

CONFIGURATION MANAGEMENT AT INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA:

FROM MISSION IMPOSSIBLE TO MISSION
ACCOMPLISHED



Customer

International Islamic University Malaysia, Kuala Lumpur, Malaysia; www.iiu.edu.my/

Vertical Industry

Education

Challenges

- Inventory, assess, and remediate endpoints to conform to configuration standards prior to implementing a Network Access Control (NAC) solution.
- Accomplish this with only two system administrators and 20 technicians.
- Manage 7,000 fixed and mobile computers located at seven university campuses across Malaysia, many of which have intermittent connections to the main university network.

Solution

The International Islamic University Malaysia uses BigFix to bring over 7,000 computers into compliance with configuration standards. Specifically, the University has deployed the BigFix Unified Management Platform for asset discovery along with Patch Management and Software Distribution solutions.

Results

- Full BigFix deployment, inventory, and license “true-up” completed in six weeks.
- Estimated savings of US \$200,000 through automation and ability to service the IT infrastructure remotely.
- Infrastructure readied for implementation of a Network Access Control solution.

“Our consultants convinced us that BigFix could deliver the visibility and remote management capabilities that would make a true-up project feasible.”

—Adi Amir, Director,
IIUM Information Technology Division

Customer

Since its establishment in 1982, the International Islamic University Malaysia (IIUM) has grown into one of Southeast Asia’s most prestigious higher education institutions. The University’s academic program concentrates on sciences and technology subjects. IIUM operates seven campuses across Malaysia, with a full-time student population of 25,000.

Challenges

Founded at the beginning of the personal computing era, the University’s computing infrastructure grew along with the institution. Twenty-five years later, however, it had become apparent that the free-form evolution of the University’s 7,000-plus fixed and mobile computers used by faculty, staff, and administrators had resulted in an infrastructure rife with inconsistent configurations. While this state of affairs had not caused major difficulties, the worldwide upsurge in Internet-borne security threats, escalating compliance requirements, and recognition that the infrastructure had become increasingly difficult and expensive to service led the University’s IT Division to consider a more proactive approach to configuration management.

Mr. Adi Amir, Director of the IIUM Information Technology Division, comments: “Over the last several years, it had become very difficult to keep faculty and staff PCs secure and running efficiently. We spent more and more time reacting to problems. And when problems had to be addressed, we needed to spend time investigating the configuration of each computer before we could diagnose and fix problems.”

He continues, “Frankly, we had not previously considered a true-up project at the University because we thought it was impossible with the tools we were using at the time.”

Solution Overview

Over the years Amir and his staff had built up a trusted advisor relationship with Techlab, a Kuala Lumpur-based IT consulting company specializing in distributed computing infrastructures and an authorized BigFix solutions partner. In 2007, Techlab proposed a project to help IIUM develop and implement configuration standards for their PC infrastructure. Techlab’s solution included the BigFix Unified Management Platform with BigFix’s Patch Management and Software Distribution solutions to maintain and validate consistent and secure system configurations.

Results

“The asset discovery phase of the project was a real eye-opener for us,” says Amir. “We discovered computers that we didn’t know existed, computers personally owned by faculty and staff, and even computers that we thought we had thrown away.” Although somewhat taken aback by the asset discovery exercise, the IT division recognized that getting an accurate picture of the University’s computer infrastructure was the first big step to more effectively managing them.

BigFix’s ability to manage the computers at all University campuses and facilities over almost any kind of data communications connection proved highly beneficial. “It was a great convenience that we could remediate machines remotely without manual work by a technician or systems administrator. We have limited staff, and we simply couldn’t do this if we had to physically touch every computer,” says Amir.

Demonstrating a rapid time-to-value, the project took only six weeks to complete which was surprising considering that BigFix uncovered more assets than they were aware existed or had planned for. “We discovered that the University had a higher proportion of mobile/laptop computers than we had expected. For our project, they needed to connect within the University’s firewall for us to install BigFix and execute the assessment and remediation procedures,” says Amir.

Why BigFix?

Reviewing the success of the BigFix configuration compliance project, Amir says that it has made him a big fan of BigFix. Amir comments: “We could not have done the project with the tools we had been using and with our limited staff resources. We believe that using BigFix not only made the project possible, it saved us the equivalent of \$200,000 US compared to taking an in-person/manual approach to inventorying, assessing, and remediating our computers.”

As an experienced IT manager, Amir says it’s important to always be ready to learn something new. “BigFix was new to us, but we quickly became very impressed with it and are giving it a permanent role in our infrastructure management program.

Looking Ahead

Looking ahead, Amir says that the BigFix configuration management will help the University implement a Network Access Control solution. He states, “For the NAC, we needed to get our computers into shape first. But once the NAC goes into production, it will be important to keep computers compliant with network access requirements to prevent them getting caught in quarantine. BigFix will help us keep computers up to standards to avoid unnecessary and inconvenient assignment to quarantine.”

BigFix Deployment Details

The configuration standardization project consisted of four phases:

Asset Discovery and Inventory—Gaining accurate information on computers accessing the University network as well as their current hardware and software configurations.

Assessing Remediation Needs—Understanding what would be required to bring the University’s PCs into conformance with desired configuration standards.

Remediation—Updating PCs to the latest software versions, patch levels, configuration standards, and other policies.

Ongoing Maintenance—Keeping PCs compliant with configuration standards, both to prevent “compliance drift” and to update computers with new software, content, and policies as these emerge.

The configuration compliance project went into high gear in April 2008 and was completed on all 7,000 BigFix-equipped computers in six weeks.

The University has also made extensive use of BigFix Fixlet Message and Relevance Language authoring to create and deploy custom queries and policies on the BigFix-managed computers. “A project like this is going to require a lot of customization and adjustment to individual circumstances. After a couple of days of training, our staff learned very quickly how to write custom inquiries and policies and get them out to the University’s computers,” Amir says.



BigFix: Breakthrough Technology, Revolutionary Economics

Founded in 1997, BigFix, an IBM Company, is a leading provider of high-performance enterprise systems and security management solutions that revolutionizes the way IT organizations manage and secure their computing infrastructures. Based on a unique architecture that distributes management intelligence directly to the computing devices themselves, BigFix is radically faster, scalable, more accurate and adaptive than legacy management software. From Systems Lifecycle Management, Security & Vulnerability Management to Endpoint Protection, BigFix solutions automate the most labor-intensive IT tasks across the most complex global networks saving organizations significant amounts of time, labor, and expense. BigFix provides real-time visibility and control for millions of globally distributed computing devices. The BigFix customer list counts many of the world's largest and most prestigious organizations in every industry including financial services, retail, education, manufacturing, and public sector agencies. More information can be found at www.bigfix.com.

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