



Network Evolution

PacNOG 25

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Convergence Journey



Traditional
Telecommunications
Provider



To



One-Stop-Shop
Communications and
ICT Provider

Network Challenges

- Customer hesitant to adapt modernisation
 - cloud migration
 - business are technology driven
 - e-transport
- Demanding for quality:
 - low latency
 - Bandwidth
- Pacific Island country footprints
 - Fiji becoming hub for Regional Island countries



VF Network Update

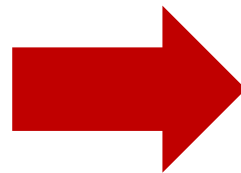
- Capacity Upgrades
 - Radio
 - Transmission
 - Core Network
 - Bearer Network
 - ISP
- End of Life Replacements
- Redundancy Setup
- Network Evolution
- New Network (ICT/Teleco) Solutions
 - Cloud
 - Cashless economy
 - Network CDNs & Peering



Data Core

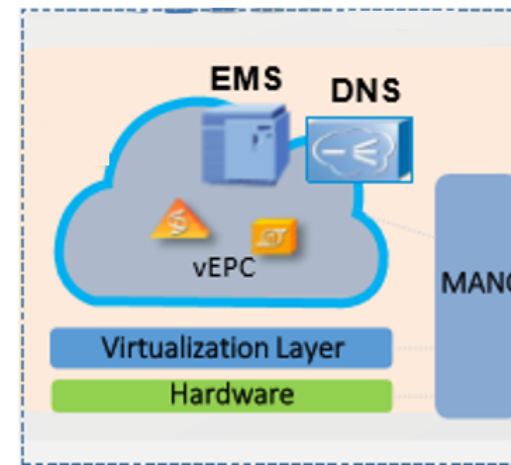
- Traditional Setup

- Multiple nodes
- Traditional O&M
- Non automation
- High OPEX



- NFV Platform

- All hosted in a virtualised container
- Unified management for APP & Resource
- Auto-deployment

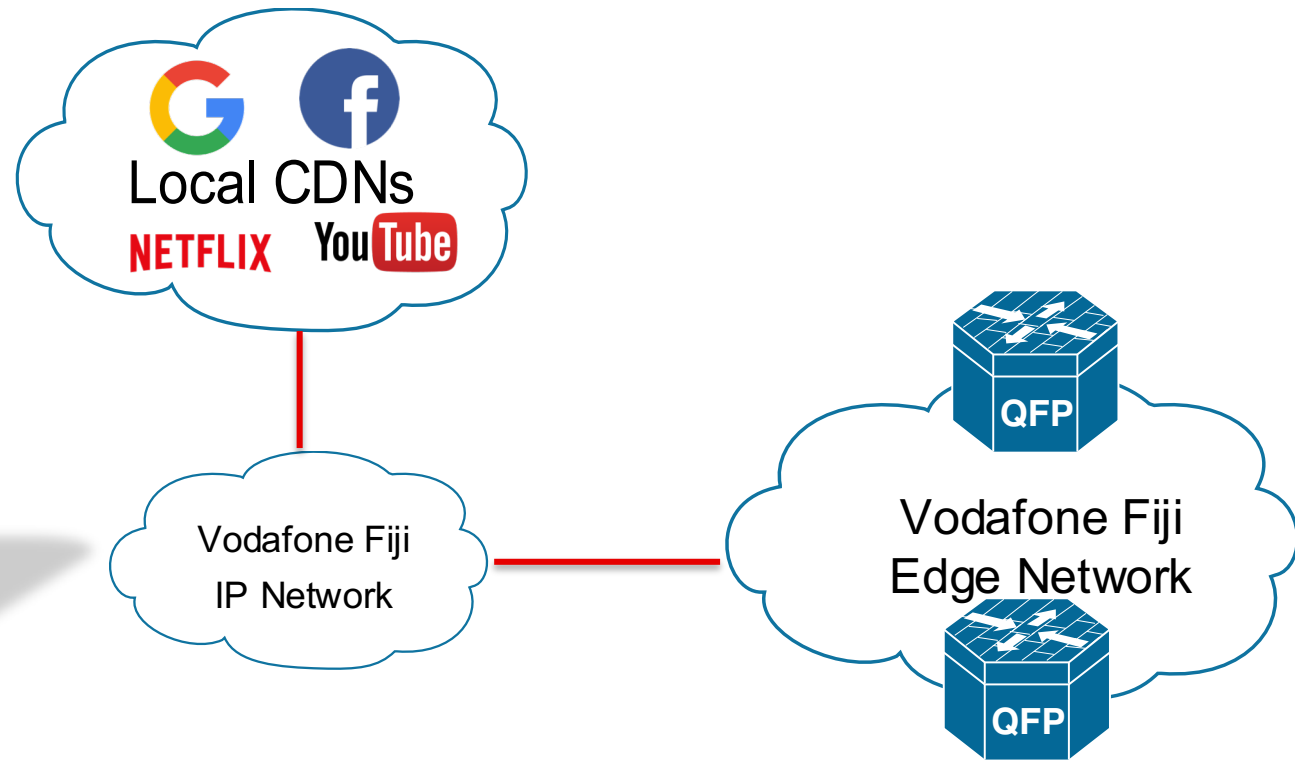
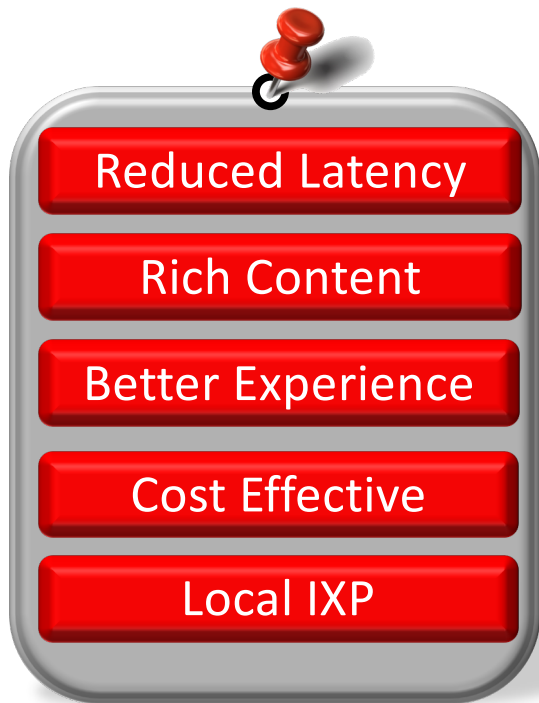


Bearer Network & ISP Edge

- Backbone Network
 - End of Life Replacement
 - Capacity Upgrade
 - Routing standards
- Firewall Repositioning
 - Carrier Grade Natting
- Network Redundancy Setup
 - Suva and LTK Data Centre ISP Setup
 - Capacity Upgrades



Content Caching



Connectivity – Regional Submarine Cable(s)

Vodafone Microwave Transmission

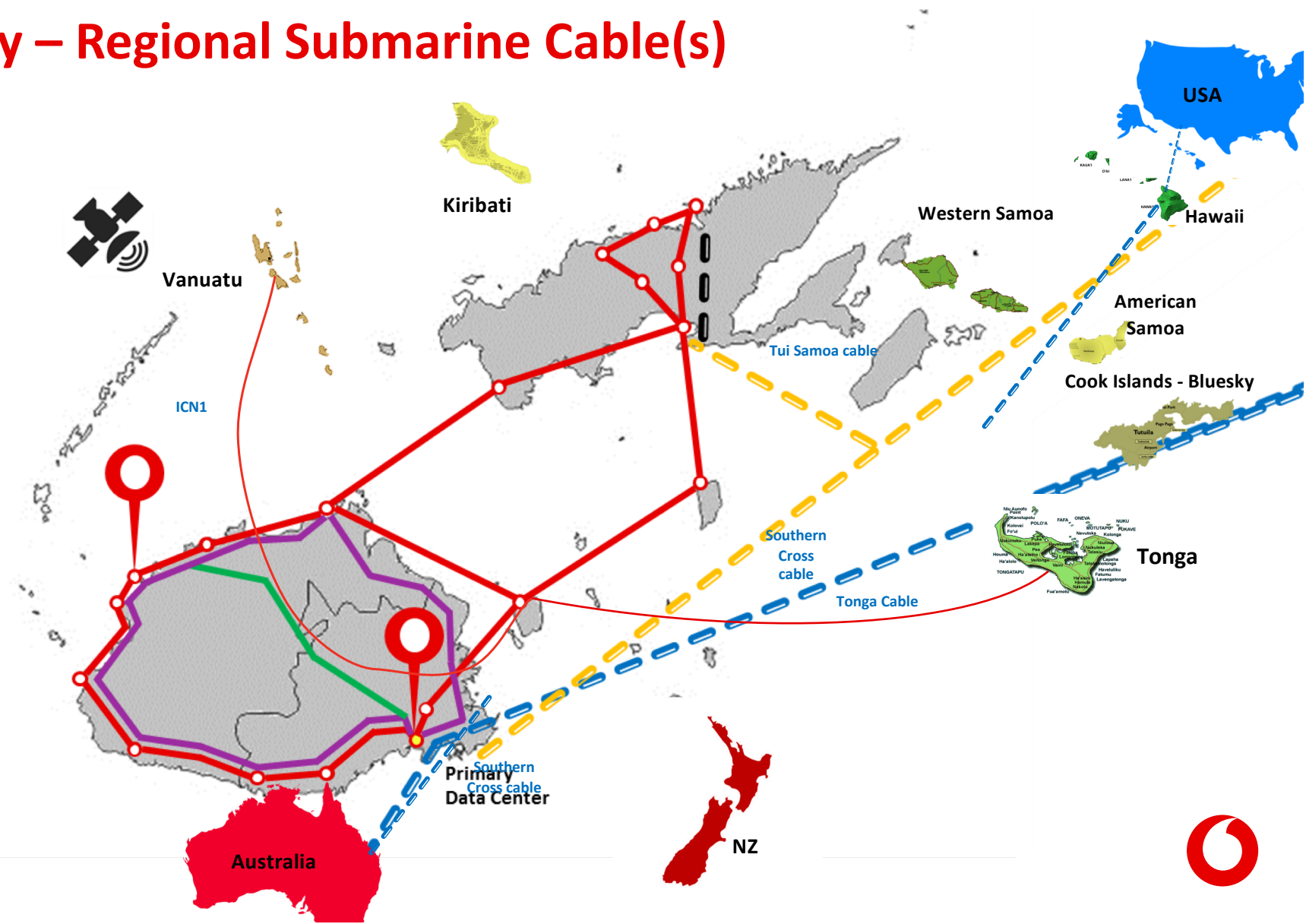
Coastal Fiber

Insular Fiber Transmission

IGW – Southern Cross

TUI Cable

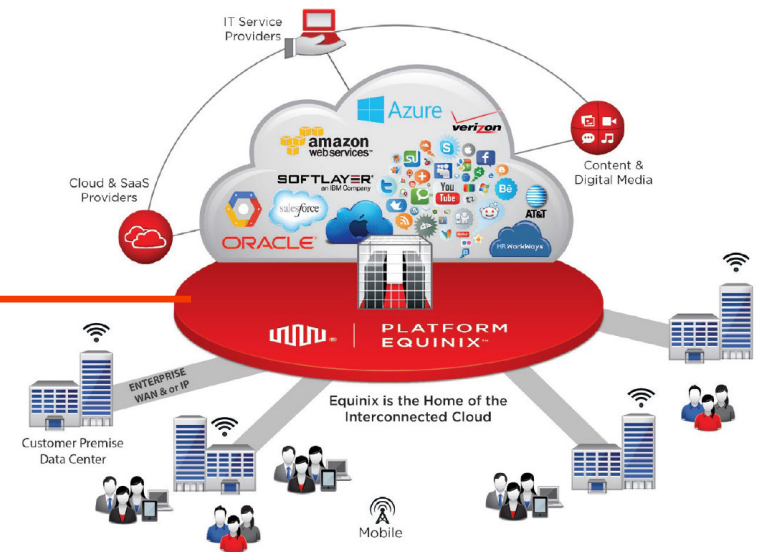
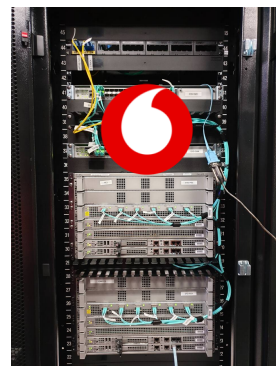
Data Center



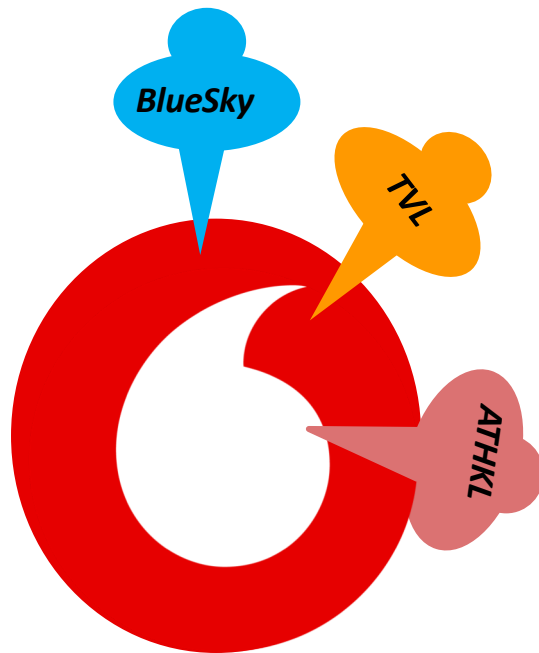
ISP Goals



- Vast majority of content consumed by end-users is available by peering:
 - The major content providers (Google, Facebook, etc)
 - Private cross connects
 - Internet Exchange Points
- Goal is to obtain as much peering as possible.
- Transit will be the last resort, for any content not available by peering



Next!!! - Leveraging ISP Services



- Fiji to be the regional hub for the South Pacific
 - Vodafone Fiji operate as a key provider for ISP Services
 - Become a Content Provider of Major Events that interest local Markets.
- Both Fiji & Guam have:
 - Large amounts of submarine fibre passing through
 - No open neutral interconnect facility



Online, M-commerce and Digital Payment



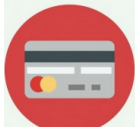
E-transport → phase 2 of TVM recharge services rollout



Country's first M-payment gateway → integration with banks



E-commerce/online shopping platform → online retail



Mastercard integration → issuing of virtual cards



M-paisa QR code deployment → cash-less payment solutions



Networks 2020 → Beyond

Services

Value Platforms

Low Latency

Throughput

Efficiency

Mobile Network

Reliability

Communications

5G

4G

3G

2G





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