

23RD ACG - CROSS TRAINING SEMINAR BALI, INDONESIA

TRANSFORMING DEPOSITORY SERVICES WITH API MARKET PLACE

Presenter:

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Central Depository Company of Pakistan
Limited**

FLOW OF PRESENTATION

- CDCPL (Brief Profile)
- CDC Initiatives.
- Information Security Measures.
- API Security Measures
- Lesson learnt
- Q & A

CDCPL (BRIEF PROFILE)

Only Depository in Pakistan

- Established under the Companies Ordinance 1984.
- Incorporated as public limited company in 1993 .
- Principally acting as depository
- Providing Trustee, Registrar/Transfer Agent as well as Back Office Operations functions.
- Regulated by Securities & Exchange Commission of Pakistan.

CDCPL (BRIEF PROFILE)

- Settling Book Entry Securities Transactions electronically governed under the Central Depositories Act 1997 and the Central Depository Company of Pakistan Limited Regulations for the all three stock exchanges of Pakistan.
- Licensed under the Central Depository Companies (Establishment and Regulations) Rules 1996.
- The shareholders of the Company represents Stock Exchanges of Pakistan, a Foreign Bank and Local Institutions including Banks, DFIs and NBFIs.

CRITICAL ROLE OF CDCPL

- As an important post-trade infrastructure organization in the country, we have a central role in the functioning of the capital markets.
- Through its subsidiaries CDC provide settlement and custodial services for virtually all trades in the Capital markets.
- This translates into billions of worth of transactions processed each business day.

CDCPL BUSINESS SERVICES

- Depository Services
- Investor Account Service
- Trustee and Custodial Services
- Shares Registrar Services
- Investor Portfolio Services
- Roshan Digital Account
- Shared KYC
- Centralized Solution of Insurance Industry
- Centralized Gateway Project

CDCPL API INITIATIVES

- Roshan Digital Account.
- An initiative by the Central Depository Company of Pakistan Limited under the regulatory ambit of State Bank of Pakistan (SBP) and Securities & Exchange Commission of Pakistan (SECP) to facilitate Overseas Pakistanis.
- Investment options are
 - Bank Fixed Deposit Products
 - Stocks / Equities
 - Government Bonds

CDCPL API INITIATIVES CONT..

- Shared KYC.
- CDC, along with the Banking Industry and Capital Market institutions, is making headways on the path of digital account opening for capital market accounts of local resident bank account-holders.
- The pilot implementation of this project is now Live with 5 banks and 8 Brokers.
- Investment options are
 - Stocks / Equities
 - Mutual Funds

CDCPL API INITIATIVES CONT..

- Centralized Gateway Project.
- An initiative by the Central Depository Company of Pakistan Limited under the regulatory ambit of Securities & Exchange Commission of Pakistan (SECP) to facilitate Resident Pakistanis.
- Investment options are
 - Stocks / Equities
 - Mutual Funds
 - Mercantile
 - Insurance

CDC API INTEGRATION WITH ENTITIES

CDC Integration with External Entities

Payment Gateways

Payment through RTGS

# Payments	Paid Amount (Rs)
11,475	8,750,352,339
Today: 0	Today: 0

Payment through MPG

# Payments	Paid Amount (Rs)
102,774	15,891,525,750
Today: 7	Today: 7

LINK PAYMENT GATEWAY

# Payments	Paid Amount (Rs)
9,709	22,717,758
Today: 13	Today: 43,513.62

easypaisa

# Payments	Paid Amount (Rs)
75	36,781
Today: 0	Today: 0

PayFast
A DPO Company

# Payments	Paid Amount (Rs)
3	35,000
Today: 0	Today: 0

RDA Exposure
ROSHAN DIGITAL ACCOUNT

6,299,622
Today: 27,471

RDA Account Request from Banks

9,624
Today: 15



PSX

Data Transmission
6,985,005
Today: 5,791

N&C
National Clearing Company

BO Settlements
60,511,330
Today: 22,037

Pledge	2,298,021
Today:	612
Pledge Release	2,387,593
Today:	340

Partner Organizations

Technology Integrations

Bulk Emails

55,352,696
Today: 26,359

CYBERNET
Total Quality Network

SMS

12,708

M3 TECH

SMS

30,353,865
Today: 12,760

E.OCEAN
Empowering mobile

IBAN Title Fetch

527,229
Today: 157

LINK TITLE FETCH

Emails

2,881
Today: 2

mailgun
Email Automation

OTP Emails

137,977
Today: 62

Forcepoint

INFORMATION SECURITY



INFORMATION SECURITY CONT..

Ransomware Resilience.

- Ransomware resilience exercise is being undertaken to handle ransomware situations and ensure a graceful recovery.
- CDC also undertook this exercise in 2020 when a major utility company got affected by the ransomware.
- Bare metal recovery from ransomware is not a common practice in the industry. CDC is amongst very few organisations to practice it.

INFORMATION SECURITY CONT..

Cyber Risk Assessment.

- CDC engaged Thomas Murray to assess internet attack surface. It has helped to improve overall cybersecurity posture and ranking with global CSDs. TM is a team of 100 analysts, consultants and technologists, based in London with a presence in the US, Canada, Colombia, Hong Kong and Australia.

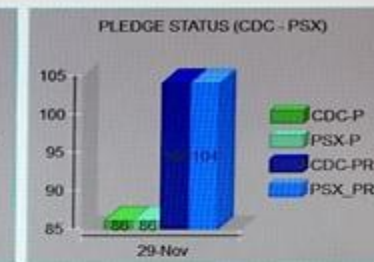
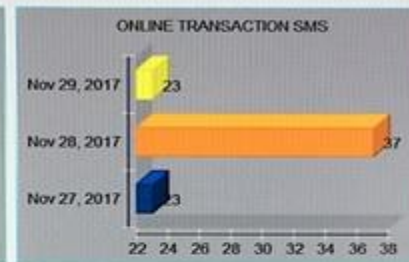
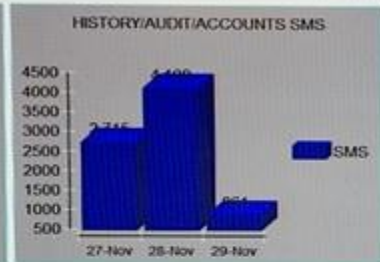
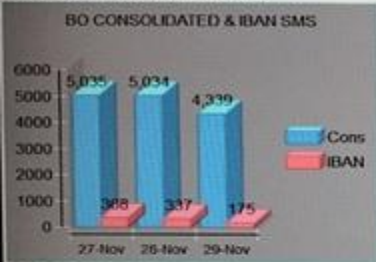


THOMAS
MURRAY

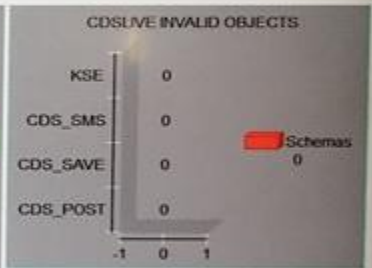
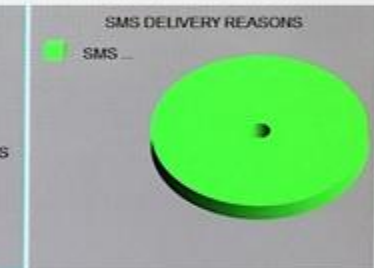
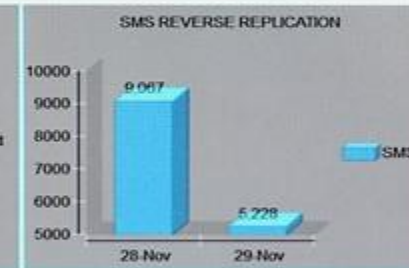
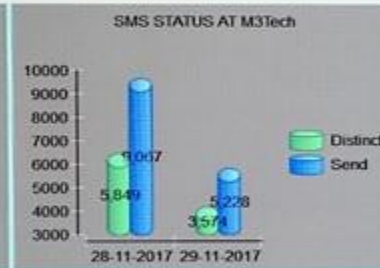
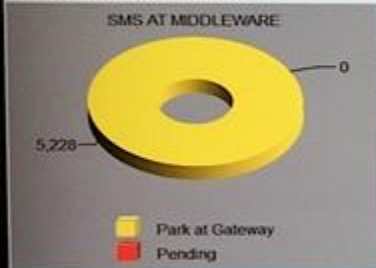
INFORMATION SECURITY CONT..

SERVICES MONITORING DASHBOARD

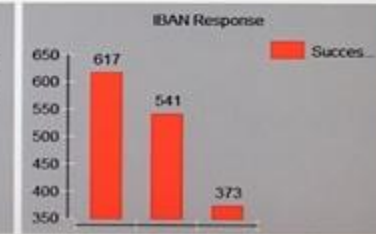
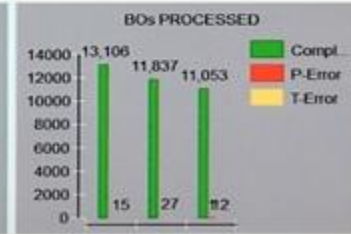
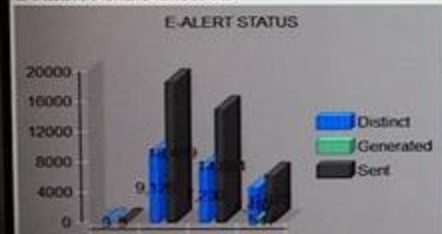
SMS GENERATION STATUS



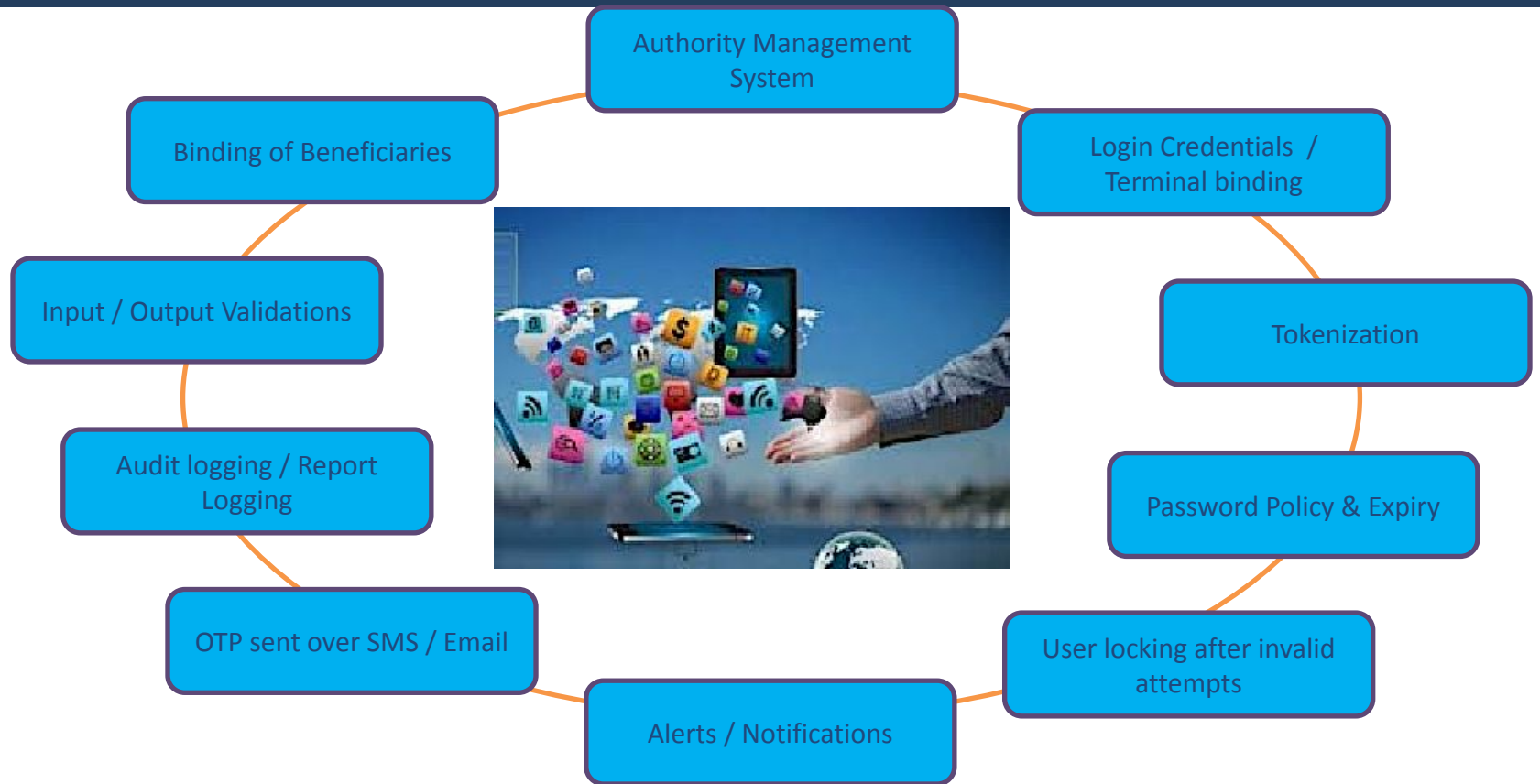
SMS DELIVERY STATUS



E-ALERT & BO STATUS



API FUNCTIONAL SECURITY



SECURE SDLC



LESSON LEARNT

API INTEGRATION

- Build integrated system based on best practices will ensure smooth and secure transaction execution.
- Regular monitoring via Dashboards.
- Penetration Testing.
- Standardization of integration protocols between entities.
- Role of API Gateway

THANK YOU

Q&A ARE WELCOME



CENTRAL
DEPOSITORY
COMPANY