

**CASE STUDY**

INLAND REVENUE AUTHORITY OF SINGAPORE

i-Sprint's AccessMatrix™ Universal Access Management (UAM) as the Standard Access Control and Single Sign-On Platform for Inland Revenue Interactive Network (IRIN)

**ORGANIZATION
PROFILE**

- Government Agency for Tax Collection
- Business Category: Public Sector, Tax Collection
- Size: 4,000,000 employees (as of February 2012)
- IRIN applications (in excess of 25 applications and 90 servers)

**THE BUSINESS
ISSUE**

Inland Revenue Authority of Singapore, the tax authority, needed a new infrastructure based on Microsoft .NET to replace their legacy system to serve their employees, taxpayers and tax agents. It must comply or exceed security guidelines outlined by the Monetary Authority of Singapore (MAS).

The solution should provide for:

1. Support for multiple authentications via multiple channels.
i.e: Each taxpayer can have different ways and channels to authenticate themselves to the tax authority. For example, MicrosoftSoft ActiveDirectory for employees via web. SingPass (Singapore National Authentication System), temp pin, permanent pin for tax payers and tax agents via web or IVRS.
2. End-to-end protection of customer PIN.
i.e: Customer PIN must be protected throughout the process of creation, assignment, printing and delivery.
3. Role-based access control with segregation of duties.
i.e: Roles and responsibilities such as security administrators, operators and tax agents must be clearly defined to meet audit and regulatory requirements. Access to resources and business processes within the application must be provisioned by roles.
4. Decentralization of user administration to the tax agents.
i.e: Tax agents may file tax on behalf on their clients in a decentralized manner.
5. Automatic generation of reports and housekeeping.
i.e: Both online and offline web-based reports must be available on viewing on demand. The system must be able to housekeep obsolete data by itself.
6. Reusability and Extensibility of security infrastructure.
i.e: In order to preserve investment in a common infrastructure, the solution is reusable and extensible to other applications.

SOLUTION

- i-Sprint's security consolidation methodology was applied throughout the project to assist the tax authority to implement and deploy AccessMatrix™ Universal Access Management (UAM) as the standard access control and single sign-on platform for the tax authority to achieve:
 - Single Sign-On to all intranet services and applications. Fine grained access control to ensure proper access authorization based on business rules and access privilege
 - Flexible user administration model to enable delegation of tax filing to tax agents by the corporate tax payers
 - Integration to SingPass and Luna HSM box
 - Enforcement the compliance of information security policy for all applications
 - Reduction of application development and maintenance efforts by leveraging a common security infrastructure
- Platform for UAM
 - Windows 2003 server
 - MS SQLserver RDBMS
 - SafeNet Luna SA HSM

HOW DOES IT WORK?

- AccessMatrix™ Universal Access Management (UAM) allowed the tax authority to achieve:
 - Tightly integrated Single Sign-On for **Users**
 - Single Point of Administration for security **Administrators**
 - Application log consolidation platform for **Auditors**
 - Application security integration platform for **Developers**
- UAM provides a common application security infrastructure that:
 - Improves application usability and user experience by providing the **Single Sign-On** feature
 - Enforces security policy with best practices
 - Improves Productivity by avoiding unnecessary code development
 - Implements E2E encryption to meet the security requirements of the Central Bank
 - Reduces Cost in security administration and application audit log management

OTHERS

Inland Revenue Authority of Singapore chose AccessMatrix™ Universal Access Management (UAM) solution to be their core security infrastructure technology to support all business critical applications. Other than leveraging the single sign-on features of AccessMatix , the tax authority took full advantage of the technology's hierarchical administration model to decentralize user administration, thereby enabling their key corporate customers to administer their own user ID and access privileges. The tax authority had also derived other functional benefits e.g. the fine-grained access control and interface to their PIN mailing system.

To comply with Monetary Authority of Singapore regulations, E2E encryption had also been easily introduced and implemented with HSM technologies.

Further details about i-Sprint's products are available at www.i-sprint.com.

To reach us, please email us at enquiry@i-sprint.com.

©2000-15 i-Sprint Innovations Pte Ltd. All rights reserved.

A Hierarchy Model is a patent of i-Sprint Innovations Pte Ltd. i-Sprint, i-Sprint logo, AccessMatrix and AccessMatrix logo are registered trademarks of i-Sprint Innovations Pte Ltd. All other trademarks and registered trademarks are property of their respective owners. i-Sprint reserves the right to make changes to the specifications or other product information at any time and without prior notice.