ITU Regional Digital Financial Security Clinic for Asia and Pacific

Advancing Inclusive Fintech Services and Fintech Security in Bhutan

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Fintech Landscape in Bhutan

- Digital payments;
- Money transfer and remittance services;
- Digital lending;
- Digital KYC (e-KYC, etc.);
- Open Banking/APIs
- Cybersecurity services and products

Banks (5)

Insurance Companies (3)

- Digital KYC (e-KYC, etc.);
- Open Banking/APIs
- Mobile applications

- Mobile Money
- Digital KYC (e-KYC, etc.);
- Cybersecurity services and products

Telcos (2)

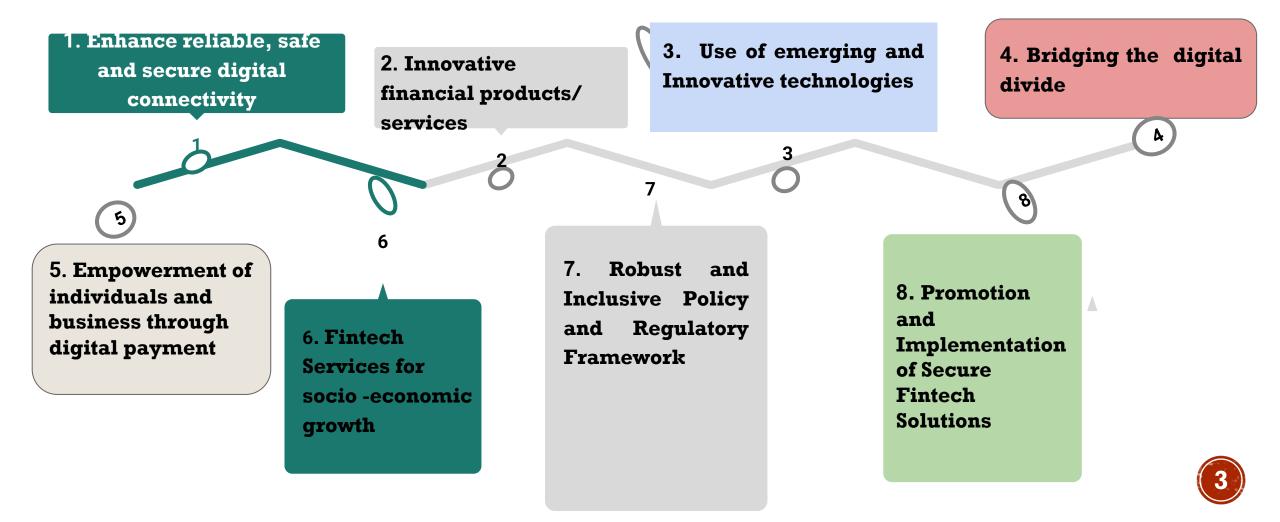
Other FSPs. (Pensions, CIB,CR)

- Digital Pensions and Provident Fund Services
- Online credit
 Assessment
- Digital lending





Promoting Inclusive Fintech Services in Bhutan







Key Security Consideration for Fintech Services

1.Encryption and Data Protection

- Importance of Encryption in Securing Data
- Data Encryption Standards (AES, RSA, etc.)
- End-to-End
 Encryption in
 Payment
 Processing

2.Authentication and Access Control

- Multi-factor
 Authentication
 (MFA)
- Biometric
 Authentication
- Role-based
 Access Control
 (RBAC)

3. Secure infrastructure and Development Practices

- Secure Coding Standards
- Secure Software
 Development
 Lifecycle (SDLC

4. Continuous monitoring and Incident response

- Real-time Monitoring
- Behavioral Analysis and Machine Learning and AI in Fraud Detection
- Incident response plan to mitigate and recover from security breaches promptly.





Compliance and Regulatory Framework

Privacy and data protection policy (including GDPR) for protecting consumers

ISO 2700 series certification of Datacenters and Information system.

Compliance with Payment Card Industry Data Security Standard (PCI DSS)

Integration of National Digital Identity(biometric based, facial recognition, SSI Blockchain technology) in most fintech services and online services

Cybersecurity auditing of telecom Infrastructure, data centers and other IT systems based on global standards or Framework (ISO 2700 series, NIST, ITU-T recomm, 3GPP, GSMA and CSA)

Fintech Regulatory Sandbox Framwork-2020

Business Continuity Plan(BCP)- Redundancy Core network and Data centers-TSPs





Fostering Fintech Security in Bhutan

Risk Assessment and Threat Modeling

Secure Development Practices

Real-time Fraud Detection and Prevention

Compliance with Regulatory Standards

Continuous Monitoring and Incident Response

Employee Training and Awareness

Vendor Risk Management

Regular Security Updates and Patch Management

Research and Development (R&D)





