HEALTHCARE SECTOR

CAPABILITY STATEMENT

ASSURING DIGITAL SUCCESS SINCE 1997

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KJR®

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KJR is a trusted Australian technology consultancy with over 27 years' experience delivering critical software assurance, testing, and AI capabilities across the healthcare sector. We help governments and hospitals deliver secure, interoperable, and patient-centred digital transformation while reducing ICT risk and improving clinical outcomes.

IMPACT OF TECHNOLOGY ON THE HEALTHCARE SECTOR

Technology is reshaping Australia's healthcare landscape, delivering smarter, faster, and safer care. From hospitals to research facilities, the adoption of advanced digital solutions is enabling better patient outcomes and more efficient health services.

Key technological advancements transforming the industry include:

Electronic Medical Records (EMRs)

enable instant access to patient history, improving diagnosis accuracy and clinical decision-making

Telehealth & Virtual Care Platforms

extend care to rural and remote communities, reducing travel burden and wait times for patients

Artificial Intelligence (AI) & Machine Learning

support early risk detection, optimise workflows, and drive intelligent automation in diagnostics & treatment planning

Interoperability (HL7, FHIR)

ensure seamless data sharing across systems, allowing clinicians to collaborate more effectively and reduce duplication of services, securely and safely

Automated Testing & Assurance Tools

improve system reliability, reduce rollout delays, and mitigate risks across complex ICT programs

Data De-identification & Governance Tools

Allow safe use of real-world clinical data for innovation, while protecting patient privacy and maintaining compliance

By embracing these technologies, healthcare organisations can enhance care quality, empower clinicians, and unlock new efficiencies across the entire system.

Data and business rule migration all requires extensive testing – where KJR stands at the fore

OUR SERVICES

KJR's specialty services are crucial for delivering high-quality, secure, and reliable software products to customers. These services help customers achieve operational efficiency, reduce costs, ensure compliance, and build trust with their end-users.

Our key services cover four disciplines:

TRUSTED AI ADOPTION

With over a decade of direct experience in the AI field, we have always understood the importance of managing IT risk and how to deliver AI in a safe and guided low-risk manner. AI Assurance and Data Quality play critical roles in the healthcare sector, ensuring that technological advancements are reliable, efficient, and trustworthy.

SOFTWARE QUALITY ASSURANCE (SQA)

Founded on software testing in 1997, KJR continues to deliver expertise in testing and quality assurance 27 years on. SQA ensures software systems in the healthcare sector are reliable, secure, and compliant, playing a crucial role in maintaining operational efficiency, enhancing patient satisfaction, and supporting the integration of new technologies.

DEVSECOPS

With security concerns now more paramount than ever, KJR's practical approach to DevSecOps ensures security is addressed during every stage of your software lifecycle. By integrating DevSecOps practices, the healthcare sector can enhance its security posture, ensure regulatory compliance, improve operational resilience, and achieve more efficient development and deployment processes.

VDML

VDML (Validation Driven Machine Learning) is a methodology developed by KJR to guide customers in their development of robust and reliable Machine Learning models to deliver AI solutions. Such solutions can significantly enhance operational efficiency in the healthcare sector and improve patient service, ultimately leading to a more reliable and efficient healthcare system.

INDUSTRY EXPERIENCE

KJR has deep experience working with some of Australia's largest healthcare institutions on transformative digital projects. The following provides a summary of just five of our projects:

KJR partnered with the Victorian Department of Health to provide independent assurance for the cloud migration and upgrade of its critical Application Lifecycle Management (ALM) platform. The legacy on-premise system was essential for software testing and release management but had become increasingly inflexible and costly. With high dependency across multiple health agencies, the migration posed significant risks to data integrity, system continuity, and user access.

KJR conducted a detailed risk assessment, applied AI-informed prioritisation, and monitored the migration in real time alongside vendor OpenText. Deliverables included a tailored assurance framework, compliance checks, and post-migration validation of project data and access controls.

The result was a seamless transition to the SaaS Flex cloud platform with 100% data retention and improved performance. KJR's oversight ensured that the Department achieved its cloud-first strategy securely and efficiently, enabling more scalable, resilient, and cost-effective digital health services.

CLOUD MIGRATION

AI ADOPTION

KJR partnered with Datarwe to develop an AI-powered Natural Language Processing (NLP) solution for de-identifying sensitive clinical notes. Datarwe, a health data platform provider, collects large volumes of unstructured ICU data, such as doctor's notes and observations, for use in research and AI model development. However, this data often contains personally identifiable information (PII), requiring a robust privacy-preserving solution.

The challenge lay in accurately identifying and redacting PII in highly variable, unstructured text typical of clinical settings. KJR addressed this by designing a custom NLP pipeline combining named entity recognition (NER) and rule-based filters. The model was trained and validated using real-world, anonymised clinical data, achieving over 95% accuracy in detecting and masking sensitive information.

KJR delivered a production-ready, containerised NLP model, evaluation metrics, integration support, and a scalable framework for future de-identification tasks. *The solution significantly reduced manual redaction efforts and enabled safe, compliant sharing of clinical text for AI research.*

INDUSTRY EXPERIENCE

A large national healthcare provider engaged KJR to support the transformation of its pathology services through the replacement of its legacy Laboratory Information System (LIS) with a modern, cloud-based platform. The goal was to migrate to CIRDAN's Ultra solution to enhance service delivery, future-proof operations, and remain competitive in a rapidly evolving healthcare market.

The project faced complex challenges, including unstable non-production environments, insufficient test infrastructure, undocumented system requirements, and limited interdepartmental testing capacity. KJR implemented a comprehensive test management strategy tailored to the project's multi-stream structure and agile development model.

KJR's solution included the delivery of a program-wide test strategy, test case prioritisation framework, and end-to-end traceability using a test management tool. Sensitive data was filtered out of the test environment, a stable non-prod platform was established, and collaboration between business and technical teams was strengthened.

The project delivered Australia's first cloud-based, specimen-centric LIS, achieving NATA and PGA accreditation. It also enabled improved services for doctors and patients in collection, testing, reporting, and billing.

KJR's leadership in risk-based testing and test automation helped close over 3,100 defects and execute more than 9,000 test cases, setting a benchmark for future healthcare digital transformation initiatives.

MIGRATION PROJECT

"KJR understands that in healthcare, technology isn't just about efficiency — it's about trust, safety, and better outcomes. Our deep domain expertise, rigorous assurance frameworks, and proven delivery make us the ideal partner to de-risk digital transformation and deliver meaningful outcomes for patients and clinicians alike."

INDUSTRY EXPERIENCE

DATA & AI ASSURANCE

KJR partnered with health data platform Datarwe to deliver data assurance and AI validation for a healthcare dashboard focused on ICU patient data. Datarwe collects high-frequency, real-time clinical data from Intensive Care Units (ICUs) to power AI models that enable precision medicine and operational efficiency. However, leveraging this sensitive data required robust governance, privacy protection, and machine learning assurance.

KJR provided comprehensive quality assurance, including validating data quality, securing access, and ensuring privacy through automated de-identification processes. This included training AI models to detect and redact personally identifiable information, such as names and locations, and refining those models to adapt to Australian healthcare contexts.

KJR also implemented a secure labelling platform for clinical information, allowing pre-trained models to be improved using local data. Their expertise in MLOps (machine learning operations), data governance, and AI assurance enabled safe, scalable deployment of machine learning systems in a clinical setting.

As a result, *Datarwe gained a reliable, privacy-compliant data platform that hospitals and researchers could trust, empowering the development of predictive models to improve patient outcomes and reduce pressure on healthcare services*. The partnership highlights KJR's critical role in ensuring AI solutions are safe, effective, and ethical in real-world healthcare environments.

datarwe

SYSTEM UPGRADE

A government healthcare organisation engaged KJR to support a critical system upgrade to its Patient Care Management System (PCMS) and Citrix infrastructure. With a long-standing partnership in place, and deep expertise in Micro Focus LoadRunner, KJR was selected to upgrade the load testing environment to ensure performance continuity across the updated systems.

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INDUSTRY EXPERIENCE

CONTINUED

KJR successfully upgraded LoadRunner to version 2021 R2 and redeveloped load testing scripts to match changes in the PCMS and Citrix platforms. During performance testing, KJR identified a system issue where PCMS stopped responding to keyboard input under load. To mitigate this, KJR enhanced the scripts with logic to switch to mouse-click navigation when necessary, demonstrating adaptive problem-solving under pressure.

In addition to resolving performance blockers, KJR patched known security vulnerabilities and fixed reporting issues within LoadRunner. All scripts were thoroughly tested to support load conditions of up to 350 users, ensuring reliable performance validation for future testing cycles.

As a result, *the organisation now has an optimised, reusable testing suite aligned with its upgraded infrastructure, supporting efficiency, reliability, and ongoing quality assurance across its healthcare applications.* KJR's expertise provided assurance and stability through a high-impact digital transition.

OUR HISTORY

1997

With Y2K approaching, demand was high for technology and software testing. K.J. Ross and Associates was established in a garage on the Gold Coast by Kelvin J. Ross in 1997.

NOW

KJR has now grown to approximately 120 staff across four offices nationally. We're proud to say we have multiple staff whom have been with us for decades, and many long-term customers we continue to work with today.

KJR

KJR is a proud Australian-owned company which believes in harnessing technology for meaningful impact. With over 27 years in the tech industry, we are committed to delivering world-class professional services at a human scale.

Distinguished by our dedication to de-risking the technology landscape our customers navigate, we apply our industry-leading expertise in AI and software quality assurance to ensure our customers realise the full potential of their technology programs.

TOOLS & TECHNOLOGY

KJR has extensive technical experience delivering successful outcomes for customers. Here's a snapshot:

- UFT
- **Selenium**
- Microsoft Dynamics
- Microsoft Azure
- PEGA
- Pulse (Salesforce)
- XPRO
- Boomi
- **Databricks**

- Montage
- Octopus Deploy
- Team City
- BitBucket
- Azure Services
- Tricentis QTest
- **Load Runner**
- ServiceNow

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KJR provides the specialist skills to define project risk, testing, and assurance requirements

HEALTHCARE SECTOR

CAPABILITY STATEMENT

https://www.kjr.com.au

info@kjr.com.au

1300 854 063

CONTACT YOUR LOCAL KJR GENERAL MANAGER:

Queensland
Graham Cummins
graham.cummins@kjr.com.au
0416 551 811

Victoria
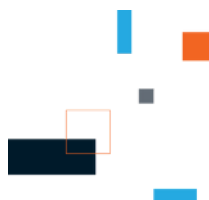Anil Kumar
anil.kumar@kjr.com.au
0404 441 695

ACT & New South Wales
Andrew Hammond
andrew.hammond@kjr.com.au
0416 007 055

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