



## **Overview of the National Payments System (NPS) Development Project including:**

- **Kina Automated Transfer System (KATS)**
- **Retail Electronic Payments System (REPS)**



## **2017 BPNG and Savings and Loan Industry Consultative Meeting 17<sup>th</sup> to 19<sup>th</sup> May, 2017**

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Mrs Theresa Lyon, Payments Consultant

**Date:** Thursday, 18th May 2017

**Location:** GAZELLE INTERNATIONAL HOTEL, KOKOPO, ENBP

# What is the National Payments System (NPS)

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The National Payments System (NPS) of a country encompasses **EVERYTHING** to do with the movement of money from *payer* to *payee*.



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# Everything Means ...

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**Everything** related to the **movement** of money:

- Payment Instruments (Cash, Cheques, Cards, etc)
- Infrastructures (for transacting and clearing the instruments)
- Institutions (banks, microfinance companies, etc)
- Market Arrangements (conventions, contracts)
- Legal Environments (laws, regulations, rules)

The above are **essential components** for the engine of the economy to function efficiently

# The NPS is the infrastructure for moving money safely, efficiently and swiftly

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**“Real” Economy (eg. Buying & Selling)**

People & companies buying and selling goods & services, paying tax, customs duties etc.

**Banking System  
(Payments System)**

Banks process payments in their banking systems

**Interbank Transfer  
(Clearing) System**

Exchange of payment details electronically between banks

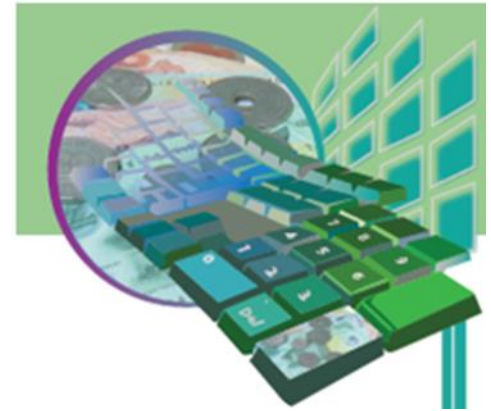
**Final  
Settlement**

Banks settle amongst themselves using their accounts held at BPNG

# Components of the NPS

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- Payment Instruments & Channels
- Legal and Regulatory Arrangements
- KATS System
- Banking and Retail Payment Systems



# Payment Instruments & Channels

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- Cash – the most common form of payment
  - Inefficient and risky although convenient
  - Only possible payment method if you don't have a bank account
- Cheques
  - Prone to fraud, though less so with KATS
  - Long clearing times (even when reduced to 2 days clearing)
- Debit Cards – ATM/EFTPOS
  - Each bank has its own network of ATMs, EFTPOS
  - No interbank switch (but bilateral electronic linkages)
- Credit Cards
  - Not much used
- RTGS
  - Available through banks for High value/High priority payments
- Direct Credit Payments
  - Now available for interbank payments but still rely on having bank accounts



# Legal and Regulatory

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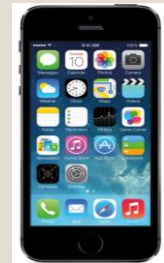
- Payments System Act (NPS Act 2013)
  - Ability for BPNG to provide oversight
  - Ability for BPNG to enforce operational rules
  - Power to offer intraday credit
  - Finality of payments
  - Finality in netting
  - Recognition and legal status of cheque images
- Other agreements
  - System Rules and procedures
  - Timely crediting of funds
  - Service Level agreements
- Oversight of the NPS will be exercised by BPNG



# Key Objectives for PNG

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- Electronic payments increasingly become the **preferred method of payment**
  - All Government payments (in and out)
  - Salaries paid to individuals (direct credit)
- All payment systems **fully interoperable (connected)**
- All citizens have **access** including **remote areas**
- Wide **choice** of **modern payment services**





# Outcomes (Benefits)

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- Efficiency
  - For financial institutions, government and citizens
- Convenience
  - For business, government and citizens
- Safety
  - Reduced use of cash
- Trust
  - Leading to increased use of the financial system
- Risk Reduction
  - Systemic risk (domino effect)
  - Credit risk
  - Liquidity risk
  - Fraud



# BPNG's Role

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## Responsibility:

“.... to promote an efficient national and international payments system”

*Source: Central Banking Act 2000*

## Goals:

- Provide a clearing house facility to allow commercial banks and BPNG to clear payments against each other.
- Act as banker and financial agent to the Government.
- Meet PNG's international obligations to combat money laundering and the financing of terrorism.
- Increase the accessibility and usage of the existing payments system.
- Improve and advance payment system services, including mobile phone banking, to the rural areas to increase financial inclusion of the population.

*Source: BPNG Strategic Plans 2011-2015 & 2016-2020*

# National Payments System (NPS) Development

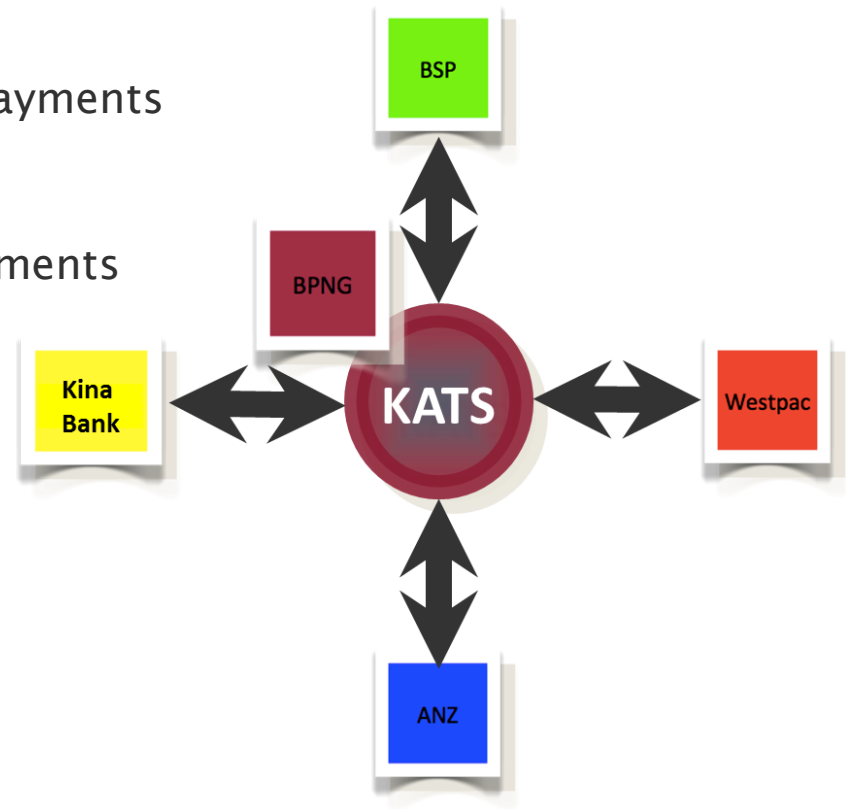
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- 2008-09 NPS Review Project
  - Assessment of the existing payments system in PNG
  - Vision and Strategy for the National Payments System in PNG
- NPS Development Programme
  - Introduction of legislation to provide the necessary legal environment for a modern National Payments System (NPS)
  - Procurement and implementation of the Kina Automated Transfer System (KATS) to process interbank electronic payments
  - Core Banking System Upgrades for BPNG and the Commercial Banks
  - Further improvements in access to financial services

# Kina Automated Transfer System (KATS)

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- Processes inter-bank electronic payments on two levels:
  - Real Time Gross Settlement (RTGS)
    - for **high-priority or high-value** payments
  - Automated Clearing House (ACH)
    - for **low-value or low-priority** payments
- Two systems in one:
  - More cost effective
  - Less time to get working
  - Simpler for participants



# Real Time Gross Settlement (RTGS)

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- At the heart of a modern NPS
- Mainly used for high-value, high-priority payments between banks or their customers
- RTGS systems are usually operated by central banks (one per country)
- A key objective is to eliminate systemic risk by ensuring that each payment is settled (High-value payments are a source of systemic risk – if a bank cannot pay, this can cause system-wide problems (domino effect))
  - In Real Time (as soon as it is sent)
  - Gross (one by one, no batching or netting)
  - With finality (once settled, the payment is irrevocable)

# Examples of RTGS Payments

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- Large payments by banks on behalf of their customers
- Settlement of interbank obligations (loans and repayments) – between banks
- Settlement of trading operations in equities and securities
- Payments of interest and maturity on Government or BPNG securities



# Examples of Low Value Payments

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- The great majority of payments are low-value, high-volume, for example:
  - Cheques
  - Direct Credit transfers (one-off payment of bills)
  - Salary, pension and social welfare payments
  - ATM, EFTPOS and credit card transactions
  - Collection of (some) Government revenues
  - Payment of utility bills (phone, gas, water, electricity, etc.)
  - Regular customer payments (loan repayments, insurance premiums, etc.)
- It is inefficient and costly to handle these on a real time, gross basis
- Low value payments usually go through a **bulk** clearing process

# Clearing and settlement – before KATS

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- Interbank paper instruments (cheques and warrants) physically exchanged and cleared at BPNG Clearing House in Port Moresby
  - < 2,000/day on average (most cheques were intrabank)
  - Several daily sessions
  - Settlement at end of day via paper debits at BPNG
  - Long clearing times (4 days in POM, 9 outside)
- ‘Local Interbank Exchanges’ in some other centres – not a formal Clearing House but covered in the interbank agreement (RABB)
- Debit card clearing (between banks) done bilaterally



# What is Cheque Truncation

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- Cheques are scanned when/where deposited and the image and payment details are exchanged through KATS
- Aim to reduce the dishonour periods, (currently 2 days)
- Reduced opportunities for fraud
- Settled 4 times a day between banks



# What are Direct Credits

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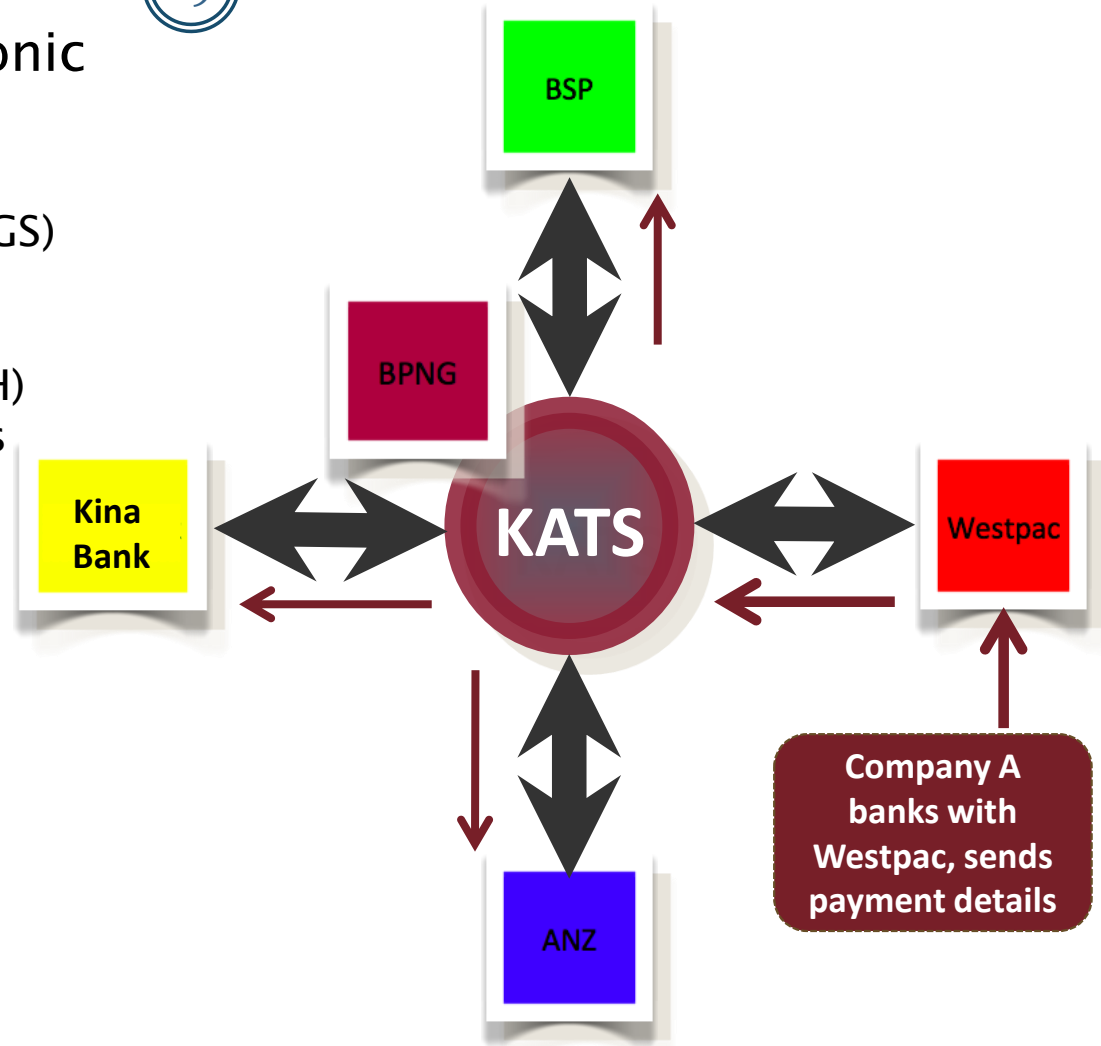
- Payments direct from an individual or company to another individual or company at any bank
- Settled 4 times daily in the bulk clearing sessions
- Straight through processing (STP) if all supplied details are correct and funds available the same or next day. No dishonour period.
- Pay via Internet Banking or Mobile App. No queuing in Branches (check availability with your bank)
- Make sure you include a meaningful reference and the account number you've entered is correct.

# How KATS Works

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Processes inter-bank electronic payments on two levels:

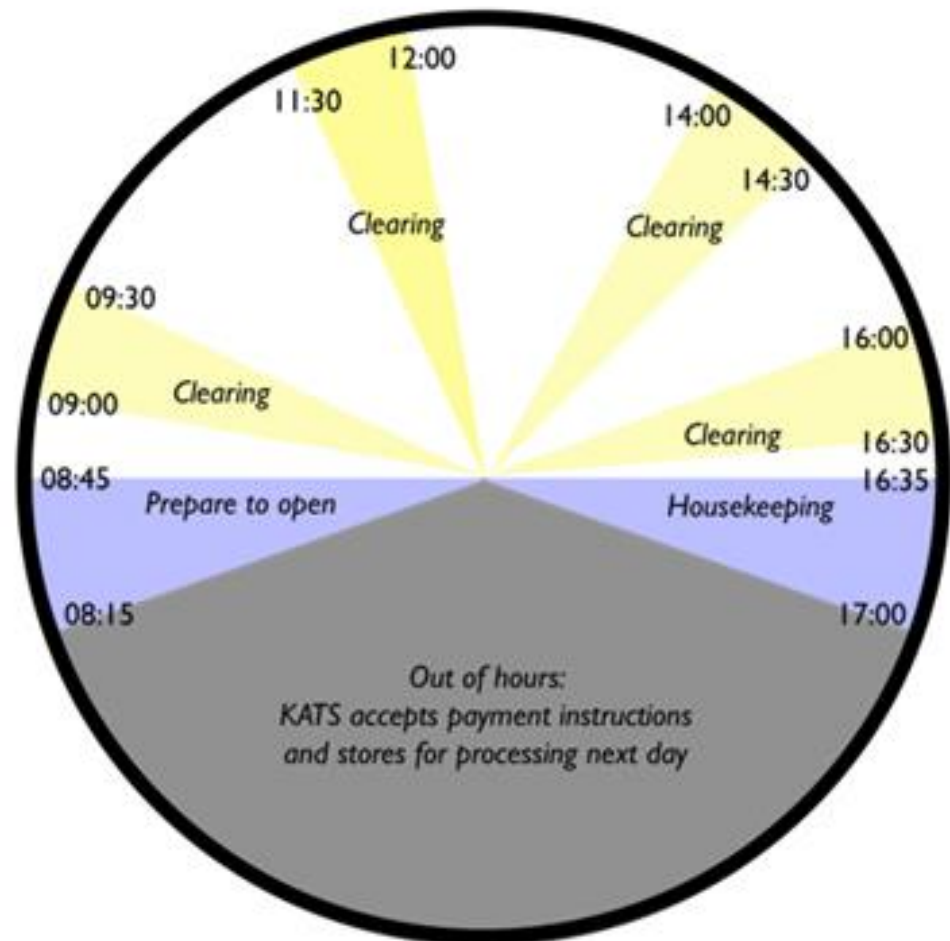
- Real Time Gross Settlement (RTGS)  
For large and priority payments
- Automated Clearing House (ACH)  
For smaller, every day payments
  - direct credits
  - & cheques



# KATS Timetable

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- There are 4 daily clearing sessions to settle:
  - direct credits, and
  - cheque paymentsand then send details to each receiving (or paying) bank
- Direct Credit funds are available the same day or the next morning.
- Cheques take 2 working days to clear before funds are accessible.



# KATS – Key Milestones

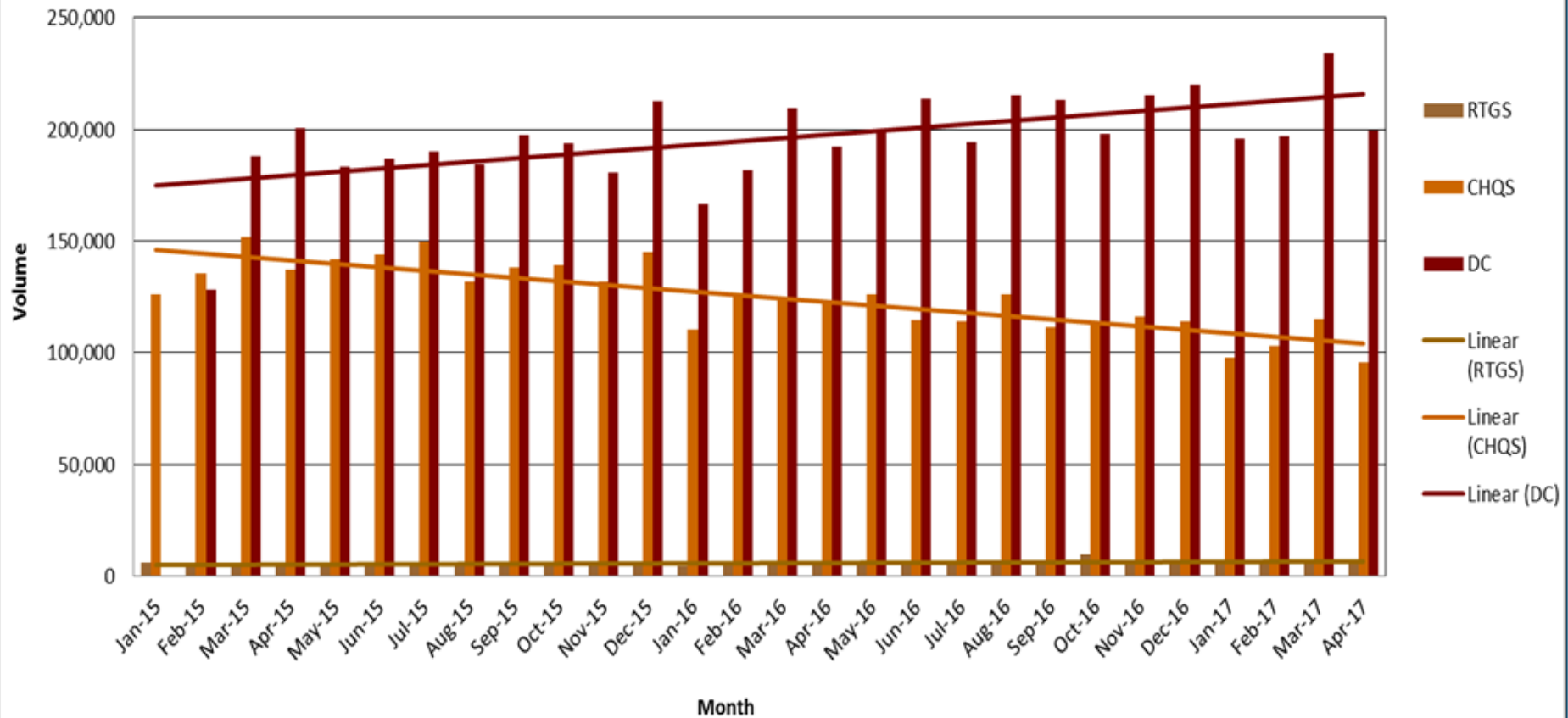
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- NPS Act – 2013 passed by National Parliament 19 July 2013
- NPS Act – 2013 certified 19 September 2013
- KATS Phase 1, RTGS Payments, live on 14th October 2013
- KATS Phase 2, Cheque Truncation, live on 8th September 2014
- KATS Phase 3, Direct Credits, live on 9th February 2015
- Chq Dishonor Period Reduced from 4 to 3 days in January 2016
- Chq Dishonor Period Reduced from 3 to 2 days in January 2017

# Latest data on trends by payment types

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## TRENDS IN RTGS, CHQS & DC VOLUMES



# Current Benefits of KATS

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- Urgent payments will go through guaranteed and extremely fast, so same-day payment and received value is a reality (2 hours for RTGS & 1 day for Low Value, subject to correct account details)
- Cheque processing is faster and more accurate using electronic truncation (currently 2 day clearing time)
- Companies can connect their accounting systems to the banking system for paying salaries and creditors
- Individuals can make payments to accounts at other banks using STP

70 Friday, March 6, 2015

# BUSINESS

## No more cheque fees

By GYNNIE KERO

BANK South Pacific will this month remove the K3.50 service fee charged on the deposit and processing of cheques, chief executive officer Robin Fleming says.

He said the bank's decision to eliminate the fee and pass benefits to customers followed the introduction of the Kina Automated Transfer System (KATS) by Bank of Papua New Guinea.

Last month, Bank of Papua New Guinea declared the KATS fully operational.

The system as understood will help cheque processing faster and accurate with electronic processing using imaging technology rather than paper.

Fleming yesterday said the KATS was effective in all BSP branches across the country.

"In the past if you put a cheque in your bank account, it would have been charged K2.50, if processed to another level it would have been charged another K1," he said.

"We are eliminating those cheque collection fees and pass onto some other benefits which we (BSP) achieve with the KATS system.

"The system is already in effect country-wide.

"Following the introduction of the system (KATS), the cheque clearance times have reduced. At one stage if you presented in Port Moresby a cheque to be withdrawn by a customer in Wewak it, normally it takes 10 days. Now cheque clearance around the country is standardised at four days."

In light of customers' queries of being un-

able to withdraw K20 notes at the bank's ATMs, Fleming said: "It is to do with getting good quality K20 notes in all ATMs. There are only selected ATMs in NCD which we only have K50s and K100 notes ... not all ATMs."

He said customers could use other channels such as the EFTPoS terminals to buy and get cash.

He pointed out that the merchants were not supposed to have charge any fees when customers approach them to use the EFTPoS terminals.

"EFTPoS is cheaper for people to use and not come to the ATMs.

"We continue to talk with merchants; they are not supposed to charge any fees," Fleming said.



# Future NPS Developments

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Automated Transfer System



Supporting legislation & regulations



Structure for co-operation



Retail Payments



Electronic payment systems for the unbanked

# Retail Electronic Payment System (REPS)

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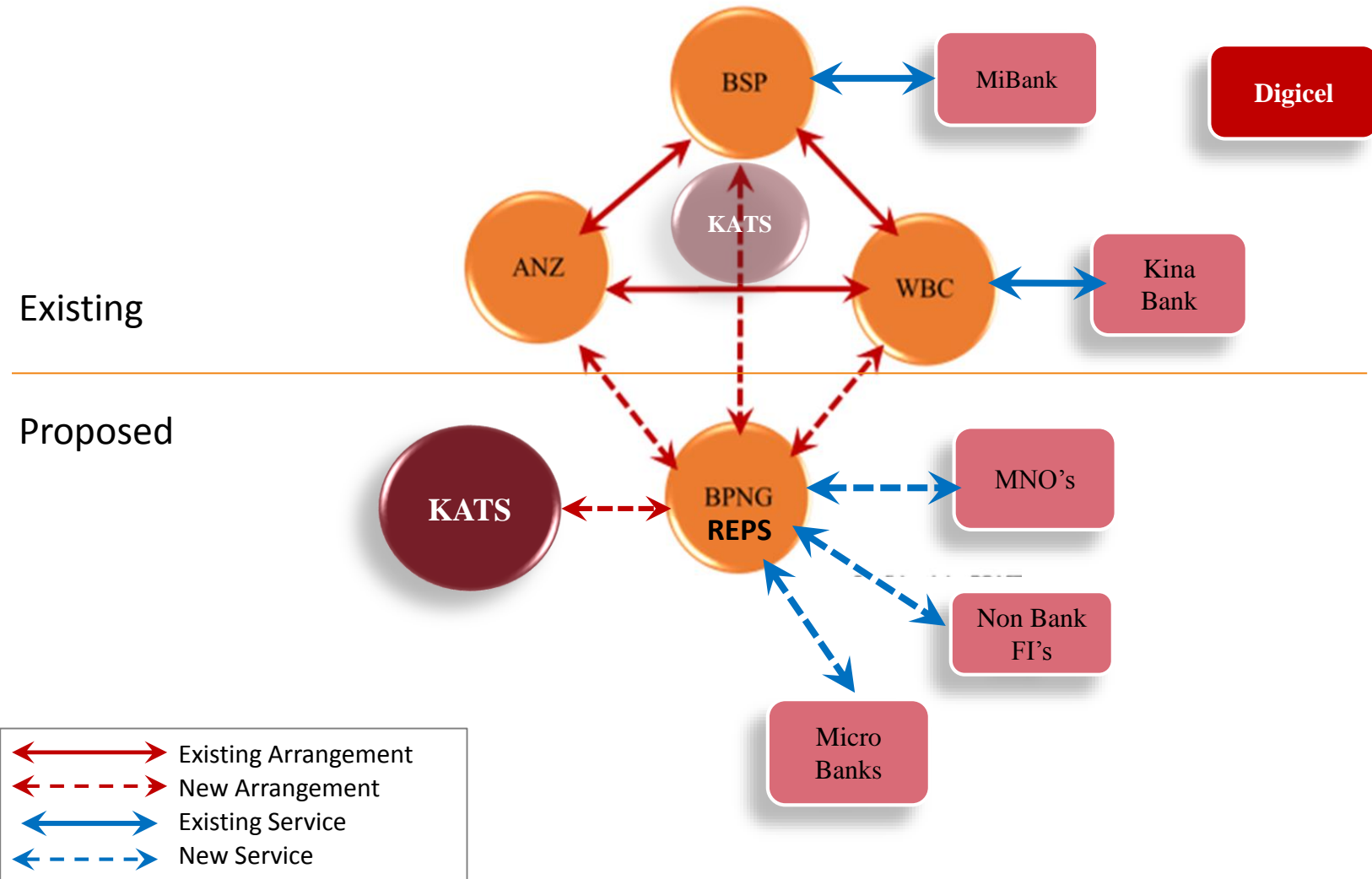
- Each bank currently has its own ATM/EFTPOS network
  - Inefficient with duplication
  - Opportunity to grow volume and productivity benefits for all stakeholders
- The Financial Services Sector have the opportunity to invest in branded competitive products and services without the overhead of duplicated infrastructure
- By leveraging and extending the existing retail interbank exchange system a number of opportunities come into sharp focus for example:
  1. White label banking
  2. Shared infrastructure eg card platforms
  3. New payment types that don't need a card
  4. Consistent consumer experience irrespective of who provides the account.

# What is the difference between KATS and REPS

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- KATS enables commercial banks (or any other institutions that may in future be connected to KATS) to settle funds between themselves based on their customers financial transactions
- The funds are settled by the banks using their accounts at BPNG (BPNG being the bankers' bank) addressing Settlement Risk
- REPS, on the other hand, connects peripheral devices, such as ATMs, mobile phones etc, as well as any number of financial institutions (much like a telephone exchange that connects phone and faxes etc)
- REPS provides interoperability for retail payments and does not enable final settlement of funds between banks. It connects to KATS which undertakes this function.

# Proposed Operating Model



# REPS “White Label” Banking Service Offering

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- Access to all ATM's and EFTPOS devices.
- Provision of card products – local debit cards and if demand warrants scheme debit cards.
- Fraud and risk management services.
- Card plastic production & PIN mailers.
- Drive privately owned (bank or non bank) ATM and EFTPOS devices.
- Mobile payments platform.
- Project Management & Business Advisory Services.
- Interbank & counterparty settlement services.

# Benefits of REPS

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- KATS, together with REPS, will be a platform for innovative new developments such as mobile phone banking, mobile wallets & other technologies as these develop
- Banking services will be available to anyone, anywhere and at anytime (some services only during bank hours)
- Access to Digital Financial Services and advanced electronic payments will continue to foster economic and social development



# Product Points to Consider for FESALOS / Savings & Loans Societies

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- How will you manage real-time credit risk
- How will you price your transaction products
- Will you need scheme cards (use overseas or on the internet)
- How will you educate customers and staff
- Understanding evolving Consumer Protection legislation

# Technology Points to Consider for FESALOS / Savings & Loans Societies

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- How will you connect securely to REPS
- Are your core systems capable of operating on the internet
- How will you add a payment card to a passbook savings account or will you introduce transaction accounts
- How reliable are your core systems (24x7 operation)

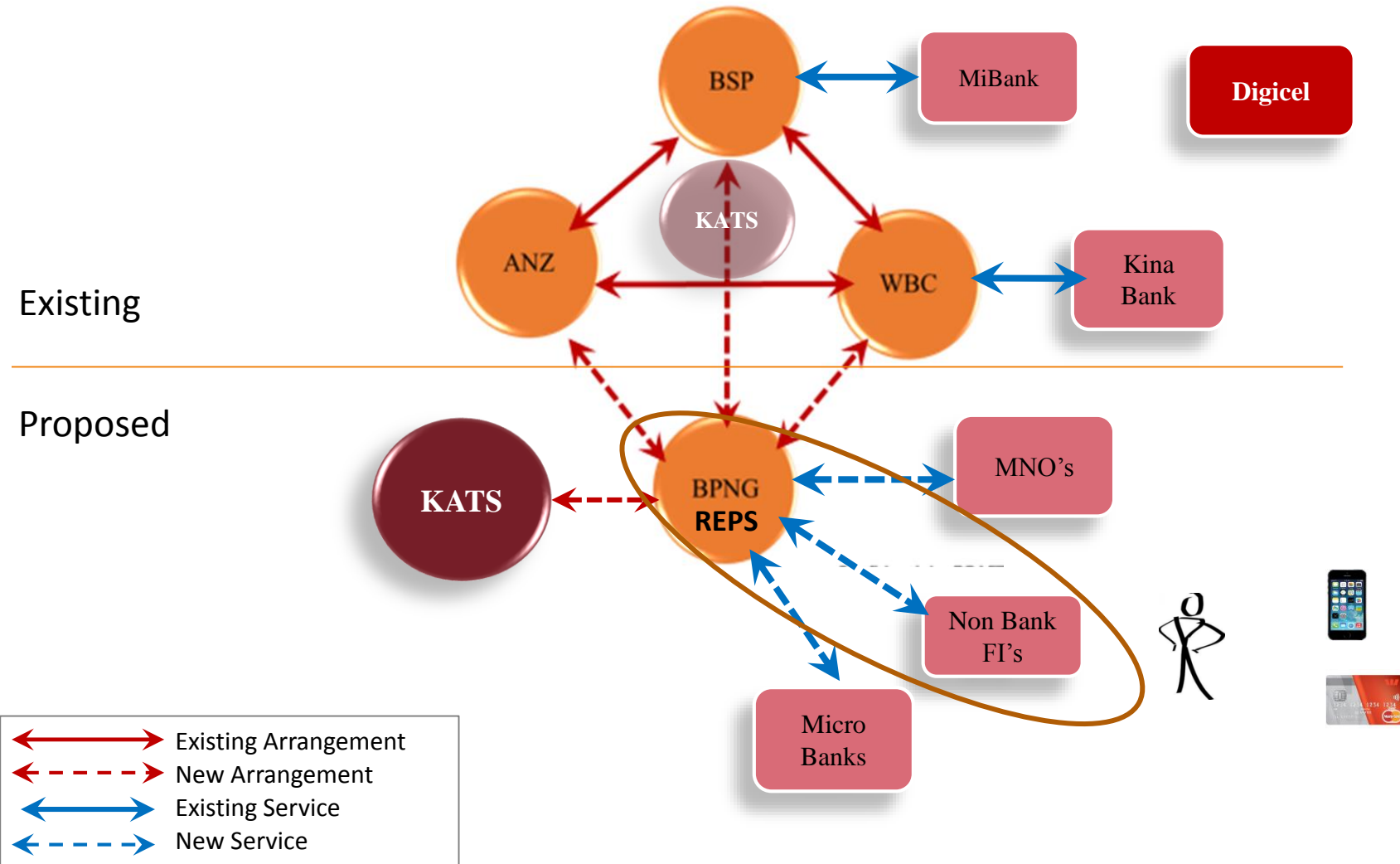


# Product Strategy for FESALOS / Savings & Loans Societies

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- New Act
- New rules
- Customer and brand strategy
- Technology strategy
- Who can supply

# Proposed Operating Model



# The NPS is the infrastructure for moving money safely, efficiently and swiftly

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**“Real” Economy (eg. Buying & Selling)**

REPS – Retail Electronic Payment System

**Banking System  
(Payments System)**

Banks’ (and non-banks) internal /  
Core Banking Systems

**Interbank Transfer  
(Clearing) System**

KATS – Kina Automated  
Transfer System

**Final  
Settlement**

Facilitated through KATS using  
their ESA accounts held at BPNG

# Future Benefits of NPS

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- PNG has a world-class National Payments System with developments continuing
- KATS will be a platform for innovative new developments:
  - Mobile phone payments + others as technologies develop
  - Reach all parts of society
- With REPS advanced digital payments will improve access and support economic development



**BPNG will continue to work with the Government and financial sector to realise the benefits**



# Thank you

## Questions?