# FIGI Security Clinic

## USSD to Apps & Open API – Service Security in MTN Uganda Mobile Money

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**#financialinclusion**

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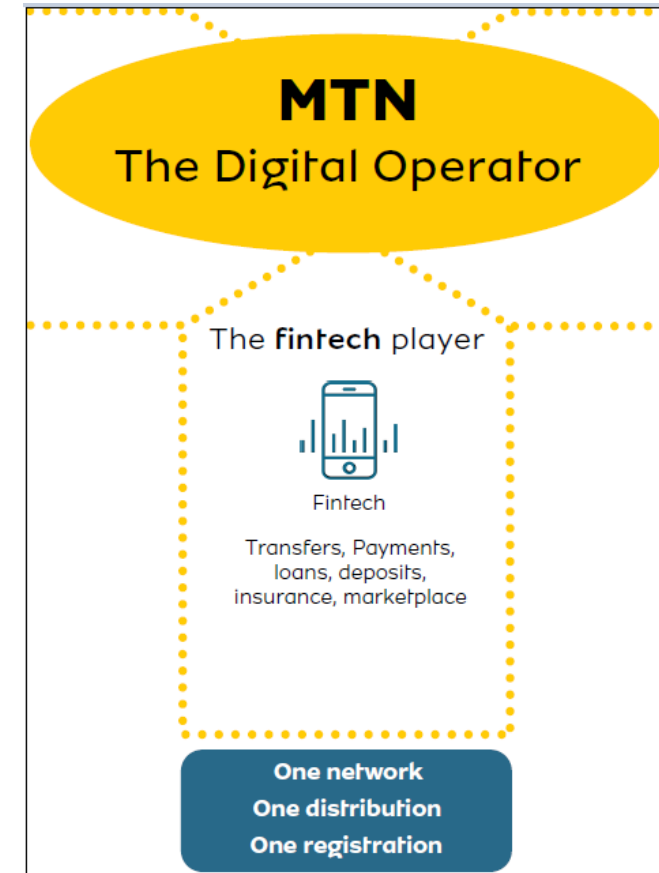
# The journey - MTN Uganda Mobile Money

- From P2P in 2009 to Remittances, virtual Mastercard & Retail payments

- Significant top-line revenue contribution

- Over 5m 30-day active DFS wallets (>30m for MTN Group)

- Key enabler in the Digital Airtime distribution

- Inadequately regulated – Emerging legislation under the ambit of the Central bank – Split/separate entity

# Key Growth Areas

- App usage from consumer to Street Agents/Merchants/float rebalancing

- Payments (marketplace) & Remittances/interoperability

- Micro Savings & Lending; insurance

- Partnerships & Open API (https://youtu.be/4ay69YK-oLQ )

# SS7 Security Threats & Mitigations

- Benefit from regulation
  - biometric-based identity for SIM swaps & PIN resets
  - DND for A2P – SMPP port

- IMSI encapsulation in transaction validity

- Restricted SIM swap reversal - RBAC

- SS7 Firewall deployment

- A2P SMS Firewall – inspection

# Emerging DFS Security Threats

- Unsolicited debit requests – Scaling from bank-to-mobile & online payments services

- Device & App related vulnerabilities – growth of Smartphone penetration

# Recommendations to govern/manage growth

- Security by design
- Heuristic (AI/ML) in AML/fraud detection
- Key partners like banks to use IMSI-type checks
- Regulation that doesn't impede agility/innovation