



### **Project Portfolio**

#### Our team

Kaleidocode consists of a talented team of architects, developers, analysts and project managers that have worked closely on a wide variety of challenging enterprise software projects and products.

### **Projects**

Kaleidocode has had the privilege of being invited to work on high value enterprise software projects. A sample of these are described below.

Product: Banking Platform Client: SA Home Loans



A FRESH APPROACH TO HOME FINANCE

Bolstered the SAHL infrastructure team to assist with designing and implementing infrastructural core for next generation banking platform.

This software is the structure that undergirds internal and external web applications for processing loan applications, managing loan facilities and providing 3<sup>rd</sup> party services – e.g. attorney conveyancing.

The software is built as a service orientated architecture distributed via dockerised containers, utilizing event sourcing and service buses.

Our team assisted with implementation of core infrastructure, primarily the API interfaces, projection data sources, as well as the core framework and domain services employing domain driven design principles.

Technologies employed: C#, Nancy, Docker, T4 Templates, Angular, RabbitMQ, Solr, Node, Gulp, Grunt, Postgres, Linux.

**Product: Scalable Sales Applications** 

**Client: Rewardsco** 



Designed and implemented a web based sales application for outbound sales.

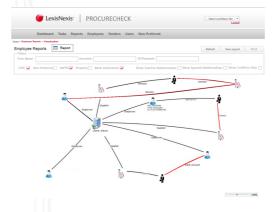
The application has:

- A modern Bootstrap interface
- Integrated dialer
- Flexible sales campaign management
- · Optimised back office management

Our team conducted a turnkey project comprising Analysis, Project Management through to Architecture and Development. This system comprised integration to a 3<sup>rd</sup> party dialer and the agent interface is delivered over Terminal services. Technologies employed: HTML5, C#, ASP.NET MVC, and SQL2012.

**Product: Fraud Detection System** 

**Client: LexisNexis Risk** 







High performance vendor fraud detection via intelligent graph data processing.

The project consisted of supercharging the performance of the existing SQL relational solution by implementing a graph database solution, and managing workload via a parallel services bus processing engine.

The application provides insight into potential fraud by comparing data on employees and vendors of large corporates and SOE's.

Our team managed the project, conducting the design, project management and software implementation. Technologies employed: C#, Neo4J, NServiceBus.

Product: LexisMobile – Legal Research Client: LexisNexis Research



Designed and implemented powerful Xamarin mobile application.

Kaleidocode was tasked with developing three mobile clients; Windows desktop, Android and IOS. The project included extensive server side processing of legal publications distributed via a high performance API to multiple mobile clients.

Xamarin was used to write the common PCL code on the mobile clients enabling 70% common code base between all clients. Data was stored locally on device using SQLLite technology.

The project required requirements gathering, review of competitive products, and design of a standard mobile product. Technologies employed: Xamarin,

SQLLite, C#, ASP.NET and SQL2012.

Product: Employee Housing Enrolment Client: Government Employee Housing Scheme/SA Home Loans



Turnkey project to support enrolment of housing requirements for potentially up to 1 million government employees.

This web application registers employees, aids enrolment of their housing requirements with the GEHS.

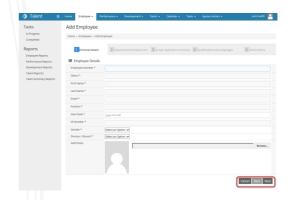
#### Features:

- Enrolment
- Affordability calculations
- Credit reporting integration with Compuscan
- Loan applications integration with SAHL

This system was built for scaling on Microsoft Azure using service instances. Key requirement was to cope with sudden spikes of usage.

The KC team supplied Project Management, Architecture and Software Implementation. Technologies employed: C#, Nancy, Knockout SPA, SQL Azure, Azure Web.

Product: HR Talent Management System Client: Adapt IT/Zamtel



Kaleidocode Portfolio



Implemented a full responsive web application for HR professionals addressing performance contracts, development planning, probations, and skills sourcing.

The talent management application includes:

- Modern responsive user interface
- Comprehensive Employee records
- Performance Contract Workflows
- Development Plan Workflows
- Talent Plans
- Complete Task System
- Notifications
- Flexible configurable schedule and workflows
- Detailed Reporting

KC implemented the application as a turnkey project; from Analysis, Design and Project Management to Coding and Quality Assurance. The system contains a powerful task engine, and is highly configurable to support deployment as a White Label SaaS solution if required.

Technologies employed: HTML5, C#4.0, ASP.NET, Bootstrap, SQL Reporting Services and SQL Server 2012.

Product: Candidate Reference Checking Client: LexisNexis Risk



Designed and implemented a modern interpretation of this industry leading reference checking solution

The completely rebuilt Refcheck Advanced boasts:

- A new look interface
- Faster and Smoother User Experience
- A new range of 31 background checks
- Automated Application status and Document Requirement notification system
- Optimised Back Office system allowing staff to perform check processing faster and more efficiently
- High performance engine for higher check volume throughput

Our team conducted a turnkey project comprising Analysis, Project Management through to Architecture and Development. This system comprised complex integrations, services, and processing engines to meet the requirement for a highly scalable and extensible product.

Technologies employed: HTML5, C#4.0, ASP.NET, NServiceBus and SQL2008.

Product: Editorial Processing African Government Legislation Client: Kenya Law/LexisNexis



Sourced, customised and implemented leading Opensource Java solutions for editorial control and digital legislation publishing.

Kaleidocode integrated leading open source products to provide an end to end editorial publishing system.





The client required an automated workflow controlled management system for XML based legislation. A completely abstracted workflow engine, and middleware ESB were deployed to manage editorial processes and publishing processes to various digital formats.

The project required extensive customisation, middleware implementation and optimisation to provide a performant document management system with automated xml transforms to final publishing formats, including an XML database driven web solution. Products and solutions included: WSO2, eXist-DB, Xquery, XSL, OpenKM, Java, JBPM.

**Product: Fulfilment System** 

**Client: Rewardsco** 



Created a fulfilment application that manages logistics and stock control for Telco device sales.

The application includes:

- Stock management
- Integration into sales applications
- Order management
- Payment controls, sales support
- 3<sup>rd</sup> party interfaces to logistics, banking and risk partners

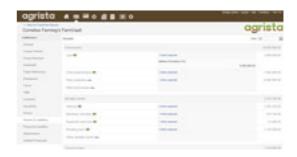
Our team was involved in Analysis, Project Management, Architecture and Development.

Technologies employed: HTML5, C#, ASP.NET MVC, and SQL2012.

**Product: Supply Chain Collaboration** 

**Portal** 

**Client: Agrista** 



Design and build a cutting edge business to business global service for the agri-finance value chain.

This project with a build value estimated at more than R10 million spanned 2 years. Launched internationally in Europe, and Southern Africa, this project was months in conceptual planning and design — with the actual build leading to beta release only taking approximately 9 months.

The team covered the full remit from Analysis and Project management to Architectures and Development. Including advanced features supporting collaborative customer relationship management, online credit processing, loan securities management and inputs procurement.

Used Technologies: HTML5, C#4.0, ASP.NET, NServiceBus and SQL2008.

Product: Structured Finance ERP Client: ABSA Bank/Agrista





# Created and developed a performant facilities ERP for credit providers in the agricultural space.

An ever-evolving product brought to market by Agrista, the team has developed this far reaching web project for more than 4 years. With a build value estimated at over R25 million and supporting well over 3 billion rand per annum in loan facilities, this product is now in version 4.

To build this web-based finance product suite for the Agri-finance industry there was a requirement for a full range of analysis, design and development skills from team members. Implemented at several secure internal and external sites for clients, such as ABSA bank, the team had to pass vendor criteria tests, security penetration tests (by SensePost) and other varied compliance requirements.

Technologies included: C#2.0/3.0/3.5/4.0, ASP.NET, SQL2008.

Product: Mexican-Wave Client: Hogan Lovells



## Analysed and project managed by Rory Clarke in the UK

This innovative project broke ground in the professional services space, supporting a £3 million per annum legal outsourcing contract with Prudential Property Investment Managers, a major UK property fund management company.

This implementation enabled international law firm Hogan Lovells, to control the outsourced workflow of legal transactions to 3rd party legal service providers. Developed completely with .NET technologies as a highly scalable, multi-tier component-oriented architecture, MexNet supplies 128bit security, client billing data, document management, document drafting and transaction management.

Rory Clarke prepared user requirements, performed system design, software build planning and conducted project management and ongoing client liaison.

Technologies used: C#, ASP.NET, SQL2000.

Project: Unit Trust Mgt System Client: Marriott





# Designed and developed by Software Architect, Chris Tite.

This was an ambitious project to re-write the Marriott Unit Trust Management system, running at the time on a mainframe, into a simpler web based application which would cut training time dramatically. The project was to cause such a change in the organization that an Industrial Psychologist was employed full time to manage the change. Taking almost 3 years and costing over R3 million rand to complete, this project was an unmitigated success.

When completed the system managed the unit trusts of three of the largest unit trust companies in South Africa, Marriott, Allen Gray and Old Mutual.

Technologies used: ASP, COM+, SQL Server.

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