



**Market Liberalization,
Regulation and
Infrastructure
Development in the
Federated States of
Micronesia**

Developing Open and Competitive Markets

FSM Telecom Act 2014 Amendment



- Opened FSM for multiple Telecommunications license holders
- Allowed for establishment of the Telecommunications Regulation Authority
- Allowed for establishment of the Open Access Entity: FSMT Cable Corporation

FSM Government Commitment



“I was very supportive of the idea of liberating telecommunications to compete. We just had to create an environment where competition is healthy for everyone.”

- **Emanuel Mori Former President of FSM.**

“We are fully on board in this process of opening up the market, to invite outside operators. “

- **David Panuelo Current President of FSM.**

Economic Snapshot



- Average real GDP growth last 4 years of 2.8%
- Personal Income tax rate 10%
- Social Security tax rate 7.5% for the employer.
- Gross Revenue tax rate of 3% for businesses
- Average wage of USD 10,000 per annum
- Import taxes 4%

FSM Telecommunication sector



- FSM has significant potential for growth in uptake, awareness of communications is high but penetration of fixed line - and specifically mobile services is low.
- There has been no competition to date which means end user pricing is relatively high, services are constrained and options limited.
- Mobile penetration rates are low with 21 per 100 the lowest in the Pacific region.

FSM Active Telephone lines 2018



State	Population	Wireline	Wireless
Chuuk	49,337	1,077	6,678
Kosrae	6,709	994	783
Pohnpei	36,704	3,569	8,592
Yap	11,537	1,440	3,767
Total	104,286	7,080	19,820

Source: FSMTC Audited FS 2017/2018

TRA - Regulator



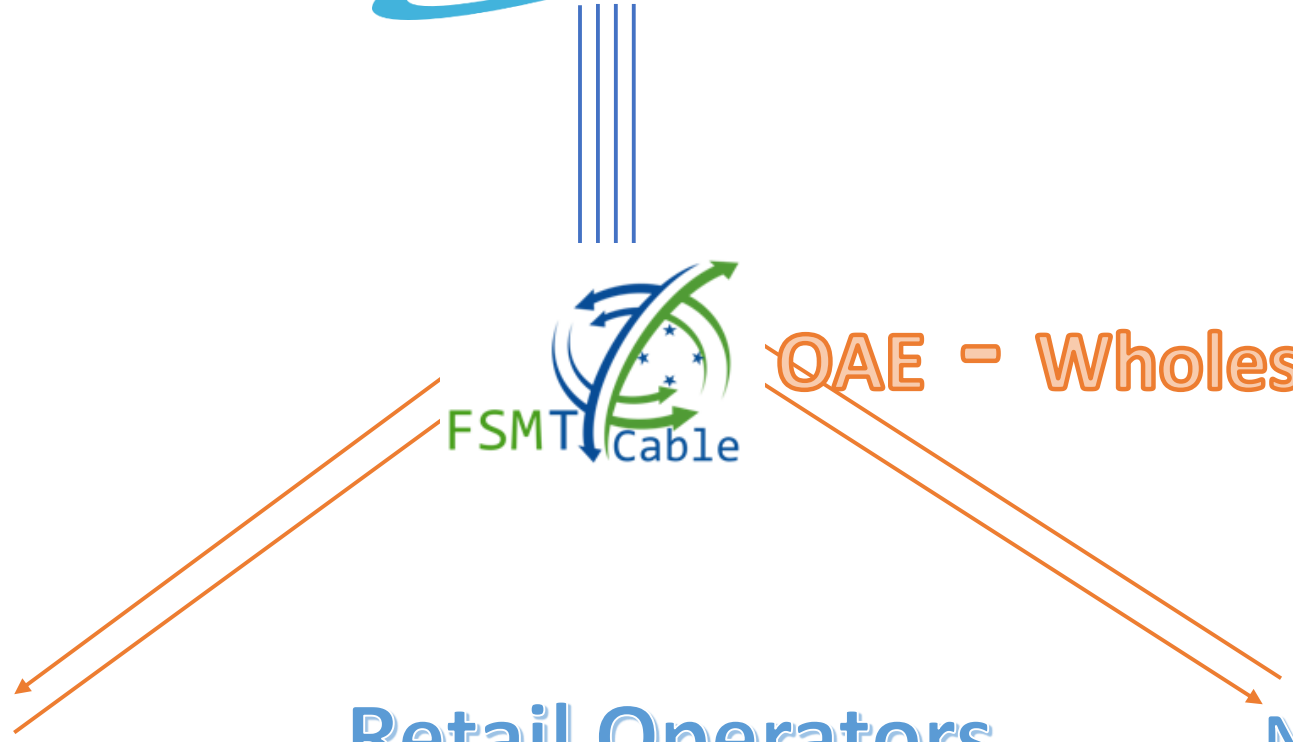
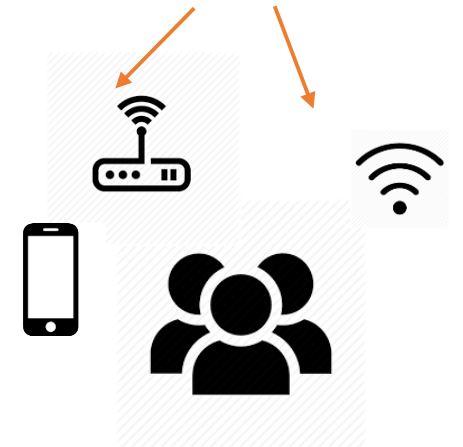
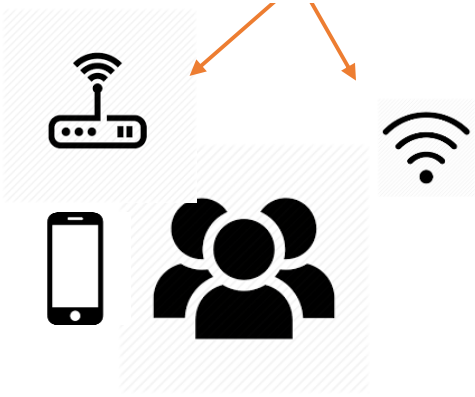
QAE - Wholesale

FSMTC

Retail Operators

New Entrant(s)?

Customers



Role of the Regulator I



- Telecommunications Regulation Authority (TRA) was formally established late 2018
- TRA advised by internationally recognized expertise
- Rules promulgated October 2019
- Has issued licenses to the two incumbents FSMTC and the OAE

Role of the Regulator II



- Providing regulation that is non-discriminatory in nature, and promotes reliance on market forces to the greatest extent reasonable in the circumstances;
- Providing conditions for effective competition among service providers in the FSM while encouraging efficient and sustainable investment in- and use of communications networks & services;
- Providing a licensing regime which promotes entry of new licensees;
- Protecting the interests of consumers and regulating prices;
- Promoting the effective and efficient use of the radio frequency spectrum, numbers, rights of way, and other finite resources;
- Promoting the appropriate use of communications networks and communications services.

Role of the Regulator III



- National Numbering Plan: Numbering resources will be available to new entrants.
- Available Spectrum Frequency licenses: cellular mobile; fixed links; land mobile; government use; special temporary use, and other radio communications services.
- Spectrum station licenses.

Role of the Regulator IV



- Primary process is negotiation between licensees, following standards set by the TRA.
- TRA holds a subsidiary role.
- Negotiating Agreements falls to Licensees themselves.
- Licensees shall adopt one of the following approaches to set interconnection prices:
 1. commercial negotiation
 2. cost-based prices
 3. bill and keep
- Interconnection and Access Rules specify other standard terms for agreements.
- Licensees will file copy of agreements with TRA, TRA must publish these online.



License Fees

License Application Fees

Established in Schedules 1-3 of Schedule of Fees

Generally fixed amount <USD 125

Application fees will have to be specified by TRA for cellular mobile licenses

License Renewal Fees

Established in Schedules 1-3 of Schedule of Fees

Generally fixed amount <USD 100

Renewal fees will have to be specified by TRA for cellular mobile licenses

Annual Fees

Established in Schedules 1-3 of Schedule of Fees

Can vary by annual revenues

Requires annual involvement from TRA to set fee amounts

<http://tra.fm/wp-content/uploads/2019/06/FSM-Schedule-of-Fees-FINAL.pdf>

Role Open Access Entity I



- The OAE owns and manages the current submarine cable assets for the Government of FSM on a not-for-profit basis.
- OAE's Shareholders are the Secretaries of Finance and Communications, it has an independent Board of Directors
- OAE's current assets are \$35M, it is free of debt.
- OAE's total operational costs are \$1.5M per annum and include OAE internal costs, submarine cable O&M and third party outsourcing costs for Hantru-1.
- OAE's costs to grow to \$1.7M per annum when Kosrae / East Micronesia Cable System is Ready for Service in 2021.
- OAE's costs are fully charged to licensed Communications Services Providers operating anywhere in FSM.

Role Open Access Entity II



- Current Assets:
 1. Yap spur to SEA-US cable and IRU with Telin to Guam
 2. Chuuk - Pohnpei Cable system
 3. IRU in Pohnpei - Guam (Pohnpei spur to Hantru-1 to Guam)
 4. Cable Landing Station Inventory in Yap and Chuuk
- East Micronesia Cable System expected during 2021, co-owned by FSM, Nauru and Kiribati, offering more opportunities for telecom investment in Micronesian States.
- Terrestrial Fiber networks to be deployed by OAE in all 4 FSM States in the near future.
- Outer Islands of FSM states to be served with LTE Broadband via small solar powered VSAT stations.
- All networks grant funded by World Bank, managed by OAE on not-for-profit basis.

Role Open Access Entity III



Objective is to remove any barriers to bandwidth use

- Interstate and International connectivity is on a cost recovery basis.
 - Estimated \$1.7m per annum shared between all operators based on their share of market revenue.
 - No charge for actual capacity used. Supplied on demand in 10Gps increments.
 - Enough capacity for beyond 2030 at 40% CAGR.
- Layer 1 FTTH services
 - Start at \$10 per connection for 32:1 split service month for Consumer
 - No installation fees for consumers and businesses
 - Other ancillary services on a cost recovery basis

Role Others: The Association of Micronesian Utilities

- The AMU is a not-for-profit entity, made up of the 4 utilities in the FSM, supportive of the market liberalization and interested to discuss access to AMU infrastructure elements (poles, ducts) that are beneficial for communications services providers.

Association of Micronesia Utilities (AMU)

Kembo Mida, Jr.

President & Chairman of the AMU/CEO of the Chuuk Public Utility Corporation

- AMU incorporated February 26, 2010 as a not-for-profit entity.
- Comprised of the 4 state utility companies in the Federated States of Micronesia with a total customers base of 14,000 as follows:
 1. Chuuk Public Utility Corporation: 178 commercial; 28 government; 1900 residential.
 2. Kosrae Utility Authority: 180 commercial; 125 government; 1,300 residential.
 3. Pohnpei Utility Corporation: 1280 commercial; 6390 residential.
 4. Yap State Public Service Corporation: 445 commercial; 2200 residential.

AMU's purposes and powers

1. To be the formal body to collectively addresses the primary and urgent needs of the Micronesian regions, including in energy and water related issues.
2. To serve as the focal point in securing necessary partnership and funding to assist utilities within the AMU with a broad range of needs.
3. To represent the member utilities in regional and international organizations and forums.
4. To assist member utilities achieve greater financial sustainability.
5. To foster and engage in national and regional approaches to emerging trends and projects benefiting the members.
6. To work with associations, suppliers, distributors in the private sector to enhance progressive strategies.

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Thank You For Your Kind Attention !

