

CASE STUDY

Delivering Performance Testing to a State Government Statutory Authority

AT A GLANCE

Industry

State Government

Capability

Performance Testing | Test Automation |
Test Data Management

Solution

Independent performance testing and
assurance

The Challenge

Ensuring cloud platform performance under production
workloads

The Outcome

- KJR identified a significant bond lodgement bottleneck
- 10x system performance improvement
- Validated the full bond lifecycle performance



BACKGROUND

The Authority's myRTA modernisation program encompassed migrating its bond management system from a legacy application stack to Microsoft Dynamics 365 and Power Pages. With around 280 internal users and up to 4,000 public transactions each day, the customer required performance testing to provide confidence that its new cloud platform was ready for production.

THE CHALLENGE

The customer was migrating its bond management platform myRTA from a legacy application to Microsoft Dynamics 365 and Power Pages. Before go-live they needed to verify that its new cloud platform could reliably support bond lodgements and refunds at expected production workloads.

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WHAT KJR DELIVERED

KJR provided independent performance testing and assurance across the end-to-end myRTA business process including bond lodgement, bond payments and bond refunds.

KJR's approach was to:

- Clarify the non-functional requirements, performance test scope and approach in a performance test plan,
- Simulate the business processes in a set of automated JMeter test scripts,
- Execute performance testing,
- Provide evidence-based recommendations in a performance test execution report
- Collaborate with the development team to resolve bottlenecks

HOW WE DID IT

01

Discover & Assess

- Defined performance objectives, non-functional requirements and test approach
- Delivered a performance test plan

02

Assure & Validate

- Automated bond lodgement, bulk bond lodgement and bond refund including session recovery in JMeter.
- Integrated QDI two-factor authentication into JMeter performance test scripts.
- Executed the performance tests to simulate users lodging and refunding bonds.

03

Release with Confidence

- Identified a bond ID generation bottleneck limiting bond lodgement
- Collaborated with customer and their development teams to mitigate the bond ID generation bottleneck
- Documented performance test (test limitations, observations, risks, recommendations and detailed test results) in a performance test execution report

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IMPACT & BUSINESS OUTCOMES

- ✓ **Identified** and helped to resolve a critical bond creation bottleneck before production deployment. This increased bond lodgements by 10x.
- ✓ **Reduced** delivery and operational risk through independent performance quality engineering and evidence-based recommendations.
- ✓ **Validated** end-to-end bond lodgement and refund workflows under load.
- ✓ **Increased** confidence for a successful migration to Microsoft Dynamics 365 and Power Pages.



WHY KJR

- KJR combines specialist performance engineering expertise with a collaborative delivery model.
- KJR's consultants have extensive experience testing complex government and enterprise platforms like Microsoft Dynamics 365 and high-volume transactional systems.
- Rather than simply reporting defects, the KJR team collaborates with project teams to understand the underlying causes, validate improvements and help deliver stable, scalable production ready solutions.

TECHNOLOGY VALIDATED

The following technologies were validated as part of the engagement:

MS Dynamics 365, Power Pages, Apache JMeter and Commonwealth BPAY for Business



CUSTOMER TESTIMONIAL

KJR were very easy to work with and showed a clear understanding of our requirements from the outset. They communicated effectively, responded promptly, and delivered outcomes that aligned well with what we needed, making the overall experience smooth and efficient.