

**Industry:**  
**Travel Tourism and Hospitality**

## From Legacy Middleware to a Future-Ready Hybrid MuleSoft Platform

Modernizing Security, HR Data Exchange, and CRM Migration for a Leading Integrated Resort

### Project Overview

A leading integrated resort in Singapore needed to modernize a fragmented integration landscape spanning internal security systems, HR data exchange, enterprise CRM, and on-premises data platforms.

The existing environment relied on legacy BizTalk integrations and batch-based EJM processing, creating challenges around maintainability, observability, security, scalability, and operational recovery.

ProwessSoft re-platformed the integration environment onto MuleSoft Anypoint Platform using a hybrid deployment model: CloudHub 2.0 for cloud-native and high-volume workloads, and an on-premises MuleSoft runtime for latency-sensitive, file-based, and internally secured workflows.

### The Challenge

- Legacy BizTalk integration approaching end of supportability
- Batch-based EJM jobs with limited visibility and manual recovery
- Sensitive HR data requiring secure encryption and decryption workflows
- High-volume CRM migration requiring duplicate-safe processing
- Need to bridge cloud and on-premises systems securely
- Limited centralized logging, alerting, and operational observability

### The Turning Point

The organization adopted MuleSoft as the strategic integration platform to modernize legacy middleware, secure sensitive data exchange, and support high-volume CRM migration.

The transformation focused on:

- BizTalk and EJM modernization
- Hybrid MuleSoft deployment & API-led connectivity
- Secure encryption and decryption workflows & Bulk CRM data migration
- Centralized testing, monitoring, and alerting

### The Approach: Hybrid Integration Modernization

#### Phase 1: Security & Access Integration Modernization

- Replaced legacy BizTalk-based ISMS-to-FRS integration
- Implemented API-led design using Experience and System APIs
- Preserved existing business workflows while improving observability
- Added centralized logging, validation, and alerting

**10**

**Use Cases Delivered**

Security, HR, and CRM modernization

**1.5M+**

**Records Migrated**

High-volume CRM data migration

**2**

**Legacy Platforms Retired**

BizTalk and EJM replaced

**2**

**Deployment Models**

CloudHub 2.0 + on-premise runtime

#### Platforms Integrated



Phase 2: Secure File Exchange Modernization

- Replaced EJM batch jobs with MuleSoft encryption/decryption flows
- Implemented OpenPGP-based file encryption and decryption
- Decoupled source polling and processing flows for resilience
- Added alert-driven error handling and audit-ready folder lifecycle

Phase 3: Enterprise CRM Data Migration

- Migrated approximately 1.5–1.6-million-member records to Salesforce CRM
- Used Salesforce Bulk API for high-volume processing
- Implemented duplicate-safe upsert design for retries and reruns
- Enabled CloudHub-to-on-premises connectivity through AWS Transit Gateway

Hybrid MuleSoft Architecture Advantage

The solution established a secure hybrid integration architecture across cloud and on-premises environments.

- CloudHub 2.0 for cloud-native and high-volume workloads
- On-premises Mule runtime for internal and latency-sensitive workflows
- AWS Transit Gateway for secure private cloud-to-on-premises connectivity
- F5 load balancing for on-premises runtime readiness
- Layered security across LDAP, Client ID/Secret, NTLM, TLS, PGP, AES/CBC, and OAuth 2.0

From Fragmented Legacy Integrations to Secure Hybrid MuleSoft Architecture

| Before                                    | After                                               |
|-------------------------------------------|-----------------------------------------------------|
| BizTalk and EJM-based legacy integrations | MuleSoft API-led and hybrid integration platform    |
| Point-to-point connectivity               | Experience APIs, System APIs, and reusable patterns |
| Manual log review and limited alerting    | Centralized logging and alert-driven notifications  |
| Batch-based file processing               | Decoupled scheduler-driven flows                    |
| Basic file and network-level controls     | Layered authentication and encryption               |

The Business Impact

- Retired legacy BizTalk and EJM-based integration processes
- Improved operational resilience through decoupled, scheduler-driven flows
- Reduced manual intervention through centralized alerts & classified error handling
- Strengthened security with layered authentication & encryption controls
- Enabled secure cloud-to-on-premises connectivity through AWS Transit Gateway & Established a future-ready hybrid MuleSoft platform for scale and high availability

What This Enabled

- More reliable security and access integrations
- Secure HR data exchange with stronger auditability
- High-volume CRM migration with duplicate-safe processing
- Improved operational monitoring and faster error response
- Better scalability across cloud and on-premise systems
- Foundation for future HA Unicast clustering and platform scale-out

Ready to Modernize Legacy Integration Platforms?

Transform fragmented legacy middleware into a secure, scalable & hybrid MuleSoft integration architecture.

### Why ProwessSoft

- Deep expertise in MuleSoft modernization and hybrid deployment
- Proven experience replacing legacy middleware with API-led architecture
- Strong capabilities in secure file processing, encryption, and enterprise data migration
- End-to-end ownership across platform setup, SIT, QA, MUnit, and performance testing
- Focus on scalable, secure, and future-ready integration architecture

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