

# Integrated Waste Management System for a leading Government Organisation

As a leading public organization responsible for improving and sustaining a clean and green environment in Singapore, National Environment Agency (NEA), develops and spearheads environmental initiatives and programmes through its partnership with the People, Public and Private sectors.

The integrated Waste Management System (iWMS) was developed to help NEA effectively manage the operations of Waste Management Department and various site operations at the Incineration Plants (IPs).



## Business Challenges

The Waste Management System (WMS) was commissioned in 1982 on HP3K Platform and Turbolmage database. The key objective of the project was to revamp the existing system into a modern, scalable and configurable system that is available round-the-clock.

Key challenges include:

- Change Management from use of a client server interface to a user-friendly and intuitive graphical user interface (GUI)
- Interfacing with the Refuse Disposal Management System (RDMS) at all IPs without making any changes to the existing application or installing any additional software
- Migration of historical and operational data from the existing non-relational database management system that was built 27 years ago

## Solution

Emerio developed a robust and scalable .NET-based solution that catered to the following :

- Re-Engineering the solution components to suit a web-based architecture and improving the existing business processes
- Managing Site Operations and Seamless interfacing with existing RDMS at the IPs
- Interfacing with NEA Management Dashboard, GIRO and the Government's Financial System (NFS)
- Providing real-time notification via Email and SMS whenever account holders' security deposit exceeds set thresholds
- Enabling account holders to securely view their transactions and download their statements via e-Services
- Allowing easy maintenance, tracking and consolidation of data

## Salient Features of the solution

- Built on Microsoft **.NET 3.5** framework using **SQL Server 2005** with extensive use of Communication Foundation and LINQ
- **AJAX**-based interface for better user experience
- Use of **device server** technology to seamlessly interface with legacy systems without affecting operations
- Message-based architecture for **reliable communication**
- Web Services driven interface to provide services to other systems
- **Dynamic reporting** platform that allows users to query business information on demand
- **Seamless synchronization** of data between **SHINE** and NEA

## Service Excellence. Delivered.

Combining Emerio's expertise with the .NET technology to cater to NEA's business processes:

- Parameter driven and easily modifiable architecture increases the value of the solution and allows better and faster integration to external systems.
- Advanced enquiry and well-designed reporting features reduces the amount of printed reports. This goes in line with the "Go Green" philosophies of the agency.



## About Emerio

Emerio, an NTT Communications company, is a leading technology services and outsourcing company in South East Asia with extensive industry knowledge, proven methodologies, global resources and a successful track record. Emerio aligns to clients' needs to help them achieve consistent quality and operational efficiency. The company offers cutting edge solutions in the areas of Application Services, Infrastructure Services and Business Process Outsourcing. Emerio operates out of 12 countries with delivery centers in Singapore, Indonesia, Malaysia, Thailand and Philippines.

## Why Emerio

- Strong Capabilities
- Comprehensive reach in Asia
- 24 x 7 support / shared support
- Service Quality
- Committed Professionals
- Trust

## Our Value Propositions

### People

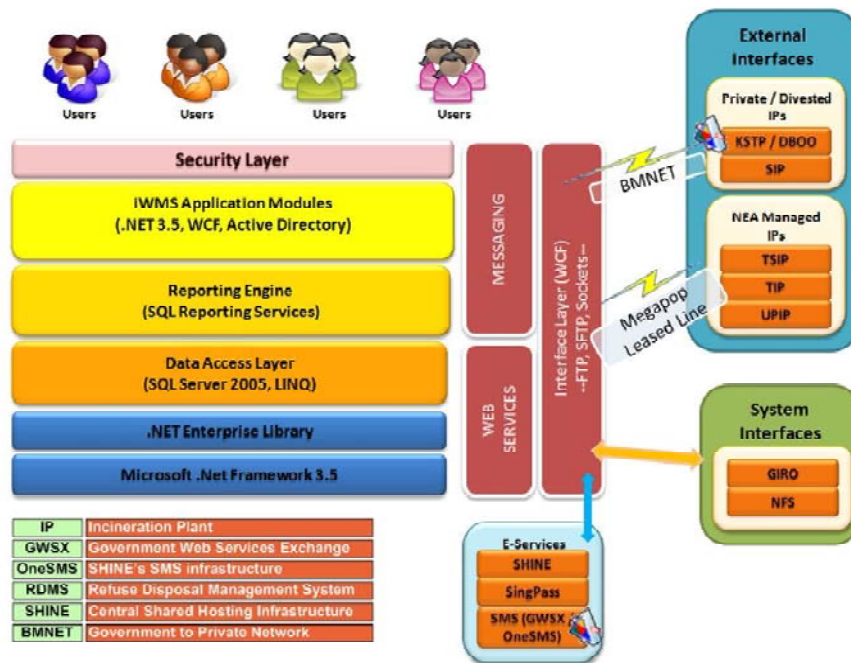
- **Hand picked teams** for project execution
- Good **domain knowledge**
- **Certified** project managers and team
- **100% delivery commitment** by management

### Process

- **Proven** project management **methodology**
- Focus in **improving business processes**
- Independent **QA and documentation** teams
- **ITIL approach** to service delivery

### Technology

- Cutting edge **latest technology**
- **Configurable** systems to adapt to change
- Application Lifecycle Management using **best practices & tools**
- **Right shored** technology tools / centre of excellence
- Strong **partnerships** with technology vendors



## Alliances and Partners



**Microsoft** Partner

- Gold Server Platform
- Gold Desktop
- Gold Digital Marketing
- Gold Mobility
- Silver Web Development
- Silver Portals and Collaboration

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