Report Optimization at Hanover Insurance

A Major Qualifying Project

Submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by

Thomas McCarthy

Eric Twark

Emily Zall

Date: January 9, 2008

Professor Diane Strong, Major Advisor

This report represents the work of one or more WPI undergraduate students submitted to the faculty as evidence of completion of a degree requirement. WPI routinely publishes these reports on its web site without editorial or peer review.

i.	Abstract	i
ii.	Executive Summary	ii
iii.	Authorship	iii
iv.	Acknowledgments	iv
1	Project Overview	1
1	1 Project Objectives	1
1	2 Deliverables	2
2	Literature Review	3
2	1 Insurance Industry	3
2	2 The Hanover	
2	3 Month End Reporting	6
2	4 Reporting Tools	8
_	2 4 1 BusinessObjects	8
	2.4.2 Actuate	9
	2.4.3 Hyperion	10
2	5 Requirement Gathering	10
2	6 Business Process Reengineering	10
2	2 6 1 Activity Flimination	12
2	7 Canital Budgeting	13
2	8 Net Present Value	13
3	Methodology	15
3	1 Identifying Reports	15
3	 Narrowing the List 	13
3	3 Investigating the Report List	10
3	4 Constraints and Risks	20
3	5 Schedule	
1	Findings	22 27
- - 4	1 Agent Profitability Reports	27 27
т.	1 1 1 Proposal	·····27 28
	4.1.2 Economic Feasibility	20
	4.1.2 Leonomic reasonity	30
	4.1.5 recimological reasibility	30
4	2 Profit and Loss Penorts	
4	1 2 1 Proposal	
	4.2.1 Froposal	
	4.2.2 Economic reasionity	
	4.2.5 Technological reasibility	
4	4.2.4 Organizational Feasibility	
4	4.2.1 Infragmently used reports	
	4.5.1 Infrequently used reports	
	4.3.2 Missing Documentation	
5	4.5.5 UIKNOWN USage	
ی ۔	Conclusions and Recommendations	
) 5	Agein Fromability Reports	
5.	2 FIGHT and LOSS REPORTS	
5	Additional Observations	
5.	4 Keierences	

6	Appendices	40
	Appendix A: Report Set Extracts	40
	Agent Profitability	40
	Appendix B: Report Set List	
	Appendix C: Project Charter	
	Appendix D: Meeting Agendas	
	Agenda for November 26, 2007	
	Agenda for November 13, 2007	51
	Agenda for November 6, 2007	
	Agenda for October 30, 2007	53
	Agenda for October 10, 2007	
	Agenda for October 4, 2007	
	Agenda for September 25, 2007	
	Agenda for September 18, 2007	
	Agenda for September 11, 2007	

i. Abstract

This project examined the monthly report sets generated by The Hanover Insurance Group to identify reports that are underused or that can be consolidated. To do this, the list of monthly report sets was compiled and report sets with consolidation potential were identified. Analysis of the report sets found one set that was underused and one set that had potential for consolidations. Implementing these changes could save Hanover months of processing time and days of IT staff time per year.

ii. Executive Summary

The goal of this project is to examine the monthly report sets generated by The Hanover Insurance Group to identify reports that are underused or that can be consolidated. The first step in this process was to identify all the monthly report sets mentioned in five locations: the monthly MIS work plan, the EAD network folder, the Monthly Reporting network folder, a Report Owner contact list, and a folder with a month's worth of emails concerning monthly report sets. Once the information from these sources was compiled into a report set list, the list was narrowed down to reports that the business thought should be looked into further. Meetings were held with Subject Matter Experts (SMEs) to gather more information on the remaining report sets, and the list was further narrowed down to four report sets: Agent Profitability, Profit and Loss, Performance by Branch, and Agent Utilization.

Further investigation into these reports identified:

- Agent Profitability is underused and a subset of the data is not current.
- Profit and Loss reports exist and are maintained in two systems.
- There is not enough information available on Performance by Branch or Agent Utilization to identify specific issues with these reports

More generally, we found that:

- Report documentation is not comprehensive; a simple document with key information on each report would be useful for similar endeavors in the future.
- Report usage is currently very difficult to determine; a further study into report usage by business users would help alleviate this.

iii. Authorship

This report represents the joint work of Thomas McCarthy, Eric Twark and Emily Zall. All members of the group participated in planning, framing the report, conducting interviews, and analyzing results.

Thomas McCarthy wrote the sections on the insurance industry, The Hanover Insurance Group, month end reporting, reporting tools, part of the findings and the executive summary.

Eric Twark wrote the sections on project overview, business process reengineering, part of the methodology and the conclusions and recommendations.

Emily Zall wrote the sections on requirement gathering, capital budgeting, net present value, part of the methodology and part of the findings.

iv. Acknowledgments

We would like to acknowledge our project sponsors: Ram Krishnaswamy, Babu Kuttala, and Mike Clifton. Thank you for working with us and giving us a valuable learning experience at your company.

We thank our advisor, Diane Strong, for her support and thoughtful comments both in our meetings and on our written drafts.

Thank you to all the members of the Hanover Technology Group who took time out of their day to help us find critical information. Thank you Linda Wheeler, Amy Cummings, Janine Bebas, Manish Duraiswamy and Linda Brench.

1 Project Overview

Hanover Insurance, a large insurance company with over 4,000 employees, has a business reporting framework that has grown and changed during the past fifteen years. Due to technological advance, company growth, and organizational changes, the data reporting needs have undergone significant changes during these fifteen years. The result is a report to employee ratio of nearly 15:1. Furthermore, "shadow systems" have developed where employees generate their own databases for personal use to aid in their tasks.

This project is a research effort to gather report usage information for a group of monthly reports. The primary deliverable is a strategic plan for eliminating and consolidating unused reports. Hanover can use the results of this project to reduce the load on its servers and its IT staff. This research into monthly reports will be the first step in a multi-year process of reducing clutter in Hanover's reporting system.

1.1 Project Objectives

This project has been undertaken to identify improvement possibilities within Hanover's existing reporting system. Analysis of the data gathered should result in a clear strategy for eliminating or consolidating reports. Following this strategy should result in a large reduction in costs associated with the reporting system. Eliminating unnecessary reports will place a lower load on servers and the network infrastructure. The communications infrastructure will also have a reduced load as there should be fewer phone calls and emails regarding support. Employee time will also be saved since employees will operate more efficiently due to reporting improvements.

1.2 Deliverables

This project is broken down into three phases, each of which has a primary deliverable. Phase one culminated with a completed project charter outlining in detail the plan and scope of the project as it was executed in phase two. Ideally this charter would have included a list of all reports within the scope of the project, but delays in gaining access to all data sources and receiving feedback made this infeasible. The project charter presented to the Hanover is included in Appendix C.

In the second phase the team was responsible for generating a list of reports by consolidating existing data sources. The organized list of application level reports reconciled with each data source was the primary deliverable for phase two and provided Hanover with triggers to investigate specific areas of reporting. For each application level report in the consolidated list, the team produced report samples and basic documentation for review by the report owner. Finally, the team collected data by interviewing report owners and compiled the findings into a list of reports which should be considered for elimination.

During the third phase, the team developed a high level strategy for Hanover to continue eliminating excess reporting overhead. Patterns that emerged while analyzing the data were considered in developing a strategy. The team did not create a new reporting structure because of a short timeline, but placed great emphasis on the quality of the strategy developed for future improvements. Recommendations for strategic improvements to the reporting system were presented to Hanover executives upon completion of phase three.

2 Literature Review

The literature review provides a foundation of knowledge for the project by reviewing information about The Hanover Group, its month end reporting process, and how this process might be improved using activity elimination and cost benefit analysis as tools. To establish a foundation of knowledge about The Hanover Group, the literature review includes information on the insurance industry as well as explaining the recent history and structure of the company. On the subject of month end reports, it is important to be aware of the general process common to most companies and the specific reporting software used at The Hanover Group. Activity elimination is a strategy that the project team will use to identify unnecessary steps in the reporting process. Cost benefit techniques will allow the team to estimate the value to Hanover of eliminating a given activity.

2.1 Insurance Industry

Insurance is "a system to make large financial losses more affordable by pooling the risks of many individuals and business entities and transferring them to an insurance company or other large group in return for a premium." Insurance has been around since the 13th century, when it was used to spread out the risk of losing ships at sea. The insurance industry worldwide collected more than \$3.5 trillion in premiums in 2006 (Insurance Information Institute, 2007).

There are a variety of insurance options, each insuring against different events.

 Property insurance typically provides coverage for property damage due to fire damage, water damage or theft, though it can also cover property damages incurred from disasters.

- Casualty insurance provides payment for unforeseen accidents.
- Life insurance provides payment to an individual or institution upon the death of the policy holder.
- Health insurance provides coverage for certain health-related costs.
- Travel insurance provides payment for problems that occur while traveling such as delays, thefts, or illness (Insurance Information Institute, 2007).

The policy size, or amount the insurance company will pay out to a policy, is negotiated between the insurer and the purchaser, and plays a significant role in determining the periodic fee (the premium) the purchaser will pay the insurance company to hold the policy.

Insurance premiums are based on the amount of risk a given policy is thought to represent; by calculating these risks accurately and efficiently, insurance companies remain competitive and financially viable. Insurance companies make money by investing the premiums collected from the policy holders into long and short term investments; long term for a greater return, short term for greater liquidity. By understanding the risk of its policies, an insurance company can predict how much money to put into long and short term investments in order to maximize returns while serving claims from insured clients.

Information is the key to accurate risk assessment. This has led to a large demand for information analysis and storage. Companies that are able to make the best use of the available data are rewarded.

2.2 The Hanover

The Property and Casualty Insurance industry is a competitive market, with a market capitalization total of over \$800 billion on the New York Stock Exchange (Yahoo Finance October 22, 2007). Key companies in this market are Berkshire Hathaway, American International Group (AIG), Travelers, and Allstate among the top carriers, with these four companies representing over half of the market capital. The Hanover Group has a \$2.3 billion market capitalization, placing it within the top 40 companies in Property and Casualty Insurance. This size allows The Hanover to be "Big enough to get things done, local enough to care" (The Hanover Insurance Group, 2007). The Hanover aims to provide the personal service of a regional insurer while still matching national companies for price and selection.

The Hanover uses independent, affiliated agents to serve new and existing policy holders, giving The Hanover a large presence without having individual agents on the payroll. This reduces management and infrastructure costs while remaining competitive with the industry leaders.

The Hanover provides packages tailored to a variety of market segments, offering personal, small business, mid-size business, and enterprise insurance. Personal insurance has coverage options for home, auto, and boat insurance, as well as umbrella coverage against personal liability lawsuits (The Hanover Insurance Group, 2007). For small businesses, The Hanover offers insurance for automotive, property, liability, workers' compensation, and protection against lawsuits brought by workers. A mid-size business can get insurance for automotive, property, liability, workers' compensation, and protection against lawsuits brought by workers' compensation, and protection against lawsuits brought by workers. Enterprise plans offer bond management, investment management, and financing for large corporations.

The personal insurance is referred to as Personal Line (PL) while the business insurance is referred to as Commercial Line (CL). Commercial Lines and Personal Lines are the major segments; two smaller segments are called corporate financing and residual life insurance holdings. Each type of insurance (workers compensation, automotive) is a driveline. The Hanover breaks the country into regions, and each region has branches. Risk is tracked for each state via risk state, the overall past risk data is available for risk calculations as well.

The Hanover restructured in 2004, and in 2005 sold its life insurance affiliates. This restructuring has created some administrative issues within The Hanover, most notably an array of month-end reports that have not been reviewed or optimized since the restructuring, leading to time and effort being spent on reports that are not used.

2.3 Month End Reporting

Monthly reporting has become a staple in corporate America. While first used by accountants to close the books each month, managers in all divisions have taken to using month-end reports because of the regular flow of useful information they provide (Cote and Daugherty, 2000). Month end reports allow managers to keep up-to-date on current projects, gauge employee performance, and monitor the health of the company. Month-end reporting also gives a short-term objective for groups to work toward, providing more focus for projects that are months or years long (Berson and Smith, 1997).

Reports can be tailored, with each group getting the information that is most pertinent. This allows each group to track its progress and that of the groups directly affecting them, while the CEO can see a higher level view of company performance.

Timely month-end reports are also necessary for more transparent, accountable budgeting.

Month-end reports commonly compare the current month to previous months and to the same month in previous years, and year-to-date performance to past years' performance. With this information, managers can identify the trends or problems early. Reports also provide metrics so that managers can judge the efficacy of changes.

In some companies the month-end reports take weeks to generate and are only available 14-30 days into the new month, so the information is dated and of less value than reports available in the first few days of the new month, when negative trends can be recognized and remedied more quickly and at a lower cost. These delays are caused by technological, political, and process restrictions. Unfortunately, remedying the problem is often a very involved process, usually resulting in a complete redesign of the reporting system (Parmenter, 2005).

Besides delays in the production of reports, a variety of factors can diminish the benefits derived from the reports. Each month, time is spent reading and analyzing reports for the various business units; if the reports contain non-pertinent information, time is spent filtering out this information; if the reports are inconsistently formatted, extra time is needed to interpret the reports. Overlapping information from independent sources can lead to data inaccuracies, decreasing the accuracy of statistics derived from the data.

The problems with month-end reporting can be mitigated through a variety of means; most commonly, centralization of data and automation of much of the reporting process curtails the majority of the problems (Berson and Smith, 1997). Another method

is to have a standard reporting template, with a set organization of key data within a company's reports. Implementing standard reporting templates allow for the ready, intuitive interpretation of reports from varied groups (Cote and Daugherty, 2000). A standard template also simplifies training, as the core training to use the system is standardized, which allows for more effective general training and a cost savings that can be diverted to specific training. By serving the needs of the business units with tailored reports with a standard template, productivity and strategic awareness increase.

2.4 Reporting Tools

Currently, The Hanover Group uses two programs to provide reports to its employees: BusinessObjects and Actuate. Some data and reports are available in both systems. The Hanover Technology Group is planning to gradually move away from using BusinessObjects and Hyperion is the front-runner among possible replacements.

2.4.1 BusinessObjects

BusinessObjects 6.5 (BO) is a product of Business Objects, which provides over 42,000 customers worldwide with Business Intelligence (BI) software. Business Objects was recently purchased by SAP, an industry leader in the Enterprise Resource Planning (ERP) market. BusinessObjects 6.5 debuted in 2004 and is reaching the end of its current service life (Business Objects, 2007).

BusinessObjects is a data analysis, reporting, and presentation suite, allowing companies to manage the data analysis and reporting in a common software framework. The backend of the system allows for complex data queries from multiple data sources while the front-end is served by a Crystal report capability, providing a highly acclaimed front end for report presentation. This combination allows for broad or deep data access, to serve the needs of the different types of business users (Howson, 2003).

BusinessObjects 6.5 provides Hanover power users with the flexibility of creating custom queries on large data sets. This is very important for the business, especially in the actuarial department, where the risks for policies are determined; through the skilled and timely analysis of the business' historical data, competitive rates may be determined, leveraging this data access into competitive advantage.

2.4.2 Actuate

Actuate 7 is a product of Actuate Corporation, which serves over 4,000 customers worldwide (Actuate Corporation, 2007). Actuate is a leader in the field of Business Information and Reporting Tools (BIRT). Actuate 7 debuted in 2003 and has reached the end of its service life (Actuate Corporation, 2005).

Actuate 7 is a package that brings the entire reporting system under one common software solution, from conception to end-user access. Actuate 7 allows for the designing of reports that can be customized for each group of users. A separate server module, iServer, handles the secure distribution of the reports via a web portal. This portal is designed to be intuitive for the users, with report groups that are subdivided in a tree structure for reports in the same category. Users may save the reports or export them to Excel for further analysis (Price, 2004).

The Hanover has chosen Actuate 7 to serve reports to employees via a web-based portal, allowing permission-based report access to employees at all levels within Hanover. Financial and Performance Reports are pre-generated monthly for viewing by

management. Actuate 7 allows Hanover to create, schedule, publish, and distribute reports for large user groups in an organized and timely manner.

2.4.3 Hyperion

Due to the aging nature of the current BI implementations, The Hanover is seeking a replacement system. A likely candidate for this is Hyperion System 9, the newest offering from Hyperion Solutions, a leader in BI and Performance Management with over 10,000 customers worldwide. Hyperion Solutions was recently purchased by Oracle (Hyperion, 2007).

Hyperion System 9 is a Business Performance Management platform that manages a business' reporting and analytics system in a comprehensive, timely manner, while also providing for individual interaction and customization in a controlled environment. Users can receive pre-designed reports or can dynamically query the system, while managers can have custom dashboards to keep tabs on key statistics in individual departments and for the business as a whole. The availability of the data via the web should integrate well in The Hanover, where most employees currently access their reports through the Actuate web based portal. A key difference between the Hyperion System and the current systems is that the Hyperion system was designed to achieve Business Performance Management, focusing on combining internal data and external data to allow a greater insight into how these data are related and affect each other.

2.5 Requirement Gathering

Requirement gathering is the process of discovering and documenting the requirements for any type of project. For this project, requirements gathering can reveal

which reports are necessary. The simplest method of requirements gathering is asking directly "What do you require?" For reasons that will be discussed later, this alone is not the most efficient method. Many other methods exist such as observation, experimentation, and more advanced methods of interviewing. The focus will be on advanced methods of interviewing because observation and experimentation are too timeconsuming to be completed in seven weeks.

One important distinction is between organizational level information requirements and application level requirements. Organizational level requirements are those general requirements that can be applied to many developmental and organizational initiatives within an organization. Application level requirements are more specific; they only apply to a single task, and typically cannot be reused in other contexts. The level of detail desired is a key factor for choosing a suitable requirement gathering methodology (Davis, 1982).

It is also helpful to distinguish requirements by whether they are social or technical requirements (Davis, 1982). The social requirements address the organization's objectives and clarify its assumptions. Social requirements should include objectives for job design and work organization. Assumptions must either be upheld by the new system or consciously changed to more appropriate assumptions. These include assumptions about the roles of various individuals and what their responsibilities are. Technical requirements are the data inputs, outputs and processes that are necessary to meet business needs. A few examples of technical requirements are: certain data must be available to users, data can be accessed through a given application, and data must be available by the third day of the month.

2.6 Business Process Reengineering

Business process reengineering means "changing the fundamental way in which the organization operates, [rebuilding] the current way of doing business and making major changes to take advantage of new ideas and new technology" (Dennis, 2006). Rebuilding a system can eliminate a great deal of time for analysts to understand the as-is system. Participants in the rebuilding process are allowed to focus on new ways of performing the task without consideration of legacy systems.

Business process reengineering consists of many activities and exercises designed to facilitate the rebuilding process, such as: outcome analysis, technology analysis, and activity elimination. Activity elimination is the most appropriate for our purpose of analyzing a reporting system scheduled to undergo major changes in the upcoming years.

2.6.1 Activity Elimination

Activity Elimination is a fundamental technique of business process reengineering. The activity elimination method of reengineering business processes involves an analyst working closely with management to identify how the organization could eliminate each activity in a particular process. Hypothetically eliminating an activity within a process induces critical thinking about the value of the activity in question.

Activity elimination is an exercise designed to gather detail about an activity, not actually eliminating the activity itself. The information learned from the exercise can offer insight into where weaknesses in a process may lie. To reengineer an entire process, every activity should be analyzed to gather enough information to effectively design a new process; however this analysis can be done on a smaller scale. A smaller scale activity elimination process involves improving sub-processes or analyzing the health of a process by "spot-checking" the viability of its sub-processes.

2.7 Capital Budgeting

Capital budgeting is the process of deciding how to invest capital (Weaver, 2001). One of the challenges of capital budgeting is figuring out the value of cash flow at a time in the future compared to the value it would have if received immediately. Cash flows must be discounted to reflect the fact that cash received in the future is less valuable because cash received immediately leaves more time to invest it.

There are two ways to calculate a discount rate (Ross et al., 2005). Some firms base the discount rate on the average interest rate they would have to pay in order to borrow money for that length of time. This interest rate is referred to as the weighted average cost of capital. Another way to calculate the discount rate is with the opportunity cost. Opportunity cost is the rate this capital could expect to earn were it invested in another venture. A common way to calculate opportunity cost is to use the firm's average return rate on investments, known as the reinvestment rate. The first method is more suited to companies that can borrow freely while the second is appropriate for firms with less access to capital.

2.8 Net Present Value

Net Present Value (NPV) is an estimate of the immediate lump sum that would have value equivalent to a set of cash flows (Weaver, 2001). Each future cash flow is adjusted by a discount rate which can be either the weighted average cost of capital or the reinvestment rate. There has been no quantitative adjustment based upon the risk of the investment. Accounting for risk quantitatively is highly complex and therefore is employed in other capital budgeting methods which are used in large investment projects (Ross et al., 2005). The NPV technique involves adjusting for risk qualitatively (Ross et al., 2005). If an investment is at the average level of risk for a company then it should be accepted if and only if the NPV is significantly above zero. If the project is significantly lower risk than an average project it would probably be reasonable to accept it despite a slightly negative NPV.

3 Methodology

The overall goals of this project were to identify reports that are no longer necessary and provide a replicable process for doing so. To achieve these goals, the team: created a list of reports, narrowed that list to reports that may be unnecessary, investigated these reports by interviewing MIS personnel, analyzed the data to make suggestions regarding which reports to phase out, and developed a strategy for consolidating reports.

3.1 Identifying Reports

The first task was identifying the reports within the project scope. The project team gained access to five different sources of report information. Table 1 describes the following five sources: a cache of system documentation materials generated by the MIS department, a communications schedule and ledger indicating which reports should be sent out when, and to whom, a report development work schedule highlighting which employees were responsible for which reports, and when each report was due, excerpts from emails and communications regarding the distribution of reports, and a collection of report samples.

Source	Data Provided
Essential Application	Preliminary List of over 50 Report Sets. Users, process inputs
Documents	and outputs, possible sample locations.
Report Samples	Tangible sample for report set extracts. Clues to the nature of
	the report.
Communication List	Details regarding report owners and due dates.
Monthly Work Plan	Hours of IT staff involvement, list of subject matter experts,
	dates of maintenance.
Report E-Mails	Type of output (tangible, mid-process), report samples for
	report set extracts.

 Table 1: Data Sources for Identifying Reports

The first two data sources made available to the project team were the cache of documentation and some associated report samples. The team began to generate a comprehensive list of all items in each of these locations. It quickly became clear that there were very few formal naming conventions, as many items had similar names with no description of potential differences. It was also clear that there were samples that did not correspond to documented reports, and vice versa. To indicate the differences the team marked the data source associated with each item.

Before additional sources were provided or considered, the team attempted to group similar items by gathering information from the MIS department. The team spoke with Ram Krishnaswamy, who then linked several items with similar names, and even some with seemingly unrelated names. Ram also indicated satisfaction with the format of the developing list, and subsequently provided additional data sources to continue the reconciliation process.

The team was directed to Janine Bebas, an MIS reporting and communication employee, who provided a communication schedule and ledger that detailed information concerning report owners, and due dates. Initially this information did not seem helpful as the format of the communication schedule was vastly different than that of the previous sources. The previous sources had indicated application-level reports, and given more specific detail regarding the nature of the reports. The communication list was more general and dealt with families of reports. To make use of this data source, the team needed to group reports with their respective families. This process was done quickly with the help of the Hanover MIS department. After gathering some additional input, this source was reconciled with the master list.

The next source of report sets the team used was a report development schedule and work plan. The work schedule listed all reports involved in monthly maintenance operations. This schedule provided information regarding SME's (subject matter experts), the days each report would be worked on and generated, and a basic idea of how many hours went into producing each report. Information within the schedule was then reconciled with the report list in progress. Similar to previous efforts, the team struggled with poor naming conventions, but with additional sponsor input, linked many reports on the schedule with those previously on the list.

With a rapidly expanding list, the team requested the last data source to reconcile, which was a series of emails from the MIS department, communicating reports to business owners across the country. These emails served two purposes. The emails gave the team an idea of which items were tangible reports, and which were mid-businessprocess operations because only some items on the list were communicated directly to the business. Secondly, the emails provided the team with report samples (as they were attached, to be sent to the business) which would be used later for analysis and recommendations.

To make recommendations on potentially unused reports, the team would need to filter this list. Before any filtering began, the team saved the completed list to deliver to Hanover at a later date. The completed list of all reconciled reports contained 96 items. Most items were found in three sources or fewer and none of the items were found in all five. This list clearly demonstrated the information gaps between the given data sources. This information alone will help Hanover organize its existing reporting structure.

3.2 Narrowing the List

The project team sought input from Ram Krishnaswamy and Linda Brench in order to produce a list of reports that were candidates for elimination. In this process the project team discovered that many reports on the list were certainly in current use. The team also discovered that some of the outputs they had identified were not in fact reports but rather databases or another type of intermediate output preceding the production of reports. All intermediate outputs were considered outside the project scope and therefore were eliminated from the list. This list of reports remaining within the project scope after the first round of elimination contained 29 items.

The project team gathered more data about the 29 reports in question by returning to the initial data sources. For each report, the team looked for: the purpose, the users, the business owner, a sample of the report, the day of the month it became available, and the SME (the Subject Matter Expert, a member of the MIS department who distributes the report). The team found that much of this information was not available.

To gather missing information the team arranged an interview with Amy Cummings and Linda Wheeler. The focus of the interview was identifying report owners so that the team would know who else to interview about the report. Owners were successfully identified for most reports. There were also some further changes to reports on the list. Some reports currently on the list were identified as critical. The team was informed that other reports on the list were actually a grouping of reports that contained many separate reports.

After these meetings the team was the left with a list of 12 items. Six of these items were labeled as "Citizens" reports which, according to the most recent documentation were managed in Michigan. After contacting the last known owner of

these reports, the team was informed that the reports had been moved back to Worcester. The team was advised to speak again with Amy and Linda, to clarify the source of these reports.

This issue was brought to Ram Krishnaswamy who subsequently researched the situation and returned with additional information. He informed the team that the Citizens reports were heavily used, and thus should be eliminated from the project scope. The remaining six reports were to be heavily analyzed as a basis for the team's recommendations.

3.3 Investigating the Report List

With the report list finalized the team set out to gather more detailed information on the remaining reports. With a small list remaining, the team needed to interview some members of the MIS reporting staff to gather this information. The team first investigated the possibility of reports being duplicated across various reporting systems. In some cases this duplication is required; however the presence of duplicates would warrant additional inspection. The team also investigated the age of each report. Some reports had been designed and implemented over 20 years ago, and may not provide current information.

While conducting these interviews, Linda Wheeler, a member of the senior reporting team, brought to the teams' attention the presence of several calculation factors that had not been updated since the early 2000s. Reports using these calculation factors clearly merited additional investigation, as several calculated columns were incorrect. Reports with these issues were marked for further investigation. This interview process allowed the team to eliminate a few final reports as some were mid-process, and others were discovered to be very recent.

With four reports remaining the team continued to investigate usage statistics. After a few final meetings with Linda Wheeler and Amy Cummings, two of the report sets had been researched enough to make recommendations, while the other two had very little information on them that was available. The team turned once again to Ram Krishnaswamy to locate the missing information. Ram was aware of general information, but concluded that the report sets in question should be further researched. This was the last piece of information necessary for the team to analyze the data and draw conclusions to present to Hanover.

3.4 Constraints and Risks

There were several constraints on this project limiting the progress that can be made. The most important of these constraints is the short timeframe. A tight timeline emphasized the importance of scheduling and of understanding the effect of delays on the project schedule. Another very important constraint on this project is the availability of employees within the organization as well as the project sponsors. Most of the data collected regarding the usage of reports are from personnel interviews, which created the risk of employee schedules conflicting with the project schedule. Finally, there was a limit to how much research can be done before implementation must be started. As changes are made to the reporting structure, previously necessary reports may become unnecessary due to the consolidation of other reports. Each of these constraints is important to consider when defining the scope of the project.

There are two major deadlines for this project. The first milestone is the presentation of the Project Charter and agreement on the project scope. This presentation took place on October 10th 2007. According to the original schedule we would gain

permissions to access all of the necessary files, generate a list of reports and report owners, and begin scheduling interviews, all by October 10, 2007. This schedule was delayed due to an expansion in scope. Ram Krishnaswamy identified two additional data sources: a work plan and email records. Neither of these sources was available to us as of October 10, 2007 so our project charter does not contain a list of reports and no interviews have been scheduled. The project schedule slippage in the first seven weeks increased the risk of scheduling problems in the second seven weeks. Scheduling delays may result in the exclusion of important employees with valuable input.

The second major deadline is the strategy deliverable to be presented in early December. In this seven weeks the team must complete the tasks that were unfinished during phase one: access all data sources, create a list of reports, identify relevant reports from that list, and schedule interviews. Then the team must also move on to all the tasks scheduled for phase two: provide report information to interview participants in advance of interview, conduct all interviews, compile and summarize all data, and interpret findings. The delays transferred from phase one made phase two much more difficult. Gathering and processing results took a substantial amount of time as the data is primarily qualitative. This leaves a very short window of time to conduct interviews.

There is a major emphasis on scheduling interviews as early as possible due to the short time frame available to conduct interviews. The availability of employees and their willingness to participate had a large effect on the outcome of the project. As employees were very busy with their work and appointments, the team conformed to their availability and left their personal schedules open.

The availability of the project sponsors also constrained the speed at which the project can progress; the original schedule was found to assume unrealistically fast feedback from the business. We soon learned that timely in the business world means within a week or two. Naturally, this new timing threw off the schedule quite significantly.

3.5 Schedule

The following figures present are a detailed project schedule from August 22nd, the day of the project introduction, and concluding on December 21st, the day the final report was finalized. The schedule covers four phases of work and the final presentation.

The first phase of the project was the orientation. This phase involves all of the introductory paperwork that needed to be completed at Hanover. The team needed to acquire file access to relevant file shares on the Hanover network, Citrix access to allow remote access to files over the weekend and during off hours, and access cards to allow entry to the Hanover headquarters. Finally the team also requested email accounts to facilitate inter-office communications. This phase started on August 22nd and ended on September 25th.

The second phase of the project was the WPI deliverables. This phase lasted the longest, as the final report was finalized after the Hanover deliverables were completed. The WPI deliverables were a project proposal, which was due during the middle of the project (October 10th) and a final report which is broken down into several sections. The literature review section of the final report was started immediately, as no project details were required to complete this task. The remaining report structure and findings were

completed at end of the second half the project. This phase started on August 29th, and finished on December 21st.

The third phase of this project was building and refining the project scope. This phase started when the team was given a high level description of their deliverables in the kickoff meeting on August 22^{nd} . From August 22^{nd} to October 10^{th} the team acquired five sources of report sets and compiled a master list from each of these sources. After the list was the written, the team narrowed the scope by filtering the report set list down to report sets which may be infrequently used. The list was finalized on November 28^{th} .

The fourth and final phase of this project was gathering report set details from subject matter experts. The team gathered information such as report owners, business users, IT staff hours in a given month, and report samples for each of the remaining report sets. The team also gathered report set usage information where available. After the data had been gathered, the team developed findings and recommendations. This phase began on November 14th and continued until November 26th.

After all phases of the project were completed, the team scheduled a time for the final presentation with Hanover Executives. The team ironed out scheduling conflicts from November 26th to November 29th, and eventually scheduled the meeting for December 5th. The meeting was held as planned, and the findings were presented.



1 - Schedule Part 1



2 - Schedule Part 2



3 - Schedule Part 3

4 Findings

Four reports of the 96 total were identified by The Hanover Technology Group as warranting further investigation because they might be infrequently used. The four reports are: Agent Profitability, Profit and Loss, Agent Utilization, and Performance by Branch. An investigation of Agent Profitability reports revealed an opportunity for substantial cost savings by eliminating the whole report set in Actuate. Profit and Loss reports were found to have some redundant reports that were in available in both BusinessObjects and Actuate. We considered the possibility of making all Profit and Loss reports available in only one system but found that it was not economically feasible. Very little information was found on Agent Utilization and Performance by Branch. We also found that there was missing information and unknown usage patterns for many reports.

4.1 Agent Profitability Reports

Agent Profitability reports are a report set in the Actuate universe. These reports show the agent profitability over different time periods, in different categories, for five different levels.

The levels are countrywide, region, management office, branch, position, and name. The reports at each level are:

- driveline complete view by policy size category
- driveline complete view by policy size name
- driveline complete view total partial master detail
- driveline complete view total
- quarterly time series complete view commercial by all
- quarterly time series complete view commercial by driveline

- quarterly time series complete view commercial by policy size category
- quarterly time series complete view commercial by policy size name
- quarterly time series complete view commercial by policy size within driveline.

There is some redundancy in these report categories. "By policy size category" and "by policy size name" are the same data sorted by either the policy size name (small, medium, large, other) or the policy size number (0-10, 10-25, 25-100, 100-500, >500, other).

The number of reports produced monthly for Agent Profitability is between 500 and 700. In order to produce these reports, ten hours are spent monthly by the IT staff maintaining both the live and test environments. Additionally, 72 hours a month are spent on processing the data necessary to generate the reports, and an additional 48-72 hours are spent generating the reports.

These reports are available to over 100 users, of which 10% are power users. In November 2007, 16 users viewed a total of 26 different reports. October had 22 users, September had 26, and August had 27. Such low numbers can be at least partially due to two reasons. First, the key factors used in calculations have not been updated by the business since 2004, making the calculations based on these factors inaccurate. Second, other data contained in the reports is available in other report sets or through direct queries.

4.1.1 Proposal

Stop producing all Agent Profitability reports in Actuate. This would save 72 days per year of processing time and 5 days per year of IT staff time. The cost is the additional time it will take for up to 30 report users to get data from ad hoc queries in BusinessObjects.

4.1.2 Economic Feasibility

The largest benefit of this proposal is the elimination of 72 days of processing time per year and the saving of 5 days of IT staff time is also significant. The costs are report user time, both the time to adjust to the change and the additional time it might take to get information from an ad hoc query in BusinessObjects instead of a canned report in Actuate. While the users currently obtaining reports from Actuate have business objects, if the remaining 90 users start accessing the reports, additional BusinessObjects licenses would need to be purchased. Therefore we assumed that no additional BusinessObjects licenses would need to be purchased. If additional BusinessObject licenses were required, there would be a one time cost of \$1000 per user. There is some uncertainty involved in the calculation of processing time value although \$83 an hour is a conservative estimate for a two billion dollar company.

We assumed three years of benefit because The Hanover Technology Group is planning to make many major changes in the next few years. For three years of benefits the Net Present Value (NPV) was found to be \$309,544 or \$219,544 if additional BusinessObjects Licenses are needed. Net Present Value is a widely used measure for whether a project will add value for its investors. In calculating the NPV a discount rate is used to convert future cash flows into the equivalent current value. This is done by calculating the opportunity cost, the expected rate of interest on the money in an alternate investment. The NPV for the project is greater than zero which means the project is expected to be profitable. The discount rate on this project was chosen to be 18.17%

because that is the average growth rate of the S&P 400 Midcap Stock Index. The average growth rate of that index represents the annual increase in value for stocks of that type. The Hanover Insurance Group is a Midcap stock so therefore its average investments can be estimated to gain value at 18% per year.

	Year 0	Year 1	Year 2	Year 3
Benefit/Cost				
Save processing		\$144,000	\$144,000	\$144,000
time ¹				
Save IT staff time ²		\$9,000	\$9,000	\$9,000
Report users	(\$2,700)			
adjustment time ³				
Report users access		(\$9,000)	(\$9,000)	(\$9,000)
time ⁴				
Total cash flow	(\$2,700)	\$144,00	\$144,000	\$144,000
Discounted cash	(\$2,700)	\$121,858	\$103,121	\$87,265
flow				
NPV ⁵	(\$2,700)	\$119,158	\$222,279	<u>\$309,544</u>

 Table 2: Costs and Benefits for Eliminating Agent Profitability Reports

4.1.3 Technological Feasibility

This project is technologically feasible because it only requires deleting reports.

No new reports need to be produced or maintained and no additional processing is

required.

4.1.4 Organizational Feasibility

This project is organizationally feasible. There may be some challenges in getting

employees who used the reports to learn how to access the information through ad hoc

¹ Assumes 1,728 hours per year of processing time is saved at \$83 per hour ² Assumes 120 hours per year of IT staff time is saved at \$75 per hour

³ Assumes 36 hours for users to adjust to the new system at \$75 per hour

⁴ Assumes 120 additional hours per year for employees to access reports at \$75 per hour

⁵ Discount rate is 18.17% per year

query without losing any employee morale. The resistance to change in behavior can be mitigated by explaining the decision, providing clear instructions, and encouraging users to contact the help desk if they need further support.

4.2 Profit and Loss Reports

Profit and Loss reports summarize Hanover's financial performance. There are 200-300 reports in this set. Data is grouped by region, risk state, line, driveline, segment, and many combinations of those designations. Some reports show planned figures as well as actual results and other reports show trends over time. The Profit and Loss report set has 25-50 users of which about 50% are power users who have BusinessObjects on their computers as well as Actuate.

Profit and Loss reports did not appear on our initial list of documented monthly reports. They were added to the list based upon input of Hanover employees because the underlying data and some of the reports are available in BusinessObjects and Actuate. This duplication of effort suggests that activity elimination is possible by updating data and reports in only one system instead of two. The Actuate reports only require one hour of IT staff time per month while the BusinessObjects reports require 10 hours per month. Therefore we will consider eliminating reports in BusinessObjects instead of eliminating the reports in Actuate.

4.2.1 Proposal

Stop maintaining Profit and Loss Reports in BusinessObjects. Profit and Loss Reports will be available only in Actuate. This would require at least 10 reports that were only available in BusinessObjects to be built in Actuate.

4.2.2 Economic Feasibility

The major benefit of eliminating Profit and Loss reports from Business Objects is the elimination of 120 hours of IT staff time per year. Another benefit is progress toward the IT department's long term goal of eliminating all use of the Business Objects system. This project would have significant startup costs, the largest of which would be the time it takes the IT staff to design reports in Actuate that were previously only available in Business Objects. The cost estimates have a high level of uncertainty because every report takes a different amount of time to design and also because the usage of these reports is unknown so it may be that some reports can be deleted from Business Objects without being designed elsewhere.

	Year 0	Year 1	Year 2	Year 3
Cost/Benefit				
Save IT staff time ⁶		\$9,000	\$9,000	\$9,000
IT staff time to	(\$22,500)			
produce new reports ⁷				
Report users	(\$1,875)			
adjustment time ⁸				
Total cash flow	(\$24,375)	\$9,000	\$9,000	\$9,000
Discounted cash flow	(\$24,237)	\$7,478	\$6,445	\$5,454
NPV ⁹	(\$24,375)	(\$16,759)	(\$10,314)	<u>(\$4,860)</u>

 Table 4: Costs and Benefits for Transitioning Profit and Loss Reports Away From

 Business Objects

We assumed three years of benefit because The Hanover Technology Group is planning to make many major changes in the next few years. For three years of benefits the Net Present Value (NPV) was found to be -\$4,860. Net Present Value is a widely used measure for whether a project will add value for its investors. In calculating the NPV a discount rate is used to convert future cash flows into the equivalent current value.

⁶ Assumes savings of 120 hours of IT staff time for maintenance at \$75 per hour

⁷ Assumes 300 hours of IT staff time to produce new reports at \$75 per hour

⁸ Assumes 25 hours of report user adjustment time at \$75 per hour

⁹ Discount rate is 18.17%

This is done by calculating the opportunity cost, the expected rate of interest on the money in an alternate investment. The discount rate on this project was chosen to be 18.17% because that is the average growth rate of the S&P 400 Midcap Stock Index (2007). The average growth rate of that index represents the annual increase in value for stocks of that type. The Hanover Insurance Group is a Midcap stock so therefore its average investments can be estimated to gain value at 18% per year.

Since the NPV is less than zero it appears the project is not economically feasible under the given assumptions. This analysis, however, used very conservative estimates for the costs and the discount rate. The estimated cost assumes that all of the Profit and Loss reports that are not in Actuate must be built in Actuate. Because this report set is thought to be infrequently used, it is possible that many reports can be eliminated instead of being rebuilt, thus lowering the cost of building reports. For example, if 50% of the Profit and Loss reports that would be rebuilt could be eliminated instead, the NPV after three years would be \$6,390. The discount rate of 18.17% is also a conservative estimate. It appears to represent the average growth of capital for a company of Hanover's size but discount rates of 5% of 10% are most commonly used (Ross et al., 2005). A more accurate estimate of discount rate would be to use Hanover's weighted average cost of capital which is the average interest rate it pays for money it borrows. The project team did not have access to this figure but for all successful companies it is lower than that company's rate of growth. If a lower discount rate applies, the project will be more profitable than estimated because the future benefits of the project are discounted while the immediate costs are not discounted. Even with a discount rate of 5%, however, the

NPV would only be \$132. In summary, the project could be profitable under cost and discount rate assumptions that are less conservative yet still realistic.

4.2.3 Technological Feasibility

There is unlikely to be serious technological challenges in this project. There are already similar reports that have been built in Actuate. The Hanover Technology group already has staff with the necessary technological skills to build reports in Actuate.

4.2.4 Organizational Feasibility

This project will not require a lot of organizational changes. The main change is that some of the 25-50 users will need to learn to find information in a different place. Since the information will be fairly easy to find, the change is unlikely to cause any decline in employee satisfaction. The time it will take for the users to adjust has been factored into the economic analysis. The main organizational benefit of the project is its fit with the Hanover Technology Group's long term goal of eliminating all uses of Business Objects.

4.3 Additional Observations

4.3.1 Infrequently used reports

There were two other reports that were brought to our attention as reports that might be infrequently used: Agent Utilization and Performance by Branch. Agent Utilization is being maintained by the Hanover Technology Group staff but the Subject Matter Expert for the report was uncertain whether the report was being used or how. The Performance by Branch reports may or may not be maintained by HTG. Further investigation into these reports should provide the information necessary to gauge their usage.

4.3.2 Missing Documentation

Many reports did not have documentation in the EAD folder which made it hard to find basic information about a report such as its purpose and business owners. In most cases the name of the person maintaining a report could be found on the monthly work plan but not all reports being maintained appeared on the work plan. For example, Agent Utilization reports did not appear on the work plan yet they require over 120 hours a year from the Hanover Technology Group. Missing documentation could be addressed by designing a small information form, filling it out for each report and storing all these forms in a single folder on the file share.

4.3.3 Unknown Usage

The Hanover Technology Group generally does not know how frequently the reports are used. This could be addressed by writing a program that will monitor who opens which reports. Subject Matter Expert, Linda Wheeler wrote such a program for Agent Profitability reports and revealed that these reports were infrequently used. Such a program would only be economically feasible where a report is expensive to maintain and there is already some indication that it may be infrequently used. Interviewing report users is another method for gathering more usage information.

5 Conclusions and Recommendations

Our work can be summarized into three basic recommendations. While none of these recommendations are detailed plans of action, they should provide Hanover with enough direction to investigate questionable areas within the reporting system.

5.1 Agent Profitability Reports

This set contains 500-700 reports generated in Actuate. The usage statistics for the past several months show that very few employees use these reports. On average, 16 employees accessed 26 reports in a given month. In addition to the low usage figures, the reports are very costly to produce. This set requires 6 days per month of computer processing time, and 10 hours per month of IT staff time.

The team cannot definitively recommend a removal of these reports as the users have not been interviewed regarding how they actually use the report. We recommend however, investigating further into the possibility of removing the agent profitability report set.

5.2 Profit and Loss Reports

This set contains 200-300 reports and has data existing in the Actuate and Business Objects universe. These reports have a narrow audience with only 25-50 users, and do not have concrete statistics regarding their usage. As the data exists in two universes, it may be possible to consolidate the reports to one system to reduce IT staff time, and potential user confusion.

The team recommends looking further into the actual usage of these reports before making any changes. Consolidating these reports into one universe will require a substantial upfront investment. A more complete cost benefit analysis should be performed before additional action is taken.

5.3 Additional Observations

The team found two other reports which had little documentation associated with them. The Agent Utilization Reports and Performance by Branch reports are produced in the IT department and may be grouped under a larger process. These reports may in fact be used, however little documentation was made available. The team recommends taking measures to discover the actual usage of the reports produced. User surveys and electronic tracking would help gather the data necessary to improve the reporting structure.

Producing a short, general fact sheet to document all reports would be a valuable exercise for Hanover to perform. Having all contact information available in once place would streamline report research and be a valuable point of reference.

5.4 References

- Actuate Corporation. (n.d.). *Actuate Corporation Company*. Retrieved December 9, 2007, from Actuate Corporation: http://www.actuate.com/company/index.asp
- Actuate Corporation. (2005, June 30). Actuate Supported Products and Obsolescence Policy for Reporting Engine Products. Retrieved December 9, 2007, from http://jp.xlsoft.com/documents/re/Actuate_Supported_Products_8_SP1_Reportin gEngines.pdf
- Berson, Alex and Stephen J Smith. (1997). *Data Warehousing, Data Mining, & OLAP.* New York: McGraw-Hill.

Brown, Glenn J. and Michael B. Rogich. (2001). An Empirical Investigation of User Requirements Elicitation: Comparing the Effectiveness of Prompting Techniques. *Journal of Management Information Systems*, 17 (4), 223-249. Accessed via Ebsco. http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=4326066&site =ehost-live

- Business Objects. (n.d.). Retrieved December 9, 2007, from Business Objects Customer Assurance- Product End of Life Dates: http://support.businessobjects.com/programs_and_lifecycle/lifecycle/product_eol _dates.asp#BusinessObjects
- Cote, Murray J. and C. Richard Daugherty. (2000): Using Project Management to Improve Month-End Reporting In A Hospital. *Production and Inventory Management Journal*, 17-21.

Coughlan, Jane, Mark Lycett, and Robert D. Macredie. (2003). Communication issues in requirements elicitation: a content analysis of stakeholder experiences. *Department of Information Systems and Computing, Brunel University*, Accessed via ScienceDirect.
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V0B48B0SR6
2&_user=74021&_coverDate=06%2F01%2F2003&_rdoc=1&_fmt=&_orig=sear ch&_sort=d&view=c&_acct=C000005878&_version=1&_urlVersion=0&_userid =74021&md5=35e3f6b407216ae15bf135a4880f608e

Coughlan, Jane and R.D. Macredie. (2002). Effective communication in requirements elicitation: a comparison of methodologies. *Requirements Engineering*, **7** (2), 47–60. http://www.springerlink.com/content/y1pmvw1nu2gtb92g/

Davis, G.M. (1982). Strategies for information requirements determination. *IBM Systems Journal, 21* (1), 4-30. http://domino.research.ibm.com/tchjr/journalindex.nsf/e90fc5d047e64ebf85256bc 80066919c/adf8cf6682e8529d85256bfa00685b4d?OpenDocument

- Hickey, Ann M. and Alan M. Davis. (2004). A Unified Model of Requirements Elicitation. *Journal of Management Information Systems*, 20 (4), 65-84. Accessed via Ebsco. http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=12841174&sit e=ehost-live
- Howson, C. (2003). BusinessObjects: The Complete Reference. Emeryville, CA, USA.
- Hyperion System 9: Business Performance Management (BPM) Architecture. (n.d.). Retrieved December 9, 2007, from Hyperion: http://www.hyperion.com/products/
- Parmenter, David. (2005). How Much Time Are You Wasting On Month-end Reporting? *Chartered Accountants Journal*, 28-30.
- Insurance Information Institute. (n.d.). Retrieved September 15, 2007, from Insurance Information Institute: http://www.iii.org
- Price, D. (2004). Actuate 7. DM Review, p. 48.
- Property & Casualty Insurance Industry. (n.d.). Retrieved October 22, 2007, from Yahoo Finance: http://biz.yahoo.com/p/432mktd.html
- Ross, Stephen, Randolph Westerfield, and Bradford Jordan. (2005). *Fundamentals of Corporate Finance* (7th ed). Irwin Professional Publications.
- *The Hanover Insurance Group.* (n.d.). Retrieved September 15, 2007, from The Hanover Insurance Group: http://www.hanover.com/thg/about/heritage.html
- Weaver, Samuel (2001). *Finance and Accounting for Nonfinancial Executives*. New York: McGraw-Hill.

6 Appendices

Appendix A: Report Set Extracts

Agent Profitability

Owner:	wner: Joe Freitas or Linda Peiczaca	
SME:	Linda Wheeler	
Users:	Various levels of management	
Generated:	Monthly	

Description: These reports show the agent profitability at five different levels:

- Countrywide
- Region
- Management office
- Branch
- Position
- Name

The reports at each level are (for commercial, personal is similar):

- driveline complete view by policy size category
- driveline complete view by policy size name
- driveline complete view total partial master detail
- driveline complete view total
- quarterly time series complete view commercial by all
- quarterly time series complete view commercial by driveline

- quarterly time series complete view commercial by policy size category
- quarterly time series complete view commercial by policy size name
- quarterly time series complete view commercial by policy size within driveline

Sample: Omitted

Appendix B: Report Set List

	EAD	Report	Comm	Work	
Report	Folder	Folder	List	Plan	Email
Agent Profitablity Statements			YES		YES
Agent Utilization		YES			
ALPS Mining	YES	YES		YES	
APLUS Reports			YES		YES
Billing Analytics			YES		
BO Logon Ticket Admin	YES			YES	
BPR Database - Run Jobs and					
Administrator	YES			YES	
Breakthrough Agency Time Series	YES			YES	YES
Breakthrough Agent CL Scorecard		YES			
Breakthrough Agent PL Scorecard		YES			
CAAMS Reporting			YES		
Catastophe Data	YES			YES	YES
CBAY Reports	YES	YES		YES	YES
CBAY Summary Reports	YES			YES	
CICA Loss and Expense Database	YES			YES	
CIF	YES		YES		
Citizens Set Assessment					YES
Citizens V6/V7 Agency Files					YES
Citizens V6/V7 Glass Claim Check.					
Auto Comp and Coll GR 20k and					
Comprehensive Files					YES
Citizens V6/V7 Market Segment CL					
Files					YES
Citizens V6/V7 Subro claims					YES
CL Branch Financial Review					YES
CL Daily Production Reports (DPI)			YES		
CL Industry Mix			YES		
CL On-Demand			YES		
CL Rater Database	YES	YES		YES	YES
CL Scorecard MEND	YES	YES		YES	YES
Claim Statistics Database	YES	YES		YES	YES
CLAY Reports	YES	YES			YES
CM Balancing	YES		YES	YES	YES
Commercial Marine		YES	YES		YES
DPI - On Call	YES			YES	
DPI Balancing	YES			YES	
EDW	YES				
Experian Brick Load					YES
Facility Claim Experience	YES	YES		YES	YES
Fahima MEND Jobs	YES			YES	
Flash Reports	YES	YES		YES	YES
Group P & C Reports		YES			

HO Cancel		YES			
НО		YES			
Housekeeping for MEND1				YES	
IMART Comm Reports	YES		YES	YES	
IMART CY aggregate					YES
IMART Database		YES			
IMART Extracts	YES			YES	
Industry Mix					YES
IRPM 13Months YTD Reports (CLI					
bank)					YES
IRPM Report			YES		YES
ISONET License Admin	YES			YES	
Large Loss Report	YES	YES		YES	YES
Line Scorecard		YES			
LoB Analysis Report	YES	YES		YES	YES
LRDC					YES
MAP Transaction Universe			YES		
Marketing and Operations Reports			YES		YES
MCCA Claim Listing	YES	YES		YES	YES
Med Expense Reclass	YES			YES	YES
New Money	YES				
On Demand Process Routine				YES	
Open and Closed Pip Inc Gr200k					
listing		YES			
Open and Closed Pip Paid Gr200k					
listing		YES			
Operation Turning Point (OTP)		YES			
Orchid				YES	
Orchid MEND				YES	YES
P & C Production Dashboard		YES	YES		
PCA		YES	YES	YES	YES
Pending Closed Received					
Database (PCR)	YES			YES	YES
Performance Reports (by branch)		YES			
PiP MedPip Wage Reclass	YES			YES	YES
PL Branch Financial Review					YES
PL CIF Account Rounding			YES		
PL Profile Auto				YES	
PL Profile Home				YES	
PL Retention Hyperian Cube					YES
PL Scorecard MEND	YES	YES		YES	
PL Weekly New Business Report			YES		
Portfolio Mgmt XP Branch		YES			
PPA and Home Profiles	YES		YES		
PPA Cancel		YES			
PPA Profile Reports	YES	YES		YES	YES
Profit Sharing Reports			YES		
RAT Cube	YES		YES	YES	
Rem Revisions					YES

Retention Analysis Tool (RAT)			YES		
Risk Call Center Reports			YES		
Risk Exposure Mgmt (REM)	YES			YES	
Risk Management Financial					
Reports					
(Orchid)			YES		
RVP Reports			YES		
Schedule P Cit Claim Counts	YES			YES	YES
Security Tickets	YES	YES		YES	
Service Numbers Reports		YES			
SIPS- Group P & C	YES				
SlapShot MEND	YES			YES	YES
State Term 6-12 Split		YES			
WCX (work comp excess) Claim					
Run	YES	YES		YES	YES
WCX Claim Run					YES

Appendix C: Project Charter

Project Charter

Project Name: Report Consolidation at Hanover Insurance

Department: MIS

Focus Area: Reporting

Product/Process: Monthly Reports

Prepared By

Document Owner(s)	Project/Organization Role
Thomas McCarthy	
Eric Twark	
Emily Zall	

Project Charter Version Control

Version	Date	Author	Change Description
1.0	9/08/2007	Eric Twark, Emily Zall, Thomas McCarthy	Document created

1 Project Charter Purpose

This charter will define the scope, objectives and approach for the work to be completed. It will act as a reference to all project goals, the project scope, organization, and work plan. Additionally, this charter serves as a contract between the Project Team and Project Sponsors, stating all deliverables, time constraints, risks, and resources agreed upon for this project.

2 **Project Overview**

Hanover Insurance, a large insurance company with over 4000 employees, has a business reporting framework that has grown and changed during the past fifteen years. Due to technological advancements, company growth, and organizational changes, the necessity and frequency of reported data have undergone significant changes during these fifteen years. The result is a "report per employee" ratio of nearly 15:1. A "shadow system" has developed where employees have generated their own databases for personal use to aide in their day to day tasks.

This project is a preliminary research effort to gather report usage information for a group of monthly reports. The primary deliverable is a strategic plan for eliminating and consolidating unused reports. Hanover can use the results of this project to provide more accurate data to their employees, and begin to reduce the need for shadow-reporting mechanisms. This research into monthly reports may also uncover patterns of usage of retired reports that may be applied in other reporting categories.

3 Scope

This project will identify all the reports in four data sources: EAD folder, Monthly Report folder, list from Janine Bebas, and monthly MIS workplan. The project will further analyze relevant reports, as selected by Ram Krishnaswamy. This analysis will consist of generating sample reports, speaking with select report owners, and classifying reports as critical, useful, or unnecessary.

Time permitting, all report owners will be interviewed and gap analysis will be performed on the data gathered.

3.1 Objectives

Objectives	Description
Report List	Generate a list of reports that will identify the report owner, the application the report is on, and which day of the month the report is needed.
Report Extracts	Create report extracts for report owners that include a sample report, key users, and information from the previously generated list.
Gather Owner Feedback	Meet with selected report owners to discuss the reports that the owner is responsible for, focusing on the usefulness of the reports to the owner.
Process Documentation	Document the report discovery and analysis process.

Constraints

Constraint	Impact to Organization		
October Deadline	Limited time to develop scope, understand reports, and schedule interviews.		
December Deadline	Limited time to interview users, gather and process results.		
Employee Availability for Interviews	Interviews will only be feasible for a select group of employees. Scheduling is critical because interview data is required to develop a strategy.		
Dependencies	Changing the design of one report may eliminate the need for previously necessary reports. Implementation of consolidation strategy must be done loosely in parallel such that interview data is not obsolete.		
File Access	Slow helpdesk lead times limit the available time for developing scope and understanding reports.		
Sponsor Availability	Time with project coordinators is limited. Ample time must be budgeted for sponsor feedback.		
Access to Premises	As interviews will be scheduled throughout October, building access will be provided as needed with Temporary ID's.		

Date	Milestone	Deliverable	
Oct. 10 th	Present Project Charter	 Project Charter and Scope 	
Oct. 31 st	Submit Report List	 Report List 	
Nov. 7 th	Submit Report Extracts to Owners	 Report extracts 	
Dec 12 th	Present Findings	 Comprehensive Report List Consolidation Recommendations Suggestions for Future Work 	

3.1 Project Deliverables

4 Feasibility

4.1 Technological

Developing a list of monthly reports and analyzing the usage of each has a high technological feasibility as the method for acquiring data will be mostly through human interaction. It is assumed that the project team will be given access to all report documentation within the project scope. Once access to report documentation has been acquired there will be no further technological hurdles to slow the project.

4.2 Organizational

This project does offer an organizational challenge in both scheduling communication with report owners and gathering feedback from project coordinators. Gathering data will rely heavily on the availability and participation of Hanover employees over the next several weeks. Due to the large number of reports within the project scope there is a moderate chance that employee availability will effect the results of the study.

5 Risks

#	Risk Area	Likelihood	Risk Owner	Project Impact
1	Time	Likely	Hanover	Project delays will narrow the scope.
2	Employee Availability	Possible	Hanover	Limited employee availability reduces data collected.

6 Approvals

Prepared by

Project Manager

Approved by

Project Sponsor

Executive Sponsor

Client Sponsor

Appendix D: Meeting Agendas

Agenda for November 26, 2007

This Week

- Listed all reports
 - Total financial report types
 - Total Agent Profitability Statement types
- Reconciling BO and Actuate for Financial Reports
- Reframed report
- Started recommendations
 - Eliminate financial reports from BO
 - Consolidate Agent Profitability Statements
 - Mgmt office usually = branch
 - Use more on demand reports in Actuate?
 - Automate report generation
 - o Data warehouse
 - Naming conventions
 - Agent Profitability eliminate "by policy size name" only leave "by policy size category" Eliminate 1 or 2/9 reports

Next Week

- Obtain more report samples
- Clarify some questions about the existing samples
- First draft of recommendations

Questions

• Date of presentation

Agenda for November 13, 2007

This Week

- Emailed Owners / Contacts
 - Set up Meetings
 - Got some owner feedback
 - Gathered information
- Get SME's and Owners from Ram by Tuesday
- Ask SME's (mostly Linda W) for samples
- Send samples to owners (provided by ram)
- Only schedule interviews if owners email warrants a meeting

Agenda for November 6, 2007

This Week

- Modified extracts
- Produced draft of interview questions
- Eliminated more from the list (19 left)
- Met with Ram to go over extracts, show him what info we are missing and ask how to find it
- Performed cost- benefit analysis
- Met with Amy and Linda W identified some owners, identified more people to get information from
- Discovered that some "reports" on the list were actually groups of reports
- Most of them are not actuate reports
- Some appear to be accounting journal entries

Next Week

- Send Linda W info from Emails
- Sort through documents received from Linda W
- Contact Mark Lane (in Michigan) to find missing report owners
- Initial contact with identified owners

Concerns

- Difficulty finding info led to schedule slipping
- Schedule final presentation
- Some things on our list are types of reports
- What will we do about the two reports that we have no one to contact about?

Agenda for October 30, 2007

This Week

- Revised Report List
- Spoke with Ram, gave him first draft of report list
- Got shared emails
- First draft of interview questions
- Report revision (cost benefit needs to be done)
- Met with Linda Brench, asked for feedback about report use
- Sample report extracts (Tom)
- Tried to get feedback from Ram and Linda by Monday (deadline is Wed)

Next Week

- Incorporate feedback with list
- Identify Owners and Uses for necessary reports (Linda Wheeler)
- Cost Benefit Analysis
- Extracts

Deadlines:

- Wednesday (tomorrow) All feedback regarding report list
- Friday First extract feedback
- Nov 7 All extracts sent out

Agenda for October 10, 2007

This Week

- Revised deliverables for Hanover
- Revised deliverables for WPI

Next Week

- Charter presentation tomorrow
- Get access to workplan and email records

Agenda for October 4, 2007

This Week

- Met with Babu and Ram to clarify the project goals and deliverables.
 - Inventory all reports and tie to applications
 - Connect reports to owners, one owner will have multiple reports
 - Summarize report info, send to owners
 - Meet with owners, determine which reports are necessary.
 - Document the process, summarize findings
 - Optional- Process Gap analysis

Next Week

- Define scope
 - Clear scope
 - Deliverables
 - Commitments
 - Targets
- Finish charter
 - o Risks
 - Work Sliding
 - Timings (split interviews among us if needed)
 - Quality

Agenda for September 25, 2007

This Week

- Put together literature review
- Project proposal (WPI)
- Identified reports, sent list to Ram
- Citrix access
- Emailed Janine Bebas
- Composed request for interview letter

Next Week

- Schedule A term presentation to Hanover
- Get feedback from Ram about report list
- Talk to Janine Bebas about report ownership (ideally after speaking with Ram)
- Draft #1 of interview questions
- Draft #2 of lit review

Questions

- Literature review is part of project proposal?
- When is a good time for presentation?

Agenda for September 18, 2007

This Week

- Received Temporary ID's
- File Access was not Completed
- Babu Approved Charter Format
- Ram is looking over Timeline initial feedback was good.
- Access to Helpful Systems
 - Web-mail to facilitate online email checking and sending
 - Citrix availability for remote login. This will be critical to keep this project on time.

Next Week

- Access Files
 - Meet with Ram to discuss
 - Begin identifying reports and owners
 - Begin scheduling interviews
 - Record notes to allow further writing of project charter
- Figure out our Citrix logins and important info to work remotely.

Report Front-End

- Charter/Proposal Progress General Status
- Lit Review General Status
 - Hanover / Insurance Background
 - Interview Procedures

Agenda for September 11, 2007

This Week

- Secured computer/email access
- Met Linda
- Worked towards getting IDs
- Formally requested file access
- Showed Babu initial schedule
- Formalized schedule in MS Project
- Laid out Project Proposal, Lit Review and started adding content
- Analyzed frameworks

Next Week

- Have pictures taken for IDs, receive IDs
- Gain File Access
- Begin identifying reports
- Continue Lit Review, Proposal

Questions/Concerns

• Comments on proposal/lit review setup and frameworks