

# Today's Action is Better than Tomorrow's Cure - Evaluating Information Security at a Premier Indian Business School

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## EXECUTIVE SUMMARY

*Information Security breaches today affect a large number of organizations including universities, globally. They pose an immense threat to the C-I-A (confidentiality, integrity and availability) of information. Hence, it is important to have proper Information Security Management System (ISMS) designed in accordance with industry adopted standards for risk management. The current case explores the IT infrastructure at a premier Indian business school where internet support is required round the clock. The entire ISMS framework of the organization, including security policy, security budget and network components, is described. Though the security infrastructure apparently seemed to be adequate, a spate of hacking attacks targeted at the SMTP server attempted to cripple the extremely crucial email services for the period of the attack by generating spam. The primary security challenges facing the organization including nature and appropriateness of ISMS, adequacy of the security policy, budget allocation for IT security, etc., are left open for discussion.*

**Keywords:** *Confidentiality, Integrity and Availability (CIA) of Information, Information Security Management System (ISMS), Network Security Components, Security Policy, Simple Mail Transfer Protocol (SMTP)*

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## INTRODUCTION

Mr. Rajesh Ghosh<sup>1</sup>, the Chairman, Computer Advisory Committee (CAC) at the ABC Institute of Management, Lucknow (AIML)<sup>1</sup> looked at the dark brown, wooden floor of his office, immersed in thought about the latest hacking attempts on the Institute's network. There was a knock on his

partially open office door. Mr. Deepak Jha, the Computer Centre (CC) manager stood at the door with a pile of documents in his hand, smiled and said "It is not that bad after all. Our Computer Centre employees are trying their best to handle the attack and the situation will soon be under control." Mr. Ghosh however, was more worried than relieved. It was the computer centre's

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responsibility to provide safe and secure round the clock internet facility to the entire AIML community and it had always lived up to the expectations since its inception. However, of late there have been a few minor phishing attempts on the AIML network. Though all of them had been nipped in the bud, the current spate of hacking attacks on the AIML Simple Mail Transfer Protocol (SMTP) server had attempted to cripple the email services of the institute for a considerable period by generating spam. Mr. Ghosh wanted to ensure that the IT infrastructure at AIML was perfect and there were no loopholes in the network. As he prepared for his meeting with the CAC members, he pondered over the challenges related to the CC operations and services.

## ORGANIZATION BACKGROUND

The ABC Institute of Management, Lucknow (AIML) is one of the premier national level management institutes set up by the Indian government at Lucknow, Uttar Pradesh in 1984. The institute's mission is to be a global, socially conscious and integrated school of management, contributing towards management development, both in India and abroad. In order to fulfil its mission, the objective of the AIML community is to strive for excellence in management education, consultancy, research and training. It does so by inculcating human values and professional ethics in students so that they can make a difference in both the corporate and non-corporate sectors.

AIML campus, spread over 185 acres of land, is planned to ensure that nature is maintained at its splendid best in order to provide the perfect ambience to the community's academic pursuits. AIML also has its campus in Noida, which is being developed as a centre of excellence in executive education.

There are around 900 students studying at a particular point of time in AIML, including those in the first and second years of their post graduate programme. However, the intake

of students has almost doubled over a short period of 4-5 years. It increased from around 250 students in 2008 to approximately 460 students in 2012. AIML possesses one of the most heterogeneous and gifted student communities in the country, who have many times excelled over their counterparts in other management institutes of repute.

## The Organization Chart

Figure 8 in the Appendix provides a detailed view of the organization chart at AIML. The Director heads all the affairs of the institute and is accountable to the board of governors. The three Deans responsible for academic affairs, planning and development and Noida campus affairs, report directly to him. The Chairman of CAC reports to the Dean (Academic Affairs). Figure 9 in the Appendix shows the organization chart of the Computer centre. The CC manager in turn reports to the Chairman of CAC. The system analysts and CMC helpdesk (many of the CC operations are outsourced to CMC Ltd.) employees directly report to the CC manager. The CC at the AIML campus is also responsible for maintaining IT infrastructure of the Noida campus. For financial matters, CC (Noida campus) has to report to the Accounts Manager at AIML.

## IT Infrastructure at AIML

AIML has a large IT infrastructure distributed across the entire campus and caters to the needs of students, faculty, officers and staff of the institute. The CC caters to all the IT services of the institute 24X7. It is spread over an area of 15,000 sq. ft., at the centre of the campus and caters to all the academic as well as administrative activities of the institute. It employs one manager and 5 other system analysts who are involved in the maintenance of IT services in the institute. Initially all the CC activities were handled by AIML employees but in 2002 the job of maintenance was outsourced to an external CMC Helpdesk team.

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