

National Grid SAP Adoption Case Study

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April 2021

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National Grid SAP Adoption

Background

In 2013, following Hurricane Sandy, the New York energy company National Grid decided to replace their aging Oracle business process management software with a more modern and flexible solution from SAP. SAP is a world-renowned for their business process modeling and management platform of the same name. The SAP platform is highly adaptable, as it abstracts from typical business processes and allows tailoring them for company-specific needs.

Adopting the SAP platform failed, costing National Grid approximately \$1 billion US in loss of revenue, financial loss, and expenditures. National Grid sued the consulting company charged with implementing SAP adoption for reparation.

Case Study Overview

National Grid hired the SAP consulting firm Wipro in 2013 to systematically introduce the SAP platform into National Grid's core business. SAP was meant to take over a significant portion of business processes, including payroll, customer invoicing, supply chain and procurement, and financial close. The SAP adoption process experienced significant delays and when the system was meant to go live, improper business process definitions rendered the National Grid unable to operate financially. More than 15,000 customer accounts remained uninvoiced or otherwise unpaid, causing more than \$50 million in losses over the 5-month period until partial adoption could be attempted.

Student Instructions

This case study is an example of a failed technology acquisition. Describe the nature of the supplier/integrator relationship and list relevant criteria National Grid could have applied to select the appropriate supplier. Identify possible risk during adoption regarding:

- Financial loss
- Security risk
- Authentication
- Loss of reputation
- Legal implications for National Grid

Define a safe adoption strategy that could have prevented the acquisition failure. Be sure to cover all aspects of technology acquisition, including risk assessment, risk mitigation, risk monitoring and control, validation of risk mitigation, monitoring, and control.

Instructor notes

This case study may be assigned as an individual or team exercise, either in synchronous or asynchronous educational settings. A proven strategy is “Think-Pair-Share”: use a similar CyBOK case study to discuss CyBOK KAs in class, then group learners into small teams of 2-3 and ask them to solve this assignment. Then, in a following class meeting, have teams present results and discuss implications.

Since case study references focus on business impact, rather than implications for security per se are not clear, risk in this sense is mostly related to “risk to the business”. However, some security-related implications persist that learners should be encouraged to explore.

Example solution

Risk is described in detail in the below references and include:

- Loss of revenue
- Loss of reputation
- Expenditures for legal compensation of customers
- Expenditures for legal fines
- Expenditures for legal quarrel with Wipro
- Possible introduction of Security risk to due functionally inadequate business processes
- Improper authentication of involved agents
- Lack of non-repudiation for uninvoiced customer accounts
- Delayed technology adoption

Causes for this risk may include:

- Unclear evaluative criteria for supplier (Wipro) competence
- Unclear evaluative criteria for adoption success
- Improperly defined functional requirements for adoption
- Lack of security requirements
- Unrealistic timeline
- Failure to define risk monitoring and recovery strategies

An adoption strategy to avoid risk is rooted in defining a proper technology acquisition protocol. Such a protocol must at minimum include:

- Supplier metrics for competence and adoption success
- Compliance policies for SAP to meet National Grid’s business needs
- Train stakeholders in SAP usage, but also in business compliance
- Assess SAP’s ability to meet National Grid’s business needs and existing business processes

References

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