BANK OF NEW ZEALAND DEVOPS JOURNEY IN DELIVERING BUSINESS VALUE
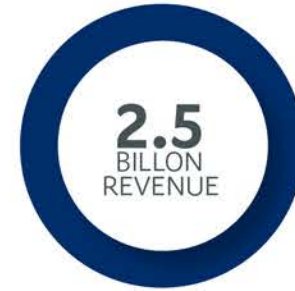
BMK Lakshminarayanan
Solutions Architect

October 2019

ABOUT BNZ

Our purpose: Enabling a high achieving New Zealand.
Our mission: Help customers be good with money so they can do great things with it.

150⁺ YEARS	**180⁺** BRANCHES	**5000⁺** STAFF	**2.5** BILLON REVENUE	**2017** BEST ICT CULTURE

CANSTAR — BANK OF THE YEAR — 2018 — ONLINE BANKING

CANSTAR — OUTSTANDING VALUE — 2019 — KIWISAVER SCHEME

CANSTAR — BANK OF THE YEAR — 2019 — ONLINE BANKING

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PRODUCTS AND SERVICES

We provide a wide range of banking solutions to fit the needs of all New Zealanders.

Personal banking

- Everyday banking
- Home loans
- Credit cards
- KiwiSaver
- Investments
- Personal Loans
- Insurance
- International

Business banking

- Everyday accounts
- Investments
- Loans and finance
- Payments
- Cards
- Insurance
- International

Institutional banking:

- Specialised finance and advisory
- Transactional banking
- Syndications and agency
- Capital markets
- Financial Markets
- Research

Private banking

- Wealth planning
- Investments
- Family office
- Migrant investors
- Fiduciary services

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OUR PURPOSE: HELPING NEW ZEALANDERS BE GOOD WITH MONEY

More than just banking

Making a difference for our customers

We're reimagining banking, and our diverse skills, experiences and opinions can lead to stunning innovation. We're inspired by everyone around us, and come to work every day knowing our ideas can shape the future.

Helping our communities

BNZ Great Things is a programme of initiatives that's focused on improving the financial wellbeing of New Zealand, through community support, financial wellbeing tools, and partnerships.

Helping NZ businesses to grow

We create unique solutions for unique business needs, inspired by how people run their businesses, and designed for businesses of all shapes and sizes.

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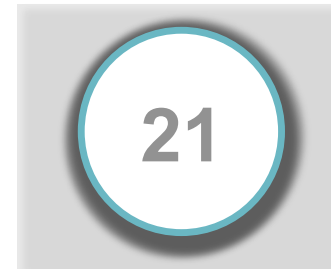
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BANKING IN NEW ZEALAND

NEW ZEALAND POPULATION

4.9 MILLION

REGISTERED BANKS

26

NON-BANK INSTITUTIONS

21

AUSTRALIAN OWNED

4

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ABOUT ME

BMK Lakshminarayanan
Solutions Architect | DevOps Advocate

Community

MISSION
Make your life better,
Make others life better,
Make the world better

HISTORY

BUSINESS CHALLENGES

BUSINESS CHALLENGES

Business Service Owners (BSO) Struggle

Waterfall processes

IT Systems slow to change, test

Competing priorities, timelines

Ability to keep up with regulatory changes

BUSINESS CHALLENGES

Bankers Struggle

Context switch multiple systems

Time consuming processes

Copy & paste due to limited system integrations

Quality time with customers, engagement

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MULTIPLE PROCESSES
X
MULTIPLE SYSTEMS
X
MULTIPLE PEOPLE
=
INSANE COMPLEXITY

TECHNOLOGY CHALLENGES

TECH & OPS CHALLENGES

Developers, Testers Struggle

- Deal with legacy systems, services
- Deal with heavy-weight processes, documentation, release calendar
- Centralized data modelling, operations, security
- Manual testing & deployments
- Dependency on other teams release
- Time for upskilling, learn, share, grow

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TECH & OPS CHALLENGES

Technical Service Owner Struggle

- Growing complexity in codebase
- Monolith systems
- Juggling priorities, timelines
- Projects to BAU
- Meet delivery timelines
- Multiple support teams

TECH & OPS CHALLENGES

Technical Service Owner Struggle

- System landscape, sharing resources
- Time for projects, BAU, incidents
- Rippling incident effect
- Priorities: patching, projects
- Manual operations

CHANGE

WE MUST DELIVER THE ONE BNZ PLAN, AND PREPARE FOR A COMPETITIVE AND UNCERTAIN FUTURE

| CURRENT PRIORITIES | 1. ONE BNZ | 2. FAST AND SIMPLE | 3. WIN IN GROWTH MARKETS | 4. GREAT LEADERS, TALENT, CAPABILITY & CULTURE | PRIORITIES WILL SHIFT |

TO ENSURE BNZ'S SUCCESS, TECHNOLOGY MUST BECOME:

| Fast | Agile | Efficient | Relevant | Resilient | Deep |

We must simplify

- Processes
- Products
- Policy
- Organisation

Whilst we Industrialise

NPS vs Efficiency/reusability
- Today
- Minimum State
- New Foundations
- Future Ready

& Strengthen enablers

- Arch. Principles & Tooling
- Cloud & PaaS
- Data
- Security
- Delivery Model & People

WE WILL BUILD AN OPEN ARCHITECTURE PLATFORM:

A set of modular technology capabilities that will give us **SPEED**, **FLEXIBILITY** and freedom to **PIVOT**.

WE WILL DELIVER IMMEDIATE BENEFITS AND MEDIUM/LONG TERM STRATEGIC ADVANTAGE

| ↓ Cycle time to deliver change | ↑ APIs exposed | ↓ Build/ Run cost | ↑ Service Quality | ↓ Service Disruption | ↑ Engineering Skills |

WHAT WE NEED:

| Skilled People | Funding to Industrialise | Control of the How |

What's different this time?

| Tech Leaders | Holistic Strategy | In-House Engineering | Business Alignment | Proven Approaches |

Next steps:

| Hold us Accountable (KPIs) | Operationalise Business Priorities | Start/Continue required foundations | Execute Strategy with Owners |

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BUSINESS & TECHNOLOGY ALIGNING TO DELIVER
NEW TECHNOLOGIES
&
WAYS OF WORKING
TO IMPROVE
THE CUSTOMER EXPERIENCE

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BUSINESS CHANGE

Business & Technology – NWOW

Dedicated Product Owner
- Embedded in delivery squads

More Collaboration
- Involved in story planning, retro & runway teams

Show & Tell
- See & appreciate progress
- Start to understand the technology & challenges

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TECHNOLOGY CHANGE

Enabling Technology – NWOW

Full Stack Product/Stream Teams

- Co-located
- Single goal
- Domain aligned

Platform Teams

- Enablement via self-service
- Tooling & automation

Upskilling

- Experiment
- Training programs
- Guild, certification assistance

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TOOLING OVERVIEW

SHARING OUR STORIES

- BNZ DevOpsDays
- Architecture & Design for Continuous Delivery workshops
- Internal forums, Chapter meetings
- Brown bag sessions
- BNZ Cloud Guild
- Intranet community & workplace

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CUSTOMER FEEDBACK

- The process so simple, just a few clicks done
- Amazed how quick & effortless the process
- Quickest & easiest loan application ever
- Excellent service and quick turnaround
- Self-service funds in account 15 minutes

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ACHIEVEMENTS

ACHIEVEMENTS

Working Together

- Usable and useful functionality early to users
- Embedded feedback
- Ability to move quicker on opportunities
- Not afraid of change priorities or direction
- Improved customer satisfaction
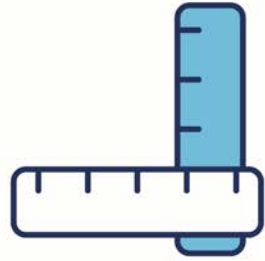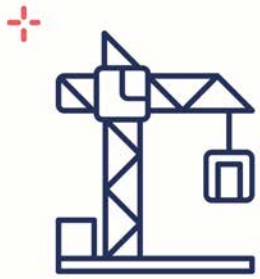- 5-10 minutes access to OD funds

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DEVOPS CHALLENGES

DEVOPS CHALLENGES

- Risk & Security
  - Stay compliant, audits, RBAC
- Database Changes
  - Data modelling, schema changes, rollout
- External Dependencies
  - Other team, vendors

OUR LEARNINGS

- Ubiquitous
- Problems are not unique
- Spread & Share
- Keep challenging
- To go faster, you need discipline
- Sensible architecture
- Jenkins & Containers alone does not help

OUR CONFESSIONS

- Embarking on more extensive technology changes
- Solving puzzles not problems
- Vendor products automation without vendor support
- Focus on enablers
- Developer productivity

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HELP

HELP I AM LOOKING FOR

- Decentralized Governance?
- Applying "Product" mindset to platform?
- Sourcing & Procurement?
- Waterfall funding to Agile funding?
- Vendors – DevOps ready?

KEEP LEARNING
KEEP CHALLENGING
KEEP FIGHTING
- ONE DAY YOU MAKE THE CHANGE

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CLOSING THOUGHTS

He tangata, he tangata, he tangata

– Māori Proverb

Meaning: It is the people, it is the people, it is the people

saṃgacchadhwaṃ saṃvadadhwaṃ saṃ vo manāṃsi jānatām
– Sanskrit verse from Rig Veda

Meaning: May you move in harmony, speak in one voice; let your minds be in agreement

I HOPE THIS HELPS YOU GROW TOGETHER

Kia Mihi