



justin greis

CASE STUDY: IDENTITY AND ACCESS MANAGEMENT

ATLANTIC PAPER PRODUCTS

ASSIGNMENT OVERVIEW

Summary:	This case study is a debate between the office of the CIO and the office of the CFO to determine whether Atlantic Paper Products should deploy an Identity and Access Management (IAM) solution. Each team must prepare for both sides of the debate.
Presentation Deliverable:	One Microsoft PowerPoint presentation representing the CIO's perspective or the CFO's perspective (whichever you were assigned).
Executive Briefing Deliverable:	Single page case study executive briefing (in Microsoft PowerPoint format).

BACKGROUND

Atlantic Paper Products has gone through a number of recent changes as an organization. Strategically, the company took a step in the right direction by going public. However, this decision resulted in a number of issues such as higher audit fees, resource constraints, and a lack of control around data, systems, and users. The Chief Financial Officer (CFO) is overwhelmed with these issues and believes that the Chief Information Officer (CIO) needs to improve the situation by devoting more time to supporting Internal Audit. The CIO, on the other hand, has expressed his frustration with the current situation due to the ineffectiveness of the current IT infrastructure. He is having trouble getting the CFO to approve the purchase of new technologies that will improve compliance through automated system controls. The two are struggling to understand one another's reasoning and perspective. Under tremendous financial pressure to keep costs under control and focus on financial performance, the CFO believes the CIO is just looking for "more toys" and the problem can be solved through better process discipline while the CIO believes the CFO is just "being cheap" and putting the company at risk by refusing to allocate the necessary budget. It is up to the board of directors to make the final decision. Can the CIO get the board of directors to understand the need to invest in new technology or will the board of directors side with the CFO that new technology is not the most effective use of company resources?

ATLANTIC PAPER PRODUCTS

Atlantic Paper Products (Atlantic) is the number two producer of paper products in the domestic US market and gaining global market share with their new greener, cost-effective paper production processes. Revenues have quadrupled over the past three years as they have formed alliances with major office supply companies as well as national corporate accounts. As a mid-size company, Atlantic currently has 17,000 employees and is expected to grow the workforce by 50% over the next three years.

As a company, Atlantic's vision is to become the number one paper products producer in the US within the next five years. The company's internal business objectives are to:

- Improve employee and customer satisfaction.
- Meet regulatory compliance.
- Improve operational efficiency.
- Reduce manufacturing costs.
- Conduct green business practices.

One of Atlantic's biggest strategic advantages in the market is their process to develop their products and their cutting edge green technology. This information is considered "top secret" for the company. None of their competitors have been able to replicate Atlantic's efficient sustainable processes. They have a select group of engineers who work on developing new ways to drive innovation and sustainability. These processes have also enabled Atlantic to "do more with less." Their manufacturing processes:

- produce less waste,
- are much less harmful to the environment,
- take half the time to produce a finished product, and
- are a third of the cost of their competitors.

Whereas most of Atlantic's competitors use up to 30% recycled products in their goods, due to Atlantic's top secret manufacturing process, they are able to achieve better quality and use 90% recycled material, which costs less and is better for the environment. Given the proprietary nature of these processes, Atlantic tries its best to keep all of their processes internal and limited to the group of engineers and a few other select employees.

Since Atlantic was able to design their production and manufacturing processes from scratch using cutting-edge technologies, their profits have grown with their revenue stream. Atlantic chose to go public two years ago and it was exactly the right strategic direction for the company. They managed to raise enough capital to penetrate their chosen markets and invested in manufacturing and distribution channels in which they are now seeing significant returns. Analysts project that Atlantic is expected to continue this growth as they continue to add new accounts and steal market share from competitors.

The move to go public came with some costly consequences. Audit fees were higher than anticipated, resources were strained, and the company could not fill open positions in accounting and internal audit. One of the biggest findings from the audits was the lack of control around data, systems, and user access. IT General Controls were a foreign concept to Atlantic until that point and the CFO was overwhelmed with "high risk" IT findings.

Like the CFO, the CIO's organization is having some issues of its own. Technology operations have failed to keep up with constant demands for their time and resources. The Atlantic IT team is composed of 225 full-time professionals charged with managing the infrastructure, supporting applications, managing users/helpdesk, and working on special projects for the CIO and other parts of the business. Requests for additional resources have fallen on deaf ears as IT is not viewed as adding profitable value or reducing costs for the organization – the two growth drivers over the past two years. To add to the CIO organization's plate, the CFO has now turned to them for help with solving the IT general controls audit issues.

A lot of finger-pointing has taken place since the audit findings were issued. The CIO believes the issues could be solved if the CFO's people just did their job better. Technology can't solve all of Atlantic's problems but it could help eliminate the potential for human error. The CIO sees IAM as an obvious area that will help

solve a number of Atlantic's immediate issues. The CFO does not want to put the company through a costly implementation of unnecessary technology. She would rather try to fix the issues given manual process redesign and by looking at the way resources are being utilized within IT. She believes IT resources are poorly managed and does not understand why this issue cannot be fixed with what the CIO has.

KEY STAKEHOLDERS

SHRUTI GUPTA, CFO

The CFO, Shruti Gupta, is a former partner from one of the Big Four Accounting firms and a 23 year veteran of the public accounting industry. She is a conservative CPA with an eye for cost-savings and financial controls; however, she has admitted that she is slow to adapt to new technologies. Gupta is highly trusted by the board and CEO. In fact, she and her task-force single-handedly planned and executed the Atlantic IPO and have worked to keep the organization's strategy and vision on-course. Gupta has been recognized as one of the most powerful women in business by Forbes magazine and investors and analysts appreciate her conservative laser-focused style.

She recognizes there are issues in IT – especially compliance and controls issues – but does not know where to start, so she has turned to Henry Peters (CIO) to solve the "...IT problems..." as she calls it. Gupta views the CIO as a competent executive, but believes he often fails to understand the business case and financial justification behind his request for resources. She knows there are efficiencies to be gained through technology solutions, but no one has been able to make the business case to her and "how these tools fit into the strategy" and "what problems they are solving for Atlantic." Gupta has actively opposed IAM in meetings and presentations and believes that it is not the most effective use of company resources, especially with the upcoming prospects of the Pacific Paper Co. take-over. Gupta doesn't understand why Peters' staff can't devote more time to support internal audit by fixing the findings using the resources that he has. She would also rather build out an internal IT audit advisory team to keep up with the compliance issues. This team would be a task force devoted to fixing the issues uncovered by internal and external audit parties. After all, she believes most of the controls can be remediated through manual fixes.

HENRY PETERS, CIO

The CIO, Henry Peters, started his career with Atlantic 17 years ago after holding various management positions with other manufacturing companies. Peters is well respected by the executive team, but is frustrated that he cannot convince his colleagues in the executive suite (especially the CFO) to invest in technologies that would enable his current team to work more efficiently. Peters understands that laying down a solid foundation of technology infrastructure will enable Atlantic to grow. Sure, this may mean higher short-term spend but it will surely generate lower long-run costs in the future. Additionally, Peters is frustrated because the compliance demands are being placed upon his team by the CFO as a result of the Sarbanes-Oxley (SOX) audits.

BUSINESS PROBLEM

Due to a lack of resources at Atlantic, all internal IT audits and remediation are performed and supported by Peters' team with the assistance of the internal financial/operational audit team. The CFO has repeatedly told Peters that the Sarbanes-Oxley IT audit issues are his problem and he should be able to fix them with what he has.

One of the technologies that the CIO believes could help with the compliance issues is Identity and Access Management (IAM). Peters believes that “with technology comes efficiency and reliability.” Peters has told Gupta, “We have an opportunity to really do this right from the beginning. If we try to do this later on, and especially after any future acquisition, this will be much more costly.” Additionally, IAM would provide his team with the tools to work more efficiently and better respond to the needs of the business.

Peters believes that his group is being financially choked by the CFO. The CFO has repeatedly denied requests for funds to purchase new technologies such as IAM. One-and-a-half years ago, Peters made a cost to upgrade the firewalls, which had been in place for nearly 7 years, but that was denied in order to focus on IPO readiness. Six months ago, Peters submitted a plan to deploy ServiceNow (an IT Service Management tool) to upgrade the current custom-built SharePoint tool, but that too was denied as Peters could not make the case for why the current system was no longer meeting Atlantic’s needs.

Though the CFO and CIO are technically peers and both reports directly to the CEO, the CFO truly controls the budget and all investments need her final OK. There have also been talks of implementing a Bring Your Own Device (BYOD) program. Peters is worried of the potential risk that a BYOD program could bring to Atlantic. If this weren’t enough, Peters just heard a rumor that Atlantic will be making an acquisition bid for one of its competitors, Pacific Paper Company. Though this may be the right strategic decision, Peters believes there’s a lot of operational work to be done to get “Atlantic’s house in order” before considering an acquisition.

After careful consideration and analysis of the IT audit findings, Peters has decided he would like to address the Logical Access IT General Controls findings first and pursue an Identity and Access Management Solution. IAM has been a topic of great discussion among the audit committee and executive committee meetings. Vendors and consultants have pitched to the executives repeatedly about the benefits to compliance and capabilities for the business.

Gupta agrees that she would like to see the logical access controls remediated, but does not see how the myriad of vendor solutions will help. In fact, Gupta has been the loudest opponent to IAM due to its high investment cost. She believes that those resources are better used elsewhere in the company, especially as Atlantic eyes Pacific for a future acquisition. Gupta has told her confidants that she is worried about Peters “building an empire” using compliance as an excuse.

Peters has tried to highlight the risk of the 57 separate applications (that all contribute to processes that feed the financial statements) his team manages and supports individually. In fact, this was the driver behind his desire to move to ServiceNow; supporting this many service calls for lost passwords, password resets and general trouble tickets become overwhelming and stretched the limits of the SharePoint tool. All of these applications have been deemed in-scope for SOX and have received numerous control deficiencies.

According to Peters, it is essential their product development information remains accessible to only a select group of employees. This would help Atlantic maintain its competitiveness in the market. He believes having an IAM solution will be a big driver to allow for this kind of market competitiveness when Atlantic scales up and adds more employees. Gupta has agreed that confidentiality of their proprietary information and processes is paramount but she does not understand why this cannot be done using the existing tools Atlantic already has. Besides Gupta believes that Peters has a full plate of business-led/IT supported projects already, such as:

- *Unified Communications* – Led by Corporate Communications, this project is seeking to implement a way to better communication with Atlantic employees based on their HR profiles. For example,

Corporate Communications would like to be able to target employees in a particular office location, in a particular department or in a designated reporting structure.

- *Enterprise Intranet Portal* – Led by Corporate Communications, this project focuses on creating a new enterprise intranet portal for all of Atlantic. The goal is to create a “one-stop shop” for all information about Atlantic and provide easy information dissemination to employees.
- *Customer Relationship Management Enhancement* – Led by Marketing and Sales, this project is focused on migrating all customer records and information into a new CRM solution. A tool has not been selected but Atlantic is currently debating between Salesforce.com and Microsoft Dynamics.
- *Enterprise Collaboration and Cloud File Sharing* – Led by IT, this project focuses on reducing the reliance on in-house storage by moving to cloud-based services such as Box, DropBox, and Microsoft OneDrive.
- *HFM (Hyperion Financial Management Implementation)* – Led by Finance, this project is streamlining the processes for financial reporting and consolidations with Hyperion Financial Management (HFM) software.
- *PeopleSoft HR System Upgrade* – Led by HR, this project is upgrading Atlantic’s 8 year old version of PeopleSoft HR to the newest version.

Despite all arguments and disagreements, both the CIO and CFO have been presented with a list of failed IT General Controls (see Exhibit One) as a result of the recent Sarbanes-Oxley audit. The failed IT General Controls occurred throughout the company’s applications. Some of the more notable ones include their Active Directory infrastructure (for network file sharing, network access management, authentication, etc.), SAP system (which controls their manufacturing and production processes), and PeopleSoft HR system. There are numerous other critical applications within Atlantic but both Gupta and Peters agree that these are the highest risk systems at this time.

Peters and Gupta are both “on the hook” for fixing these controls through the most efficient and effective means possible. The CEO, with support from the board, has lost patience for the ongoing disagreements and has decided to take drastic action to come to a decision: a debate.

YOUR TASK FOR THIS CASE – PRESENTING TEAMS

This activity will consist of a debate between the CIO and CFO staff. The board and CEO have asked to hear the debate to settle the IAM argument once and for all. The CIO team will argue in favor of investment in IAM while the CFO team will argue against it. It is important to prepare for both sides of the debate so you can deliver the appropriate argument. Your team will follow the activity schedule specified in Exhibit Two. This schedule will be strictly enforced and timed. You will receive a 30-second warnings as well as a 5 second count-down. You will be cut-off at the conclusion of the 5 second count-down.

You must prepare an MS PowerPoint slide deck representing the side of the debate you were assigned. You may elect to present these sections without any visual aids – it is up to you. Each of your team members must participate in the debate in some way. Whether preparing the presentation material, leading the presentation, rebuttal or closing arguments, it is critical that each member participate in some way in the assignment. At the conclusion of your debate, the class/audience may or may not ask questions of both teams based on the debate. Once all Q&A is complete, a vote of the board will be taken – the “winner” will be determined by a 50%+1 majority vote. Ties will be resolved by the professors/facilitators. The results of the vote will have no impact on your final grade.

Your deliverable for this exercise is one MS PowerPoint presentation defending the side of the debate you were assigned. You do not necessarily have to use the presentation during your debate. All teams must

turn in their PowerPoint presentation as this is the primary graded deliverable. Should you decide to use visual aids for this presentation, please keep them concise; remember, you do not have much time to make your point!

YOUR TASK FOR THIS CASE – ALL OTHER TEAMS

CASE STUDY EXECUTIVE BRIEFING

At the beginning of the upcoming debate, the CEO wants to provide each of the board members a single slide/page placemat with text and visuals to give them reference points and context for the challenges being faced by both the CFO and CIO. Given you have already met with both the CFO and CIO teams, the CEO has asked you to develop this executive level placemat that can be provided to each board member at the start of the debate. The placemat shouldn't make a business case for the CFO or CIO but only state the facts of the situation, what each side is defending, and the pros and cons of the CFO's and CIO's arguments. The single page placemat should be in Microsoft PowerPoint format.

GENERAL CASE STUDY GUIDANCE

Keep these points in mind while preparing your materials for the case and debate:

1. Irrespective of whether you are in the CFO or CIO camp, the final objective is to address the IT General Controls failures. Your solution (IAM technology or Internal IT Audit support group) should clearly supplement the IT controls and mitigate the risks posed by the control failures. You will not do well on this exercise if it is not crystal clear how the control failures are very specifically addressed.
2. If you are representing the CIO, you must provide a clear picture of how the IAM solution will work. What will it do? What are the general use cases and what problems will it solve? Do not speak in generalities, you must be specific about how this solution will work and what it will do in order to convince the executives this is the right way to go.
3. Be sure to build a convincing cost model to quantify how much this will cost Atlantic. You have not been given much financial information so you should build your cost model using a set of stated assumptions. The return on investment (ROI) is important for this audience so be sure to include a cost/benefit analysis:
 - For the IAM solution costs will include software, hardware and personnel cost. Benefits will be improved productivity (by preventing account lockouts) and compliance to audit requirements.
 - For the CFO, the decision not to invest in costly software (the benefits of which are not clear) itself could be presented as a benefit. Instead resources could be focused on facilitating a smooth merge with Pacific paper. This will help Atlantic Paper become a market leader in the paper industry.
4. Include a pros/cons section to highlight why your solution is better than the other. For example:
 - The CIO can argue that implementing a new IAM solution can prevent loss of intellectual property, reduce help desk tickets by eliminating password reset requests and streamline mapping of access levels and roles.

- The CFO can point out that the main concern is a failed audit and supplementing the audit team directly attacks the core problem area. They can also bring up the costs involved in buying and maintaining a large complex IAM solution.
5. As always, it is good practice to address the risks introduced by your solution and how you plan on mitigating them.
 6. Remember you are presenting to the board. Keep your solution crisp. Maintain a laser sharp focus on addressing the problem at hand.

And finally, although this case is in a different format (a debate vs traditional executive presentation), the expectations around level of effort, analysis rigor and solutions specificity are the same. Please refer to Exhibit Three for general case study guidance. This guidance is not specific to this case but should be kept in mind in every case you solve.

APPENDIX

EXHIBIT ONE: THE FINDINGS – FAILED IT GENERAL CONTROLS

Control ID	Control Title	Control Detail
01	A risk assessment of unauthorized system access is conducted and appropriate measures are put in place.	Business and IT perform an assessment which examines the risk of unauthorized access to key/in-scope information systems and infrastructure. Appropriate identification, authentication and authorization control measures are to be implemented based upon this assessment.
02	Key systems security policy and structure is defined and approved.	A security policy is defined and approved for key systems to control user access and authorization in line with organizational requirements and the risk assessment.
03	Access is restricted by username/password combination.	As a minimum, access to information systems is restricted through the use of a unique username and password combination. Passwords are sufficiently complex as to mitigate the risk of unauthorized access.
04	A segregation of duties policy is defined and approved.	A policy for segregation of duties, covering access to and modification of systems and infrastructure have been defined and approved.
05	Security parameters are configured and sensitive access is restricted.	Controls identified in the System Security Strategy for maintaining security (system security parameters) and restricting sensitive access (the use of administrative and high-privileged or sensitive user accounts, sensitive profiles or roles) to appropriate personnel, as well as the requirements of the Segregation of Duties Standards, have been implemented and maintained by designated personnel
06	Users are created and maintained in accordance with user administration procedures.	Users are created and maintained in accordance with the user administration procedures.
07	Periodic review and confirmation of the appropriateness of user access is performed.	A periodic confirmation of the appropriateness of users' access is performed and formally evidenced by system or process owners (or relevant business management).
08	Exceptions identified during review of user access are logged and resolved.	Exceptions identified during the review of user access are formally tracked and resolved in a timely manner.
09	Firewalls and other communication devices are operating according to the agreed procedures.	Firewalls are installed and configured to ensure that all in and outbound network traffic is forced to pass through them. The firewall and other communication devices are configured and operating in accordance with the procedure for connections with public networks. Intrusion

Control ID	Control Title	Control Detail
		attempts to the network are monitored and logged in accordance with the agreed procedures.
10	Remote access is granted and managed in accordance with the agreed procedures.	Remote access to the IT infrastructure is granted and managed in accordance with the Remote Connection procedures
11	Access requirements for change deployment are defined and approved.	The access requirements to deploy changes are defined and approved by designated individuals.

EXHIBIT TWO: DEBATE FORMAT

The debate will be 15 minutes total which includes 1 minute to vote on the winner of the debate.

Debate format:

- 3 minutes: opening arguments (Team A)
- 3 minutes: opening arguments (Team B)
- 2 minutes: rebuttal (Team A)
- 2 minutes: rebuttal (Team B)
- 2 minutes: closing Comments (Team A)
- 2 minutes: closing Comments (Team B)
- 1 minute: class votes on winner (winner has no impact on grade)

EXHIBIT THREE: ADDITIONAL CASE STUDY GUIDANCE

At a minimum, the solution to your case study should include the criteria below. Though not mandatory, you may use this as a format and general flow for your case study.

- A clear and concise background of the facts of the case.
- Key issues, observations and complicating factors that contribute to the root cause business problem at hand.
- A clear statement of the business problem to be solved.
- An overview of the solution and its components. The solution should address the key tasks outlined for you in the case.
- Demonstration of sufficient analysis that led you arrived at your solution.
- Clear recommendations for how the solution should be implemented or deployed.
- A time line for execution of your recommendations.
- A budget or cost model for implementing your solutions. Be sure to include the cost to build and deploy your solution and the cost to run and operate your solution after it is built.
- An analysis of the risks, issues, key assumptions and any mitigating factors you will employ to minimize the likelihood and/or impact.

You have been asked for a lot of detailed information to solve this case. The trick will be to package this up into a digestible executive presentation your audience can understand. Detailed supporting information can be included in an exhibit in the appendix of your presentation.

Your case study solution should also include:

- Citation of key sources in the form of end notes cited in your appendix.
- Application of standards and leading practices that help to inform your solution.

A few tips and tricks for solving this case:

- Company financials have intentionally not been provided to you for this case. To build your model about sizing of the company, please conduct your own independent research and find similar peer companies.
- Feel free to make assumptions that support your conclusions. Be sure to state your assumptions in an exhibit in your appendix. Your assumptions should not significantly alter the facts of the case; rather, they should support the recommendations by filling in the missing pieces of information in the case.
- You should NOT simply copy/paste from COBIT or any of the other standards. The key is to use the standards to help you solve the case. Remember: standards are NEVER the answer on their own; they must be applied to the business problem.