



Client: Government organisation processing electoral services

Project: Ballot Paper Entry Returns (BPER)

TOOLS & TECHNOLOGIES







ABOUT US

Our services are purposefully designed to provide a cohesive experience for organisations embarking on digital transformation. Our business aptitude is your advisory, our technical skills are your project delivery and our training roots enables your team to build upon success.

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BACKGROUND

An independent and impartial state government body that runs state, local council and statutory elections faced a challenge with their Election Management System (EMS), specifically with the slow performance when processing returned envelope barcodes. This issue impacted their ability to receive and process returned postal ballots – resulting in delays to determining the election outcome. This will significantly impact the upcoming Local Government (Council) postal election in the second half of 2024.

CHALLENGE

Anodically at peak load the election management system was taking up to 20 minutes to process a batch of 50 returned postal ballot barcodes (the business expectation was around 2 minutes). The client needed to identify and address the performance issues to improve the postal ballot barcode scanning processing.

SOLUTION

KJR, a trusted software quality engineering consulting firm were engaged to deliver performance testing on the EMS BPER component. The KJR consultants created a comprehensive performance test approach, reusable automated JMeter scripts for testing, a set of database SQL scripts to extract election barcodes/reset barcode scanning, executed performance, and reported on the test outcomes.

DELIVERABLES

The project deliverables included; a performance test plan, a set of reusable JMeter scripts for performance testing, SQL scripts for resetting and extracting mail in ballot barcodes, a baseline performance test to provide quantitative as-is performance, a set of comparison performance tests to verify the performance issues are addressed, and reports on the test outcomes and recommendations for improving the BPER component performance

KEY OUTCOMES

The performance testing conducted by KJR identified a set of slow REST requests within the BPER component and verified the performance issues were addressed. The client now have the confidence the returned mail in barcode scanning will not delay announcing the 2024 local government election outcome.

VALUE TO CLIENT

The client can now go into the Local Government election with confidence their returned ballot entry process will not delay determining the Local Government election outcome.

