Information Systems Security Assurance Management at Municipal Software Solutions, Inc.

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ABSTRACT

Based on an actual company, this case focuses on Business Continuity Planning issues for a small but growing software company, Municipal Software Solutions, Inc. (MSS). The firm experienced a catastrophic fire which completely eliminated all aspects of the information systems infrastructure, including the software product code repository, the client access infrastructure, the hardware operations center, and the software design facility. Fortunately, no one was harmed, and the firm survived despite the fact that it did not have a formal disaster recovery plan in place. MSS was very lucky. The case can be used in conjunction with coverage of risk assessment concepts in the context of the availability component of systems reliability and trust of services management. Accordingly, it is appropriate for use in courses covering information systems security, accounting information systems, or IT audit. [Article copies are available for purchase from InfoSci-on-Demand.com]

Keywords: Business Continuity Planning; Disaster Recovery Planning; Information Assurance Management; Instructional Case

INTRODUCTION

Effective disaster recovery planning, execution, and testing are essential to manage the risk of business interruption that arises from a myriad of sources such as fire, natural or manmade disasters, sabotage, or technical or human operational failures. The Municipal Software Services, Inc (MSS) case describes a company that was faced with a catastrophic fire. The MSS case provides a realistic and easy-to-understand context for discussing risk management and systems reliability--two very important topics within the Management Information Systems curriculum.

The MSS case is based on the experiences of a real company. It includes photographs of what fire damage can do to information sys-
tems equipment which enhances the realism for the students. The fire at MSS completely eliminated all aspects of the information systems infrastructure, including the software product code repository, the client access infrastructure, the hardware operations center, and the software design facility. Fortunately, no one was harmed, and the firm survived despite the fact that it did not have a formal disaster recovery plan in place. MSS was very lucky. It is often cited that 40 percent of businesses that face a disaster do not reopen, and 25 percent fail within two years.¹

Information systems and IT auditing textbooks provide students with general information about physical security threats and vulnerabilities and disaster recovery planning. The MSS case provides students with an opportunity to apply that knowledge in a realistic setting.

The MSS case has been used successfully in both undergraduate MIS and accounting courses and graduate level courses in MBA and Master of Professional Accountancy (MPA) programs using two main approaches: reading followed by class discussion, and as a basis for a writing assignment followed by class discussion.

The remainder of the article is organized as follows: Section II provides the case narrative and Section III is the Teaching Note.

MUNICIPAL SOFTWARE SYSTEMS, INC.²

Case Introduction

Municipal Software Solutions, Inc., or MSS, is a small, privately held software firm located in Cleveland, OH that supplies tailor made financial and personnel management software for large and small municipal governments in the US and Canada. MSS, Inc. is the acknowledged leader in the municipal software market. Through hard work, price competition, and a superior product, competitors have been reduced from a field of many down to a field with only two strong contenders for dominance. MSS is currently in the lead in terms of market share in the US within this niche industry. MSS revenues range from $2 million to $4 million annually, and the company employs a staff of 21. The firm has evolved over a twenty five year time period from its original inception as a systems consulting business, to a hardware solutions provider, to a LAN networking firm in the early ‘90s, but has settled into the specialized municipal market software engineering role for well over a decade. This case discusses the firm’s business strategy, their operations and organizational structure.

MSS Background

The firm is owned, financed and managed by the 57 year old President, assisted by a senior management staff as shown in Figure 1.

The company’s evolution to market leadership is a testament to the excellence of the management team, and in particular to the long range visionary skills of the President and CEO, Paul Teitelbaum. Paul was originally an employee of PricewaterhouseCoopers, with an Industrial Engineering degree from MIT. Early career moves in many large corporations gave him the ability to know and understand complex systems issues from an implementation and operational perspective, both successful and unsuccessful in nature. Paul is a strong personality, tall and thin, and quick to smile. He is also quick to assign credit to others for the firm’s success. He is congenial and seems to genuinely enjoy his company, his employees and his business.

Paul spent years growing his business; yet there were several unprofitable years off and on before the company reached its current level of predictably positive revenue streams. In a discussion with the founder, Paul volunteers that some management decisions were made by the “seat of the pants,” but the last decade has been one of unprecedented growth and stability. Also, the last decade was one where the senior management team formally selected the vertical market niche and narrow focus of the company into municipal markets. During
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