Integration modernisation

AN IT MANAGER'S GUIDE

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Introduction

When your business systems can't talk to each other effectively, it's not just an IT headache - it's a handbrake on your entire organisation. Because of that, integration modernisation is a critical priority for IT managers tasked with maintaining and improving their organisation's technical infrastructure.

But what exactly is integration modernisation? What does modernisation mean for your business? And how should you approach the market?

Digital transformation specialist, Seisma Group, has extensive experience helping organisations modernise their integration layers. Here's their practical guide to the options available.

Brought to you by

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Understanding integration modernisation

Integration modernisation is about enabling applications to communicate effectively while reducing technical debt and improving system reliability.

As Matthew Holloway, Seisma's Cloud Solution Architect explains:

> *"Integration modernisation is about creating seamless, efficient communication between applications. Legacy systems, built on large, monolithic software, are costly, complex, and require constant maintenance to keep up with evolving business needs."*

"Modern integration approaches, powered by cloud infrastructure and serverless technologies, eliminate these constraints. They offer greater scalability, flexibility, and resilience - reducing operational costs while enabling businesses to innovate faster and adapt effortlessly to change."

Why integration modernisation matters:
Real-world challenges

In a rapidly evolving digital landscape, legacy middleware can severely impact an organisation's ability to compete, innovate, and grow.

Common pain points often include:

- High maintenance costs and resource demands
- Limited scalability and performance issues
- Security vulnerabilities
- Difficulty in implementing changes or new features
- Integration challenges with modern applications
- Rising technical debt

"The amount of effort required to maintain legacy systems is significant and ever-increasing," says **Matthew Page**, Seisma's Technical Delivery Manager, "so for organisations with in-house IT teams, modernisation means less time spent keeping the lights on and more time focused on value-adding activities."

"Once organisations modernise their integration layer, they have a much greater opportunity to advance their product roadmap. They're no longer held back by integration systems that can't handle new requirements or increased capacity."

"Modern integration systems can scale to meet virtually any demand. Unlike legacy platforms with hard performance limits, cloud-based solutions can scale out as needed, handling increased loads while maintaining reliability."

By moving from legacy systems to modern cloud-based solutions, organisations can significantly reduce operational costs. What previously cost thousands can often be delivered for a fraction of the cost using modern serverless architectures.

Red flags to watch for:

Risk area	Red flag	Key leadership action
Change resistance	Team uses old workarounds	Clear communication champions, phased rollout
Data quality issues	Poor data reliability & post-modernisation	Pre-migration data audit, governance, MDM
Hidden technical debt	Unexpected system failures	Dependency analysis, API-first transition
Monitoring gaps	Business users report issues first	Real-time alerts, AI-driven issue detection
Vendor lock-in	High migration cost if switching vendors	Open standards, flexible contracts, multi-cloud strategy

5 things to consider when planning an integration modernisation project

When planning an integration modernisation project, IT managers need to balance business priorities, technical risks, and long-term scalability. Here are the top five things they should consider:

1 Business value first, technology second.

Why it matters:
Modernisation isn't just an IT exercise - it must align with business goals like faster service delivery, cost reduction, and better customer experiences.

Key questions:
- What business outcomes are we trying to achieve (e.g., automation, real-time data, AI-readiness)?
- Which integrations are business-critical vs. legacy technical debt?
- What is the ROI of modernisation vs. maintaining the status quo?

Tip: Prioritise integrations that provide immediate business value (e.g., customer-facing services, automation of manual processes).

2 Security compliance from day one

Why it matters:

Legacy integrations often have poor security controls (e.g., outdated authentication, unencrypted data transfers). Modernising without a security-first mindset creates new vulnerabilities.

Key questions:

- Are existing integrations secure &compliant with industry regulations (e.g., GDPR, CDR, PCI-DSS)?
- How do we secure APIs and prevent data leaks (e.g., OAuth 2.0, Zero Trust, encryption)?
- How do we monitor and respond to integration security threats in real-time?

Tip: Implement secure-by-design integration with API gateways, access controls, and automated security scans.

3 Avoiding the 'big-bang': Plan for incremental modernisation

Why it matters:

A full rip-and-replace approach is risky, expensive, and disruptive. A phased, incremental strategy reduces risk and allows for continuous value delivery.

Key questions:

- Which integrations can be modernised first with minimal disruption?
- Can we wrap legacy systems with APIs instead of replacing them immediately?
- How do we ensure business continuity during migration?

Tip: Start with API-enabling legacy systems before replacing them entirely. Move from batch-based to event-driven integration step by step.

4 Choosing the right technology for now & the future

Why it matters:

Many IT leaders fall into the trap of either over-engineering a solution or choosing tools that don't scale.

Key questions:

- Should we use an integration platform (iPaaS) or custom-built APIs?
- Do we need hybrid or multi-cloud integration capabilities?
- How do we prevent vendor lock-in while ensuring scalability?

Tip: Use API-first, event-driven, and cloud-native integration where possible. Ensure technology decisions align with long-term strategy, not just short-term fixes.

5 Governance & operational readiness

Why it matters:

Without proper governance, integration modernisation can lead to shadow IT, API sprawl, and unmanageable complexity.

Key questions:

- How will we standardise APIs across teams (naming, security, lifecycle management)?
- Who is responsible for maintaining and evolving integrations? How do we measure
- success (KPIs like like integration performance, downtime, business impact)?

Tip: Establish an Integration Centre of Excellence (CoE) or clear ownership to manage API standards, security, and monitoring.

Seisma's approach to integration modernisation

Successful integration modernisation requires both industry knowledge and technical chops. Drawing on experience across myriad government and enterprise projects, Seisma has developed a framework that emphasises forethought, platform flexibility, and local expertise.

"Our discovery process begins with trying to understand the fundamental challenges an organisation is facing," explains Holloway.

"What's actually driving the need for change? Where are the current pain points?"

Common challenges can include:

- Performance issues that impact business operations
- Systems that frequently crash or require constant maintenance
- Cost pressures from expensive legacy licenses
- Security concerns that need addressing
- Technical debt that's limiting business agility

"From there, we conduct a comprehensive assessment that covers existing integration infrastructure, cloud readiness, system interconnectivity requirements, and any custom functionality needed to support specific business processes. This thorough discovery ensures we design solutions that truly address the organisation's needs."

"Unlike many providers who are locked into specific platforms, Seisma offers truly platform-agnostic solutions across AWS, Azure, and Google Cloud. This means we can recommend the best solution for your specific needs, not just what we're partnered to sell."

Based in Australia and New Zealand, Seisma's integration modernisation team provides direct access to technical experts who understand local business and compliance requirements.

"Our discovery process begins with trying to understand the fundamental challenges an organisation is facing," explains Holloway.
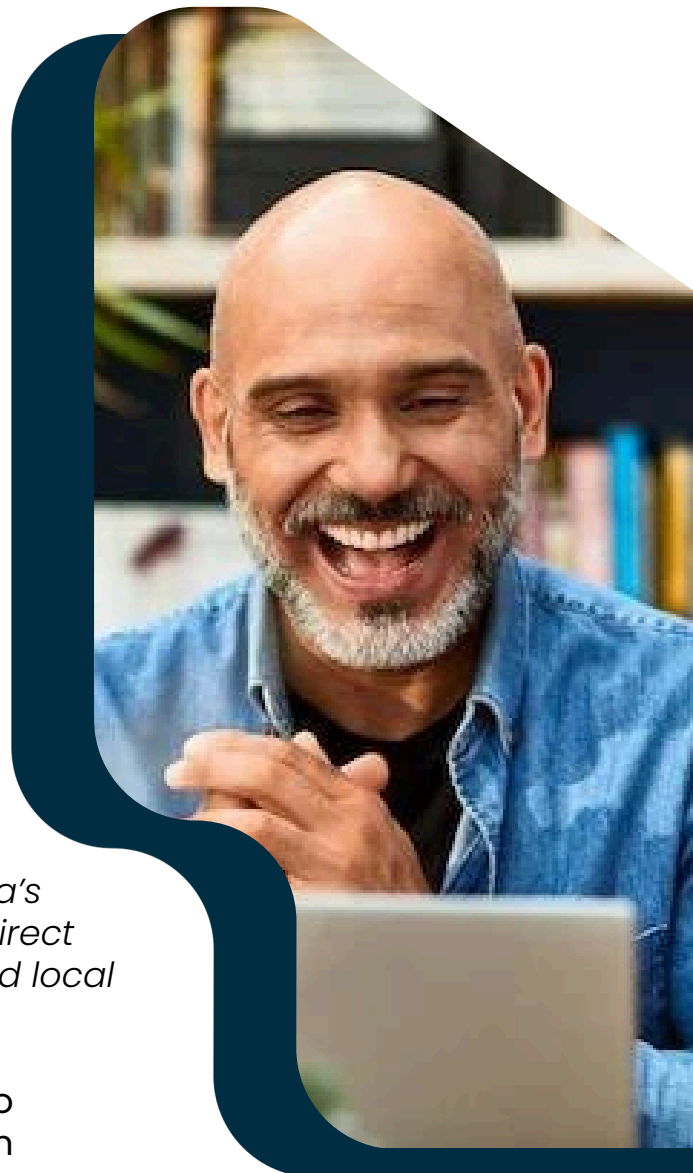
3 options for integration modernisation

1 Local expertise

While many organisations rely on traditional middleware solutions like WSO2 or MuleSoft, these large-scale enterprise products can come with significant costs and maintenance challenges.

> *"When people think of middleware, they often gravitate towards those big enterprise products,"* says Holloway. *"But do you really need all the features and overhead they provide?"*

For some organisations, modern custom-built integration solutions using modern cloud services can provide the same capabilities at a fraction of the cost of traditional products. "We can build something that's going to meet your needs and remain scalable, but without the price tag of a licensed product," explains Page. "This approach allows organisations to right-size their integration solution rather than paying for enterprise features they may never use."

2 API-based integration

API-based integration - connecting software applications and systems using Application Programming Interfaces - is a go-to approach for many due to its flexibility and efficiency.

The advantages of using API-based integration include:

- Ideal for connecting diverse systems and applications
- Provides standardised communication methods
- Enables scalable, secure data exchange
- Can work with both legacy and modern systems

"We worked with a client whose outdated integration platform was unreliable, frequently crashing and requiring manual overnight restarts just to keep operations running. It wasn't sustainable. The business case for modernising their integration practically wrote itself.

By moving to a serverless, cloud-native solution on AWS, the impact was immediate:

- *The team no longer needed paper-based backup processes.*
- *Faster, more accurate data processing meant fewer delays and errors.*
- *The new platform handled peak loads effortlessly.*
- *Advanced monitoring tools provided real-time insights, making maintenance far more efficient.*
- *Instead of spending resources on maintaining outdated systems, the client could reinvest in growth and innovation.*

This shift future-proofed their operations. Now, instead of constantly 'keeping the lights on,' their team can focus on adding real business value. That's the real power of modern integration."

Luke Tosswill - Head of Delivery for Modernisation, Seisma Group

3 Cloud-native integration solutions

Cloud-native integration solutions leverage cloud services and serverless technologies to create flexible, cost-effective integration layers. Cloud-native integration eliminates the need for extensive infrastructure management while providing enhanced security and compliance features. Through automated scaling, organisations only pay for the computing resources they actually use, resulting in a more flexible, reliable integration layer that can adapt with organisational needs while significantly reducing operational costs.

"Legacy systems often become unreliable, expensive, and difficult to scale," says Page.

"Modernising these systems can improve that of course, but simply moving systems to the cloud without modernising them - what's often called 'your mess for less' - isn't true modernisation."

"It's better to reimagine your integration approach completely to try and better leverage cloud-native capabilities. Instead of just hosting old systems in the cloud, take advantage of modern cloud services, which can dramatically reduce both costs and complexity."

The winning formula for IT Managers

Business driven

Modernisation must create real business value.

Security-first

Every integration should be secure by design.

Incremental execution

Avoid big-bang changes, modernise in low-risk phases.

Scalable technology

Use future-proof, API-first, cloud-native approaches.

Continuous optimisation

Monitor, measure, and evolve integrations over time.

The Integration Modernisation Roadmap

1. Strategy & planning

- Definebusiness goals &painpoints
- Conduct integration & security audit
- Prioritise critical integrations
- Build an ROI-driven business case
- Secure leadership buy-in

2. Quick wins & API foundations

- Exposelegacy systems via APIs
- Implement API gateway & security controls
- Automate key processes (reduce manual work)
- Introduce hybrid/cloud-native integration options

3. Scale & optimise

- Migrate business-critical workflows
- Transition to event-driven & real-time integration
- Expand multi-cloud & SaaS integrations
- Standardise API governance & security

4. Financial plan

- ImplementAI-drivenintegrations & automation
- Enable real-time event processing & analytics
- Ensure cost-efficiency & vendor flexibility
- Establish long-term integration CoE (Centre of Excellence)

An IT Manager's integration modernisation checklist

Business strategy & goals

☐ Have we aligned the modernisation plan with current and future business priorities?

☐ Have we identified critical pain points in existing integration platforms?

☐ Do we have clear success metrics (ROI, efficiency gains, risk reduction)

Security & governance

☐ Have we audited existing integrations for vulnerabilities?

☐ Have we defined API security policies (OAuth, Zero, Trust, data encryption)?

☐ Are we enforcing governance standards for integration lifecycle management?

Phased execution & risk management

☐ Have we prioritised low-risk, high-impact integrations first?

☐ Do we have a rollback plan for each phase?

☐ Are we ensuring business continuity during transitions?

Technology selection

☐ Have we chosen API-first, event-driven, cloud-native technologies?

☐ Are we balancing custom vs. iPaaS solutions effectively?

☐ Have we planned for multi-cloud & hybrid integrations?

Performance monitoring & continuous optimisation

☐ Do we have real-time monitoring in place for integrations?

☐ Are we using automation to detect & resolve integration failures?

☐ Do we have a feedback loop for continuous improvement?

People change & management

☐ Have we invested in upskilling teams on modern integration methodologies?

☐ Have we encouraged cross-functional collaboration between IT and business teams?

☐ Are we implementing a structured change management program to minimise resistance?

☐ Are we fostering an innovation-driven culture that embraces automation and agility?

☐ Can we communicate the benefits of modernisation clearly to end-users and leadership?

Why choose Seisma for integration modernisation?

Local expertise

Our team brings decades of experience in both legacy systems and modern cloud solutions, with a deep understanding of Australian and New Zealand business requirements.

Proven track record

We've successfully delivered integration modernisation projects for major organisations including VTNZ, Energy Market Services, and various government departments.

Collaborative approach

We work alongside your team, providing knowledge transfer and ensuring solutions align with your capabilities and needs.

Long-term partnership

Many of our clients have been with us for decades, trusting us to guide their technology evolution.

Take the next step

Contact Us: Contact Seisma today to discuss your integration modernisation needs. Our local team of experts will work with you to develop a practical, effective modernisation strategy that delivers real business value.

Book an integration modernisation assessment: To evaluate your current integration landscape and identify opportunities for improvement.

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