How Startup Ecosystems Accelerate Telcos’ Transformation
A study in Hong Kong and Singapore Startup Ecosystems
10:45-12:00
Topics

• Telcos’ value proposition in the Internet Value Chain

• A startup idea to accelerate the 5G business model

• Startup ecosystems and telcos’ transformation

• Action plan in 2023-2025
A wakeup call in 2017
A successful project... something went wrong

- Hundreds of small bandwidth circuits
- Dozens of large bandwidth circuits

- Customer service upgraded
- Network performance better
- Network infrastructure simplified
- Number of circuits less
- Unit price lower
- Overall revenue drop in the long run

PTC’23
15-18 JANUARY 2023 | HONOLULU, HAWAII
Value proposition

OTT players’ CAGR: 26.7% and 20.1%

Telcos’ CAGR: 2.4% and 5.7%
OTT players’ CAGR: 26.7% and 20.1%
Telcos’ CAGR: 2.4% and 5.7%
Internet Value Chain Framework

Content Rights
- Premium Rights
- Made for Digital

Online Services
- E-commerce
- Video
- Audio
- Publishing
- Cloud-based Software service
- Social
- Gaming
- E-Travel

Enabling Technology & Services
- Design & Hosting
- Payment
- IoT Platform
- CDN
- Cloud Platform & Infrastructure Services

Internet Access Connectivity
- Mobile Access
- Fixed Access
- Satellite

User Interface
- Hardware Devices
- Systems & Software

Source: GSMA Internet Value Chain 2022
Internet Value Chain Framework

Online Services
- E-commerce
- E-Travel
- Video
- Audio
- Search

Enabling Technology & Services
- Payment
- Cloud Platform
- IoT Platform

Payment Services:
- Stripe
- PayPal
- Alipay

Cloud Platform:
- Azure
- AWS
- GCP

IoT Platform:
- Bosch
- IRI
- Voracity

Online Services:
- Amazon
- Alibaba
- Airbnb
- Uber
- Netflix
- YouTube
- Spotify
- Google
- Baidu
Topics

• Telcos’ value proposition in the Internet Value Chain

• A startup idea to accelerate the 5G business model

• Startup ecosystems and telcos’ transformation

• Action plan in 2023-2025
An ambitious idea in 2020
An inspiration from PTC’20
Monetizing the 5G infrastructure

Augmented Reality (AR) wearable

Smart City in Mixed Reality
Augmented Reality (AR) wearable
Smart City in Mixed Reality
Mission failed, yet Vision gained

IDEAS FROM THE PROJECTS
It’s not a choice between standardization and customization but an INTEGRATION OF BOTH.

IMPRESSION FOR THE TELCOS
To monetize the 5G business, it requires NEW BUSINESS MODEL rather than 5G CELL SITES.

LESSON FOR THE START-UPS
To fulfil the needs of the telcos, it requires a START-UP ECOSYSTEM rather than a STARTUP.
Topics

• Telcos’ value proposition in the Internet Value Chain
• A startup idea to accelerate the 5G business model
• Startup ecosystems and telcos’ transformation
• Action plan in 2023-2025
An initiate of emerging innovations in 2023
Hong Kong and Singapore Startup Ecosystems
Hong Kong Startups

**3,985 startups, +52% vs 2018**

- **2018**: 2,625 startups
- **2019**: 3,184 startups, +18%
- **2020**: 3,360 startups, +21%
- **2021**: 3,755 startups, +6%
- **2022**: 3,985 startups

**Source:** Hong Kongs Startup Ecosystem 2022 (startmeup.hk)
Singapore Startups

- Startups: 4,356
- Investors: 515
- Incubators: 228

Over 50 categories

Source: Singapore’s Startup Ecosystem (startupsg.gov.sg)

PACIFIC TELECOMMUNICATIONS COUNCIL
Overview of the Startup Ecosystem

• Data map of over 3,500 Startups

• Big Data (436 startups)
Capture the innovations from Startups

Startup Ecosystem Landscape

Emerging techs and Mega trends

- Startups
- Technologies
- Investors
- Universities
- Incubators
Visualization of the IT Sector

IT Sector Overview (1,401 startups)
Visualization of the domains

Domain: Infotech (580 startups)

Domain: Robotics (87 startups)
Innovation identification
Integration & Acceleration

Startup Growth Lifecycle

Telco’s Product Lifecycle
Integration & Acceleration (Cont.)

**PROS**
With the startup partners, telcos can leverage the startups’ innovation and technologies to accelerate the new product development.

**CONS**
New R&D methodology and business model need to be developed.
Topics

• Telcos’ value proposition in the Internet Value Chain
• A startup idea to accelerate the 5G business model
• Startup ecosystems and telcos’ transformation
• Action plan in 2023-2025
Three Phases in 2023-2025
Action plan in three phases

Pilot Projects & Operation Synergy
- Machine Learning model
- Create business synergy among stakeholders

Identify the supply and demand
- Startup’s Innovations
- Telco’s demand

Facilitate the Startup ecosystem for telcos' transformation

Formulation & Optimization

Action plan in three phases
Innovation identification

Startup Ecosystems

Integration & Acceleration

Infrastructure
Business Units
Product Lifecycle

PTC Council
#PTC23
Database for the whole Startup Ecosystem

Startups’ database

Ecosystems database

Startups
Incubators
Universities
Government
Investors
R&D Institutions
Retrieve the “unknown” needs of telcos’

- Internal request
- Technology trend
- Social media
- PR news
- Corporate reports

Telcos’ big data

Data capture and Machine Learning

Telcos’ Needs

Needs without “knowing”
Do things in a different way, the better way

**TRADITIONAL**
- Solution or product
- Price
- Supplier v.s Customer

**INNOVATION**
- Partnership
- Business remodel
- Tackle the “social problem” with technologies and innovations
Our Goal

But… to rebuild one!
Thank you!

Should you have any question, feel free to contact us
idea@telcox.io