



# Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 09-Jan-2020 | Report No: PIDA27357



**BASIC INFORMATION**

**A. Basic Project Data**

Country Micronesia, Federated States of	Project ID P170718	Project Name Digital Federated States of Micronesia	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 13-Dec-2019	Estimated Board Date 31-Mar-2020	Practice Area (Lead) Digital Development
Financing Instrument Investment Project Financing	Borrower(s) Federated States of Micronesia	Implementing Agency FSM Telecommunications Cable Corporation, Department of Transportation Communication and Infrastructure, Telecommunication Regulation Authority, Department of Health & Human Services, Department of Finance and Administration	

Proposed Development Objective(s)

To expand access to the internet, promote private sector investment in digital services, and establish the critical foundations for digital government services and the digital economy in the Recipient’s territory

Components

- Component 1. National Digital Connectivity Infrastructure
- Component 2. Digital Government Platform
- Component 3. Enabling Environment for Digital Government and Digital Economy
- Component 4. Project Management

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	30.50
<b>Total Financing</b>	30.50



of which IBRD/IDA	30.50
Financing Gap	0.00

**DETAILS**

**World Bank Group Financing**

International Development Association (IDA)	30.50
IDA Grant	30.50

Environmental and Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

**B. Introduction and Context**

Country Context

- Geography and Demography.** The largest nation in the Micronesian sub-region, the Federated States of Micronesia (FSM), is made up of four semi-autonomous States (Kosrae, Pohnpei, Chuuk, Yap) located between Palau and the Philippines to the west and the Marshall Islands to the east. Although its land area covers just 700 square km, FSM consists of more than 600 islands scattered over an area of about 2.6 million square km, including its Exclusive Economic Zone.<sup>1</sup> The overall population of FSM is estimated to be 104,468 (2018), of which approximately 45 percent live in Chuuk, 37 percent in Pohnpei, 11 percent in Yap, and 7 percent in Kosrae. Although the population declined from a high of 107,432 in CY2000 through CY2010, the trend stabilized in 2012, with slight annual increases continuing through 2019.<sup>2</sup> FSM has also experienced considerable internal migration across States, mostly from outer islands to the main islands’ urban areas, and especially, to Pohnpei, which hosts the Country’s capital Palikir as individuals are particularly drawn to employment with the National Government. Access to basic services is also generally higher in Pohnpei.

<sup>1</sup> An Exclusive Economic Zone is a sea zone prescribed by the United Nations Convention on the Law of the Sea (UNCLOS) over which a state has special rights regarding the exploration and use of marine resources, including energy production from water and wind.

<sup>2</sup> FSM Population projections, FSM Statistics Office.



2. **FSM faces significant challenges related to its small size, remoteness, geographical dispersion, environmental fragility and exposure to external shocks.**<sup>3</sup> FSM is reported to have the highest estimated rates of poverty among the nine small remote Pacific Island Countries (PIC9) covered in the Regional Partnership Framework (RPF) for FY17 to FY21.<sup>4</sup> These findings are based on a household income and expenditure survey conducted in 2013/14, which found about 41 percent of FSM's population struggling to meet basic needs and 10 percent living below the food poverty line. The survey also documented stark variation across FSM, with the basic needs poverty rate most severe in Chuuk (46 percent), followed by Pohnpei and Yap (39 percent) and Kosrae (21 percent). FSM is highly dependent on digital technologies to connect people across vast distances and as the key enabler for economic diversification, to create new income-generating opportunities and improve public and private sector service delivery. Digital connectivity services are essential to improve outcomes for citizens of outer islands, especially access to education, markets and health services. Frequent natural disasters and climate change impose high costs and may even threaten the physical viability of some areas of both the main islands and more remote outer islands. Such events can and do cause severe damage to infrastructure and other economic assets and have adverse economic and social impacts.
3. **Economy and Market Considerations.** In 2018, GDP was approximately US\$351 million, which equates to some US\$3,058 per capita. The public sector is a major part of the FSM economy, accounting for around 32 percent of GDP and 48 percent of formal sector employment. Outside of the public sector, agriculture and fisheries are the main economic activities, contributing around 23 percent of GDP. Small scale service industries, such as wholesale and retail trade, make up the remainder of the economy. Most goods are imported and there are few exports. During 2018, FSM ran a trade deficit, with the total value of exports at around US\$143 million and the total value of imports at around US\$263 million. Fiscal policy is highly dependent on foreign aid and fiscal transfers, primarily from the United States of America (USA) via the Compact of Free Associations (Compact), typically for public investments, and service provision in education and health. Foreign grants have averaged 37 percent of GDP over the past decade. Under the Compact, in exchange for exclusive access to the FSM's sovereign territory for defense purposes, among other arrangements, the USA provides yearly financial transfers to the FSM, access to a range of Federal Government services and programs, and open migration to the USA for FSM citizens.
4. **Citizens in FSM, especially those who live in outer islands, are extremely vulnerable to extreme climatic risks in the absence of reliable and resilient communications systems.** Digital services are essential to facilitate the deployment of disaster risk monitoring tools and applications that require large volumes of data, and provide mechanism for early warning systems and post-disaster communications. When disasters such as typhoons strike, which is becoming more likely and frequent with a changing climate, communications services are the only 'life-line' for outer islanders to coordinate with Government, donors and non-governmental organizations on the scope of impact and the assistance response needed, including food, water, energy supply and other emergency response services. Even without disasters, reliable and secure digital service are crucial for the socio-economic resilience of local communities as the key enabler for economic activities and access to primary public and private sector services.

---

<sup>3</sup> Systematic Country Diagnostic, Report No. 102803, World Bank, January 20, 2016.

<sup>4</sup> Household income and expenditure survey, 2013/14, Regional Partnership Framework for Kiribati, Republic of Nauru, Republic Of The Marshall Islands, Federated States of Micronesia, Republic Of Palau, Independent State Of Samoa, Kingdom Of Tonga, Tuvalu, and Vanuatu (PIC9) , World Bank, 2016.



## Sectoral and Institutional Context

5. **Digital technologies play a key role to connect people across vast distances, create new income-generating opportunities and provide access to public and private sector services.** However, access to high-speed Internet is still limited which is constraining the ability of individuals and business to unlock the full potential of a digital economy. The submarine cable systems connecting the states are only one part of the challenge of delivering broadband services. Terrestrial fixed and wireless services, sometimes referred to as middle and last mile services, are also needed to connect users to the Internet. While fixed broadband access rates are high by regional standards at 22.9 percent of households, quality and performance are very poor. The majority of fixed broadband customers have access to only 512Kbps or 1Mbps ADSL services. Mobile performance is also very low by regional standards. The FSM mobile subscriber rate for 2018 is 20.7 per 100 and mobile broadband is 0 per 100 (International Telecommunication Union (ITU), 2019), which is the lowest in the Pacific region and below the Marshall Islands which is the next lowest for mobile subscriptions and mobile broadband in the Pacific.<sup>5</sup> Mobile coverage largely offers only basic voice (GSM) services concentrated on the four main state islands. In the past two years, 3G has been rolled out around main population centers and recently LTE has been deployed in and around Kolonia and Palikir (Pohnpei) and around Weno (Chuuk). However, uptake of mobile broadband services is minimal, zero according to 2019 ITU data, and most people continue to rely exclusively on basic GSM services. Poor network performance significantly constrains the ability of FSM to rollout out digital services, create new income-generating opportunities and provide access to public and private sector service.
  
6. **Cost of digital services is also a serious issue.** Access to high-speed Internet is limited and costly for both residential and business users. Fixed broadband is provided via digital subscriber line (DSL) over copper lines. On Pohnpei and Yap (with submarine fiber optic connectivity) only low-end asymmetric digital subscriber line (ADSL) packages are available, with services offered in the US\$26/month range for 512 kbps and US\$39/month for 1 Mbps. The ADSL price and services levels in Chuuk were recently reduced in line with Pohnpei and Yap following the switchover from satellite to the new Chuuk-Pohnpei submarine cable system. Packages offering higher residential throughputs are available, at speeds of up to 8 Mbps for US\$226/month, but these tariff levels are well beyond affordability for most households. The maximum speed of 8 Mbps is also not considered a broadband service under the common standards adopted by the United States and Europe, which mandates minimum speeds of 25 Mbps and 30 Mbps respectively. For Kosrae, the ADSL tariff is US\$33/month for a 256 kbps and US\$65/month for 512 kbps. Very high speed subscriber line (VDSL) is available in some areas, but are targeted at business users with a tariff starting at US\$1274/month for 1 Mbps and up to 8 Mbps for US\$10,912/month. The affordability target for entry-level broadband services in developing countries is less than 2 percent of monthly gross national income per capita (ITU – UNESCO Broadband Commission). The cost of broadband services in FSM is well above this threshold. The entry-level ADSL 512 kbps, well below what is typically considered a broadband service, constitutes 10 percent of monthly gross national income per capita. Globally in developing/emerging markets, mobile broadband services typically cost below US\$1 to US\$5 per GB. In comparison, in FSM the cost for a basic monthly mobile service is around US\$15/GB.
  
7. **Government recognizes the importance of digital government and that the foundations for this are not yet in place in FSM.** A holistic “whole of government” approach is proposed to establish common standards

<sup>5</sup> ITU (2019), "ICT Indicators (Edition 2019)", *World Telecommunication/ICT Indicators Database* (database), [http://handle.itu.int/11.1002/pub\\_series/dataset/5ed9ad92-en](http://handle.itu.int/11.1002/pub_series/dataset/5ed9ad92-en) (accessed on 31 October 2019).



and provide access to shared services across all five governments (National and four State governments). However, significant efforts are needed to establish the critical foundations and platforms to deliver prioritized digital services to citizens and residents. Most government transactional services, for example, obtaining birth, marriage and death certificates, registering a business, or paying taxes, are still manual and paper based. Little work has been undertaken to digitize internal government document flows. There is no standard document management system nor standard government email, and the development of information systems has so far been fragmented at the department/agency levels both at the National and state government. Government departments have only limited access to IT resources. Most departments have a website, but content is very limited, often outdated, and there is no common standard/look and feel. There are no data management or data protection standards in place. Transactional online services are not available and there is no digital payments platform for government services.

8. **Government will develop a Digital Government Strategic Framework and Implementation Roadmap.** The development of a Digital Government Strategic Framework will be led by DTCl, which will be responsible for coordination and consultation at the National and State government levels. It will have the following objectives: (i) implement Digital Government across priority Government agencies and activities; (ii) advance digital inclusion for all FSM citizens; (iii) strengthen governance and efficiency; (iv) promote data sharing and a service-oriented information systems architecture; and (v) enhance citizen engagement. The ultimate focus will be on improving Government business process and workflow efficiencies, improving the quality of life for citizens and residents, while reducing the complexity for businesses transacting with Government. Work on the Framework is expected to begin in 2020 and should be delivered by the end of 2020 or early 2021. It will promote the use of digital technologies within Government departments and agencies, including the transition from paper-based transactions to digital Government. This model is expected to enable a far more integrated, shared, accurate, and inclusive information flow within and across all Government agencies (at national and state levels) and also support open data initiatives in the future.
9. **Digital identity is essential for the efficient delivery of services, including development of the digital economy.** People without an effective means to prove their identity face significant barriers accessing education, financial services, healthcare, social welfare benefits, and participating in economic development and civic engagement. Inclusive, trusted and universal identification systems are pre-requisites for social inclusion. As such, identification serves, as a key enabler of government services in the economy, are critically important for eradicating poverty and achieving a broad range of development outcomes. Target 16.9 of the Sustainable Development Goals (SDGs) emphasizes the need to “provide legal identity for all, including birth registration” by 2030. This is also an important opportunity to address and remedy inequalities associated with access and use of government services and economic engagement. In situations where women are marginalized from leadership and decision-making roles, and therefore have less engagement with government platforms, an inclusive identification system will be a necessary first step in helping to remedy these inequalities.
10. **An integrated Government digital platform will need to be developed to consolidate multiple independent systems.** As part of the development of the Digital Government Strategic Framework, Government will identify how to consolidate systems and the highest priority frontline digital services that could be deployed in the next 2-3 years. Business registration, land registration, social systems, taxation and education, for example, are not accessible online. The interface between these existing systems will need to be developed, particularly around common standards and coding to promote interoperability between



datasets, in addition to the Government ICT architecture to support the more widespread and systematic rollout of digital services. Such architecture would provide common enablers needed by most electronic and mobile services such as identity authentication, business authentication, digital ID integration, content management, electronic payment services, data services, notification services etc. Using such enabling tools, Government departments could potentially save 30-40 percent of the time needed for online service implementation and could reduce their overall ICT cost by 20-30 percent, based on experiences in other countries. As part of the development of the Digital Government Strategic Framework, Government will identify its highest priority frontline services that could be deployed in the next 2-3 years.

11. **The legal and regulatory enabling environment needs to be developed to support the rollout of digital government service and online transactions.** FSM does not currently have the laws needed to support electronic transactions or to regulate privacy, data protection, cybersecurity or cybercrimes. As Internet use increases, Government will increasingly grapple with digital content and data governance-related issues, including cyber security, cybercrimes, data protection, data privacy and keeping users, especially vulnerable groups, including women and children, safe online. Data governance is an immediate policy priority. Reforms are needed to accelerate to facilitate the digital transformation and put in place data protection safeguards to strengthen privacy, prevent the misuse of data and give people in FSM the trust and confidence to access digital government services and participate in the digital economy. The absence of legislation or any policy framework on cyber safety and harmful digital communications has also been identified as a matter of specific community concern impacting on the physical and mental health and safety of women and girls. Legislative reforms to address harmful digital communications, alongside targeted awareness activities to bridge knowledge gaps at a community level, is a critical priority.
12. **Available evidence suggests that the increased availability of ICT services in FSM has been equally shared by men and women.** However, persistent inequalities in terms of labor force participation, violence against women and girls, health and education, and participation in leadership and decision-making mean there is a continued risk of these inequalities impacting women's ability to access and take full advantage of digital services. Policies are needed to help ensure that the digital transformation offers opportunities and benefits to men and women equitably—and that any adverse impacts are mitigated effectively. At the global level, World Economic Forum data indicates that digital services, robotics and artificial intelligence (AI) will lead to job losses of about 5 million across the top 15 top world economies and that the impact of these job losses will differ by gender. Men will get one new job out of the three jobs they lose; whereas women, on the other hand, will get only one job out of the five jobs they are losing. Strategies are needed to ensure that a digital access gap does not develop in FSM—particularly citizen engagement and other strategies to increase awareness around digital skills and digital opportunities for women.
13. **Safety online is a major concern in FSM, particularly for women.** Women experience the internet differently to men. International studies have found that women are more concerned about privacy risks online than men, and are more likely to keep their profiles private and delete unwanted contacts. Women also represent the vast majority of victims of stalking and cyberstalking, are far more likely to be sexually harassed online and more likely to describe these interactions as extremely upsetting. Younger women are acutely vulnerable to sexual coercion and trafficking, which may present an additional vulnerability online. Stakeholder, citizen engagement and community consultations during 2019 confirmed the relevance of these issues in FSM—there is a demonstrable gap in how women and men experience the internet. In particular, these community consultations found high rates of community concerns regarding the digital



circulation of sexually degrading images and videos, often circulated without consent and including girls below the age of consent. Furthermore, anecdotal discussions of these events highlighted the enduring shame and stigma that these instances had on women and girls when compared with their male counterparts. As such, safety online is a key issue for women in FSM. Policies and legislative responses to regulate harmful digital content are important to ensure that women in FSM feel safe online and are not discouraged (whether from personal experience or community pressure) from participating online.

### C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

To expand access to the internet, promote private sector investment in digital services and establish the critical foundations for digital government services and the digital economy.

Key Results

14. **PDO Level Indicators.** To monitor progress toward the PDO, the following set of indicators have been identified:

- Expanded access to internet services on outer islands (percentage of outer islands with internet access)
- People provided with access to the Internet (number) (disaggregated by gender)<sup>6</sup>
- Number of fixed broadband retail providers in FSM (number)
- Number of mobile service providers in FSM (number)
- Digital government strategy adopted by National and State governments (yes/no)
- Regulatory framework for digital services adopted (yes/no)

### D. Project Description

15. The Project components will be structured as follows:

16. **Component 1. National Digital Connectivity Infrastructure (US\$15M).** This component will improve digital connectivity by supporting the development of climate and disaster resilient national digital connectivity infrastructure. It includes financing for constructing and installing domestic fiber optic and wireless networks and related infrastructure to strengthen domestic internet and telecommunications connectivity; and financing for constructing and installing telecommunications infrastructure and providing connectivity services in underserved and remote areas in the Recipient's territory.<sup>7</sup>

17. **Component 2. Digital Government Platform (US\$6.5M).** This component will support a program of activities designed to develop the Recipient's National Government and State Governments' digital capabilities. It will finance a range of interventions and investments beginning with the development and implementation of a nationwide Digital Government Strategic Framework (DGSF). This DGSF will be linked to priority business process reviews, the development of government enterprise architecture and the rollout of a national government portal and priority digital services to the extent feasible. At the outset

---

<sup>6</sup> World Bank Corporate Results Indicator

<sup>7</sup> Those outer islands with a population of approximately 100 inhabitants or more.





during Project preparation, a stock take will be undertaken of current systems, processes and existing priorities across the five National and State governments.

- 18. **Component 3. Enabling environment for Digital Government and Digital Economy (US\$3.0M).** This component will strengthen the enabling environment for digital government and the digital economy, including on gender-related issues. It will also provide ongoing support to the Telecommunications Regulation Authority (TRA) for traditional regulatory priorities for the telecommunications sector, particularly to promote investment, technological innovation and evolution, and the long-term interests of users of digital services.
- 19. **Component 4. Project Management (US\$6M).** This component will provide financing for (a) Project Management Unit with DTCl to support project management and administration (US\$1M); and (b) the Central Implementation Unit (US\$5M). The CIU provides fiduciary and operational support for all World Bank projects in FSM and is located within DoFA.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

The environmental and social risks associated with the project are considered moderate. The environmental risks are minor to moderate and relate primarily to managing earthworks and waste during infrastructure installation and maintenance. Earthworks for trenching can require tree trimming or vegetation removal, exposes sediment to erosion and run off and can disturb cultural heritage. The risks to the community and workers during installation and maintenance relate to health and safety disruptions to access to properties and businesses and traffic hazards when working on or near roads. These types of risks are readily manageable with good construction practice. The ESMP for the route selection and design of infrastructure required the Project to avoid sensitive receptors, installation of infrastructure, training of workers and supervision and oversight of mitigation measures. The project is likely to result in social benefits through increased connectivity and access to information, particularly in terms of education, employment opportunities and health. However, increased connectivity can also result in an increase in cyber-bullying, addiction and exposure to illicit material. There are also risks relating to unequal access based on ability to pay, gender, age or ability. Project impacts during construction and land access are expected to be limited and can be managed through stakeholder engagement and project design/choice of technology and siting. The risks associated with the development of a digital government platform are limited as individuals will have the ability to volunteer for this process, it will not be mandatory.



## E. Implementation

### Institutional and Implementation Arrangements

20. The project will be implemented over a six-year period. The lead implementing agency for the Project is DTCl which will oversee the implementation of all components. FSM Telecommunications Cable Corporation will implement Component 1. DTCl will implement Components 2, 3(a), 3(b) and 4(a). TRA will implement Component 3(c). The National Gender Development Office of DoHSA, which is responsible for gender issues for the National government, will implement Component 3(d). DoFA will implement Component 4(b). DTCl and the National Gender Development Office will coordinate and work closely with the National government DOJ regarding policy and legal and regulatory reforms. Implementation Agreements will be entered into between the National and State governments to establish a Project Steering Committee and set out the roles, responsibilities and accountabilities of the National and State governments during Project implementation. Implementing Agencies will be supported by the Central Implementation Unit (CIU) in the areas of financial management, procurement, safeguards monitoring and evaluation and communications.

## CONTACT POINT

### World Bank

James L. Neumann  
Senior Counsel

Natasha Beschoner  
Senior Digital Development Specialist

### Borrower/Client/Recipient

Federated States of Micronesia  
Eugene Amor  
Secretary  
eamor@sbc.fm

### Implementing Agencies

FSM Telecommunications Cable Corporation  
Pieter Bakker  
Chief Executive Officer  
pbakker@fsmcable.com

Department of Transportation Communication and Infrastructure  
Mark Deorio  
Assistant Secretary  
mark.deorio@gmail.com

Telecommunication Regulation Authority  
Takuro Akinaga  
Chief Executive  
takuro.akinaga@tra.fm

Department of Health & Human Services  
Norleen Oliver  
Chief of Social Affairs  
noliver@fsmhealth.fm

Department of Finance and Administration  
Eugene Amor  
Secretary  
eamor@sboc.fm

#### FOR MORE INFORMATION CONTACT

The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

#### APPROVAL

Task Team Leader(s):	James L. Neumann Natasha Beschorner
----------------------	--

#### Approved By

Environmental and Social Standards Advisor:		
Practice Manager/Manager:		
Country Director:	Jane Millicent Sprouster	09-Jan-2020