Technical solutions for insider threat management in banking



"Insider threats" are threats to the organisation that come from careless, malicious or compromised insiders.

"An insider is any person who has or had authorized access to or knowledge of an organization's resources, including personnel, facilities, information, equipment, networks, and systems." CISA

Careless; makes a mistake when implementing a transaction or sharing information Malicious; intentionally transfers or wires money to wrong account; steals sensitive information

Compromised; Insider's access credentials stolen and abused by an attacker



# Postbank

Postbank (S Africa); employees stole encryption key allowing them to access systems and accounts and reset bank cards



Punjab National Bank; huge scam that involved unauthorised use of SWIFT passwords by insiders.

## J.P.Morgan

J.P. Morgan; bankers were able to access and issue ATM cards for elderly and deceased clients, and withdrew \$400,000 from their accounts



#### **Identity Access Management (IAM)**

- Control user access to systems and data
- Right access, right person, right time
- Multi-Factor Authentication
- Single Sign On
- Remote and on-site access

### PREVENT UNAUTHORISED ACCESS TO SYSTEMS AND DATA

#### **Data Loss Prevention**

- Detect sensitive information (account numbers, card credentials, personal information) going out of organisation
- Emails, IM, uploads, printing
- Manage by blocking or alerting

PREVENT UNAUTHORISED DATA TRANSMISSION

#### **Privileged Access Management (PAM)**

- Restrict and monitor privileged access
- Identify over-privileged accounts
- Protect privileged account credentials

PREVENT ARUSE OF PRIVILEGED ACCESS RIGHTS

#### **User Behaviour Analytics (UBA)**

- Analyse data to determine baseline "normal" activity
- Identify potentially harmful activity
- Generate risk scores for users

**DETECT MALICIOUS ACTIVITY** 



#### Case Study: North African Bank

- Information systems update driven by periodic risk assessment
- Client prioritised Identity and Access Management (IAM) and Privileged Access Management (PAM)
- Solution should offer:
  - Secure and manage privileged passwords
  - Role Based Access Management
  - User Behaviour Analytics (UBA)
  - Assessment of privileged account security risks
  - Solution alerts on high-risk activity
- ✓ Select optimal vendor solution
- ✓ Implement the solution
- ✓ Integrate and configure according to client requirements



Gather feedback from client regarding specific concerns in this area



Further discussion regarding insider threat risks and their mitigation



Provide shortlist of appropriate vendor solutions



Implement, integrate and configure the solution



**Provide ongoing technical support and training** 

