still being developed and had not been agreed.

A sector readiness survey on 7 August indicated that 13.3% of respondents "strongly disagreed" that they were "ready to use Novopay". Only 700 of the 2,457 schools responded to the survey. A follow-up of 30 of the respondents who "strongly disagreed" indicated that they were worried about the responsibility of ensuring that staff were paid. The project view was that the negative sentiments resulted from difficulties logging in to the Novopay Beta environment, and the long wait times for access to the Service Centre. The status in the Go Live Readiness Checklist was reported as 'green', despite not achieving the approved target of no more than 10% of respondents to the readiness survey strongly disagreeing that they were ready.

The survey statement "I am ready for Novopay" was responded to as follows:

Box 8: Readiness for Novopay survey results					
Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Total surveyed
61	196	194	139	109	699

A week later, on 15 August, the Project Board met to decide whether to go live. The Chair asked each Project Board member for their endorsement. All of the Board members, including the SSC, the independent members (one absent) and a PwC partner, supported the Go Live decision. Some suggested that project challenges should be communicated to the Secretary and Ministers.

On 17 August the SSC documented its support and stated that the project had made excellent progress and had in place an extremely detailed testing, assurance review and sign-off process across all aspects of the project. The SSC analysis found that the decision to continue, rather than terminate, the contract in May appeared to have been the right one. The only note of caution related to the much higher call rates predicted by the Service Centre.

The Ministry and Talent2 were aware prior to Go Live that the Service Centre had a number of readiness issues, with failings identified in service staff's ability to answer telephone queries correctly, process forms and identify incorrect transactions.

Talent2 planned for additional 'bubble' staff in the Service Centre for the post-Go Live period, based on estimates of the transaction volumes immediately after Go Live.

On the weekend of 18-19 August 2012 the service was deployed for a 20 August start. The actual Go Live process had been practised and was well managed and staffed. It was completed successfully.

By 28 August, before the first pay run, calls to the Service Centre were averaging 10 minutes' duration with 10-minute wait times and a 50% abandonment rate. Calls logged but unresolved rose from near zero to more than 3,200 before the first pay run. From this point until the week of the first pay run, no Service Centre metrics were reported, and the data on unresolved calls was not reported again.

The first pay run occurred on 5 September and the Project Board met the following day. The Project Board was advised that Novopay had successfully executed a pay run that paid 89,126 staff; however, there were errors and the sector had been very "noisy". The Business Owner tabled a memo that recommended an urgent meeting of the Project Board to identify the key issues and problems faced by schools, to prioritise these issues and to develop a plan to address them.

The issues were attributed to transactions not being processed on time, late and password-protected payslips, and some technical issues, especially with reports. Talent2 reported that the Service Centre had received significantly more payroll instructions than expected, and that about 5,000 people had been underpaid, with 15 people not paid at all. This occurred for various reasons, including system defects, user errors, unexpected school practices and the generation of an unexpectedly large number of timesheets. Approximately 700 people were overpaid (the largest overpayment amount being $15,000) due to data entry errors by Talent2 staff and other errors. Talent2 reported that there had been no "systematic system failure". Some schools seemed to struggle more than others, with one school sending almost 1,000 enquiries.

Findings

- **The actual Go Live decision was made on 31 May 2012, despite the Confidence Point Two criteria not having been met and schools not being ready.** Most of the key players recognised this at the time. As a complete readiness assessment for Go Live was not conducted at that time, it is not clear that there was a full appreciation of the risks that could be carried into the service Go Live date of 20 August.

- Even though a further extension of the existing Datacom contract until 2013 would have allowed ongoing testing and preparation for a successful implementation, **there is no evidence that the Ministry approached Datacom with a serious request to extend the existing contract for a further period**. We consider it likely that the Ministry could have secured a Datacom extension as an insurance policy against further delay. Any reasonable assessment of the project risks would have indicated that this was a prudent, if not essential, step.

- **The 5 June 2012 paper to Ministers English, Parata and Foss following Confidence Point Two misrepresented the state of the project**. The description of the criteria was confusing and gave an unduly optimistic view of the number of defects (Assurity had reported 439 defects assessed as being at severity 1-3 – many more than the number reported to Ministers). The paper did not explain that testing was incomplete and that significant further defects were highly likely. It also misrepresented the views of the independent advisers from the ICT Council.

- The project did not use the disciplines and structures appropriate to assess readiness for Go Live at Confidence Point Two. A full readiness assessment would have clearly indicated the significant risks faced by the project and, given the amount of work still to be completed and the track record of the project in not meeting deadlines, the low likelihood of a successful Go Live in August. The result was that the Go Live decision on 15 August became a Hobson's choice. **On 15 August the Go Live decision was confirmed when it was clear that:**

  - **Not all testing had been completed**

  - **Systems development was continuing through the code freeze right up to Go Live**

  - **The sector was not sufficiently ready**

  - **The Service Centre had failed some of its tests and was not fully ready**

  - **The crucial End of Year/Start of Year process was not yet fully developed or tested**.

- **Project governance and leadership allowed a combination of significant risks to be carried into Go Live and overestimated the ability of the Ministry, Talent2 and schools to manage them**. Notwithstanding a range of factors and pressures, we conclude that there was insufficient challenge at the governance level to the unrealistic assumptions about the likelihood of success.

9.   Post-Go Live: September 2012 – March 2013

Following Go Live, as anticipated, the project team continued with the unfinished development, defect fixing and testing that had been carried over, in particular, the completion of End of Year/ Start of Year functionality before schools began to lodge those transactions.

As time went by, however, a number of issues emerged in the weeks following Go Live:

- Poorly trained and unprepared school administrators overwhelmed the Service Centre with calls for basic assistance with using the system and requests for HR assistance that had typically been provided by Datacom. The Service Centre was not well prepared and was not expecting, nor was it expected, to provide HR advice.

- Previously unidentified requirements continued to emerge.

- Defects in the system, as well as aspects of the system that worked, but were difficult to use, triggered further calls. In particular, there were many defects in the user-facing online screens and reports.

- A number of transactions could not be performed online either by design or due to defects of various sorts, requiring users to enter data manually onto forms and send them to the Service Centre. This flow of forms overwhelmed the Service Centre. We identified up to 47 different Novopay forms of this type.

- Administrators and Service Centre users made data entry errors, which led to incorrect payments and unexpected results (such as staff timesheets being entered against the wrong school, and therefore appearing in that school's reports). This added to the number of payment errors caused by system defects.

- Incorrect payments meant that school administrators had to work with individual payees as well as with the system and the Service Centre, increasing their workload and stress.

- Confusing reports and payslips gave the impression of pay errors even when they were correct, generating further queries and a number of unnecessary 'corrections' that did create incorrect pay. For example, payslips sometimes showed very large (positive or negative) hourly rates due to internal pay calculations, which did not affect the accuracy of the pay.

- The system enforced a number of legislative and award rules in a standardised way, as intended. This led to the rejection of some pay arrangements based on different interpretations of the rules in the previous service. Schools and users interpreted these as system errors, and logged more calls.

- As the Service Centre struggled to cope with the volume and complexity of calls, which went way beyond standard payroll processing, schools were instructed to use forms to lodge queries and corrections. These were NOVO31 forms. The volume and complexity of the forms meant that some transactions were not processed before the payroll cut-off dates, resulting in pay that was different from that expected by schools.

- The online form tracking system had not been made available to schools, so they could not tell which requests had been actioned. The system also assigned a new tracking identifier to each form every time it was reassigned, making tracking difficult for the Service Centre. A number of duplicate forms were lodged by users who thought the originals had been lost, only to find that both were subsequently processed, creating incorrect pay.

- The increased workload and the complexity of issues increased the likelihood of mistakes and associated corrections.

- The project team was in high demand from the Service Centre to analyse queries and provide advanced user support. In addition, the number of defects was growing rapidly.

- Key system support processes such as incident management, defect management and change and release management existed but did not always operate effectively in the weeks following Go Live, as pressure mounted and the challenges of completing the solution while fixing urgent defects compounded. For example, there was a large number of emergency releases and some fixes were deployed without full testing, creating new problems. In early 2013 support processes became more controlled.

- The demand for key project team members contributed to the End of Year/Start of Year functionality not being completed in time, which led to additional errors and defects.

Box 9: Post-Go Live issues

Post-Go Live issues – as summarised by Talent2

- Inaccuracies with some pay

- Difficulties with the Novopay Service Centre

- Dealing with the position of relievers

- Lack of understanding about how Novopay works, and why some transactions cannot be processed in Novopay

- Inaccurate Staff Usage and Expenditure (SUE) reports

Post-Go Live issues – as summarised by the Ministry of Education

- Backlog of pay amendments and new joiners/leavers transactions inherited from Datacom

- Higher volume of transactions sent to Service Centre for manual keying than anticipated by Talent2

- Service Centre triage processes not in place from day one

- Inadequate processes to deal with relief teachers

- Early SUE reports inaccurate

Top four post-Go Live issues – from school submissions to the Inquiry

- Service Centre staff unknowledgeable, on limited time for each call, unhelpful, inconsistent, providing inaccurate information, making promises with no delivery (28% of respondents)

- Long wait times to contact the Service Centre (22% of respondents)

- No specific and directed support from a single person or designated support staff, multiple support staff or referrals for one issue (16% of respondents)

- Time lag in response, no timeframes given for issues to be resolved, or issues unresolved (11% of respondents)

Talent2 advised us that the initial uptake by schools of the online functions was much lower than anticipated. Only 30% of transactions were processed online for the first pay on 5 September.

When users did not obtain helpful responses from the Service Centre they sometimes escalated their problems through other channels, including the ESP team, auditors, unions, the media, Ministry leadership and the Minister.

Prior to Go Live the project team had carried out some scenario planning, but it is not clear whether any planned mitigating actions were executed or contingency plans enacted. For example, the Service Centre in Wellington could not rapidly scale up because of limited office space and the unavailability of additional telephone lines.

The post-Go Live support model, including a daily Rapid Response Centre, handled communication, prioritisation and escalation. However, some expected practices were not evident, such as the explicit management of workarounds and interim processes. The lack of specialist expertise constrained responses.

We have been told that priorities for defect resolution continually changed and that a more controlled and structured approach was required. Despite this being raised, such an approach was not implemented until early in 2013.

The Programme Director advised on 31 October 2012 that the project should be closed, and wrote a project close-down report. This was on the basis that End of Year/Start of Year functionality had been delivered (although not yet used) and that business as usual could manage the remaining defects. The project was not closed.

There was no clear approach to providing the HR and award-related support that Datacom had provided. The Novopay service was never intended to provide this support, and as a result calls of this nature could not be resolved by the Service Centre.

The current Acting Secretary for Education took up his appointment on 9 February 2013. He found that there was no one person with full-time responsibility for the Novopay project. It was being managed by a Deputy Secretary and Group Manager, both of whom had other significant responsibilities. He also observed that there was no easily discernible strategy or plan for the remediation of the project, as the time and resource of everyone involved was focused on managing from one pay period to the next.

Findings

- As the risks became issues and the issues rapidly escalated, both the Ministry and Talent2 found themselves unprepared and overwhelmed.

- The planning for the post-Go Live period proved to be insufficient for the issues that emerged. While there was an allowance for additional staff in the Service Centre, this was tightly focused on how to process an increased number of standard transactions taking slightly longer than normal. There was insufficient allowance for unusual queries or system fixes.

- Post-Go Live, the project decision-making was not sufficiently robust or effective to deal with the overwhelming number and complexity of issues experienced.

- Notwithstanding the unexpected level of issues, Service Centre staff were not adequately prepared, as demonstrated by the inconsistent and incorrect advice reportedly given to school administrators. This further contributed to the number of forms submitted, and incorrect data entry. The Service Centre itself made many errors under pressure, indicating inadequate process controls and system functionality.

- **A lack of adequate support resulted in significant stress and required additional time and effort from schools and the Ministry to manage the payroll. It also contributed directly to additional errors and system defects, through missed, inaccurate and duplicate transaction processing, and poorly-controlled system changes.**

10. Remediation

During February 2013 the Acting Secretary for Education established daily war room meetings to address the issues with Novopay. The Acting Secretary was also involved in daily meetings with the Minister, providing updates on the state of the payroll operations and associated issues.

The Ministry held Talent2 to account for contract breaches Post-Go Live. The two organisations started to build more constructive relationships at senior levels.

The primary focus shifted to a stabilisation of the system and improving the online uptake of Novopay, while ensuring that the costs did not exceed those of the previous payroll system. Once the system is stabilised the Ministry will look at opportunities to revisit both the Ministry's shared services model and the service model it procured from Talent2.

The Ministry established 'Operation Supernova' to assist in managing the relationships between the sector and the Ministry and Talent2. The intention was to ensure that the sector had a communications avenue to escalate its issues to the Ministry.

The Novopay Remediation Programme, staffed by both the Ministry and Talent2, was also established in February 2013.

Through March, April and May, a number of software releases were made to address defects in the system. This work continues.

On 11 March 2013 the Ministry established the Backlog Clearance unit to clear the transaction backlog and correct errors from previous pay periods.

The Ministry established a new, dedicated business unit led by a newly appointed Deputy Secretary responsible for payroll. The Ministry also increased staffing levels, putting on hold earlier plans to restructure the ESP unit to fit the new payroll model.

The Ministry also took steps to re-engage with the wider sector. Following consultation with the sector, the Ministry is now moving to implement a number of financial and non-financial support mechanisms for schools.

The reported pay error rate is now consistently below 0.5% of individual payees per pay period, and system defects are being progressively resolved.

Findings

- The Ministry and Talent2 made significant efforts to stabilise the payroll service and correct errors.

- The creation of a dedicated Ministerial portfolio for Novopay, and the appointment of a new Acting Secretary, gave a much sharper focus to addressing the issues and improving the key relationships.

- We are satisfied that the Ministry and Talent2 are aware of what is required to remediate the Novopay service, and that good progress is being made.

Chapter Three: Project Execution

1. Project governance

The contract between Talent2 and the Ministry established how the project was to be governed. Successive PIDs then described the detailed project governance structures. The initial governance structure complied with the PRINCE2 project management methodology, which the Ministry had adopted as best practice. This structure also met Cabinet's requirements for governance, as defined in the *Guidelines for Managing and Monitoring Major IT Projects* issued by the SSC. The governance structures varied slightly over the course of the project; later PIDs set out slightly varied structures, and added committees.

The governance structure on the next page is as it existed at 1 June 2012.

Project Sponsor MOE CEO

Project Executive
(Deputy Secretary of Schooling)

Project Board
(including independent members)

Project Owner
(CIO, MOE)

Supplier
(CEO, Talent2)

Commercial
Committee

Steering Committee

Programme
Manager Office

Programme Director

Technology

Service
Readiness

Sector
Readiness

Transition

Payroll
Verification
and Data
Conversion
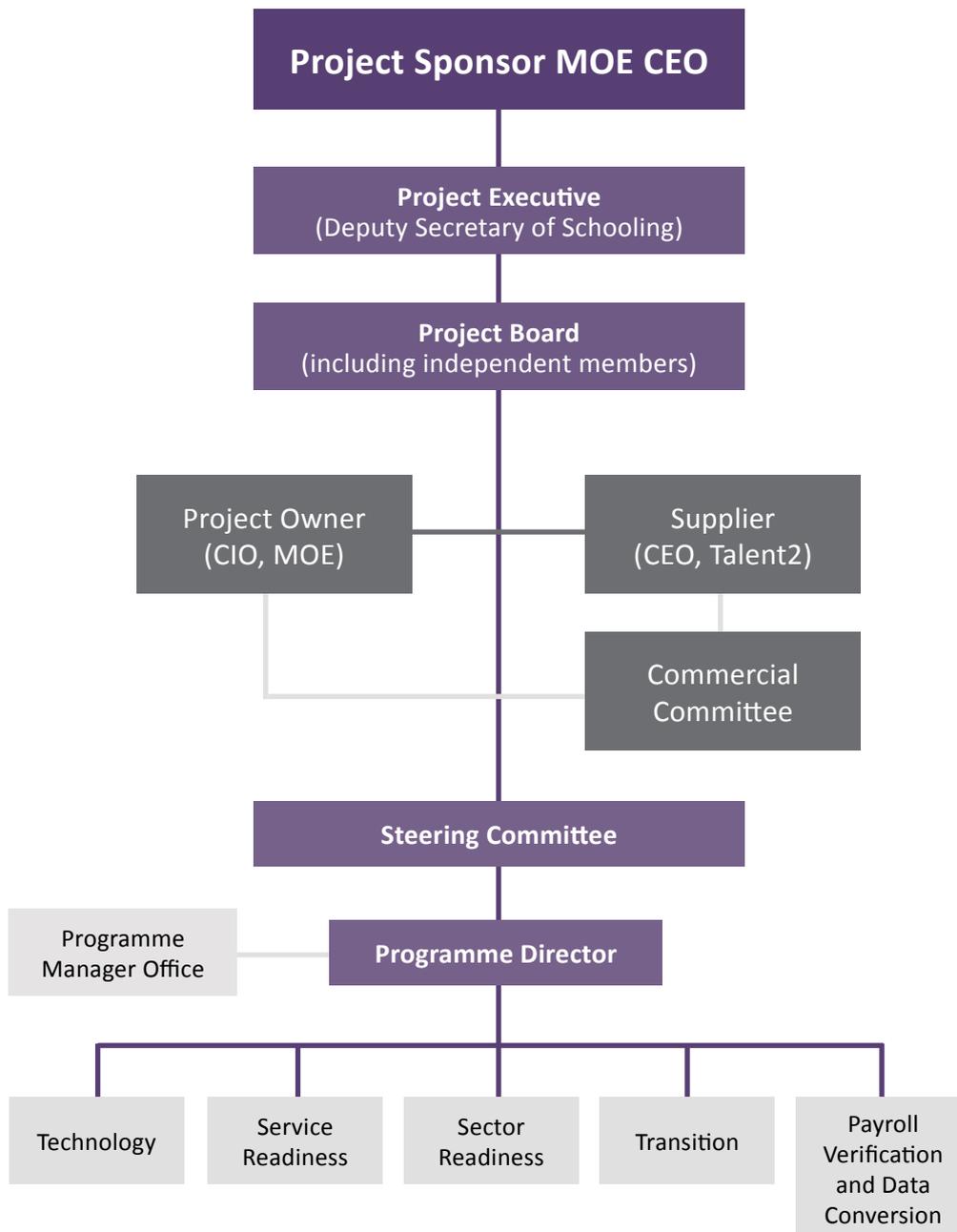
Diagram 3: Novopay project governance structure

The governing bodies' roles as described in this PID were:

- Project Sponsor: accountable for the delivery of the Novopay project

- Project Executive (usually referred to in this paper as the Senior Responsible Officer [SRO]): responsible for the delivery of the project; delegated formal responsibility for decision-making

- The Novopay Project Board: an advisory board to the Project Executive. The Board provided advice and support to the SRO in exercising project leadership and decision-making

- The Project Owner (usually referred to in this paper as the Business Owner): responsible for the specification of the needs of those who would use the final product, liaison with the project team and monitoring that the solution would meet the needs set out in the business case

- The Steering Committee: day-to-day oversight of the Novopay project

- The Commercial Committee: designed to resolve commercial issues away from the delivery aspects of the project. It was established in the December 2011 PID, reporting at that stage to the Steering Committee. On 1 June 2012 the Commercial Committee's reporting line changed to a dotted line to both Talent2 and the Project Owner. No explanation was provided in the PID for this change in reporting line. We found little information about what the Commercial Committee did or how often it met.

A sub-committee of the Project Board was established in February 2012. Its purpose was not minuted in either the sub-committee or the Project Board minutes supplied to the Inquiry, and was not described in the PID.

A review of project documents the Ministry's Official Information Act response released on 17 December 2012,[33] Board membership on 14 June 2012 comprised:

- SRO (Deputy Secretary Schooling, until September 2012)

- Business Owner (Group Manager Education Workforce with responsibility for the Novopay project; previously the CIO, until 4 October 2012)[34]

- Senior Users Ministry (Deputy Secretary Student Achievement, Chief Financial Officer and Group Manager Education Workforce)

- Three independent Board members

- SSC

- PwC.

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33   See the documents written by the Ministry of Education, available at: http://www.minedu.govt.nz/theMinistry/ NovopayProject.aspx
34   The Acting CIO did not take up the position on the Board vacated when the CIO became the Business Owner.

The membership and size of the Board fluctuated during the course of the project, most notably increasing sharply following the PwC report of late 2010. A number of additional boards and committees were also created in relation to the project, of which some (but not all) met regularly. Datacom and Talent2 were sometimes invited to remain outside the room for Project Board discussions.

At its peak, the Board had 25 members and attendees. Board minutes did not always clarify the reasons for people being in attendance.

Box 10: Novopay Project Board membership							
	Oct-Dec 2008	2009	2010	2011	Jan-May 2012	June-Dec 2012	Jan-Mar 2013
Official members	6	7	7	9	8	12	10
In attendance	4	7	9	16	12	10	4
Total	**10**	**14**	**16**	**25**	**20**	**22**	**14**

We were informed by the Ministry that when new members joined the Board they were supplied with key background information such as the most recent PID, which included a section on how project governance worked, as well as recent Board minutes and the most recent copies of SSC monitoring reports. One Board member told us, however, that he had not been provided with any specific documents when he joined the Board. New Board members were briefed by the Business Owner and by the SRO, who outlined their roles on the Board. If a Board member asked, an individual briefing would be held to inform them in more detail about key issues in which they had an interest. We saw only one formal appointment letter, for one of the independent Board members.

Ministry-only pre-Board meetings were used regularly. The pre-Board meetings were for the purposes of updating and briefing the SRO and discussing commercial and financial matters without Talent2 in the room. The status of the pre-Board forum was not formalised, and records were not consistently kept. It did not seem to report to the full Board as might have been expected. All Board members, including the independent Board members, participated in these meetings. Datacom and Talent2 were aware of the existence of the separate meetings but did not attend. Other members of the project team were also invited to be present for particular issues. Final decisions on issues raised in the pre-Board meetings were made at the full Board meetings.

We asked Board members whether the Board had discussed the Cabinet-mandated *Guidelines for Managing and Monitoring Major IT Projects*. No-one recalled that the guidelines had been discussed.

The minutes of Board meetings were not always well written, nor were decisions always clearly recorded. We were told that sometimes the Board minutes did not reflect the full discussions that had taken place during the Board meetings. The evidence was that there was insufficient formal reporting to the Ministry's Leadership Team.

There was confusion about the roles of Board members and about the composition and role of the Board itself. For example, some members believed that the Board was there to make decisions (and that it did in fact do so), while others believed that it was an advisory board for the SRO.

It was not always clear in which capacity a member was attending a Board meeting, although the SRO advised us that all Board members were treated the same; no distinction was made between Ministry and vendor, independent and project, members and advisers. The SSC monitor joined the Board as a member on 11 August 2011.

A clear example of the confusion of roles was evident in the Go Live decision paper to Ministers on 5 June 2012. This paper was signed by the Business Owner, rather than by the SRO or the Secretary for Education. In addition, in signing this advice out to Ministers, the Business Owner gave her title as the Ministry's CIO – a post she did not hold at the time, and one that did not have a formal leadership role in the project.

> **Findings**
>
> - **The Ministry did not establish the quality of governance required for a complex project of this nature.**
>
> - The management of the governance structure did not always accord with the structures and roles set out in project documentation. The number of different bodies and roles diffused accountability and unduly complicated the decision-making process.
>
> - Formal governance disciplines (such as the preparation of accurate minutes) were not consistently demonstrated.
>
> - Pre-Board meetings can have a valid role in the preparation for Board meetings. However, the inclusion of the independent Board members in the pre-Board meetings diluted their ability to be an effective independent voice in the Board meetings or to exhibit sufficient independence in acquitting their roles.
>
> - **The lack of discussion at the Project Board about the *Guidelines for the Management and Monitoring of Major IT Projects* was a major failing.** These are the guidelines to which every project board should adhere in acquitting its responsibilities. For example, if these guidelines had been observed, it would have been evident that the required IQA across the project was not in place.

2.   Project management

The Ministry was in the process of introducing the PRINCE2 project management methodology as its standard at the time that the payroll project began. Initial project planning had specified that PRINCE2 processes and methods be used, with the caveat that this might not be entirely consistent while the Ministry established the new methodology. Novopay was one of the first projects in the Ministry to use PRINCE2.

The degree of rigour with which PRINCE2 methods were applied depended largely on the capability of the project manager or programme director at the time. In several key roles personnel changed a number of times. In a four-year period, for example, there were eight Ministry project managers, programme managers and programme directors. In the same period Talent2 changed only two key leadership personnel. There was no Programme Management Office (or similar team) within the Ministry responsible for maintaining and enforcing project methodologies until 2012; prior to that it was the responsibility of the IT group to ensure that PRINCE2 frameworks were used. A Programme Director with overall accountability for the project was appointed in October 2011. Prior to this, the Ministry and Talent2 were responsible for managing their own parts of the project, and synthesis between the two was achieved at Project Board or Business Owner level.

The project followed some PRINCE2 practices, but after 2009 very few of the expected project artefacts were created or updated as the project progressed. While basic practices such as risk and issue management were in place, key PRINCE2 practices (such as the use of a configuration register or a quality log) were absent.

The Project Board for Novopay was larger than would be expected under PRINCE2, adding more voices to the Board's deliberations. The programme/project director/manager did not report directly to the SRO, but through the Business Owner. The initial Business Owner had many other responsibilities, constraining focus on the project (although this improved in the latter part of the project).

Some Ministry personnel assigned to the project had previously been involved in other large Ministry projects, but the Ministry was aware that it did not have in-house expertise in all areas. This led to a number of consultants and individual contractors being engaged in key roles. The contractors were generally experienced in large-scale, technology-based change programmes, although they had less experience in working in an environment like the Ministry's.

While Talent2 had its own system implementation methodology, the Ministry had weak methodologies and frameworks to guide the planning and execution of Ministry activities, such as requirements' gathering and change management.

Findings

- **There was a large degree of turnover in key project leadership positions.** We have been told that key people left either in frustration or because project delays had contributed to fatigue.

- **The lack of a Programme Director with overall accountability reporting to the SRO meant that the Project Board and the Business Owner were effectively the points of integration for programme planning and management.** This was the wrong level.

- Formal project documentation, where it existed, generally complied with our expectations, although it was not always well maintained. We found examples of good project documentation being produced, but not executed.

- Talent2 managed its own teams according to its own methodology, but should have recognised the need for a single programme manager and supported that concept. It did not bring sufficient management capabilities to the project, especially as it became clear that significant custom development was required. It seemed slow to react to clear signs that progress was insufficient, and was overly reliant on key individuals. This became a bottleneck after Go Live.

- The efforts of the Business Owner from February 2012 until immediately following Go Live gave considerable impetus to the project and were instrumental in the solution being deployed.

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3.   Vendor management

Datacom

We considered the Ministry's relationship with Datacom with respect to Datacom's involvement in the Novopay project and the development of the contingency option.

There are varying views on the extent to which Datacom engaged usefully in the project. We received reports that Datacom went beyond what was required of it to assist the Ministry, but others described its input as minimal and said that there were significant trust issues between the Ministry and Datacom that slowed progress.

The relationship between Talent2 and Datacom was brokered almost entirely by the Ministry.

The initial contract between the Ministry and Datacom only contained an agreement to establish a detailed transition plan as required. The amendment to the Datacom contract to add an "Initial Disengagement Plan" did not occur until November 2011.

Talent2

It was generally recognised by the people to whom we spoke that the project culture and the relationship between the Ministry and Talent2 were not always healthy, and that this had impacts on the effective forward momentum of the project.

The environment within the project was characterised to us as fractious in its initial phases, and on several occasions problems of team morale grew so bad that they had to be addressed through external interventions. In 2009 workshops were run in an attempt to better align the teams, and in mid-2011 an external consultancy was engaged to recommend options to improve the team culture.[35]

Talent2 staff reportedly grew cautious about pushing back on requirements and changes coming from the Ministry, because of a desire to not rock the boat. According to Talent2, this contributed to the extent of software development required.

Talent2 missed agreed milestones and deadlines. The Ministry had cause to invoke breaches of the contract for non-delivery from as early as 2010, but did not exercise this option. Rather it engaged in discussions with Talent2 with a view to improving performance.

Talent2 reported that early on it attempted to use formal change requests when circumstances changed. The Ministry indicated that this would significantly affect the relationship, so Talent2 chose not to pursue them.

The Ministry has invoked a contractual provision seeking a 5% reduction in fixed fees, on the basis that Talent2 has failed to meet a critical KPI. This has not yet been resolved.

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35   Change Dynamics Ltd, *Assessment and Improvement of Culture in the Novopay Project*, June 2011.

Findings

- **The Ministry did not have the commercial experience to manage the vendors in a project of this nature.**

- The Ministry did not engage with Datacom fully enough to maximise its contribution to the success of the project. Datacom collaborated fully with the Ministry in developing the contingency option and continued to do so when post-Go Live issues became evident.

- **The relationship between the Ministry and Talent2 did not prove sufficiently constructive or transparent to manage the underlying risks in the project effectively.**

- While there were contractual levers available, the lack of a range of sanctions made it difficult for the Ministry to apply them. The lack of clarity around performance obligations created by the 40 contractual documents further affected the Ministry's ability to manage Talent2's performance.

- **Talent2's inability to deliver consistently against milestones led to a loss of trust and confidence in its ability to deliver the solution.**

- Talent2's approach to the project was in some respects narrow, with Talent2 responding to Ministry requests without fully challenging their reasonableness.

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4.   Assurance

Audit and Assurance Committee

The Ministry's Audit and Assurance Committee has an advisory role to the Chief Executive. Part of the Committee's role is to consider the Ministry's general and high-level risks, including reviewing the Ministry's risk registers. Novopay was a regular item on the agenda of the Committee's quarterly meetings from August 2008, in both written and oral forms.

The Committee questioned various issues to do with the project, and slippage was noted from time to time. Members of the Committee told us of their unease about the project, given that at every meeting the Committee was informed that the project was still behind. The Committee also told us that it had always understood that a pilot and phased rollout were part of the project planning, and had been taken by surprise to learn after the event that there had not been either. Some Committee members said they felt they had been "fobbed off" when concerns were raised.

In late 2011 the Committee identified specific concerns about Novopay on which it asked the Ministry's Chief Internal Auditor to brief the Secretary for Education. It is not clear to what extent the Committee escalated any other concerns to the Secretary.

In relation to the reports it received about quality assurance, the Committee said, "It was hard to see if and where there were any gaps". Committee members told us that they understood there was no overall responsibility for IQA for the project, and that it was procured by the project when it was deemed necessary; the project had "IQA all over the place". The Committee believed that PwC was carrying out an IQA role. The Committee did not ask whether the project adhered to the *Guidelines for the Management and Monitoring of Major IT Projects*. The Committee did not meet with the Novopay Project Board or visit the project team, but some project managers did attend Committee meetings.

One member of the Committee could not think of anything that could have been done differently.

Independent Quality Assurance

IQA is mandatory for all monitored government projects. The external monitoring agencies rely on access to regular IQA reporting to carry out their own assessments. Agencies are also required by Cabinet to ensure that IQA reports are provided to their Chief Executives on the key issues and risks arising from major projects.[36]

Different providers were used at different times for IQA on the Novopay project. PwC provided IQA: during the project business case phase (2005); during project delivery (2006); and during the procurement (2007 and 2008). Independent Quality Assurance NZ (IQANZ), as the project's preferred provider for IQA services, provided IQA commencing with the detailed business case review (2007), as well as a series of health check reviews (2008 – 2010). IQANZ conducted its last review in July 2010. The Project Board minuted on 15 January 2011 that PwC was "effectively conducting the IQA function", and that engagement with IQANZ would recommence once the PwC engagement ended. After this the Ministry commissioned PwC to provide "independent assurance activities". The terms of these were specified in letters of engagement. The activities did not, however, constitute an across-the-programme IQA function.

We were told by several parties, including the SSC, that they had believed PwC was providing IQA and had been reassured by this. The SSC now recognises that, with the cessation of IQANZ's assurance and with PwC undertaking multiple project roles, IQA on the project changed to the point where it no longer met the SSC's expectations for independence and breadth.

According to the Business Owner, IQA was brought in at key points when required. It had variously involved PwC, the SSC, Ernst & Young and other parties. There had been no IQA from 2012 with respect to the project milestones. The SRO, meanwhile, told us that she could not remember whether there had been a formal decision to suspend IQA, and that she was not aware that the contract with IQANZ had ceased; apparently the Project Board did not know either. Meanwhile, a former Secretary for Education told us that she was aware that IQA reports were going to the Board. She had seen mention made of this in Board minutes, and sometimes received full copies of the IQA reports.

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36   The 2011 *Guidance for Monitoring Major Projects and Programmes* requires that IQA reports are provided directly to Chief Executives and are not to be delegated downwards.

Internal Audit

The engagement between the Ministry's Internal Audit team and those responsible for Novopay governance was not high. There was apparently an understanding that audit and risk responsibilities for the Novopay project would be undertaken by the Board. The appointment of a new Chief Internal Auditor in mid-2010 provided greater emphasis to the internal audit function, but the Chief Internal Auditor still did not have a great deal of involvement with the Novopay project.

The Chief Internal Auditor supported the commissioning of the PwC report in late 2010, which was a key turning point in the project and led to the strengthening of the Board and to the engagement of Asparona and Assurity. In the same period the Chief Internal Auditor also proposed a controls assurance engagement[37] for the project. The Business Owner, however, felt that intervention by Internal Audit at that stage of the project would be unhelpful, because key aspects of the project were being redeveloped. It was agreed that Internal Audit would re-engage with the project once the FDSs had been completed. This happened in January 2012, and the Chief Internal Auditor began a controls assurance programme shortly thereafter.

On the completion of the programme, the Chief Internal Auditor reported to the Project Board that he was unable to provide assurance over the full inclusion of system or manual controls.[38] This report was considered as part of the Go Live decision.

The Chief Internal Auditor seemed to be aware of a range of issues with the Novopay project. The Chief Internal Auditor told us that in his view the Ministry and Talent2 had collectively misunderstood the difficulty of the payroll service project, and that it represented a fundamental shift for schools from what they were used to. It was not clear whether his concerns were escalated sufficiently to the Secretary or the Leadership Team. The Chief Internal Auditor was not a member of the Ministry senior executive, although he would attend Leadership Team meetings by invitation to discuss internal audit issues. He also met regularly with the Secretary for Education. She told us that, while some concerns about Go Live were raised, the advice she received was that none was serious enough to detract from the Go Live decision.

The Chief Internal Auditor's role has, until recently, not included Ministry-wide responsibilities relating to risk, which was managed by individual business owners. We understand that this system is now being changed to create a central point for risk management for the Ministry.

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37 This would consider the adequacy of the design of the controls within the Novopay solution.

38 Ministry of Education, *Novopay Pre-Implementation Controls Assurance*, 9 August 2012. http://www.minedu. govt.nz/theMinistry/NovopayProject/~/media/MinEdu/Files/TheMinistry/NovopayProject/DevelopingNovopay/ QualityAssuranceReports/NovopayPreImplementationControlsAssurance.pdf, accessed 24 May 2013.

> **Box 11: Ministry of Social Development: A comparison**
>
> - The risk and assurance role is critical for the appropriate management of a government agency. By way of comparison the Ministry of Social Development manages its assurance and risk in the following manner:
> - A dedicated Risk and Assurance group led by a Deputy Chief Executive
> - Provides support to the Audit Committee, Chief Executive and Leadership Team on the systems, processes and controls on which the Ministry of Social Development relies
> - The group has 23 FTEs,[37] has an annual budget of $2.7 million and comprises three teams:
>   - Assurance Services delivering a risk-based, targeted assurance programme
>   - Advisory Services providing advice about risk management, internal controls and governance matters
>   - Risk Services with responsibility for the Ministry's risk management framework.

Office of the Auditor-General

The Office of the Auditor-General's (OAG's) primary interest in the Ministry's payroll is in ensuring that there are adequate controls over expenditure, both centrally (the responsibility of the Ministry) and at each school (the responsibility of the boards of trustees). The Auditor-General is the auditor of the Ministry and all schools, on behalf of Parliament. The Auditor-General has appointed Ernst & Young to audit the Ministry, whilst schools are audited locally by a range of firms.

We were advised that, as the external auditor of the Ministry, the role of the OAG was limited and specific. The OAG has to be selective in the matters on which it undertakes audits and reviews. It can only provide high-level assurance over controls and does not provide detailed project assurance unless it has been specifically engaged to do so.

Throughout the project the OAG met with the Ministry to discuss the school audit aspects of payroll, controls and assurance issues. It provided advice on managing perceived conflicts of interest, gave perspectives on controls, and identified the risks of fraud and error that could arise with the new payroll system. The OAG also expressed concern to the Ministry's senior management about the continuing project delays and the absence of documentation on the control environment. Internal OAG consideration was even given to carrying out an inquiry due

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39   Full-time-equivalent staff.

to the continuing project delays. Because the SSC was monitoring the project and forwarding reports to Ministers, Cabinet and the OAG, however, the last was reassured that the risks were known and were being addressed.

Ernst & Young told us that it had maintained a watching brief over the project from procurement through to implementation. Ernst & Young had a limited pre-implementation assurance role relating to the data conversion from Datacom to Novopay. At the time of our meeting with Ernst & Young, the payroll control environment had still not been assessed as adequate.

Findings

- **Notwithstanding the range of assurance activities across this project, there was no overall accountability for IQA, its scope did not encompass the entire project, and it was not provided continually**. This was a deviation from Cabinet's specific requirements, and made the overall assurance of the project less effective.

- **Ministers, central agencies and the Ministry placed confidence in the assurance activities being undertaken.**

- We were surprised at the lack of attention paid to ensuring that IQA was in place. The Ministry's Leadership Team, the Project Board, the Audit and Assurance Committee, external advisers and the monitoring agencies should all have enquired more robustly about IQA reporting when it stopped appearing.

- The Ministry had no single senior executive responsible for Ministry-wide risks.

PricewaterhouseCoopers

PwC has been involved with the Novopay project from 2007. A timeline and overview of its roles in that period are set out below:

Probity Review			Targeted Assurance & Advice		Programme Assistance	
2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**

Diagram 4: Timeline of PricewaterhouseCoopers' involvement in the Novopay project

2007

PwC was commissioned in July 2007 to complete a probity review of the vendor selection process, to confirm that the Ministry was following the probity rules and processes stipulated for government procurement.

October 2010 – April 2012

PwC characterised its engagement during this period as the provision of independent opinions, primarily in reviewing material produced by other parties (such as Talent2 and the Ministry) and expressing opinions on certain topics. PwC also provided recommendations to improve situations considered to be deficient. Formal letters of engagement were concluded between the Ministry and PwC to cover the assignments undertaken during this period, which referred to PwC providing quality assurance, IQA, independent advice and change management support.

In January 2011 PwC provided a partner to carry out an independent project implementation adviser role. This role included attending and contributing to Novopay Project Board meetings. PwC expressed their view that there was no issue of conflict for the PwC partner assigned to this role, as he was not a member of the Project Board, was never appointed as a Board member, and the relevant PID (dated December 2011) identified that the role was separate from the Board. PwC was reported by the Ministry as being part of the pre-Board meetings and fully participating in all Board discussions.

In February 2011 PwC was appointed as a co-source partner for the Ministry's Internal Audit team. In March 2012 PwC were engaged, jointly with the Ministry's Internal Audit team and Ernst & Young, to provide the Novopay controls assurance review discussed above.

PwC told us that the project did not have a formal IQA provider after October 2010, noting an intention on the part of the Project Board to re-engage IQANZ once the initial PwC assignment had concluded. That was not followed up.

The former Secretaries for Education, the SRO, the independent Project Board members, the Audit and Assurance Committee, SSC and the OAG all told us of the reassurance they had gained from their belief that PwC was providing IQA to the project. PwC, meanwhile, emphasised to us that formal IQA was not part of its role, and that it had been clear in Project Board minutes that this was the case.

June 2012 – current

The role of PwC changed in June 2012 to also include assistance, as part of the Novopay project team. This change was made at the request of the Ministry. PwC advised the Ministry in a letter dated 6 June 2012 that it could no longer continue to carry out an assurance role. PwC seconded another partner to the Ministry into the role of Programme Director, reporting to the Business Owner. The seconded PwC partner told us that he was in regular contact with colleagues at PwC during this period to discuss the Novopay project. We were advised by PwC that this occurred in order for the partner to draw on the experience and insights of other partners of PwC on ways to approach issues. It also advised that this was an accepted risk management approach that all major consulting and advisory firms would apply. A team of PwC personnel was also engaged to assist the Ministry to achieve milestones to enable Go Live. These were all documented in letters of engagement.

More recently, PwC was commissioned to provide services for the Novopay Remediation Programme and delivered a remediation review in May 2013.

Interaction with the Secretary for Education

PwC told us that it generally interacted with the SRO and Business Owner. PwC expected that these individuals would then raise any issues brought up by PwC during their regular meetings with the Secretary.

PwC has advised us that it met with the Secretary for Education twice to review project issues, and also attended regular meetings, together with the Secretary, SRO and Business Owner, with Associate Minister Foss.

An engagement letter dated 6 June 2012 set out a fee arrangement between June and September 2012, under which 15% of PwC's fees for some of its services would be held back and would only become payable if the transition to Talent2 was achieved in a manner that met the exit criteria. PwC explained that this was not its usual practice, and was only agreed to at the request and insistence of the Ministry (and even then at a level materially lower than had been originally sought by the Ministry).

Findings

- **PwC had a range of engagements with the project, some of which resulted in confusion about its responsibilities on the part of key players. For example, Ministers, Secretaries and central agencies at varying times assumed that PwC was providing IQA across aspects of the project.**

- **While the engagement documentation was clear, the risk of conflict of interest arising from aspects of its roles was not well managed by PwC. For example, PwC was clearly viewed and treated by the Ministry as a full Board member, despite its own assertions to the contrary and the perceptions of other Board members.**

- PwC may have lost sight of the reliance that others were placing on it as a provider of professional services. For example, given the strong evidence that project governance was not sufficient to ensure that milestones were being met, particularly in the period up to Go Live, PwC might have been expected to make direct contact with the Secretary to identify these concerns outside of the existing governance and reporting channels to the Secretary.

- It is unfortunate that PwC agreed to the Ministry's proposal to hold back $68,000 of its fees until the transition to Talent2 was achieved. This put PwC in the position of seeming to have been incentivised to support the Go Live decision when it was debated at an August 2012 Project Board meeting attended by PwC. We accept that the incentive did not in reality exist (as the actual Go Live decision was made in May 2012; the August decision was one of timing only).

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5. Benefits and costs

The business case set out the intended benefits of the project and how they were to be reported. The Ministry's ESP unit was to manage and report on the key benefits, while a benefits realisation regime was to be established as part of the role of the Business Transition Manager.

To date there has been no benefits realisation regime produced, and benefits management and reporting have not yet transitioned to the ESP team. A final version of a *Benefits Realisation Plan* was produced in January 2010, but after this date no further versions were signed and the plan was not finalised or implemented. The Ministry's Service Delivery Manager told us that he believed the changes in the project, and the de-scoping of some activities, meant that some benefits were removed or degraded, and that the *Benefits Realisation Plan* became outdated and unused.

Box 12: Non-financial benefits anticipated from the Novopay system

Non-financial benefits anticipated from the Novopay system as outlined in the business case

Strategic benefits

- Improved management of information; effective translation of policy into payments; address inconsistency of practice in administering the collective agreements.

Process benefits

- Codification of collective terms and conditions; increased efficiency, security and privacy.

The drivers for change

- Technical sustainability of the system; address functional obsolescence of previous system

- Improve payroll accuracy

- Address loss of Ministry intellectual property in management of the payroll

- Increase consistency of payroll practices and administration of collective agreements

- Provide schools with direct access to payroll information

Additional benefits achieved post-Novopay rollout as advised by a senior Ministry official

- Identification of a $68 million overspend through fixing 'banking staffing' practices

- Reinforcement of good employment practices by boards of trustees, such as maintenance of records and good leave management

- Recognition of the need to simplify collective agreements

In July 2008 Cabinet approved a 10-year funding envelope for Novopay that was within the budget agreed in 2005 for the original schools payroll project. The new budget totalled $182.5 million over 10 years and was to cover the cost of the implementation of the project ($18.1 million) and the cost of the ongoing delivery of the payroll function ($146.2 million). The budget included contingency funding spread over the 10-year envelope ($18.2 million – $10.1 million for the project and $8.1 million for operations). The Novopay budget included the cost of running the Datacom payroll up until Novopay Go Live. Any unused funding that might arise (including in the contingency) was able to be transferred forward to be used in future years.

Once the project began, however, considerable additional funding had to be allocated beyond the budget in the original business case. In 2011-12 the Ministry reprioritised an additional $7 million into the envelope to cover additional costs associated with extending the contract with Datacom. Post-implementation, Cabinet agreed early in 2013 to establish a $5 million Novopay Remediation Fund for additional costs associated with remediating the new service (of which $1.5 million has been spent to date). Cabinet also agreed to fund $6 million to provide extra financial support for schools. At the same time, a further $5.9 million of savings within Vote Education was reprioritised to cover additional implementation and remediation expenditure that had arisen in the project.

Our investigations have established that the revised total 10-year funding envelope currently stands at $206.4 million, an increase of $23.9 million.

Figures from the Ministry indicate that the expenditure to date on Novopay (excluding the Datacom operational costs) is $29.4 million on project implementation (as against a budget figure of $18.1 million excluding contingency), $13.9 million on Novopay operational costs since Go Live, and $13.5 million on remediation (including $6 million on schools) for a total spend to date of $56.8 million.

The Ministry appears to have followed appropriate processes regarding funding requests, including passing reports and requests through the Treasury to the Minister of Finance.

Financial management

In calendar year 2012 two formal memos were prepared for the Novopay Board that reported actual and forecast spend against the approved envelope (including contingency). The memos were prepared for Ministry-only Board members.[40] The Inquiry has not seen any other financial reporting in this period.

The control and management of the contingency were not clear. The formal reporting prepared did not break down or track how the approved contingency funding had been expended.

In the reporting the Ministry footnoted that the forecast to complete did not include all known items and future risks. The overall forecast position was therefore understated in the period to 31 December 2011 and 31 May 2012.

There was also an error in the financial report to 31 May 2012, which incorrectly included a $3.5 million budget transfer between years as an increase in the funding envelope. The Ministry stated that a review requested by the Chief Financial Officer after the report was tabled confirmed that the forecast underspend had been overstated and should have been $5.663 million.

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40   Presented to the February and June meetings.

Chapter Three: Project Execution

The Board report for the period to 31 December 2011, with just over seven months until Go Live, projected that by the end of the 10-year budget period there would be a $1.8 million shortfall. At that point it was clear that the approved envelope was insufficient to cover implementation and operations.

Budget overrun

The committed project cost borne by the Ministry to date, over and above the original authorised budget, now stands in excess of $23.9 million. However, this figure does not include:

• Talent2 cost overruns, which have been reported in its Annual Report as $18 million (A$15.6 million) for the year ended 30 June 2012

• Indirect costs incurred elsewhere within the Ministry in relation to the project (including senior management time) and the opportunity cost associated with this time

• Any financial cost to the schools over and above the $6 million financial support package

• Costs written off as a result of the original software tender being abandoned.
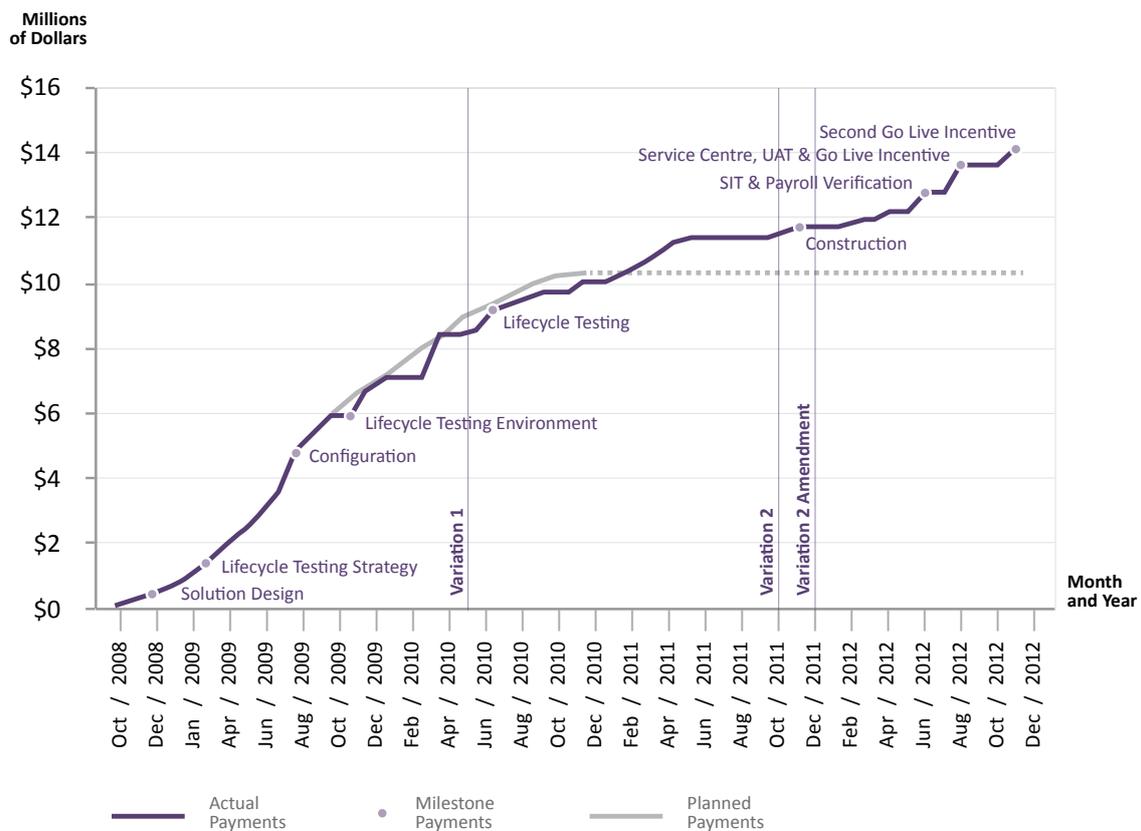
Diagram 5: Initial planned versus cumulative project payments to Talent2

Millions of Dollars

$40
$35
$30
$25
$20
$15
$10
$5
$0

Financial Year

2008 - 2009   2009 - 2010   2010 - 2011   2011 - 2012   2012 - 2013

Schools   PwC   Talent 2

Ministry & Other   Datacom
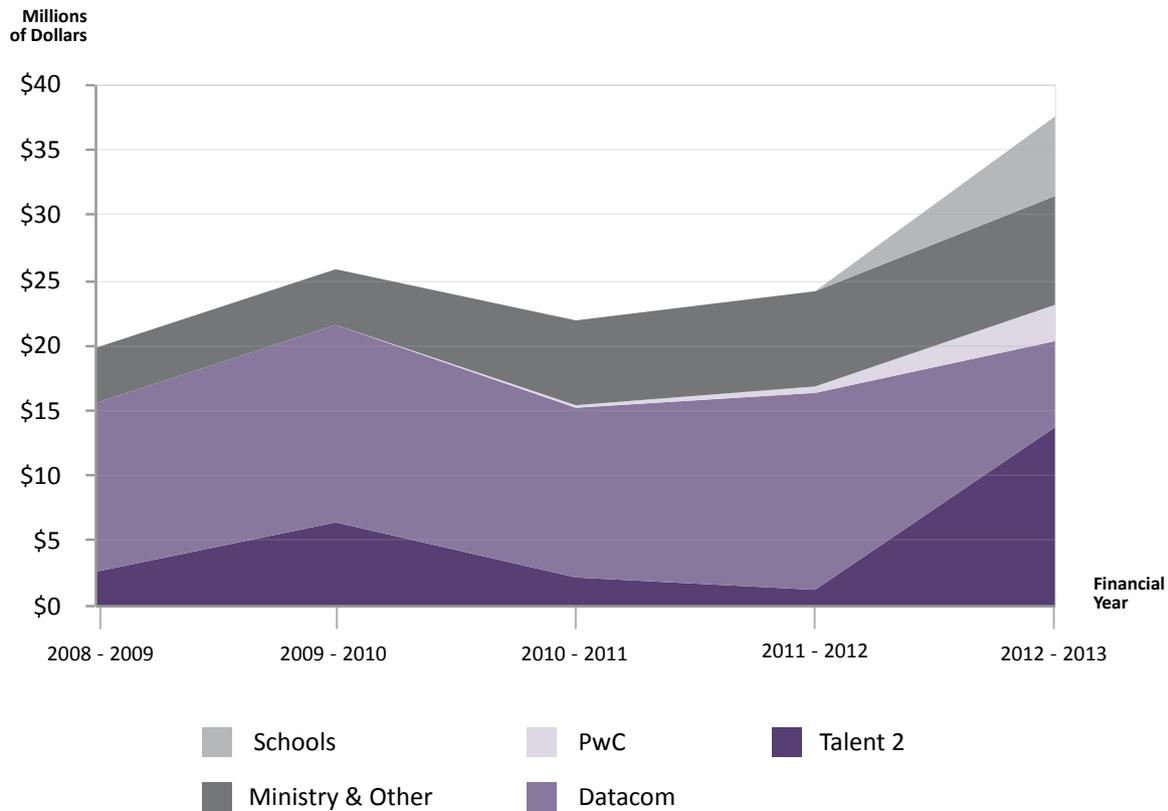
Diagram 6: Implementation, BAU and remediation costs for the Novopay project per financial year

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Findings

- **The Novopay project has cost materially more than initially budgeted. Benefits have yet to be fully realised, and in some cases may not be. The complete cost of implementing and operating Novopay cannot yet be determined.**

- Once the current troubles are resolved, schools will have better information and the taxpayer greater reassurance about the management of the schools payroll expenditure.

- Value for money thinking and expenditure control have been weak.

6. Leadership

The Secretary for Education

The two former Secretaries for Education[41] told us that they were clear that final accountability for the Novopay project lay with them. They had delegated project leadership to the Deputy Secretary Schooling, who served as the project's SRO. Her decisions and recommendations were accepted and supported by the former Secretaries.

The former Secretaries agreed that the project had been high risk. Each had taken comfort, however, from the fact that the project was being monitored by SSC, and that there were independent external members on the Project Board. Whilst it was evident that the project was complex and risky, and despite known relationship problems with Talent2, there had been no reason to believe that the project was not being appropriately managed.

In retrospect, these assumptions gave an unwarranted level of comfort that the project was on track. There were times when engagement by the Secretaries with the project was greater than at others.

Project reporting provided to the former Secretaries did not appear to be sufficient to alert them to the risks of Novopay failure. One former Secretary commented that she was always aware of what would happen if Novopay failed, but was not advised that it was likely to. They did not routinely see SSC's reports to Ministers, which drew on input from the Novopay project team; nor did they regularly engage either with the Ministry's own Audit and Assurance Committee or with the Project Board specifically about Novopay, or with the wider project team.

Some of those engaged in the project – in project management, sector engagement and internal audit roles – told us that they had concerns about the progress of the project but did little or nothing to raise them. In particular, some senior staff did not take the opportunity to escalate concerns to the Secretary, assuming that she would find out some other way that things were not going well, or was already aware.

The SRO told us that the project manager and the Business Owner had signed off reporting prepared for Ministers and the Secretary, and that they owned the advice in those reports. This delegation of the responsibility for reporting to the Minister may not have been inappropriate, depending on the nature of the information being submitted, but in general we would have expected the SRO, if not the Secretary, to have a much more direct role in the provision of this reporting. Meanwhile the Leadership Team minutes of 26 September 2012 stated that the Secretary wanted to see briefings on Novopay before they went to the Minister – suggesting that prior to the emergence of the post-Go Live issues, this had not been usual practice.

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41   Karen Sewell was the Secretary for Education from July 2006 to November 2011; Lesley Longstone from November 2011 until February 2013.

Findings

- **The former Secretaries took an unwarranted level of comfort from the governance of the Novopay project.**

- We would have expected the Secretary at the inception of the project to have ensured that the Cabinet-mandated *Guidelines for Managing and Monitoring Major IT Projects* were being followed.

- For a project that had been rated as "high risk and worsening" by SSC two years before completion, we would have expected the Secretary to have closer visibility of the governance of the project and engagement to ensure its success, including proactive oversight and support for the SRO.

- The lack of engagement with the project by the Leadership Team and Audit and Assurance Committee, and the weaknesses in the project's governance, are both matters for which the Secretary must take accountability.

The Leadership Team

The Leadership Team, which is the Ministry's governing body, was aware of the risks around the successful delivery of Novopay, but the nature of its role in relation to the project was essentially reactive. The evidence was that there was insufficient formal reporting from the Project Board to the Leadership Team. (From 2012, the new Secretary for Education established a new Ministry governance entity, the Ministry of Education Board, which met alongside the Leadership Team.)

Although the Leadership Team received project updates, the flow of reporting was not regular or consistent. We were advised that there were numerous Leadership Team discussions about Novopay, although these were not often minuted and few decisions are recorded. No decisions about Novopay were recorded in 2012, although this was a critical year.

We were told that the members of the Leadership Team were not clear about their role with respect to Novopay, given that a Project Board was in place, but we saw no evidence that this lack of clarity was raised for discussion.

Although we have been told that the Leadership Team at times considered the Novopay risks, they did not seem to appreciate either the scope of the risks around the successful delivery of the project, or the possible impacts on the other work of the Ministry – for which they were individually and collectively responsible – if it did not succeed. Nor did the much bigger question of the impacts of project failure on the reputation of the Ministry, or indeed the public service, ever seem to be considered. The Leadership Team did not formally seek the views of the Audit and Assurance Committee about the project and did not meet with the Novopay Project Board.

Major project decisions were taken by the SRO, who as a Deputy Secretary was a member of the Leadership Team. It seems that in some instances these were decisions that in other circumstances would have been taken by the full Leadership Team. A Minister told us that, in meetings with Ministry personnel during 2012, the discussions were led by the Business Owner and the Secretary for Education, even though the SRO was present. The Minister did not realise until later that it was the SRO who held the leadership role.

The SRO herself seemed unclear in conversation with us about where the final point of responsibility lay for the delivery of the project, identifying a number of players among whom, in her view, responsibility was shared. Later in the Inquiry, she clarified that her comments in the original interview had drawn on project responsibilities as outlined in the PIDs. She told us that she herself had always been clear that she was ultimately responsible, and accepted that she could have been clearer about explaining this.

The SRO was the Deputy Secretary Schooling. Her responsibilities had included:

- School policy

- Teacher supply

- Industrial relations

- Curriculum, including national standards and the National Certificate of Educational Achievement (NCEA)

- School infrastructure, including property, leaky buildings and future planning.

This was a very large workload.

Findings

- **We found no evidence of the sustained and focused attention on the project from the Ministry's leaders that we would have expected. The Leadership Team did not clarify its own role in relation to the project.**

- Neither the Leadership Team nor the former Secretaries seemed to have fully appreciated the reputational risks for the Ministry and the implications for confidence in the wider public sector should Novopay not succeed.

- Accountability cannot be delegated; that rests with the Secretary for Education. Responsibility can, however, and was in our view unambiguously held by the SRO.

- This delegation of responsibility does not absolve other members of the Ministry's Leadership Team from exercising their own leadership responsibilities. In our view, the Leadership Team and the Secretary should have held their colleague to account.

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7. Culture

In our discussions with team members and others, we detected a general lack of enthusiasm for taking ownership of solutions rather than simply identifying problems. There were some exceptions to this. The level of personal engagement demonstrated by some individuals, for example the Business Owner during the latter stages of the project, was in contrast to the lack of ownership displayed by others.

Within the project itself there were at times significant tensions and pressures, and uneasy working relationships. We are aware that a number of key managers left the project because of their discomfort with the environment. This was further evidenced by the engagement of external parties to try to help improve the culture of the project in June 2011.

While the Ministry understood that this was a difficult project, it remained optimistic about its ability to manage the difficulties. Project reporting was at times cast more positively than the situation warranted, and dissenting or negative opinions were not necessarily welcomed. At least one of the central agencies detected this culture of optimism, and expressed concern to us that this had created an aversion to challenge and that the Ministry was not always receptive to external advice. We were told that, particularly during the last few months before Go Live, when time pressures on the project were becoming critical, contrary views (as expressed, for example, by external parties) either were not heard or were downplayed.

We also note that the Performance Improvement Framework (PIF) review of the Ministry, which reported its findings in 2011, identified a number of problematic elements of the Ministry's culture, the negative impacts of which we also identified with respect to the Novopay project.

The PIF described the Ministry as being slow to make decisions and inconsistent in its ability to act purposefully. Risk aversion within the Ministry added to a loss of urgency. The PIF recommended that the Ministry build a constructive, systematised risk management culture.

According to the PIF, the Ministry also needed to put more work into making itself open to external input, challenge and review. Staff were encouraged to demonstrate a greater degree of ownership of the Ministry's results.

The PIF found a consultative expectation across the wider education sector, aligning with an identifiably collegial approach within the Ministry. This resulted in a high weight being put on consensus, leading to processes that were at times slow to reach conclusion. The Ministry's formal processes for communication seemed inadequate for the mix of relationships that the Ministry had to conduct with those in the schools. The lack of a strategic approach to managing key relationships also meant that it was difficult for the Ministry to ensure effective engagement with important stakeholders.

Findings

- **The Ministry was not always willing to take or act on advice, and at times demonstrated misplaced optimism about the state of the project.** This surprised us, particularly at senior levels, given the many signals about the challenges that the project was facing.

- The cultural problems within the project team contributed to the difficulties experienced in executing the project.

- Much of what we saw on the Novopay project was consistent with the findings of the 2011 PIF review.

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8.   Relationship with the sector

The Ministry's relationship with the schools sector has in recent times been uneasy, and sometimes highly politicised. During the term of the Novopay project, the Government was pursuing several education initiatives that were unpopular with the sector. It was in this context that the Ministry was managing the impacts of Novopay on the sector.

A discrete group was set up as the primary interface between the Novopay project and the schools: the PRG. The PRG was the only formal channel for communications between the project, the sector and the Ministry, and was explicitly established as an advisory rather than a decision-making body.

The PRG comprised representatives from various sector groups.

Box 13: PRG membership
New Zealand School Trustees Association
Secondary Principals' Association of New Zealand (SPANZ)
New Zealand Principals' Federation
New Zealand Secondary Principals' Council
National Association of Secondary Deputy and Assistant Principals
New Zealand Post Primary Teachers' Association (PPTA)
New Zealand Education Institute (NZEI)
New Zealand Area Schools Association
New Zealand Association of Intermediate and Middle Schooling
School Executive Officers
Service and Food Workers Union (SFWU)

During the early stages of the project, the engagement between the project and the PRG was interactive, particularly with respect to ensuring that formal communications about Novopay were getting to the right people within schools. These communications mainly concentrated on the technical changes that Novopay would introduce. There was little to suggest the likely changes to the payroll administrator's role, or that schools would need a greater level of understanding about employment terms and conditions than in the past, because Talent2 would not be providing the same level of HR support as Datacom had.

According to the *Communications Plan 2010*, all messaging to the sector about the project was to be optimistic, concentrating on the advantages of the new system. Communications did not distinguish between the users (administrators and others at the schools), the customers of the service (the Boards of Trustees), and the more general stakeholders of the payroll service.

The good levels of engagement even between the project and the PRG dropped away over time. According to PRG members, the group became more "political" as the project drew on, and by the latter stages of the project engagement had diminished to an information-sharing exercise only.

The PRG has been involved post Go Live in providing advice and assisting with the Rapid Response Centre.

Findings

- **The levels of trust between the Ministry and the sector that were necessary to ensure the success of the project were not always evident**.

- If it was intended as such, the PRG was not the right body to represent users. Its membership revealed that it was a stakeholder group, not a user group.

- It was unrealistic to position Novopay communications so positively. The implementation of complex IT systems is never error-free, and rollouts of previous school payroll systems had been characterised by failures. Promoting the idea that the system would be stable and usable from day one disadvantaged both the Ministry and schools when problems developed.

9. Ministers

A number of Ministers and Associate Ministers of Education have been involved in the Novopay project, from its inception in 2003 and through a change of administration in 2008.

Box 14: Ministers involved with the Novopay project		
Minister	**Dates involved**	
Minister Mallard	10 December 1999	19 October 2005
Associate Minister Benson-Pope	21 December 2004	16 May 2005
Minister Maharey	19 October 2005	31 October 2007
Minister Carter	31 October 2007	19 November 2008
Minister Tolley	19 November 2008	12 December 2011
Minister Parata	12 December 2011	Present
Associate Minister Foss	14 December 2011	31 January 2013
Minister Joyce (Minister Responsible for Novopay)	January 2013	Present

We reviewed the papers submitted to Ministers and presented to Cabinet, to understand the information, risks and advice that were presented and where decisions were made.

2003

The first mention of a new education payroll system was made in papers to the Minister of State Services and the Minister for Information Technology on high-risk IT projects. The schools payroll project was categorised as high risk because of the Ministry's limited experience and capabilities in developing ICT systems.

2005

The Ministry outlined options for a new payroll system to Ministers on 21 January 2005. With the endorsement of the Treasury (May 2005) and Cabinet (7 June 2005), the Ministry proceeded to acquire a new payroll system. The new payroll system was also briefed to the Parliamentary Education and Science Select Committee:

The key risk of redeveloping the teachers' payroll system is that during the transition from one system to another during the initial operation of the new system teachers will not be paid accurately or on time.[42]

To mitigate this risk, the Ministry emphasised that it would test the new system before implementation, including as many parallel runs between old and new systems as needed.

2006 – 2008

During this period there was a major change in thinking about the project and the Ministry was working on a revised business case. Some project updates were provided, and the change of focus was reported to Minister Maharey in July 2007. In August 2007 Cabinet agreed to rescind its earlier decision and agree to the Ministry beginning a process to identify a BPO vendor. In July 2008 Cabinet approved the Ministry contracting with Talent2 for the new BPO service, and delegated the signing of the contract to Minister Carter.

2009

At the beginning of 2009 the incoming Government established the Ministerial Committee on Government ICT to provide Ministers with early oversight of ICT issues and initiatives.[43] The Novopay project was one such initiative.

By July 2009, reporting to Ministers was beginning to identify the risks associated with the change of vendor to Talent2 from Datacom. The Ministry reported in July 2009 that:

[T]here are significant risks associated with the project, most notably in the areas related to the changeover from the incumbent vendor to arrangements to the new vendor.[44]

Additional reporting to Ministers about delays in the project focused on the impacts on the Ministry's credibility, and the mitigations in place.[45]

On 14 December 2009 Minister Tolley was alerted by the Ministry to concerns expressed by the SSC about the state of the project. The Ministry assured Minister Tolley that it would address every issue raised and respond to all recommendations.

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42   Ministry of Education, *Education and Science Select Committee 2004/05 Financial Review Vote Education, Written responses*, ES/FR.MOE/2, 30 November 2005.

43   See also Appendix 6.

44   Cabinet Expenditure Control Committee: *Replacement of Schools' Payroll – Report Back, 21 July 2009*.

45   Ministry of Education, *Education Report: SSC Report on Schools' Payroll*, 14 December 2009.

2010 – 2011

Reports to Ministers in this period were primarily project updates, addressing the ongoing delays and the mitigations that the Ministry planned. In August 2011 the Ministry advised Minister English (Minister of Finance) and Minister Tolley about continuity options with Datacom, and provided a number of papers for submission to Cabinet's Expenditure Control Committee.

2012

The next significant paper put to Ministers was intended for submission to Cabinet in May 2012. At this stage the Novopay project was fast approaching Confidence Point Two. The paper invited Cabinet to consider arrangements for rapid Ministerial decision-making if it became necessary to terminate Novopay. Cabinet was invited to delegate authority to Minister English (Finance), Minister Parata (Education) and Associate Minister Foss (Education) to approve a Ministry decision either to proceed with Novopay or to terminate the contract with Talent2 and sign a contract with Datacom for a business continuity option. Cabinet made the delegation as requested, noting that the Ministry would make the decision.

On 5 June 2012 the Ministry provided the three Ministers with a recommendation to proceed to Go Live. On the basis of the advice and assurances provided by the Ministry, the Ministers gave their approval to continue with a planned Go Live date in August 2012.

Findings

- **Ministers were not always well served by the quality of advice about the project from the Ministry.**

- Reporting to Ministers was inconsistent and at times unduly optimistic, and sometimes misrepresented the situation. In oral briefings to Ministers, officials often expressed confidence and reassured Ministers that risks were in hand.

- It was clear to us that Ministers understood the risks attached to this project, and were aware that the Ministry did not have prior experience in managing such complex projects. They were comforted by their belief in the scrutiny of SSC and others, and believed that IQA and other expected safeguards were in place.

- We were particularly concerned about the 5 June 2012 document, which invited Ministers to approve the Ministry's Go Live decision. This report misrepresented the situation in two significant ways. It suggested that the Go Live decision was supported by three members of the ICT Council, which was not the case; and it stated that Confidence Point Two criteria had been met, when in fact a number either had not been met or were "deemed" to have been met (a lower criterion). These factors overrepresented project readiness and its chances of success.

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10. The central agencies

Treasury and DPMC told us that they placed reliance for assurance over projects such as Novopay on the fact that SSC was the principal monitor. The central agencies do not have the specialist in-house resources to complete detailed assurance assessments for all projects. As such, reliance is placed on the mandatory IQA process.

The State Services Commission

SSC's key relevant responsibilities are its role in monitoring high-risk departmental projects (a role that it shares with Treasury) and its role in reviewing the performance of the Ministry and the Chief Executive.

For the Novopay project, SSC used its standard operating model for monitoring large projects of this type, developed following the INCIS inquiry. The model was based on a requirement that all major IT projects be subject to regular IQA reporting. These IQA reports would be used by the monitoring agencies to provide second-opinion assurances to Ministers. The monitoring agencies would also source external IQA for projects going off track.

This reliance on IQA reporting was seen as a helpful way of enabling SSC and Treasury to monitor major high-risk projects with only a small team, without the need for additional detailed assessments. This approach was explicitly acknowledged in the Cabinet-mandated *Guidelines for Managing and Monitoring Major IT Projects*, issued by SSC.

The State Services Commissioner told us that since INCIS, and until Novopay, the model had worked reasonably well, but the Commissioner is now considering whether the model remains fit for purpose. IQA on the Novopay project lapsed, however, at the end of 2010. If it had continued as it should have, the model might have worked as well as on other projects.

A SSC senior adviser was involved in monitoring the Novopay project from 2007 until it went live in 2012. That person joined the Novopay Board in July 2011. While he understood that he was there as an observer, he was fully involved in Board discussions, and Board documentation indicated that he was regarded as a full member. SSC has acknowledged that it lost its detachment from the project.

There was little evidence of independent analysis of the Novopay project in the quarterly (later monthly) reports provided by SSC to Ministers. Many of these reports replicated information that had already been provided. Even when project issues were escalating and the risk profile of the project steadily worsening, reports to Ministers still did not always include action points or suggested areas of Ministerial intervention. SSC did intervene usefully throughout the project, for example suggesting in late 2009 that the Ministry carry out a technical review of the project because of concerns about progress to that point. SSC also identified the Ministry's relationship

with Talent2 as a concern, and encouraged the Ministry on multiple occasions to improve the relationship.

SSC plays an important role in managing the performance of agencies and Chief Executives. Its Sector and Agency Performance Group is responsible for holding Chief Executives accountable for the performance of their agencies or sectors, including in major programmes or projects such as Novopay. The Sector and Agency Performance Group representative should therefore be able to bring critical risks to the attention of the relevant Chief Executive. While Novopay was apparently regularly discussed in performance discussions between SSC and the Secretary for Education, the business and sector perspectives of the project did not appear to be given the same degree of attention as the technical elements of the project.

The Gateway[46] regime was approved by Ministers in December 2007 and introduced by SSC in 2008. It now forms a standard part of SSC's assurance function for major projects in the public sector. Gateway complements project monitoring and IQA – it runs only at major decision points and is therefore more strategically focused. Because there are relatively few reviews, they result in a great deal of attention at senior levels, and therefore have a galvanising effect if serious deficiencies are discovered.

Novopay fell outside the parameters for inclusion in the Gateway monitoring regime when it was introduced, because a decision had been taken to not apply Gateway to programmes initiated before 1 January 2008 on advice from the owner of the Gateway methodology (the United Kingdom Government). We were told by the SRO that the project team had enquired of SSC about the applicability of Gateway to Novopay, but had been told that it was not appropriate. SSC, on the other hand, told us that they do not have any record of providing this advice. The Ministry and SSC both told us that, in retrospect, the Gateway process would have been useful for Novopay.

The Treasury

Treasury is the Government's lead adviser on economic, financial and regulatory policy, and on ensuring that value for money is achieved from public spending. For large projects, Treasury works with SSC to ensure that appropriate assurance processes are followed.

Treasury has told us that it does not separately scrutinise specific aspects of financial management within projects; rather it is one of the components of an integrated monitoring framework applied through high risk monitoring activity.

Treasury's main involvement with Novopay was the consideration of Cabinet papers put up by the Ministry and the provision of advice to the Minister of Finance. Treasury allocated the same level of resource to monitoring Novopay as it would to other large projects of a similar

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46   An independent assurance programme, developed by the United Kingdom Government and introduced to New Zealand in 2008.

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nature, and did not play a strong role. Treasury did not receive information that suggested to it that the risks were too high to proceed with the project, and pointed out the risk of not proceeding (given that the Ministry still needed a payroll service). There was nothing in the material provided to Treasury that warned of the level of disruption that arose after Novopay was rolled out.

Diverting resources to Novopay would have affected other Treasury priorities and would not have aligned with Treasury's areas of expertise – so may not have added value.

In August 2011 Treasury supported a fiscally neutral transfer; it authorised a $7 million payroll envelope increase in February 2012. Treasury have been committed to the resolution of Novopay issues post-implementation, and supported the post-Go Live remediation programme and requests for support funding.

The Department of the Prime Minister and Cabinet

DPMC told us that, as with other issues that come before Cabinet, it provided advice to the Prime Minister about the proposed changes to the payroll system at various stages during the project, from initial tendering onwards. The advice considered high-level issues and risks of which Ministers should be aware. As a small group of policy advisers covering the entire public sector, DPMC does not carry the appropriate expertise or capacity to monitor such a project. DPMC advisers accordingly relied on the technical judgements of others, including the Ministry and SSC, and were dependent on SSC and Treasury as monitoring agents.

DPMC told us that Ministers had to decide the future of the payroll service in an extremely tight timeframe, with incomplete information on a number of fronts. Lead project officials may have become overly committed to the path they were following, and insufficient judgement was exercised over the mounting risk. Neither of these aspects were clear to DPMC at the time that Ministers considered the Go Live decision in 2012.

Findings

- **As a consequence of its involvement with the Project Board and efforts to get the project over the line, SSC was not able to exercise its monitoring role properly, as it had lost its detachment.**

- Treasury's role is to ensure value for money from public spending, and it had an oversight and monitoring role in the Novopay project. By the time this Inquiry was launched, an additional $23.9 million had been provided to a project with an initial budget and contingency of $28.3 million. **We are surprised that the financial management of this project seems not to have attracted greater attention.**

The GCIO

In 2012, as part of the *Better Public Services* reform programme, Cabinet enhanced the role of the GCIO, designating that role as the whole-of-government functional leader for ICT.[47] Cabinet's vision for the functional leadership of government ICT is centrally led and collaboratively delivered, with the GCIO setting direction through a combination of mandates and influence.

Until the GCIO's mandate has been finalised, the GCIO has stated that he has no formal responsibilities with respect to monitoring government ICT projects, outside those that he has initiated himself.

The GCIO was not involved in Novopay prior to its implementation. The Associate Minister of Education asked the GCIO in November 2012 to investigate the extent and impacts of any security and privacy issues affecting the Novopay service, and since that time the Office of the GCIO has provided independent advice on Novopay IT security and privacy issues to the Minister Responsible for Novopay, as well as assistance to the Ministry to speed the resolution of critical security and privacy issues.

As part of the *ICT Strategy and Action Plan 2017*, which is currently under development, the GCIO will be taking a leadership role in system-wide ICT assurance. This approach has been endorsed by the (re-formed) Ministerial Committee on ICT, but has yet to be approved by Cabinet.

As a functional leader, the GCIO will in the future have mechanisms in place to assist government agencies and their ICT suppliers (internal and external) in planning, investing and aligning their ICT portfolios to the Directions and Priorities for Government ICT and the new Government ICT Strategy. This will be done through the GCIO having oversight of and influence over:

- Organisational change impacts through large-scale ICT programmes
- IQA
- Large-scale ICT programmes
- Large-scale ICT investment plans
- Large-scale ICT resource planning
- Agency Information Systems Strategic Plans
- All stage gates of the process (including go and no-go decisions).

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47 Functional leadership is "leadership aimed at security economies or efficiencies across departments, improving services or service delivery, developing expertise and capability and ensuring business continuity".

Finding

The GCIO can and should play an important role in setting standards for ICT projects and improved requirements for assurance, in order to mitigate the risk that the serious issues that emerged in the Novopay project are repeated.

Appendices

Appendix 1

Ministerial Inquiry Terms of Reference

Introduction

1. This document sets out the Terms of Reference for a Ministerial Inquiry (the Inquiry) into the Novopay Project incorporating a formal Post-Implementation Review. It includes:

   a. the objectives and scope of the Inquiry

   b. the governance, support and operation of the Inquiry

   c. the timeframes for the Inquiry, including dependencies that may affect the timeframes.

Objectives and scope

2. The objectives of the Inquiry are to:

   a. examine the issues that have arisen leading up to, during and after the implementation of the education payroll system (Novopay) and determine why the project has not succeeded as originally intended

   b. assess whether the governance and management of the Novopay project were sound and accorded with appropriate practice

   c. advise the responsible Minister on steps to be taken to address the ongoing performance and stakeholder/public confidence issues in the system and associated service model.

In scope

3. The Inquiry is to:

    a. examine the project lifecycle from the initial tendering phase. In particular, determine whether elements in the contracting arrangements between the Ministry and other parties contributed to the difficulties in the arrangement

    b. determine what has gone wrong with the implementation including sector readiness, user acceptance testing, the Go Live decision and change management

    c. assess whether the errors and omissions are capable of being rectified

    d. assess the support issues for users and whether the arrangements that have been put in place will be fit for purpose and sustainable

    e. build on the Independent Technical Review of the Stability of the Novopay Software, provide advice on the robustness and suitability of the system and service model.

4. The Inquiry will incorporate the previously scheduled Post-Implementation Review, the scope of which is outlined [below].

5. Apart from looking at the actions taken to date, the history of the development and implementation and the robustness and suitability of the system and service model, the Inquiry will also specifically examine:

    a. the business benefits that were originally expected, the known risks, and the mitigation strategies that were in place

    b. the extent to which these original expected business benefits have been delivered

    c. the extent to which sector employment arrangements and operating model for the payroll imposed unusual or unique requirements on the Novopay payroll system design and functionality

    d. the extent to which the issues with the introduction of the Novopay system parallel the introduction of the previous schools payroll system in the mid-1990s through a review of the previous post implementation review(s)

    e. the lessons for future governance and management arrangements of the payroll system and for ICT projects of this type in central government agencies

    f. any other matters that the Lead Inquirers consider appropriate.

Out of scope

6. The technical stability of the software platform and its adequacy for the task will be addressed by the Independent Technical Review, which will be an input to the Inquiry.

7. Broader policy issues about contracting arrangements in the wider State Services will be addressed following completion of the Inquiry. The Chief Executive of the Ministry of Business, Innovation, and Employment, as functional leader for procurement, in conjunction with the Treasury, the State Services Commission and the Government Chief Information Officer, will be asked to provide advice on the robustness of commissioning capability and the management of commercial arrangements in the wider State Services in light of the Novopay implementation problems.

Governance, support and operation

8. The Lead Inquirers are Sir Maarten Wevers and Mr Murray Jack.

9. They will report to the Minister responsible for Novopay, the Hon Steven Joyce.

10. The Lead Inquirers will engage with education sector groups to support their work. These will include the current Payroll Reference Group plus other interested parties (for example Regional Principals' Groups and schools). Comments on the draft Terms of Reference provided by sector groups, emphasising particular matters they wish the Inquiry to focus on, have been passed on to the Lead Inquirers.

11. A secretariat/support team will be established within the Ministry of Education to support the Inquiry and ensure access to the key parties and information.

12. The Lead Inquirers will determine whether they require additional technical support, and if so what, to meet the requirement and timeframes.

Timeframes and dependencies

13. The Inquiry is intended to be swift, to enable rapid implementation of its recommendations as part of addressing current issues. The indicative timeframe is three months from completion of the Independent Technical Review.

14. The Independent Technical Review of the stability of the Novopay system software will be completed by mid-March. The results of the Technical Review will determine whether the way forward for school payroll service delivery is based on the existing software platform or whether an alternative solution needs to be found.

Post-Implementation Review – detailed matters for the Inquiry

Direction

- The governance, leadership, sponsorship and ownership of Novopay
- The alignment of the Novopay solution to the business case agreed by Cabinet and the Ministry of Education's priorities
- The drivers for change from the previous payroll service
- The strategic engagement between the Ministry, Talent2 and schools.

Procurement

- The procurement process that led to the decision to choose Talent2's proposed solution
- The adequacy of the contractual arrangements between Talent2 and the Ministry.

Implementation

- The planning, project management, project processes (including scope management and risk management), and reporting
- The management of the vendors by the Ministry and the relationship between those involved in delivering Novopay
- The management of the relationship with schools
- The customisation, development and suitability of the technical solution, including the payroll software and all supporting infrastructure
- The development, implementation and readiness of the service centre and pay centre and associated processes to deliver the service
- How security and privacy requirements were addressed and tested.

Change management

- The engagement and communications with the school sector
- The training provided to the sector, the preparation of the sector to use the new service, and the readiness of the sector at Go Live and afterwards
- The operation of the Payroll Reference Group.

Go Live

- Rationale for the move to a "big bang" cutover to the new service

- The testing and readiness assessment that verified that Novopay was ready

- Decision-making and decision-making processes in the run up to Go Live

- The identification and management of potential contingencies in the case of Novopay project failure.

Post-Go Live

- The adequacy of the Post-Go Live support for the systems and end users

- The handover to business as usual operations

- The resourcing and funding implications for business as usual operations at the Ministry and schools

- Management of issues subsequent to Go Live

- Business as usual management of the relationship between the Ministry, schools and Talent2

- Management of the contract (including Key Performance Indicator monitoring and management)

- The quality of the overall Novopay solution and acceptance of what the solution delivers by the operational staff and stakeholders.

Benefits realisation

- The benefits achieved to date against the original business case and subsequently updated Project Initiation Documents (PIDs), including the benefits from the increased automation

- The suitability of ongoing benefits realisation management.

Appendix 2

Information sources

Published documents

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PricewaterhouseCoopers (2010), *Ministry of Education Educational Services Payroll Project*, 19 October 2010.

State Services Commission (2002), *Guidelines for Managing and Monitoring Major IT Projects*, July 2002, http://www.ssc.govt.nz/ITguidelines, accessed 29 April 2013.

State Services Commission (2011), *Guidance for Monitoring Major Projects and Programmes, September 2011,* http://www.ssc.govt.nz/monitoring-guidance, accessed 29 April 2013.

Interviews

The Inquiry conducted 50 interviews, covering:

- Current and former Ministers and Associate Ministers of Education
- Two former Secretaries for Education
- The current Acting Secretary for Education and other senior Ministry representatives
- Ministry of Education officials who hold or held project governance and management roles
- Ministry of Education staff, current and former
- The Payroll Reference Group
- Talent2
- Datacom
- PricewaterhouseCoopers
- Assurity
- Asparona
- IQANZ
- Independent members of the Novopay Project Board
- Members of the Information Technology Council (Chief Information Officers)
- Members of the Ministry of Education Audit and Assurance Committee
- The Ministry of Business, Innovation and Employment
- The Department of Internal Affairs (Government Chief Information Officer)
- The Department of the Prime Minister and Cabinet
- The Treasury
- The State Services Commission
- The Office of the Auditor-General and Ernst & Young
- The New Zealand School Trustees Association
- The Post Primary Teachers' Association
- The New Zealand Education Institute.

The Inquirers also met with:

- New Zealand Post
- Victoria University of Wellington
- The Education Sector Leadership Group
- Principals and other staff at five schools.

Written submissions were provided to the Inquiry by:

- Talent2

- The Ministry of Education

- The State Services Commission

- The Treasury

- The Office of the Auditor-General

- Asparona

- Assurity

- The Department of the Prime Minister and Cabinet

- The Ministry of Business, Innovation and Employment

- The Department of Internal Affairs (Government Chief Information Officer)

- PricewaterhouseCoopers

- The Ministry of Education's Education Service Payroll team

- A number of schools and other respondents from the education sector (see table below).

Submissions received	475	100%
Respondent breakdown		
Administrators	233	49%
Principals	181	38%
Administrators and Principals	35	7%
Boards of Trustees, education sector representative groups	26	5%
Type of school		
Primary	320	67%
Secondary	88	19%
Combined (Special, area, composite, etc)	31	7%
Intermediate	21	4%

Appendix 3

Glossary

Big Bang Refers to rolling out the payroll service for all users at once, rather than taking a phased approach

BPO Business Process Outsourcing

CIO Chief Information Officer

Datapay The payroll software provided by Datacom, in use until Novopay went live in August 2012

DPMC The Department of the Prime Minister and Cabinet

ESP Education Service Payroll

FDS Functional Design Specification

FTE Full-time equivalent

GCIO Government Chief Information Officer

Go Live The point at which the Novopay payroll system became active and the Datacom system was turned off

HR Human resources

ICT Information and communications technology

IQA Independent Quality Assurance

IQANZ Independent Quality Assurance New Zealand, a consulting company

ICT Information and communications technology

IT Information technology

KPI Key Performance Indicator

MBIE	The Ministry of Business, Innovation and Employment
Ministry	'The Ministry' refers in this report to the Ministry of Education
Novopay	The new payroll software introduced by Talent2 in August 2012
OAG	The Office of the Auditor-General
PID	Project Initiation Document
PIF	Performance Improvement Framework
PRG	Payroll Reference Group
PRINCE2	A project management methodology
PwC	PricewaterhouseCoopers
RFP	Request for Proposals
SSC	The State Services Commission
SIT	System Integration Testing
SME	Subject Matter Expert
SRO	Senior Responsible Officer
SUE	Staff Usage and Expenditure
UAT	User Acceptance Testing

Appendix 4

Collective agreements

Collective agreements	Union(s)	FTE
Primary Teachers	NZEI	27,025
Te Aho o Te Kura Pounamu Early Childhood	NZEI	14
Area School Teachers	PPTA & NZEI	2,396
Special Residential Schools	PSA	172
Caretakers and Cleaners (including Canteen Workers)	SFWU	2,703
Secondary and Area School Groundstaff	AWU	276
Area School Principals	PPTA & NZEI	109
Adult and Community Education (ACE) Staff in Schools	PPTA	unknown
Support Staff in Schools	NZEI & SFWU	12,491
Kaiarahi i te Reo, Therapists, Assistants to Teachers with Severe Disabilities and Special Education Assistants	NZEI	128
Te Aho o Te Kura Pounamu Specialist and Support Staff	NZEI	127
Secondary Teachers	PPTA	20,612
Primary Principals	NZEI	1,990
Secondary Principals	PPTA & SPANZ	321
Kindergarten Teachers, Head Teachers and Senior Teachers	NZEI	2,696

Appendix 5

ICT Ministers and the ICT Council

The Ministerial Committee on Government ICT

The Ministerial Committee on Government ICT was established in March 2009, to provide Ministers with early oversight of ICT issues and initiatives. It was not a decision-making committee, but provided Cabinet with informed advice on ICT innovation and expenditure across government. The Ministerial Committee on Government ICT was dissolved in March 2012, but has recently reformed.

The Committee received quarterly reports from the SSC about major IT projects, including Novopay.

The ICT Strategy Group

The ICT Strategy Group was formed in 2010 to support the Government Chief Information Officer (GCIO), and to provide advice to, and be directed by, the Ministerial Committee on Government ICT. The Group is focused primarily on improving all-of-government ICT capability.

At its May 2012 meeting, the ICT Strategy Group noted that the Novopay Programme was shortly to be considered by Cabinet, and that "it was not for this group to provide advice".

The ICT Council

The ICT Council was formed in December 2010 to support execution of the directions and priorities for government ICT. The ICT Council went into abeyance in November 2012.

The Council was briefed on Novopay in April 2012, and formed a sub-group to review specific aspects of the programme in readiness for Go Live. Three members of the ICT Council provided reviews of the project's testing and acceptance criteria, service delivery and preparedness for Go Live. The group had agreed to provide this feedback as a form of collegial support to the Novopay Business Owner. They did not realise that their advice would be quoted by the Ministry to the Minister, as an expression of support of the Go Live decision.

Appendix 6

Summary of schools' submissions

As part of our work to understand the impact of the Novopay project on schools and staff, we invited submissions on key topics of relevance. That process ran from 28 March to 18 April 2013. The results are summarised below.

A total of 475 submissions were received.

Type of respondents		
Administrators	233	49%
Principal	181	38%
Administrators and Principal	35	7%
Board of Trustees, education sector representative groups	26	5%
Type of school		
Primary	320	67%
Secondary	88	19%
Combined (Special, area, composite, etc)	31	7%
Intermediate	21	4%

Area		
Auckland	106	22%
Wellington	50	11%
Waikato	50	11%
Northland	40	8%
Christchurch	30	6%
Manawatu	26	5%
Hawkes Bay	25	5%
Otago	23	5%
Bay of Plenty	24	5%
Taranaki	19	4%
Canterbury	18	4%
Wairarapa	12	3%
Southland	12	3%
Dunedin	10	2%
Nelson	8	2%
Marlborough	6	1%
West Coast	6	1%
Remote Schools	1	0%

General

Many of those responding to us reported that, since the implementation of Novopay, they have seen increases to their workload, more overtime, and difficulty managing the new system and other obligations. Approximately a third, however, looked forward to the improved involvement with the payroll system.

Small schools in particular had found it a challenge to balance teaching duties with the time spent on hold waiting to talk to the Service Centre. Special schools also felt that Novopay did not cater sufficiently for their needs, because of the number of part-time staff, teacher aides, relievers and therapists.

One of the key themes we saw in the submissions was a dramatic change to payroll roles following the introduction of the new system. Inadequate training, lack of efficient support and a system that did not meet expectations contributed to respondents' frustrations.

Twelve submissions noted a security or privacy breach. These related either to receiving the employment details of staff not employed at their school, or insecure practices when sending passwords.

Hype; promise of new payroll but no delivery; design has potential but poor implementation	138	34%
Difficulty balancing other obligations with Novopay	91	23%
Had to use overtime to deal with Novopay	85	21%
Long lead time or delays in implementation	45	11%
Extra costs or staff hired to deal with Novopay	20	5%
Considered or considering resignation	13	3%
Security or privacy breach identified	12	3%
Total	**404**	**100%**

Change management

Respondents reported to us that little information had been provided on how their roles would change, or what the new payroll system would require of users.

No information	31	27%
Information basic or inadequate	84	73%
Total	**115**	**100%**

Communications

Some respondents told us that they had received good communication prior to Go Live. In hindsight, however, almost 40% of respondents felt that communication prior to Go Live had been uninformative (21%) or insufficient (18%). Communication Post-Go Live was also considered to have been inadequate. All of those who provided commentary on project communications had a negative opinion about the roadshows which had been run prior to Go Live to showcase the new system to the sector. The roadshows were considered to have been a waste of time, not always run well, and not helpful in addressing issues raised by attendees.

Poor communication pre-implementation	91	39%
Roadshows unhelpful; inadequate; hard to access	48	21%
Communication generally poor	39	17%
Post-Go Live communication poor	36	15%
Pre-Go Live communication poor	19	8%
Communication generally good	1	0%
Total	**234**	**100%**

Training

Most respondents reported that training had not been done well. It had been too focused on the online interface (31%), had been inaccessible and difficult to complete (11%), and there had not been enough hands-on training opportunities (11%). Some told us that training had been unhelpful, and that training staff had been unable to answer questions. Technical difficulties had hindered access or completion of training. A small number reported that the training and webinars had been easy to use and understand.

Many also reported that the live version bore little resemblance to the training environment: "*It soon became obvious that the training didn't adequately prepare us for the problems that we would encounter.*"

Training inadequate	375	58%
Training unhelpful	80	12%
Training or webinars adequate	79	12%
Technical errors or difficulties hindered training	78	12%
User manual unhelpful or hard to find	32	5%
User manual helpful	3	1%
Total	**643**	**100%**

Support

Not enough support had been available. Respondents told us about long periods spent on hold (23%), unhelpful advice or inaccurate information (9%), and poor response from the online help 'chat' function or emails (7%). A small number of respondents put this down to a lack of resource and training for support centre staff (4%); one commented that: "*The support available Post-Go Live could not cope with demand so became totally ineffective.*" Some respondents also said that they missed the personalised service which they had received from the Datacom system.

Support unhelpful	374	28%
Long wait times	289	23%
No single designated support person	230	17%
Lag in response time; issues unresolved	149	11%
Multiple ticket numbers for the same issue	103	8%
Queries unanswered; computer-generated responses; calls not returned	88	7%
Support inefficient	42	3%
Errors not corrected or, if corrected, not explained	28	2%
Schools resorting to helping each other	12	1%
Total	**1315**	**100%**

Design

Overall, the design of the system did not meet expectations. It was considered to be hard to navigate; particular issues were the inability to change default settings, and poor layout. The system was also said to be inconsistent and error-ridden. Software limitations and glitches affected data entry, limited online functionality and made payroll more time-consuming, because manual forms had to be sent to the Service Centre. Forms received from Novopay were often different from what had been submitted. Staff Usage and Expenditure (SUE) reports and payslips were either inaccurate, or did not match the money in a school's bank account.

A small number found it user-friendly. They had few problems with the system, and put those down to human error and difficulties at the Service Centre rather than to problems with the online system itself.

Ability to input data hampered by limitations of software	271	24%
Time-consuming; workload; more manual forms	235	20%
Inaccurate reports	217	19%
Not user-friendly	136	12%
Reports difficult to understand	120	10%
End of Year/Start of Year process too complex	75	7%
No improvement on previous system	73	6%
User-friendly; adequate design	21	2%
Total	**1148**	**100%**

Testing

None of those who provided a submission said that they had been involved in testing. Most said that the system had clearly not been tested, or not at a high enough level.

No testing	128	84%
Testing didn't adequately prepare schools	24	16%
Total	**152**	**100%**

Other comments

A very small number of submissions stated that they had not received compensation, or that the compensation they had received was inadequate.

Many reported working overtime, taking them away from their families, and having to deal with stressful situations for staff who had been overpaid, underpaid or not paid at all.

New Zealand Government