Data Architect

Business Unit: Technology

Reporting to: Chief Technology Officer

Direct Reports: None

Date Created: November 2016

Purpose of the position
The Data Architect is a key technical position within Loyalty NZ Limited (LNZL). The role is accountable for designing, creating, deploying and managing Loyalty’s’ Data Architecture, for all Loyalty Transactional and data Platform solutions, drawing on relevant internal expertise, external partners and service providers.

Specifically the role is critical to:

1. Ensure accuracy and completeness (fit for purpose) of data Architecture buy addressing the concerns of the CTO, Product Managers, Applications Architect and Solutions Architect.
2. Maintain relationships with the CTO, Product Managers and other architecture stakeholders to gather and articulate the technical and Data vision and to produce architectural plans for realizing it.
3. Understand the end to end vision for Data at Loyalty NZ and be able to articulate this to all stakeholders.
4. Be able to deliver on our data vision by breaking it into logical design and Physical Data platform design.
5. Be the primary escalation point for technology implementation teams for addressing data related issues, concerns and constraints that are uncovered during project delivery and post project operations.
6. Oversee the Technical delivery to ensure that the data design is adhered to and not compromised.
7. Continuously review Data Architecture principles and guidelines for appropriateness and completeness and communicate these to stakeholders and technical delivery teams.
8. Provide input into the definition of and work in accordance to the defined Data Governance standards adopted by Loyalty NZ.
The role will have strong working relationships with Loyalty NZ’s CTO, Applications Architect, Solutions Architect, Software Development Manager, Infrastructure Manager, Data Warehouse Manager, Lab 360 Analysts, Senior Engineers, Data Analysts and Product Managers/Owners to ensure that Data is defined, created, documented, deployed and managed in accordance to defined principles and in accordance with our strategic plan.

**Organisational position / Virtual Team**
The role of Data Architect reports directly to the CTO and has a very strong working relationship with all the business units at Loyalty NZ.
Key Responsibilities

1. Understand the Strategy, Strategic Plan, Platform Plan, Client Plan, Customer plan and their related product, platform and Data Requirements.
   - Participate in the discovery of and assist in the shaping of requirements.
   - Assist in ensuring the requirements align to the plans.
   - Understand and lead the definition of the Data Architecture specification and how it relates to other artefacts.
   - Develop, manage and communicate the data architecture roadmaps that link the plans together.
   - Understand the end to end vision for data at Loyalty NZ.

2. Be responsible for the design, creation, deployment and management of our Data Architecture
   - Define how the data will be stored, consumed, integrated and managed.
   - Ensure alignment between our data, our data Architecture and our data Standards.
   - Understand and lead the definition of the Data Architecture specifications for delivery.
   - Understand the Logical design and how this translates into one or more Physical Data Platforms. Understand how the data will flow through successive stages.
   - Address issues of Data migration (Validation, Clean up and Mapping).
   - Through collaboration, represent the Organisation view and be the authoritative representative of the data Architecture.

3. Be responsible for the definition of the standards, processes and models to be used by Loyalty for managing Data
   - Develop, own, maintain and communicate both a Logical and Physical Data Model defining Loyalty data, both transactional and analytical, and how these connect.
   - Develop, own and maintain Data policies for managing loyalty Data, and ensure adherence to policies across the Loyalty Business.
   - Develop, own and maintain Data Standards to be applied to Loyalty Data, and ensure adherence to standard across the Loyalty Business.
   - Define and own the systems to be used for data storage, retrieval and management.
   - Contribute to the Data Governance practise at LNZL and ensure all data Architecture specifications are created in accordance with data Governance defined policies.
   - Understand the importance of Data Dictionaries and work with the Data Governance group to define Data Dictionary usage for Loyalty NZ

4. Communicate the Data Architecture
   - Articulate the Data Architecture specifications in varying forms to others, including Technical Delivery teams, Teams involved in data delivery and Lab analysts.
   - Grow and lead the Data Architecture working group to ensure the architecture has full coverage in its contributions.

5. Support the Technical delivery team during build
• Engage Technical delivery teams during the development build to ensure the defined Data architecture is not compromised.
• Escalate any issues to the CTO and Product Manager where the defined architecture is likely to be compromised and work with the Product manager and Technical Team to resolve.
• Ensure that all Technical delivery Team members are informed of the defined data architecture regardless of whether they are involved in the Product being developed or not.

6. Together with our Security Officer, be responsible for Data Security, ensuring that it is factored in to all aspects of development and usage.
   • Understand PII and NZ privacy legislation and understand what components of Loyalty NZ data are affected by these.
   • Work with the Security Officer to establish Data Security policies.
   • Understand the risks that exist with our data and actively work to own, manage and mitigate these risks.
   • Ensure all aspects of Loyalty NZ data is managed and used in accordance with Security policies and NZ law.

7. Demonstrate the behaviour and responsibilities required of a leadership role within LNZL.
   • Adhere to corporate governance legislation and requirements, together with company policies.
   • Actively promote and drive vision and values to assist building the desired culture and work environment.
   • Provide exemplarily leadership across the organisation that actively demonstrates and models acceptable and the desired behaviours within the workplace for all staff to adopt.
   • Provide exemplarily leadership and exhibit our values when representing loyalty NZ with our Clients and Business Partners.

Health & Safety
All of our people have a responsibility for their own and others safety and wellbeing. This includes following all safety and wellbeing procedures and instructions, including reporting hazards, incidents and accidents and participating in safety and wellbeing initiatives and programmes as required.

The Loyalty Way
1. Focuses on and contributes towards continuous improvements within the workplace through improving activities and processes to make things Easier, Better, Faster and Cheaper.
2. Contributes towards, and promotes, The Loyalty Way, LNZL's values (the "5Cs") and the achievement of our desired work environment; specifically an environment that stimulates individual, team and organisational growth and achievements, and encourages our people to think and behave in ways that achieve their goals through co-operative efforts.
3. Establishes and maintains effective relationships:
• Develops and fosters good proactive working relationships with all internal and external
contacts.
• Ensures suppliers of goods and services conform to the standards of business ethics
adopted by LNZL.

4. Leads and/or contributes to specific Fly Buys projects.
5. Undertakes additional responsibilities and activities, as and when requested and as mutually
agreed with your leader.

Physical demands of the role
This is not a physically demanding role

Most challenging parts of the role
1. The person will need to be involved in multiple projects to varying degrees most of the time
and can effectively balance workload and prioritisation across projects.
2. The person will need to apply processes and standards that are simple, effective and are
embraced by the organisation, as they “buy in” to the value they bring.

Key Functional Relationships
Internal: Reports to the CTO
Collaborates and liaises with the Applications Architect and Systems Architect
Collaborates and liaises with the Technical Delivery, Product and Lab360 Analytics Teams.
Must have a collaborate and constructive working relationship with every other LNZL Staff
member
External: Loyalty Clients
Loyalty Business Partners
Other external Contractors and Suppliers engaged from time to time, and other
Businesses

Working environment
1. Open plan layout and moderate amount of noise that goes with it
2. Very little if no travel required
3. Standard office equipment

Delegations of Authority
Capital Expenditure: $0.00
Operational Expenditure: $0.00
Authorisation to Hire: N/A

Authorisation to sign Contracts: N/A

**Responsible for:**
Number of Staff: 0

Budget: $0.00

Revenue: $0.00

**Appraisal and Performance Criteria**
Formal appraisal will occur at least annually or more frequently when performance plans are re-negotiated. Performance will be measured against the performance plan negotiated at the beginning of the reporting period and against the other responsibilities identified above.

This job is being carried out successfully when all responsibilities are being met.

**Person specifications**

**Qualifications**

**Essential:** Relevant Qualifications in IT/Computer Science

**Preferred:**

**Experience & Knowledge**

**Essential:** Experience in Data modelling and database design. Everything from conceptualisation to database optimisation.
5+ years experience in Architectural roles
Familiar with Data Architecture Design Patterns and can demonstrate use of patterns
Familiar with Data Analysis, Data Integration, Data Modelling and Data Warehousing
Experienced with Database Architecture and design, including transactional systems and Analytical systems.
The ability to abstract general principles from specifics
A strong desire to establish standards of best practise
Have knowledge of and understand Data migration Tools
Understanding of various Analytical and Database technologies including emerging technologies like columnar and Nosql databases, predictive analysis, data visualisation, machine learning and unstructured data
Understanding of cloud computing and cloud computing providers (AWS, Azure etc)
Understand Restful services and the importance of well designed API Specifications, to support transactions and Bulk services
Understand PII and Data Security
Proven ability to communicate and work with Technical teams to deliver to defined Architecture
Strong Business and communication skills
Ability to understand and portray the big picture, and to influence projects to close the gap between current state and future state.
Broad based information technology experience and foundation in Systems development (e.g., languages, methods, Development lifecycle, Project management approaches etc)
Proven ability to translate complex and technical information into information easily understood by non-technical staff and clients.

Preferred:
Understanding of Open source development, tools and technologies and Restful Integration.
Understanding of Big Data Platforms and technology components.
Understanding of Loyalty Business concepts

Skills
The ideal appointee should have a high level of the following skills:

- Interpersonal skills and the ability to negotiate and influence
- Passionate about data. Able to emphasise methodology, modelling and governance
- Technology and politically neutral
- Articulate, persuasive and enthusiastic
- Project management skills and the ability to meet deadlines
- Ability to manage a heavy workload
- Analytical, conceptual, problem solving, decisiveness and strategic thinking
- Team-Oriented and collaborative approach

Personal Attributes
The ideal appointee should be able to demonstrate:

- An enquiring mind. Be curious.
- The ability to abstract general principles from specifics
- A passion for excellence and a commitment to high standards.
- Integrity, loyalty to the organisation and a commitment to organisational objectives.
- A genuine customer service focus, both internal and external.
- A proactive and open minded consultative approach.
- Initiative, judgement and ability to creatively solve problems.
- Be detail conscious.
- Be a self-starter with the ability to accept responsibility and self-manage.
- Ability to work under pressure with an achievement focus.
- Enthusiasm, a thirst for learning and self-development.