

e-Government in the Pacific Island states: ICT policy and implementation in small island developing states

Samoa Country report

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2016

This is one of a series of background reports prepared for the “eGovernment in the Pacific Islands” book project (Springer), available at the Pacific Islands Public Policy Repository: <http://pippr.victoria.ac.nz/>

Acknowledgements

The completion of this report would not have been possible without the participation of a number of people. Our thanks are due to all those who generously gave their time for interviews, and shared their experience and concerns with us.

We also acknowledge research funding from the Victoria University of Wellington Research Fund, without which the research would not have been possible.

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I. Overview

E-government is widely regarded as 'transformational', increasing efficiency, productivity, accountability, economic growth, and citizen involvement. But while the governments of the Pacific Island states are committed to harnessing ICTs for effective government and economic development, they face major challenges in establishing successful e-government initiatives, through lack of infrastructure, human capacity, ICT literacy, and most importantly, appropriate strategies and policy.¹ This country report is one of a series of reports on e-government in Pacific countries being prepared by a research team from Victoria University of Wellington, New Zealand, assisted by in-country informants and co-researchers, as part of a larger project. The project seeks to understand the barriers and enablers of ICT adoption by the governments of Pacific Island states, focusing in particular on policy frameworks and governance structures that support successful innovation, and to identify best practice across the region.

For this report, the research team met in Apia in June 2013, and conducted interviews with key stakeholders in ministries and other government agencies and in the private sector. The information provided here is drawn from these interviews, agency policies and strategic plans, and other published documents such as reports on the country over the past few years. Where possible, the views of participants are distinguished from factual material, and the views of the research team noted. The format of the report comprises an introduction providing background information, an account of the views and achievements of key agencies and key stakeholders, and an analysis of the major issues that we have identified.

Robert Boase's (2009) report on the UNDP ICT4D project in the Pacific states outlines a number of expected benefits that Pacific Island states can expect from the introduction of ICTs to government. These include:

- More accessible government information and services;
- Faster, smoother transactions with government agencies;
- Increased access to government decision makers and to parliamentarians;
- More local access to government through the internet;
- Increased participation in government by all;
- Increased efficiency in government operations;
- Enhanced opportunities for smart partnerships with civil society and the private sector;
- Legal recommendation and security over the networks. (Boase, 2009, p2)

These expectations, which are expressed in various forms in Government of Samoa policies and strategies, furnish an appropriate framework for the investigation, and provide a set of metrics by which progress towards an effective e-government program can be evaluated.

¹ Waverman L, Meschi M, Fuss M. The impact of telecoms on economic growth in developing countries. The Vodafone Policy Paper Series. 2005; 2(03):10–24. Secretariat of the Pacific. Bridging the digital divide. Report of the 5th Conference of the Pacific Community. Noumea: Secretariat of the Pacific Community; 2007.

II. Introduction

A. The context

Samoa is one of many small island developing states in the Pacific Ocean striving to advance economically and bring prosperity to its people, whilst retaining its traditional values and way of life. According to the Samoa Bureau of Statistics, the population of the country at the time of the last census (2011) was 187,820 and it was estimated to be approximately 196,000 in 2013. The urban population, primarily located in Apia, is estimated to be around 37,700, which is approximately 20% of the population, and that proportion is increasing. The majority of the population lives on the two larger islands - Upolu and Savaii; five of the eight smaller islands are uninhabited. Samoa has a tropical climate, it is isolated, and has a geographically dispersed and mostly rural population. It is subject to tsunamis, volcanic eruptions, and tropical cyclones, which cause major disasters on average every 10-15 years. It has all the classic problems of small island developing states trying to develop ICT infrastructure.

B. ICTs in Samoa

Computer technology arrived in Samoa when the government established CSL (Computer Services Ltd) in 1977 to provide computing services to government departments and corporations. It was partially privatised in 1984, and fully privatised when the government sold the rest of its shareholding in 2004, making CSL a fully private enterprise, owned by the National Provident Fund, Samoa Life Insurance and CSL staff holdings. Mobile telephone services began in 1997 with Telecom Samoa Cellular Ltd (TSCL), a joint venture between the Samoan government and Telecom New Zealand, which was granted a 10 year exclusivity license although as an independent analysis of these market reforms notes “market penetration remained low, quality of services poor, and international charges high” (Favaro et al, 2008). In 1998, CSL launched the first dial-up Internet service (Samoa.net), followed soon after by LeSamoa.net (established by Lesa Telecommunication Services.). Throughout the 1990s, the Post Office Department was the main gateway provider to international internet links (Va’a et al, 2012, p. 129). A third Internet provider, iPasifika was launched in 2000.

Within government, the uptake of ICT occurred mainly between 1996 and 2001. A government wide-area-network or WAN established in 1999 linked most agencies to Treasury (subsequently the Ministry of Finance). Departments using ICTs at this time included Treasury, Inland Revenue, Customs, Foreign Affairs, Health, Public Service, Public Works, Agriculture, Lands, Surveys and Environment, Trade, Commerce and Industry, Education, and the Prime Minister’s Office (Va’a et al, 2012, p. 129).

Samoa experienced significant growth in ICT use subsequent to 2000, and a National ICT Committee comprising government and industry officials was formed in 2002 to focus on the development of a national ICT strategy, and the first National ICT Plan (2004-2009), which was launched in 2003. In 2002, the Ministry of Post and Telecommunications became the Ministry of Communications and Information Technology (MCIT) and in 2003, the first National Communications Sector Policy was developed. With the encouragement of the World Bank a revised Sector Policy in 2005 proposed a competitive communications market, with an independent regulator

who would issue licenses and ensure fair competition. In the same year the National Broadcasting Policy 2005 was promulgated, and an ICT Secretariat established within the MCIT. MCIT's role of developing and advising on policy led to a number of developments in subsequent years, including the initiation of the International Telecommunications Traffic and Gateway Policy, plans for a submarine fibre-optic cable, (a project completed by 2010), the Feso'otai Community telecentres project which was aligned with the SchoolNet project, aimed at developing ICT capacity and access in schools, and a UN-funded e-government web portal project. (Va'a et al, 2012, p. 131-2)

A key decision was to deregulate the telecommunications market. (Details of this process and disagreements about how it should be managed are well covered by Favaro et al, 2008.) After the passage of the Telecommunications Act 2005, "the Government also negotiated its own telecommunications contract with TSC, a joint venture between the state-owned enterprise, SamoaTel, and Telecommunications New Zealand. TSC gave up its exclusivity in return for a license to operate based on GSM technology. In 2006, the government issued two other licenses to operate mobile phone technology—one to Digicel (which also bought up TSC) and the other to SamoaTel" (AusAID. Pacific Economic report 2008). SamoaTel was privatized in 2011 to become Bluesky-SamoaTel, operating as BlueSky, a subsidiary company of BlueSky Communications (which itself is partly owned by UTOS).

As noted in the chapter "Aspects of Economic Development" in *Samoa's Journey*, despite the challenges in its implementation common to many small island developing states, (such as high costs, maintenance, lack of IT and planning skills, and lack of infrastructure), "modern forms of ICT have made a significant contribution to the nation's economy ...". (Va'a et al, 2012, p134). Mobile phones, computers and the internet enhanced efficiency and productivity, created jobs, and opened up new markets. Significantly, in terms of this study, the authors note that the introduction of ICTs to the business of government improved connectivity between national and sub-national offices, better planning and budgeting, improved public services, and more rapid response to disasters. Initiatives noted for their impact by the authors include the "government wide-area network for data exchange, the first e-government project, online registration, and web sites for all government departments." (p. 135). Benefits extended to the private sector as well, "facilitating domestic and cross-border transactions, opening up new marketing and distribution channels, and improving access to information about market, prices, and consumers", especially in the agriculture and tourism sectors (p. 134).

C. Current state of ICTs

Accurate statistics for fixed landlines, mobile subscriptions, and internet access are not available. According to BuddeCom (2014) there were 39,000 landlines and 185,000 mobile subscriptions in 2013, and mobile penetration is almost 100% (the report notes however, that not everyone has a mobile subscription, that some have more than one phone, and that mobile coverage reaches about 95% of the population).² Internet use is impossible to estimate since Internet access via mobile technology is now widespread, and it is likely that Internet users as a percentage of Samoa's population have exceeded the latest figure provided by the World Bank (2012) of

² BuddeCom. Samoa - Telecoms, Mobile and Broadband – Market Insights and Statistics. August 2014. (Available at: <http://www.budde.com.au/Research/Samoa-Telecoms-Mobile-and-Broadband-Market-Insights-and-Statistics.html>)

12.9%.³

D. Sector plans

A very important driver in Samoa's development has been the identification of sectors and a focus on across-sector development by the Government of Samoa and aid agencies, especially AusAid. The Samoan Sectors (based on the UN 1990 International Standard Industrial Classification of all Economic Activity (ISIC)) are part of the medium-term *Strategy for the Development of Samoa* (SDS) which includes a vision, national development objectives, and summary of economic and social policies that will achieve these. The sectors defined by the Government of Samoa include:

- Economic: Agriculture, Manufacturing, Tourism, Commerce, Finance;
- Social: Education, Health, Law and justice, Community development, Public administration; and
- Infrastructure: Construction, Electricity, Water, Transport, Communications

The Ministry of Finance and the Cabinet Development Committee have in the past used the sectors as a tool in coordinating aid and identifying development needs. The Sector Planning Manual for Samoa was updated and reissued in 2009 because sector planning is being revitalised as a key component of the 2008 Public Finance Management Reform Plan (PFMRP).⁴ Working in cooperation with the Ministry of Finance, aid agencies are encouraged to target their activities to sector plans. Aid programs are frequently targeted to a sector rather than a ministry, and aligned with institutional strengthening programs, a concept widely used in the aid/NGO sector, with a strong focus on capacity building and governance. Institutional strengthening programs have been used in Samoa in recent years to focus the efforts of donor agencies on locally defined needs. In 2008, the Office of the Prime Minister and Cabinet, and the Audit Office embarked on ISPs, and in 2010, Statistics and the Ministry for Revenue began their ISP (Strategy for the Development of Samoa).

III. The role of the Ministry of Communications and Information Technology, and the Development of the National ICT Policy

A. The National ICT Policy 2012-2017

The National ICT Plan was intended to be the major driver for the development of ICTs within Samoa for government agencies, business, and for better connected citizens. The newly formed MCIT took the lead role (advised by the National ICT committee) in developing the first National ICT plan and strategy (2003). The National ICT Committee included representatives of key government ministries and other agencies, the private sector, umbrella groups for NGOs, the Samoa IT Society,

³ This is higher than the figure for Vanuatu at 10.6% but significantly lower than Tonga at 34.9% (World Bank, World data Bank, c2014:

<http://databank.worldbank.org/data/views/reports/tableview.aspx?isshared=true>)

⁴ See MoF. Sector plans.

<http://www.mof.gov.ws/Services/Economy/SectorPlans/tabid/5811/Default.asp>

[x](#)

the National University of Samoa, and the education sector. Extensive consultation was undertaken through meetings and written submissions. In 2010, the Government of Samoa invited the ITU to review that plan and assist in developing a new one, the *National Information Communication Policy, 2012-2017*, approved by Cabinet in 2012. The review noted that the first plan had lofty goals, and was rather detailed, but that little had been achieved. The new policy is regarded by the Ministry as ‘more refined and realistic’ and that it takes into consideration ‘best practice learned from around the Pacific.’⁵ There are five goals, framed by the themes of accessibility, capacity, and community:

- To achieve accessible and affordable communications for all;
- To create an enabling environment for the development and adoption of ICT through Policy reform and improvements in legal frameworks;
- To strengthen ICT human resources and increase human resource development opportunities through ICT;
- To improve economic growth, social improvements, and their sustainability through ICT; and
- To utilize ICT for good governance. (National ICT Policy 2012-2017, p4)

The plan outlines anticipated benefits from the expansion, diversification and effective application of ICT in Samoa including “enhanced opportunities for education, health, agriculture and other public services”, “greater transparency, responsiveness and accountability within government”, and “cost effective means of delivering various government services” (p. 5). Each of these goals is interpreted by a set of actions, and measures for monitoring and evaluating progress. Goal 5, interpreted as a desire to improve transparency and accountability within government and enable greater efficiency and participation in government decision-making, includes actions such as developing an e-government strategy, delivering public services through creative uses of ICT ... and e-services, putting information and forms online, sharing data between agencies and service providers, and consolidating procurement.

Measures of achievement of these goals include breadth and currency of information on web sites, use of the government portal, number of ministries offering online forms, savings, and an operational e-government system. The Ministry is aware of the need for a strong legislative framework, but ideas about what that may specifically require (e.g. laws dealing with privacy, security, and cyber-crime) beyond the regulatory framework that has been put in place, and a general statement about equity, is not spelled out in the Plan. The MCIT has done a lot of work on the new e-Government Strategy, working with the e-government steering committee, established in 2011, but the Ministry reported that “in mid-2011 this committee decided they would step back and look at trying to get our infrastructure up first, which as you’re aware [includes] the Samoa National Broadband Highway.” An e-government strategy had been prepared, but at the time of the interview the document had not yet gone to Cabinet. The Ministry did not regard the earlier ADB-funded project to develop an open source-based government portal, as a plan or strategy. They noted that the portal is not a full web content management system, and creates additional workload for ministry staff,

⁵ Personal communication, staff of MCIT, 26/6/13.

who have to create the content. It has not, to date, been very successful, with only static and somewhat outdated information. The focus has been more on getting each agency to get a web site up, and indeed at the time of interview only one or two agencies remained without one. Most agencies are in the process of moving their web sites from static to dynamic, but some still struggle to keep the content up-to-date.

The Ministry's view was that the primary focus of its goals for ICT were to make government more efficient and accountable, to use ICT to develop an efficient procurement service for government, and have information and services available 24/7. Online access was part of a drive to ensure that rural areas were as well serviced as urban areas. These developments were part of an overall e-government strategy focused on pulling together services within a whole of government strategy structure under a Chief Information Officer. This role, which has not yet been created, would also have responsibility for security.

The e-government strategy was aligned with the Communications Sector Plan that the MCIT was also working on. Several of the issues being addressed in this plan are related to business as well as government, e.g. privacy, cybersecurity, digital transactions and digital signatures, and dealing with e-waste (an especially significant issue for SIDS). The inclusion of cyber-crime in the recent Crimes Act (2013) makes Samoa one of the few Pacific countries that has current legislation on cyber-crime. A major plank in the Communications Sector Plan under development is the ability to offer training in Samoa in key IT certifications (Cisco, Novelle, Microsoft, etc.) rather than having to send people to New Zealand for this. These qualifications are regarded as more important than a traditional Computer Science degree, and the Ministry is keen to see Cisco training introduced into the NUS program. A key player in the development of ICT for good governance in Samoa is therefore the Public Service Commission, responsible for developing HR capacity, and training. It was noted that citizens also need training, to take advantage of the planned online services, such as looking up the requirements for obtaining a visa, or filing PAYE tax although it is not clear which agency will take responsibility for this.

MCIT has made an inventory of software used in government agencies. Payroll across government agencies is handled centrally by the Ministry of Finance, and HR management by the Public Service Commission. The project would start with the establishment of a small inter-agency group which could investigate business processes in each agency, and identify potential areas for data sharing. Champions for such initiatives would need to be identified in each agency for the success of the project. The critical role of champions to the success of ICT projects was recognized, and that is why the Prime Minister initially chaired the national ICT Committee, although since the Samoa National Broadband Highway (SNBH) became the top priority the committee had not met in two years, and it is now the goal of the MCIT to have their own Minister chair it. The Ministry will be taking responsibility for the SNBH now that the infrastructure stage is completed, and expects to set up a division of MCIT, or an inter-departmental committee to manage it so that the government will have full or at least major control. MCIT is now turning its attention to the next stages in the project, the HR needs, what technology will be needed in agencies, how will it be coordinated, what parts of the service will be outsourced, and whether there will be a public tender for these services. Already the agreements surrounding the project have required the contractor to do as much in-house training as possible, so that the network and the data-centre can be run by local staff. Training material has already been prepared with this in mind. MCIT is determined that the mistakes it regards as having been made with

the submarine fibre-optic cable, where the government does not now have any control,⁶ will not be repeated with this project.

B. Samoa National Broadband Highway

The Samoa National Broadband Highway (SNBH) project is a Government of Samoa project, funded under a concessionary loan from the Peoples' Republic of China. Since the MCIT is the Ministry responsible for the project, the Minister of Communications is the Principal and the MCIT CEO the project sponsor on behalf of the government. The CEO chairs both the Steering Committee and the Project Committee. Computer Services Ltd is the Project Manager, authorized by the government to interface with the project vendor Huawei Technologies Ltd and other stakeholders, negotiate for resources, and communicate with contractors. (MCIT, 2013) According to MCIT:

“The purpose of the SNHB is to provide a full scale national broadband infrastructure for the government of Samoa, providing a network connecting all the government ministries and their agents, connecting all primary and secondary school, hospitals, Police, and emergency services in both islands.” (MCIT, 2013).

Commenced in April 2013 and completed in June 2014, the SNBH aims to provide a backbone structure to enable ICT as a tool for Samoa's economic and social development, and create a platform from which citizens can further develop knowledge and skills. The SNBH network consists of a fibre-optic network around the capital, Apia, microwave and radio transmission around the two main islands, Upolu and Savaii, and a National Data Centre, housed in containers on the outskirts of Apia. Although in the short term it will not provide internet access, SNBH will eventually link all government ministries and agencies, corporations, hospitals, schools, health centres, police stations, and agricultural centres throughout Samoa. Existing VPNs within key agencies would be migrated to the SNBH, which is designed to connect multi-location agencies in both islands. It is expected to contribute significantly to the speed and efficiency of government services and information management.

Although it is acknowledged that further legislation and an e-government strategy are still needed, and that consultants employed by some aid agencies would recommend a more cautious approach, rapid development is also valued. The Ministry view is that while the government takes note of the advice given, it reserves the right to make its own decision about the priorities to set in ICT strategy. But the alternate view, stated openly in the capital, is that the availability of a concessionary loan displaced more measured approaches to national planning outlined in the National ICT Plan, 2012-2017, as well as the National Infrastructure Strategic plan prepared by the Australian-based PIAC, and an extensive report by Leading Associates on e-government development in Samoa.

C. MCIT and other e-government projects

Apart from the SNBH, MCIT does not have authority over projects in other ministries,

⁶ This is the SAS-ASH cable which links Samoa with American Samoa and Hawaii, which the Government of Samoa, through MCIT, and SamoaTel signed up to in 2008.

although it is often represented on the steering committee for projects in other agencies, lending expertise and overseeing alignment with the ICT Strategy. MCIT's primary role is to provide a secure network to support such projects in other ministries, although in some areas, such as procurement, especially for software licenses across the whole of government, advice on issues such as privacy, and helping negotiate cooperative agreements between other ministries (such as Revenue and Finance, for example), they see themselves taking a lead role. In the view of MCIT data sharing remains a problem. Individual agencies are protective of their own data, and even collecting data needed by international organisations such as the ITU on telephone and internet use is problematic, because corporations do not want to divulge this information, despite the fact that the Regulator has authority to demand it. More and more data is needed for planning purposes, and the authority of the Prime Minister as Chair of the ICT Committee is sometimes needed to obtain information, or insist that agencies collaborate. The current focus is very much on government efficiency and interoperability, G2G developments, which MCIT believes will contribute to Samoa meeting its Millennium Development Goals, because efficiency allows more expenditure on other services. Examples of this efficiency include the preparation of the monthly payroll (reduced from several weeks to 2-3 days), and preparation of budgets. Samoa will graduate from the United Nations list of LDCs in 2014, and Ministry staff believe ICTs have played a large role in this.

Other projects still on the agenda as part of the draft e-government strategy, which are highlighted in the *Strategy for the Development of Samoa*, include land registration, local internet exchange access, a management information system for the Ministry of Health linking the Ministry, hospitals and health centres, and a tsunami warning system. But these, like the Police project to develop a system to manage immigration, will be developed by individual ministries. Longer term, with a focus on up-skilling the population through government supported tele-centres around the country and SchoolNet, demand from citizens and business for more interactive services is expected to grow. Business has been consulted through its participation on the National ICT Committee, and direct discussion held with key industries such as the banking system, but MCIT does not see that it can take responsibility for major G2B. The priority is the people, and using technology to make interactions between citizens and government more efficient, and to save on the huge amount of travel incurred by citizens currently by the need to visit a government agency in Apia.

Regional strategies and regional organisations have played some part in Samoa's own ICT plans. The first National ICT plan stemmed from a regional SOPAC workshop focused on the concept of national ICT plans and policies in 2001. Other regional workshops have contributed policy on specific topics, for example a regional workshop on cybersecurity to develop cybersecurity policies was held here in Apia in recent years, and SPREP helped develop an e-waste proposal as part of the EU-funded PacWaste project.⁷ Partnerships between the public and private sectors are also working well, and there is good cooperation over some major projects, not only SNBH, but the new Southern Cross cable, linking Samoa to Fiji, and the main cable link between Australia and the US that is under negotiation. This is part-funded by the World Bank, ADB, and Australia and New Zealand and possibly Digicel and BlueSky. Samoa has also committed funds. In addition, the SNBH project is utilising Digicel towers, under an Infrastructure sharing policy which allows the government to make use of 40 Digicel towers, to avoid additional expense and a proliferation of towers on

⁷ www.sprep.org/pacwaste

the landscape.

MCIT is aware of the impact of mobile technology in Samoa (and other Pacific Island countries), and of the need to ensure that as government web sites are further developed they are accessible by mobile phones, but it has no immediate plans for this development. (Some other ministries give this issue higher urgency⁸ although given the relatively low rates of access to the Internet, initiatives deploying mobile technology would necessarily have to focus on SMS messaging rather than anything depending on web access.) In a final comment the CEO noted that telecommunications had not been a high priority in development projects over the years, but that with the Prime Minister now championing ICTs, a new political will to advance ICTs will see many new projects in the coming years.

IV. Other Key Agencies

While all ministries use ICT in some form, carrying many corporate functions using FinanceOne and standard office systems to support other activities, we looked for initiatives that showed more advanced use of ICTs to support their specialist activities, and cite the following examples. A number of these ICT projects are funded by development agencies often working with specific sectors, or in alignment with an institutional strengthening program.

A. Ministry of Finance (MOF)

The Ministry of Finance, formerly the Treasury, fulfills a number of functions, providing policy advice as well as financial services to the government. The Ministry is responsible for: developing national economic strategies and plans, producing and managing the annual budget, managing accounts (including payroll for all government agencies), internal audit, managing procurement and payments, managing government assets (including buildings and the Women's Affairs complex), aid coordination and management, and monitoring SOE performance. The Ministry also has responsibility for energy policy and oversight of that sector, including Samoa's compliance with the Kyoto protocol through the Clean Development Mechanism, and, aligned with this, climate resilience investment and coordination of programs. It represents the government in dealing with organisations such as IMF and World Bank. Because of its responsibility for procurement and payroll, it manages the current government local area network, or LAN, described by one official as "a very basic WAN". It has responsibility for the Finance Sector plan, and is on the boards of related organisations such as CSL.

Over the past few years the Ministry has been implementing the Public Sector Finance Management Reforms that emerged from its Institutional Strengthening Program (ISP), and leading the Strategy for the Development of Samoa, which covers economic outcomes, social policies, infrastructure and the environment. This is required under the Public Finance Act 2001. The Ministry's ISP, funded by AusAid, led to considerable change of systems and processes, the introduction of performance budgets, and a more client focused approach. One significant outcome was a greater division of responsibilities between the MoF and other ministries. Another major outcome was an updated financial system (FinanceOne), developed to

⁸ This view was expressed by the Ministry of Finance IT Unit.

meet local needs identified through a prolonged consultation process. The key attributes sought in developing the system were transparency and accountability, as well as shared responsibility between the ministries and other agencies. The ISP was very successful in the view of the CEO, “changing mindsets”, and this was an encouragement to other ministries to engage in similar development programs. In pursuit of greater accountability, the Ministry now strives to get its financial reports up on the web site as soon as possible. Making financial data publicly available is seen as critical to successful partnerships both national and international.

The MoF IT division is linked to all government agencies through the FinanceOne system. The former financial system which had been in place since late 1998/99, was based on a dial-up local area network (LAN) using a basic MS Exchange email system, which frequently crashed, and later, the open source software Omail. The upgrade to FinanceOne (an integrated financial, supply-chain, payroll and HR management information system, developed by TechnologyOne)⁹ has greatly increased efficiency in the Ministry and the agencies it deals with. FinanceOne is implemented in all agencies through the LAN, and allows remote access to the system from within each agency - in smaller agencies this includes virtually the whole of the organisation, in larger ministries only the Corporate Services Division is connected to FinanceOne. But there are still difficulties involved in connecting with the MoF, due to overload on the LAN, and the MoF is not getting the timely information that it requires to support payments, which leads to problems with suppliers not getting paid on time.

The MoF IT Unit is expecting that the SNBH will form the backbone of the network on which FinanceOne operates, and that business between government agencies will be the top priority for the SNBH. Much of the work that is currently carried out on paper or by phone will be then handled online, and more government processes will be able to go online, up from the current 50-60% that are. Long-term, MoF expects that online government processes will include forms that can be completed online, and online payments for tax, and license fees. Some projects such as the Ministry of Revenue’s ASYCUDA system, which already supports online client interaction, and company registration, urgently need a secure broadband system. But it remains unclear when the SNBH will be available to deliver these services, and there has been some frustration around the delay. However, the CEO noted that the fact that CSL is driving the project hard, with a core team of people on many of the decision-making committees, suggests that there is some ‘natural coordination’ happening, and the hope is that when all the pieces fall into place, “it will all start functioning”. He did comment, however, that there is a sense around government that due to the many tasks MCIT has to take care of, things are not progressing at the speed that many people, especially the Prime Minister, would like.¹⁰

The Ministry has some concerns about the lack of progress on the National ICT Policy which it saw as an important tool in getting some standardization across the government sector. There is currently no central procurement of equipment - each ministry puts forward its own proposal for ICT or other procurement, evaluated through its own processes, although the MoF has a monitoring role. MoF also monitors funds coming in from donor agencies, and manages bids from various ministries to deploy these funds. All projects proposed by ministries are initially evaluated by the

⁹ TechnologyOne is an Australian software company, operating across Australia, New Zealand, Asia and the Pacific, which specializes in integrated enterprise systems for business, government and statutory authorities.

¹⁰ Interview with CEO and IT manager

MoF and its IT Unit according to how well they fit with national development strategies before being sent to the Cabinet Development Committee for approval. Once projects are approved, the MoF will decide which countries or donor agencies would be the most appropriate to approach, and/or which consultants might take on the task. This is a reversal of the process by which donors proposed projects is seen as one of the benefits of the newly developed Aid Policy and Debt Management Strategy that resulted from the ISP. This makes the process followed for the SNBH all the more unusual. While a greatly enhanced broadband network was clearly a major infrastructure need, the process did not follow the usual protocols.

It was also noted that while the focus in the SNBH project to date has been on infrastructure, little attention has been given to content and interoperability, nor to any centralized approach to IT that a broadband network would support. Currently, ministries decide for themselves on the software they will use, and use their own Internet providers, and web developers. Since the SNBH Steering Committee has decided that the SNBH will not, at least in the initial stages, provide internet access to ministries, this will continue for some time. There is no central government IT unit to oversee interoperability, data-sharing, or even create economies through centralised procurement. This lack of coordination also applies to the government portal and government web sites. IT leadership, training and capacity-building across government are a major concern for MoF. While the Ministry has conducted some of its own training in the past year, it sees the need for a capacity-building program as the SNBH becomes operative, and the need for funds to develop this, funds which it believes which should be urgently sought from external agencies. In their view the Ministry of Communications and Information Technology should take on the role of a central IT agency, providing support and training as well as leadership.

Data sharing and interoperability will be the first priority for the Ministry of Finance, and, in the absence of any centralised IT unit, the CEO suggested that he might be the first to go to Cabinet with a recommendation for a proposal for information sharing between agencies, and 'strict penalties' for ministries that do not comply. This is a high priority for the country, the Ministry, and he feels he already has the authority to do so. But it will be a matter of negotiating about the resources needed to achieve the data-sharing that he sees as the eventual goal. The CEO plans to raise this issue with the SNBH Taskforce (the government industry working party that reports to the National ICT Committee), and get the Taskforce to try and identify what hardware and software each ministry currently has, what they use this for, and what they think they could use the system for. They need to know what databases exist in various ministries, what data is needed for decision-making and planning, how the databases and systems can be made to 'talk to one another', and how to do this for the least cost to agencies. This should result in a set of decisions made by Cabinet, and a strategy to maximize the benefit of the SNBH for government.

Longer term the ministry believes the government will need to open up the SNBH as a broadband network to the private sector and the general public, and in the end provide internet access through SNBH. Since the Taskforce includes outside stakeholders such as CSL, and Digicel, as well as the Regulator, and is being driven by CSL as the project manager, there will be considerable pressure to open the network once the infrastructure stage is completed, or even before then. The MoF is also interested in plans to replace or augment the SAS-ASH submarine cable link, which has been in service since 2009, because it is overloaded, costly, and will be obsolete in four years. The government is in discussion with the World Bank and the Asian Development

bank about the best option for a replacement cable.¹¹

The CEO indicated that the Ministry has good relations with key stakeholders, such as the Samoa Chamber of Commerce, and the Samoa Manufacturers Association, and international organisations such as the IMF and its regional office for technical assistance in the Pacific (PFTAC), which is a good source of advice, along with the World Bank. In terms of accountability of the Ministry and the country, it is conscientious in publishing key documents (such as the Budget, Property Accounts statement, SOE performance and other statistics) as soon as they are available, on the MoF web site. This new level of transparency has given rise to more comment and challenge from interested parties, both within Samoa (in particular the media), and outside (such as the IMF). Students without their own internet access are able to access the same information on computers in the MoF documents library. Beyond this, the CEO did not see a need for an Official Information Act, and there has been no discussion of Freedom of Information up to this point. Security of information, however, is a priority.

B. Ministry for Revenue (MfR)

The Ministry for Revenue is responsible for revenue collection and enforcing Customs, border enforcement, and facilitation of trade, and Inland Revenue. It also offers support in terms of governance for other organisations such as the Samoa Bureau of Statistics, and the National Provident Fund. There are two main IR offices (on Savaii and Upolu) and four customs points. The taxes collected include VAGST, Petroleum VAGST, Income tax, PAYE, source deduction tax, withholding tax, provisional tax, business license fees (such as liquor store licenses), and company tax. It has considerable powers in terms of revenue collection, with authority to levy funds from organisations not paying taxes. MfR is a member of World Customs Organisation, Oceania Customs Organisation, the Commonwealth Association of Tax Administrators, the Pacific Islands Tax Administrators Association, and PFTAC (the Pacific Financial Technical Assistance Centre, an offshoot of the IMF). These memberships allow Samoa to participate in regional agreements, and receive technical support (especially from PFTAC).

MfR has recently participated in an Institutional Strengthening Program, funded by AusAid and NZAid, and assisted by NZ Inland Revenue. This had a huge impact. It resulted in an organizational restructure, based on redefined functions and roles for the next four years, and created a future plan. The exercise examined the tax base for revenue, the balance between large taxpayers and small, and resulted in a redefinition of the tax base for business. It also resulted in an upgrade of the Revenue Management System developed after major consultation with staff, and consideration of the major business uses of the core sections of the Ministry. One of the major problems that needed to be addressed was integrating systems within the Ministry, and exchanging information electronically. The existing Revenue Management System was not able to do this and reports being run at day end, e.g. on trade data, are dependent on manual transfer. The new Revenue Management System, being overseen by the Comptroller

¹¹ It is likely that this will be the Southern Cross cable (part of the Pacific Connectivity project in which the World Bank and Asian Development Bank already have extensive investments.) If this goes ahead it is possible that a separate government owned Cable Landing SOE would be set up as a wholesaler following the model in Tonga, where the Tonga Cable Ltd owned by Tonga Communications is the landing site wholesaler. (This would be in contrast to the SAS-ASH which is wholly owned by Blue-Sky subsidiaries, including the Cable Landing facility)

of Customs will have this capacity. This first phase of the ISP was about Foundations - it focused on tools, systems, and structure. In phase 2, Transformation, the focus is on how these tools are used; it is a formative evaluation to improve workflow.

A key strength of the plan was that it helped the IT Unit of the MfR to understand the business, and distinguish between an IT problem and a process problem. The Ministry has embarked on the development of a Corporate Plan and launched a staff engagement/performance framework. A Balanced Scorecard approach is now used throughout the Ministry for performance management. There is an HR restructure taking place in Customs, and an HR restructure pending in IR. The Ministry is also launching a new brand, and is in the middle of an audit, so change is a major factor in the organizational culture, and for the IT unit, this has meant focusing on the need to train people in different sections, as champions of the new structure and the new system.

The IT Strategic Plan (2011) is currently being updated by the IT Committee, which meets frequently. One of its main concerns now is to develop a strong Security Policy. In addition, the IT focus in 2013 is on the Customs Modernisation project, and new legislation for Customs. These are all part of the 2nd phase of the ISP, focused on procedures and systems. Following a recommendation from UN consultants in 2010, an update of the UNCTAD customs software ASYCUDA¹² has been installed and has been in operation for six months. The Ministry operates a LAN and uses the external access modules of ASYCUDA, as well as the modules for Cashier, Declaration, Release of a paper trail, and to manage exchange of information with clients. The system allows shipping agents to lodge manifests electronically, and view their status. Customs agents can lodge Declarations online, downloading the form, then registering the form and getting a Customs number online. The Declaration can also be approved online, and taxes assessed. One advantage is that while the Duty is currently 5%, 8%, or 20% of goods value, say, when duty rates change, this information also automatically changes. The system allows external parties Statistics and the Port Authority to access information on shipping.

In its IT Strategic Plan for the next few years, MfR has included development of a system to support online payment of VAGST for businesses, based on a secure bank to bank system. (Presently you can download the form, but must pay physically.) This project has been discussed with BlueSky and Digicel. The Plan also includes the development of a system to enable people to get their tax balance online, and use EFTPOS and Internet banking to pay their tax online. Online registration, and the use of digital signatures have also been mooted, but these are not necessarily part of the Transformation phase.

The Samoan National Broadband Highway project fits in with these recent initiatives, but the Ministry feels it needs more information on the future plans for the network. The MfR sees itself as customer-centric, and feels that other leading Government departments should be equally so. Using the example of the review of the income tax system, the Ministry believes that change must encompass all systems across a sector and include revision of the legislative framework as well. Ministry staff believe that their consultation with stakeholders has been a key factor in the success of their ISP, and consequent restructuring and transformation. They would like to see a sector wide approach taken, based on broad consultation with all stakeholders,

¹² ASYCUDAWorld, regarded by UNCTAD as supporting “full e-government”.

which would enable them to link their Strategic Plan to the National ICT plan, or the Strategic Plan of MCIT. They are looking forward to seeing the Sector plan completed to support more collaboration.

C. The Law and Justice Sector, and the Ministry of Justice and Courts Administration

The Law and Justice Sector was the fourteenth of the sixteen sectors to be set up, so it is one of the most recent and many agencies are involved (unlike health, education for example, where coordination is less of an issue). It includes the Office of the Attorney General, the Ministry of Police and Prisons, the Ministry of Justice and Courts Administration, the Samoa Law Reform Commission, the Office of the Ombudsman, the Ministry for Women, Community and Social Development. The Public Service Commission and the Ministry of Finance are included as they are in all sectors, along with community representatives, (e.g. matais and chiefs, SUNGO,¹³ and the Samoan Council of Churches). The Law and Justice Sector has been engaged in an Institutional Strengthening Project for the sector since 2006; this is its second ISP, as well earlier ISPs focused on specific agencies, such as the Ministry of Justice and Courts administration, and the Ministry of Police and Prisons. The Steering Committee for the Law and Justice Sector, chaired by the Attorney General has developed a new plan which outlines goals for the sector and lists projects to achieve these. Funded and supported by AusAid, this new sector-wide plan has had a strong emphasis on ICT. Working as a sector is seen as a good way of managing and coordinating donor funds more efficiently to ensure that similar projects are not set up in different parts of the sector.

Although a latecomer to ICT, the Ministry of Justice is leading the way in the sector, the first sector project being the digitization of the Land and Titles Court records, from 1903 onwards. The second project is the Samoan Legal Information Institute (SAMLII¹⁴), based on the model of PACLII (the Pacific Legal Information Institute.) (This is largely because the Samoan government perceives PACLII to have insecure funding.) While the Legislative Assembly web site also publishes legislation online, the sector will try to capture reports and recommendations of the Law Commission, and Commissions of Enquiry to add value, and to make use of the Government Wide Area Network (GWAN) and the SNBH for access to the database.

The third project is also with the Ministry of Justice, and will provide for all the courtrooms, both on Upolu and Savaii, electronic recording and transcribing equipment. So while previously this system was only used in the Supreme Court (and the Appeals court when it sits there), the District Courts and the Land and Titles courts will also have electronic recording equipment. This will increase the current 60% of proceedings currently captured by shorthand to 100% and ensure that all court proceedings are captured, and ready for lawyers and judges who want proceedings before the next day of a case. Eventually this will have to include transcription of Samoan into English.

The fourth project is a sector-wide project, a centralized statistics database. This derives from the first Law and Justice Sector Plan, 2008-2012, which identified very poor data

¹³ Samoa Umbrella for Non-Government Organisations

¹⁴ <http://www.samlII.org/>

collection systems in the sector. Funded by AusAid, and assisted by Australian Youth Ambassadors, this will collect data from the Police and other sources such as type of offence, gender and other details of the offender, whether the offender is a repeat offender or a deportee, the geographical location where the offense occurred in, as well as data on the victim. Data from the Ombudsman's office, and grievances filed with the Public Service Commission will also be collected. This is all driven by what reports are wanted, and the actual data, fields and terminology are being decided by the Sector ICT Committee. The key factors in the success of this program are having someone in each department take responsibility for the data, and also being able to build capacity, and to ensure adequate computer skills in each unit to collect and transfer the data. The sector is working with the Department of Statistics on this project, because Statistics are working on their Births, Deaths and Marriages database with a team from New Zealand who developed the system. Verification of identity, and of birth certificates, is a problem that needs to be resolved for both sectors. Identifying ways of transferring this data between agencies is also part of the project.

Future projects involve work on e-filing, again assisted by a New Zealand team from the NZ Ministry of Justice, which will automate the filing of charges usually done manually through a charge sheet taken to court by the Police, and any other documents lawyers and other parties to the case need to file. This allows for more secure management of case files, faster retrieval, and simultaneous access to files by more than one party. The electronic case file shows dates of hearing, and when documents were filed, and has the potential to shorten case processing time. This proposal would require the Ministry to bring the judiciary on board, through persuading them of the greater efficiency of the system, before the addressing necessary legislative amendments. Discussion is also underway whether to introduce a system similar to/based on the New Zealand e-Duty system whereby judges can deal online with urgent applications for things such as protection orders. In Samoa this would deal with matters such as Interim orders sought from the Registrar or President of the Land and Titles Court, but this would require new software to be developed. Whereas the e-Filing system which is already used in New Zealand was developed by a District Court Judge who was happy to share it. This project was cited as a good example of a project which met local needs and was likely to succeed because it was driven by a proactive and influential champion.

But all these successful projects have shown the value of having the Sector Steering Committee, which has taken responsibility for setting priorities and ensuring that new systems are appropriate for Samoa's needs. Focusing on the sector has meant that volunteer expertise could be directed towards preparing a plan to develop the web sites of all agencies in the sector. The Committee was also able to contribute to the Monitoring and Evaluation program that is tied to AusAid project funding, and was able to resolve a disagreement with an AusAid consultant, and through its own consultation processes determine its own program, focused on the outcomes that it saw as the most needed, and negotiate aid funding around these. The Sector Steering Committee has to balance AusAid's strong views on priorities and process with its relationship with NZAid. There are many collaborative projects undertaken with New Zealand government agencies which share their expertise and solutions, e.g. Corrections, which is assisting with a project to separate out the Prisons Dept from the Ministry of Police and Prisons.

D. Office of the Electoral Commissioner

One major application that will eventually make good use of the SNBH is the Electoral Registration Electronic (ERE) system that is being developed, which will enable voters to register online, or be registered by a local officer, at one of several documentation centres. These are likely to be part of the Communication Centres planned as part of the SNBH, which themselves are likely to be based at the existing Feso’otai telecentres already established in villages around the country. The ERE is a biometric-based system, based on photographs and digital fingerprints already being trialed alongside the current manual system, and the data will form a database of all registered eligible voters to produce electoral rolls for general elections. The introduction of online voting is not anticipated, but the new system will result in a much more accurate roll than the current one because of inaccuracies in the current Births, Deaths and Marriages data, meaning that many people have multiple identities. The system is expected to be in place before the next election, depending on the state of readiness of the SNBH. However, in the view of the Electoral Commissioner, there is no question, at least at this stage, of this electronic electoral roll becoming the basis of a national ID system for general use. It is not possible for the Electoral Commission to share data because of its constitutional role, and legal constraints over data sharing. The Electoral Commission and the Land Transport Authority have the best databases, and would share this information with Police or the Ministry of Justice if the circumstances warranted it, such as to check someone’s immigration status if they wanted to stand for Parliament. Long term ICTs may be used for voter education, but in the short term the new systems is the main interest of the EC, rather than any broader issues related to e-government. Like the CEO of the Ministry of Finance, the Electoral Commissioner did not see any need for an Official Information Act or Freedom of Information Act in Samoa.

E. Ministry of Education, Sports, and Culture

The use of ICTs in the Education sector is one of eighteen key strategies of the MESC included in the Ministry’s Strategic Policies and Plan for July 2006-June 2015. The Plan outlines detailed goals and a clear timeline for achievement of these over the period of the Plan. These goals include the use of ICT for efficient management and data collection, the training of teachers and school leaders, the use of ICT to deliver the curriculum, and inclusion of ICT as part of the curriculum (in particular Computing Studies, which is an examinable subject at years 12 and 13 in Samoan and regional secondary school examinations systems.) The strategy was the outcome of a broad consultative process involving local stakeholders as well as the inclusion of international expertise through aid agencies JICA, ADB, AusAid and NZAid, as well as the EU, PRC, UN agencies and PRIDE (the Pacific Regional Initiative for the Delivery of basic Education) as part of an Educational Sector Project (ESPII) which was focused on improving educational outcomes, and developing a sector plan.

MESC already makes use of ICTs in several of its management systems, and has a fully integrated computerised system, utilising ministry specific and government-wide management information systems, that jointly form the Education Management Information System (EMIS). The databases include:

- Pelican, the personnel information system;
- Manumea, which records and compiles the Schools Census information, and a unique

- ID for each student (SEN);
- ATLAS 2000, the system used for National Assessments; and
- SNAP, the Special Needs Assessment Program database which records information on those with special needs.

The Ministry is also linked to FinanceOne, and the Public Service Commission's Recruitment and Selection system.¹⁵

These information systems are beginning to prove their value and some have improved the efficiency of the Ministry (e.g. payroll), but the Ministry is aware that they need to be better integrated into one central database, so that the data would be more available to the Policy Planning and Research Division Section of the Ministry (PPRD) and could be used to inform policies, e.g. information on assessment, and students performance. The Education Sector policy acknowledges the challenges related to both the ministry's own systems, such as infrastructure, maintenance of information systems and databases, backup and disaster recovery, as well as the need for HR capacity building for IT professionals, and the challenges of introducing ICT into a traditional curriculum, and the need for standardising equipment in schools.

Records management and archiving of both print and electronic information is a key strategy. The Ministry's own ICT policies cover hardware, software, Internet security, and email (primarily focused on acceptable use) and ownership and storage of email is included in this as an example of good records management.

At the operational level, the Ministry is keen to take advantage of ICTs in education to address a severe shortage of teachers and other resources in key subjects, and to use ICT to promote increased interest in education in regions with low levels of literacy and numeracy. But connectivity remains a problem. This is one reason (the other being capacity) which the Ministry believes is behind the failure of the One Laptop per Child Program in Samoa, and it is an issue that SchoolNet is intended to address. SchoolNet, or the Samoa SchoolNet and Community Access Project, is a project funded under a grant from the Asian Development Bank. It is being implemented by the Ministry of Education, Sports and Culture assisted by a Project Team managed by the Research Triangle Institute International or RTI International. SchoolNet will eventually see 38 private and government rural secondary schools and colleges in Savaii and Upolu equipped with computers and e-resources, a printer, a scanner, a data projector and furniture, based in in a Learning Centre that each school has established and will manage.¹⁶ SchoolNet coaches will provide the skills and knowledge to support the efficient functioning of SchoolNet. A considerable amount of technical infrastructure funded by the ADB has been put in place and some initial training undertaken.

The Community Access part of the program is on hold while SchoolNet overcomes some issues in relation to procurement and staffing. However, although the development of the network has been put out to tender, through the Samoan government procurement process, this process seems to have been halted. The MESOC is under pressure to make SchoolNet part of the SNBH, which would delay Internet access for some time. Until this issue is resolved, SchoolNet will make use of

¹⁵ Ministry of Education, Sports, and Culture. Strategic Policies and Plan, July 2006-June 2015, p42.

¹⁶ Some of these will be located where the 12 Feso'ota'i Centres, established as a pilot project for trialing the provision of technology centres in villages, were located. (See <http://mcit.gov.ws/ICT4DevelopmentProjects/RuralConnectivityProgram/tabid/48/Default.aspx>)

non-internet and cached resources for the most part, sending out DVDs containing learning materials to schools. Schools will continue to use private providers for internet connections, where these can be afforded, most commonly CSL's E- (Education) Rate service, which also has filters for child /youth protection installed. While MESC sees real benefits for rural communities when the Community Access Program is up and running, allowing farmers access to information on prices and better agricultural practice, there are training and sustainability issues here too, which it does not at present have the capacity to address.

The ESPII program was reviewed in March 2013.¹⁷ In relation to the use of ICTs and inclusion of ICTs in the curriculum and for delivery of education, the review noted that the research conducted using the datasets now available in the Ministry by the PPRD had yet to be reflected in planning procedures (not an unusual problem), and considered the SchoolNet project "at risk". It recommended that MESC appoint lead ICT staff to get the project up and running, and commented "from another perspective, much work has been done on instituting ICT4E through the SchoolNet project, with hardware and a full complement of e-resources planned for all secondary schools. But, ultimately it will be up to MESC to make sure these resources are sustained over the coming years, and leadership will be needed to get the project on track." Like other ministries, MESC seems very much on its own in setting up and maintaining this crucial project.

F. Other e-government initiatives underway.

The various programs described above, and the policies and processes that led to their adoption, are highlights worth noting in the adoption of e-government in Samoa. But across the government sector there are ministries and government corporations which are quietly making use of ICTs to improve their efficiency, setting up databases, using specialist software to improve their functionality and their interactions with citizens. They are building web sites, putting up downloadable forms, gathering data and forwarding them in electronic form to the Bureau of Statistics, and making current information available as soon as possible. What we have noted in this section are a few examples of innovative uses of ICT to resolve specific problems, the further influence of aid agencies to assist with solutions to some of these problems, and areas where the use of ICTs in government create problems that must be resolved, such as the increasing number of electronic records, that must be archived in some form.

The Land Transport Authority, for example, uses a Road and Transport Safety (RTAS) system which records vehicle registrations, ownership and driver's licenses. It has recently added a Traffic Offence Notifications system to the RTAS system.

The Ministry of Natural Resources and Environment has been working with CSL and the Food and Agriculture Organisation (FAO) as donor to customise and install the FAOs' SOLA (Solutions for Open Land Administration) system. Although in Samoa more than 80 per cent of the land is held in customary ownership outside the title registration system, transactions affecting the remaining 20 per cent of freehold and government land have to date been managed using two separate computerised systems based on commercial software and dependent on overseas software support.

¹⁷ Samoa – Education Sector Project II 8th Joint Review Mission (JRM) - Joint Review Record 11-15 March, 2013. Available at: <http://aid.dfat.gov.au/countries/pacific/samoa/Documents/esp2-8th-joint-review.pdf>

SOLA integrates both title registration and cadastral mapping functions in an open source solution. The Land Registration System (LRS) is also being migrated to an open source environment as part of the same project. This will provide MNRE staff with title registration (from the Land and Titles database developed by the Ministry of Justice and Courts Administration) linked to cadastral information, including land ownership, tenure, precise location, dimensions and area and the value of individual parcels of land, via a GIS viewer. Additional benefits from this project include not only a Digital Archive of scanned registration documents, but also the development of local expertise capable of supporting and enhancing the open source system. According to Neil Pullar, SOLA Project Coordinator for the FAO, “SOLA fills a real need in Pacific countries for a computerised solution allowing land agencies to provide a better level of service, better access to land information, more secure recording of valuable land records and a reduced dependency on overseas experts to maintain and extend the system in the future.”¹⁸

The Disaster Management Office, which is a division of the MNRE has an early warning system which uses radio and text messages to broadcast warnings of impending disasters, and is planning to add internet communications which would be based on the SNBH and SchoolNet networks. There is good cooperation throughout the sector to manage the system, and mobile services providers are cooperating with DMO to get messages out to remote areas as well. The Office of the Regulator has recently taken the initiative in pulling the sector together with the establishment of the Samoa National Emergency Plan in collaboration with government telecommunication service providers and private organisations. The plan is intended to improve the ability of emergency response providers and government officials to communicate in the event of natural and other disasters and develop interoperable emergency communications nation-wide. It recommends installation of essential interoperable wireless telecommunication systems necessary for the emergency response personnel to effectively respond to incidents of different scales and magnitudes and describes areas of responsibilities and recommends both short and long term solutions for ensuring and improving coordination between all parties.

G. Government records

Managing electronic government records is a challenge facing all countries, especially those with limited resources, and little central control. In Samoa, government records and archives are managed by the Archives Unit, a section within the Culture Division of MESC. It has a small staff, and no developed policy about the transfer of government records to the archives, beyond the stated task of the Division “to develop national archives project to preserve Samoan archival records and strengthen public record keeping”. In the early years of the twenty-first century, as part of the joint Government of Samoa, AusAid and NZaid Public Sector Improvement Facility Program an across government program of institutional strengthening program worked with the Ministry to develop a whole of government approach to managing public records and government archives that encompasses e- records. Core agencies involved in the pilot program included MCIL, MESC, MoF, MJCA, MNRE, MPMC, MfR. In 2005, a Records Task Force was established, with the approval of the Public Service Commission to bring together records managers across government agencies and some

¹⁸ FAO. Sub-regional office for the Pacific. News. Samoa to pilot open source land administration software. 23 Sep 2012. http://www.fao.org/asiapacific/sap/home/news-room/detail/en/?news_uid=157790.

NGOs, which has developed codes of practice and training programs. A Code of Best Practice and Common Administrative Retention Schedules were approved by Cabinet in 2007, based on the ISO standard for records management 15489. The Public Records Act was passed in 2011, but there are still major issues surrounding the management of electronic records. However, Samoa is an active member of PARBICA and staff attend regional meetings, and have strong links with ArchivesNZ, and with Australian archives communities. Practice (and policies) are in a developmental phase and PARBICA is a good source of advice and training on appropriate e-archives/record-keeping policies for Pacific states. A project to digitise archives currently held in Apia of the German administration from 1900-1914 is nearing completion, funded by the Federal Republic of Germany and assisted by Archives New Zealand. The project commenced in December 2008 and was scheduled to be completed in December 2010, but appears to be ongoing. Some related historic material is held in Archives NZ, and copies will be made for the developing historic collection in Apia.

H. The government portal and agency web sites

The central government portal, which was intended to be a full portal, was really the first e-government project in Samoa. But without adequate infrastructure it was not able to be effective. Currently it is primarily a source of links to government ministries, constitutional authorities (e.g. the Attorney General, Office of the Electoral Commissioner, the Ombudsman, and the Public Service Commission - the main source of jobs online) and government corporations (e.g. Electric Power Corporation, Land Transport Authority, Samoa Airport Authority, and Samoa National Provident Fund). The Home pages have basic information about the country, and its governance structures, as well as the names, titles and biographies of the Head of State, Council of Deputies, Prime Minister, Ministers and Members of Parliament. It has little actual information beyond this, and some of what it has is well out of date, but links to agencies are mostly in working order. (The MAF link was broken, and the ACC link was corrupted.) It is not possible to return to the government portal from any agency web site. However, most of the documentation referred to in this report (apart from sector reports and other AusAid evaluation reports) was able to be found on agency web sites. Key agencies with which the business sector must interact, (e.g. the Ministry for Revenue and the Ministry of Commerce, Industry and Labour) provide information about mandatory processes and licenses, taxation information, and access to online forms, although no forms can be filed online. The simple structure of the portal works quite well given the small number of agencies, and the ease of access to information about their functions.

The Samoan Parliament has all Acts and Regulations available on its web site. Hansard online and the Journals of the House are some months out of date but Order papers, and the Procedural Digest, which records the daily business of the House, is up to date. Videos are available for some sessions in 2013, and other records of past sessions are being digitised. Email and phone contacts are supplied.

Individual ministries vary greatly in the sophistication of their website. All ministries list their vision, mission and values, their empowering legislation, (MFAT lists treaties and agreements), contacts, structure, publications and vacancies. Publications vary in type and number and include corporate and strategic plans, annual reports, research reports and newsletters which can be downloaded, occasionally in Samoan as well as in English. Most information is current. Larger ministries have full and current

information about their functions and structure available, plus forms for downloading e.g. MCIL (necessary applications available online for download), MFAT (which has embassy addresses, necessary for visa applications for overseas), or MoR, where forms are available for downloading (e.g. for quarantine declarations). Some have given through to information that citizens need, such as MESC, which provides information about school terms, school principals etc., and has past exam papers available for download. Others have minimal information, and very little current information, and no services (e.g. MCIT).

Some ministries have separate pages for specific enterprises (e.g. the Water for Life (WfL) program which is part of the MNRE web site, which has extensive information on WfL projects, and downloadable information on consultancies open to tender under the heading Expressions of Interest.). The Ministry of Health has downloadable forms for registration of nurses and other health professionals. The Ministry of Education, Sports and Culture web site has useful information about the national examinations (exam schedules, applications dates, fees, and past exam papers). Other key agencies have well developed web sites, with up-to date information, For example, the Samoa Bureau for Statistics uses its web site for making summary statistics available and detailed statistics from the recent census, reports and analysis available for download.

V. Other key players

A. The Regulator

The Office of the Regulator (OOTR) was established in 2006 under the Telecommunications Act 2005 to provide regulatory services for the telecommunications sector in Samoa, leaving MCIT with a purely policy role. According to the OOTR web site the objective of the Office of the Regulator is:

“to establish a fair and unbiased regulatory and licensing environment to foster national and international investment in telecommunications services in Samoa. The Office is also responsible for protecting the interests of end-users of telecommunications services by ensuring fair and equitable competition in all areas of the telecommunications market.”

The Office is guided by the objectives of the statutory framework contained in section 3 of the Telecommunications Act 2005 and the Broadcasting Act 2010. The objectives the OOTR is required to pursue include, among other things, facilitating the development for the telecommunication and broadcasting sectors, promoting universal access and efficient and reliable services, and the introduction of advanced and innovative ICT. While encouraging sustainable investment in the telecommunication and broadcasting sectors the OOTR is also required to establish a framework for controlling anti-competitive conduct in these sectors, promote efficient interconnection arrangements, and protect the interests of customers. It also has some responsibility for policy. Its goals include defining and clarifying the institutional framework for policy development for regulation of the telecom and broadcasting sectors.

From the perspective of the Regulator, e-government is simply a mechanism of organizing government services, a new form of governance, using new ICTs.¹⁹ The regulator's focus is on universal access, via the instruments provided in the Act, including the provisions set out in the Universal Access Policy presented to the Samoan government by the OOTR in 2010, which spells out the mechanism for levying funds from licensed operators, (as well as grants, fines etc.) and the principles for the disbursement of such funds to subsidise service provision to otherwise poorly served sectors of the community. Since the government, or the Prime Minister believes that current service providers are making unjustified profits, and since increased access to broadband is the government's goal in the SNBH, regardless of the process of ensuring this, the Regulator has put on hold any initiatives to extend access to Broadband networks for the time being.

However, the Regulator noted: "the first issue is in relation to the governance of infrastructure, ensuring that infrastructure is available and is accessible by all in a fair and transparent manner." He warned that significant government investment in the sector has the potential to impact on a small and fragile market, to create distortion in competition and accessibility for all. Like any ICT service, the SNBH is required to apply for a license, which it has done, and once the requirements of that license have been determined, then the Regulator will be in a better position to address its impacts on the market. At the same time, the government is working on its sector plan for ICT, and he believes that will have to address issues of governance and e-government.

Although the OOTR does not have a brief for e-government per se, many of the issues the Office deals with impact on the adoption of e-government services. For example, along with the ITU and the Ministry of Justice, the office took a lead in up-skilling local staff in the area of cyber-security, and have helped fund the training of officers involved in dealing with offenses related to cyber-security recently added to the Crimes Act. Treading a fine line between fulfilling the requirements of its Act and not stepping on other agencies' turf, there are many such issues where the OOTR can help create a suitable environment for the development of e-government, including their ability to determine fair rates for internet access, and interconnection charges between mobile phone service providers.

B. Perspectives of industry

The government's decision in 2012 to partner with the Chinese government in building the SNBH caused some consternation amongst the two dominant telecommunication service providers in Samoa, Digicel and BlueSky Samoa. Bluesky was especially disappointed to find itself no longer part of the dialogue and planning process, a position that it had enjoyed as State-owned enterprise SamoaTel, until its privatization in 2010. But BlueSky Samoa is now closely linked with Blue Sky Communications whose President Adolfo Montenegro is also President of Blue Sky Samoa. Blue Sky Communications is owned by Florida-based eLandia International, the majority owner of the ASH-cable (American Samoa-Hawaii), and Montenegro is also President of ASH. ASH is the major international submarine telecommunications link for Samoa through the ASH-SAS cable, officially opened in 2009 by the Prime Minister.

SamoaTel, now Blue Sky, tends to be blamed by the government and others for intransigence in bringing down internet charges in Samoa, even though, as Adolfo

¹⁹ Personal interview with the Regulator, 28 June, 2013.

explains at length, the \$26 million US\$ investment in a cable that carries only 150 Mgbps (3½ to 4 DS3s) is barely recovered, to give an adequate return in investment, and Samoa's small population cannot at this point support increased investment, although all the telcos are looking at increasing use and alternative cable options. In this context loss of revenue from government services through the construction of the SNBH exacerbates the problem from the perspective of BlueSky Samoa. Even so, the company is keen to assist in the development of the broadband network across the country, and provide storage, applications and solutions within Samoa at less cost than relying on services from providers outside the country. BlueSky is proactively trying to engage with Ministers and ministries to help build value-added solutions, such as online tax payments, or e-learning packages, as part of public-private partnerships, that have worked well elsewhere in their experience. They have offered to develop solutions with the Fire Service and the Police for the improvement of emergency operations, and are building up their own capacity in terms of software development to meet local needs when the opportunity arises. They believe they have needed expertise and capacity to help coordinate services between government agencies more effectively.

But BlueSky see themselves as shut out of key discussions, and policy development - possibly because of their earlier status as an SOE - managed by government, rather than as an energetic, creative new company, which has taken considerable risks, enhanced its services considerably within the constraints of a viable business model, and needs to aggressively attract new customers to cover that investment. From their point of view, they have taken a lead in trying to bring down Internet prices, without much support from the Regulator. They believe there should be a level playing field in order to benefit consumers, and that the Regulator was slow to take action about in bringing down prices for mobile interconnection, although that has now happened. While BlueSky acknowledges the real gains in the past ten years in Samoa since deregulation, from their perspective, the position now has stalled.

BlueSky see the major ICT initiatives in government agencies, some of which they have played a part in, as being driven by aid agencies, not the National ICT Committee. In particular, they believe that the lack of a government CIO with a coordinating role and authority to provide leadership in the adoption of ICTs in government is a real problem. They argue that CSL as a quasi-private company is not the answer. So while MCIT is a policy provider, and the Regulator takes care of the legal side, but they believe that there is no one within government driving development, and that this is a risk. In their view the SNBH project at present has no capacity to encourage government to government business, and will not link with business and citizens either. However, the company is pleased that the Samoa Chamber of Commerce is supportive of the industry and is doing an effective job liaising between industry and government – more so than in many other Pacific countries facing the same challenges.

For its part the Samoa Chamber of Commerce has been involved in the consultation process in relation to the Communications Sector plan, and staff have attended two seminars on the subject and submitted a position from the private sector. This mainly concerned the proposal for a one-stop shop portal (and/or physical call-in centre). The Chamber generally has good structures for consultation with government, especially around matters that affect business in Samoa since business is seen as the engine of growth, and share information gained in that process at meetings. Many of their private sector members and some council members sit on the Advisory Boards of SOEs, although since the recent government reforms these members must apply to be a

representative of the sector, in an open process. The Chamber is pro-active in providing comment on government plans, although are not always very satisfied with the outcome, and have to be persistent in communicating their views. There have been some projects that they feel they have been well consulted on - for example in the Ministry for Revenue reform project (the recent ISP?) consultant met with the Chamber to ascertain what would make processes better for business. Online forms, submitting forms online, payments online, and communication of VAGST, and business licenses assessments by email were all proposed. Some of these, e.g. an online process for registering a company set up by MCIL, and an EFTPOS system outside the MoR office have already eventuated. These were both aid projects. These initiatives are aligned with the government's goal of making Samoa an easy place to do business, and set up a company.

But there is a clear expectation in the business community that if government is making an investment in ICTs in the name of efficiency, government services to business should be costing less rather than more, as has been occurring, and services should be more efficient and customer oriented. The Chamber is keen to see faster more efficient business processes when the private sector has to interact with government, and a more transparent and efficient online tendering process, particularly where large constructions firms are involved. A number of foreign companies have recently undercut local businesses to win contracts, and brought their own workers in, causing resentment, especially when they are not held to agreed timetables, and are not penalized for not completing Joint ventures in partnership with local companies would be preferred, employing local people, which would share some of the profits within Samoa. At the same time, the business community are also keen to see a lot more foreign investment, to boost local employment, and much more government support for SMEs, in terms of advice, capital and capacity building. Like the telecommunications sector they would like more business to stay on shore, and see government's role as ensuring that local business gets a share of new ventures. Although they were pleased to be consulted over the National ICT Plan they are concerned now that they have not had any response to the points they made.

Comment was also made by members of the business and ICT community in Apia, that that although the National ICT Plan was detailed and comprehensive there appeared to be no plans for its implementation and monitoring. Several matters of concern were raised. Firstly, not all members of the sector felt they had been well consulted about the Plan and concern was expressed about the secrecy that had surrounded the review by the ITU. This seemed to reflect a management style observed in the MCIT. Moreover, some felt that the approach to implementation was not very systematic. The country could not wait till the SNBH was completed to move forward on the goals outlined in the Plan. Similarly, a legislative and policy framework was outlined in the Sector Policy drafted in 2012, but this had now been on hold for over a year, and even so, was not an implementation plan. This raised the question in the minds of some observers who should be driving these developments, and whether the ICT Secretariat at MCIT was large enough or had enough experience with project management to offer the necessary leadership needed in the sector.

VI. Discussion

Returning to Boase's (2009) report on the UNDP ICT4D Project in the Pacific, and the key benefits that government and aid agencies expect from their investment that he

articulates, it is clear that progress in Samoa fulfills some but not all of these expectations. Similarly, if we look at goals outlined in the *National ICT Plan 2012-2017* focused on: an e-government strategy, delivering e-services, putting information and forms online, sharing data, consolidating procurement, along with performance measures that include breadth and currency of information on web sites, a functional government portal, the number of ministries offering online forms, savings, and an operational e-government system, it is appropriate to ask, halfway through the period what progress has been made towards these goals?

Taking the first two of Boase's benefits together, that is *More accessible government information and services*, and *Faster, smoother transactions with government agencies*, there are many real advances. A useful amount of information is available via the government ministries that directly interact with citizens, and equally importantly, business (mainly the Ministry of Revenue, and the Ministry of Commerce, Industry and Labour). Forms are available for download from these two key ministries, but payment must still be made physically, and applications/forms cannot be completed online. The government portal has not fulfilled expectations, lacks any sense of ownership and, as a form of access to information held by ministries is to a large extent bypassed by advanced internet search technologies. However, information that supports basic principles of democracy - the mandating acts, regulations, corporate statements of intent, policies, and strategies are largely available online from all ministries, although without an Official Information Act more sensitive documents are not available. The unavailability of documents such as the ITU's review of the National ICT Policy, or the e-government policy that has never been to Cabinet are examples noted by informants.

The principles of *Increased access to government decision makers and to parliamentarians*, *More local access to government through the internet*, and *Increased participation in government by all* are again tied to web site development, and are therefore the responsibility of individual agencies. The portal links to pages for the Prime Minister and his Deputy, Cabinet Ministers (biographical information is provided for these) and lists MPs, but provides no contact details, and no information about how to access ministers or MPs. On a few government web sites, there is an online poll from time to time on insignificant matters, and the MCIT web site invites people to click on a link if they are interested in participating in policy formulation but it is not a live link. These criteria are not well met.

However, the criterion of *Increased efficiency in government operations* does seem to be being met through the introduction of ICTs in government operations, and the Government's goal of cost savings would appear to flow from this. And although their impact is hard to measure, these efficiencies include government staff and the public. Faster processes, and time for saved through business and citizens being able to download forms, or find information without phoning or going physically to an office saves costs on both sides. However, there is no evidence as yet of *Enhanced opportunities for smart partnerships with civil society and the private sector*, and *Legal recommendation and security over the networks*. While security is high on the agenda for some agencies, there is no evidence that secure systems are in place. Because of the lack of integration of systems and any centralized authority over data and systems

beyond FinanceOne, it would not be accurate to say that there was an e- government system in place, although the reach of FinanceOne into most agencies, and the broad range of operations that it supports, from payroll to procurement, is more integrated as a central system than many developed countries operate.

Boase further comments in the UNDP ICT4D report that it is premature to talk of outcomes of e-government/ICT projects such as poverty reduction at this time. He notes “the internet is still the domain of the educated and privileged in these societies”, and the telecommunications statistics noted in the Introduction to this report reflect this. However, it must be acknowledged that the potential for poverty reduction is always present as mobile telephone systems with their potential for internet access reach farther and farther into remote areas. Independently of the government, smallholders can benefit from access to information about markets and prices for produce through mobile networks, can take goods to market at more opportune times, circumvent middlemen in choosing who to sell produce to, and take advantage of mobile banking to handle their cash flow. Such developments are initiatives that government must get behind, through projects such as the Pacific Financial Inclusion Program in which the Central Bank of Samoa, the country’s reserve bank, has been participating.²⁰ Such programs, along with the opportunities for mobile telecommunications to help avert the worst effects of natural disasters, epidemics, family violence, and crime must be considered as part of the e- government spectrum, and in small incremental ways do help alleviate poverty.

A further comment made by Boase also helps focus on another of the issues identified in this survey. “Project Managers’ accountability in the three projects was lacking. Without accountability projects tend to drift off target and fall behind schedule.” From the evidence we gathered in this study, this seems to be an ongoing issue. In particular, the goals in the National ICT Plan and Communications Sector strategy are broad, and measures listed lack specific targets. Achievement is difficult to measure against such things as ‘breadth and currency of information on web sites’, ‘the government portal’, ‘savings’, or ‘an operational e-government system’ - it is by no means clear what the latter refers to. However, apart from the government portal, which has not met expectations, to the extent that any data is collected on them, all other measures show incremental improvements over a period of time - whether this meets or exceeds expectations is unclear.

Several other observations can be made about progress towards effective e- government to date in Samoa. Firstly, real, and in some cases, transformational change has been achieved in individual ministries, driven primarily through the intervention of aid agencies, and volunteers on secondment placements via donor agencies or organisations. This is most effective when the ICT program has been part of, and integral to, an institutional strengthening program. The value of external advisors working with ministry staff to focus on organisational development, and the focus of the ISP model on organisational goals, efficiency and customer service, and the identification of a need for better IT systems to achieve these goals has proved to be an effective model for Samoa. The examples of the Ministry of Revenue’s ISP, and its outcomes, and several ICT initiatives in Law and Justice Sector show this very clearly. A further benefit from this approach to ICT adoption is that the customer focus of the organisational change program leads to the inclusion of government to business and government to customer interactions having a high priority

²⁰ Fuseworks media. Mobile banking to take off in Samoa. Voxy.co.nz.
<http://www.voxy.co.nz/national/mobile-phone-banking-take-samoa/5/36079>

in system development, as shown for example by some of MCIL's online systems. (This is not the same as government to citizen interactions focused on enhancing democracy.) Donor influence here has been beneficial, primarily in our view, because institutional strengthening programs require donor agents to work closely with ministry staff in the change process.

A particular benefit of the institutional strengthening approach to organisational performance is that it frequently aligned with a particular sector. The focus on sectors as part of the *Strategy for the Development of Samoa* (SDS) has been highly beneficial, and has led to considered and well-coordinated approaches to ICT implementation, a focus on local needs and capabilities, and the use of open source software in many sectors and their core agencies – a major reduction in the cost of software, which makes ICT use more sustainable. The sector approach, and priority setting within sectors, combined with the considered way in which proposed ICT projects are evaluated within the Ministry of Finance's and Cabinet's processes for procurement, has led to a major shift in way aid is negotiated. The country sets its priorities, aid agencies decide what they will support, and a contractor is selected by the Ministry of Finance. It is a bi-partisan process that is open and democratic and supports the independence of both parties.

By contrast, the SNBH project has followed an older model of aid development, driven by what the donor believes is a priority for investment in the country. While the project may well have provided a solution to some problems of major concern to the government, principally the intransigently high cost of telecommunications in Samoa, and limited connectivity between government agencies, there is no evidence that the SNBH will actually have much impact on prices long term, or on the availability of Internet access for ordinary citizens - a key factor in the link between ICTs and economic development. Some of the mistrust of the program openly expressed in the capital is based on perceptions that the SNBH will have an unfortunate impact on what was until then a successfully deregulated market, and that the procurement process was not a transparent and equitable one, contrary to Samoa's growing confidence in the transparency of its government processes. Furthermore, as a top-down driven project that has proceeded independently of the National ICT Plan, and the Communications Sector strategy, as well as the incipient e-government strategy, it will take some time to align the enhanced capacity it brings with the individual goals of the agencies it is intended to support.

The lack of coordination between the SNBH, and the effective and well-targeted ICT programs in some ministries reflects a larger issue – the overall lack of coordination of ICT systems and ICT development across government and the very uneven development of ICTs in different ministries (which appears to be partly dependent on whether or not the ministry had a recent ISP). It is unclear whether this has been due to the different agendas of the MCIT and other agencies, or the MCIT's focus on policy rather than leadership and coordination. Neither it nor the Ministry of Finance is well-placed to take a central coordinating role without a change in government policy. But Samoa cannot afford this disjointed approach any more than more developed countries can if the real benefits of ICTs in government are to be realized.

Now that the SNBH has been completed, there is an urgent need to establish a central coordinating unit with some authority over other agencies, and an across government committee to revitalize the e-government strategy, develop a whole-of-government strategy for e-government, and set priorities. This committee should be kept separate

from the National ICT Committee with its broad external membership to avoid conflicts of interest, and focus on leadership, coordination and communication, with action-oriented sub-committees to develop stronger liaisons between agencies, and very specific goals. Training in project management would be an initial high priority. A further urgent priority is the need for the government to work with the Office of the Regulator to ensure that Samoa rapidly returns to the well-managed de-regulated telecommunications market that preceded the disruption of the SNBH project.

Given that the landscape has changed significantly with the SNBH, a new National ICT Plan is another top priority. A new plan should take into account a number of factors, and clearly identify the future role of the SNBH within the constraints of a deregulated market. This means clearly articulating the roles and relationships of all the stakeholders involved. Having ‘muddied the waters’ somewhat, albeit with good intentions, the government needs to proactively resolve the tensions between its own network and the private telecommunications and internet service providers and determine what their roles and opportunities are alongside the public-private partnership that underpins the SNBH. It needs to reconcile its vision of the SNBH providing access to the internet for communities and schools around Samoa, with the need to encourage a vibrant telecommunications private sector, essential for both more affordable prices, and for growth. This is necessary to rebuild trust in the industry and remove barriers to further development. To demonstrate that the government’s vision will be matched by a pro-active and vigorous program, based on the principles of consultation, transparency, and accountability, the National ICT Plan will need goals agreed across the sector, and well-defined realistic measurable outcomes.

The next phase of development for SNBH will be very dependent on the applications that the system is used for. The core operational system of the government, FinanceOne will clearly be enhanced by a secure broadband network, as will ASYCUDA. Some of the databases that the Law and Justice sector are building will be able to take advantage of the network, and developments in Education, both SchoolNet and the Community Access program, as well as better connections between health services. But these developments require planning, resourcing and capacity building. As with all ICT projects, the technology does not drive change; it is policies and people which drive change, as some informants in this study have noted. Although many contributors to this report talked about data-sharing, very few had any idea of exactly what data would be shared or how this data would be used. Furthermore, there was no discussion of the legislative frameworks needed to support data-sharing, or the level of cooperation and collaboration between agencies that is required to make it effective. Resolving these issues will take considerable leadership. The MCIT’s intention to establish a Government Chief Information Officer is laudable, but the role must be given a mandate for real change across government. It will take a person of unusual vision and ability to provide the leadership necessary to build on the SNBH network that has recently been launched, create the trust necessary to work across the whole of government, and bring an effective e-government program to Samoa. This is a more hands-on role than MCIT has played in recent years, and would imply a culture change is needed in the ministry.

A part of the vision that should inform the new directions set by the GCIO must include mobile technology. Despite the emphasis that has been placed on the broadband network over the past two years, mobile technology is likely to be more significant in Samoa’s future. Samoa now has an adequate infrastructure to enable more than 98% of the population to have a mobile telephone subscription. The further development

of the mobile network depends on the private sector. Given that the predominance of both mobile business, or m-business and m-government in the developed world and the huge impact these technologies have made in the developing world, support for next generation technologies for Samoa's future prosperity and government communication and service delivery must be a very high priority. And yet mobile technology and its transformational potential were rarely mentioned by the informants in this study. Within government, some of the systems described above have been transformational in terms of efficiency for staff and clients, many will lead to more accurate and up-to-date statistics and more informed decision making. Web sites of ministries are accessible by mobile smart phones, although not designed for this kind of access. But the value of mobile technology, its ability to reach and transform remote communities has not generated much excitement in government. The steps which should have followed Samoa's leadership role in deregulation of the telecommunications industry in the Pacific, the legislative infrastructure necessary to protect and facilitate online transactions, and the citizen-centric, business friendly simplification of interactions with government have not yet been taken. It is these which will really bring the benefits of the internet to remote populations, and provide access to life-changing health information and educational resources, and eliminate barriers to government services. It is not a question of getting e-government programs right before thinking about m- government. It is a question, as a recent OECD/ITU report has noted, that mobile technology has more potential to produce benefits and deliver outcomes for governments and citizens in developing countries, to expand services, and to impact on economic growth and reduce the 'digital divide' than it does in the developed world.²¹

Overall, there has been a rather stop-start approach to e-government in Samoa. Resources for e-government, coming from various sources have driven development rather than the national policy frameworks that were being worked on prior to the sudden advent of the Samoa National Broadband Highway. Institutional strengthening programs based around sectors have clearly been beneficial, because ICT applications emerging from them have been developed from local needs, and local understanding. The change in policy resulting from the Public Sector Finance Management Reforms and the Aid Policy and Debt Management Strategy appear to have worked well in identifying ICT projects which are championed by individual ministries, and which are well aligned with organisational needs. These projects, which increasingly make use of open source software, and necessarily involve an element of capacity building to install and operate the necessary software, also tend to build lasting alliances with colleagues around the Pacific, strengthening professional links that are essential to good governance. What is needed at the current juncture, a critical juncture if Samoa is to maximize the benefits of e- government for its long term economic benefit, is leadership - leadership, vision and energy that will bring all key stakeholders together, foster collaboration, and enable agencies to harness the capacity of the new broadband network.

²¹ OECD, ITU. M-Government: mobile technologies for responsive governments and connected societies. OECD, 2011. <http://dx.doi.org/10.1787/9789264118706-en>

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Ministry of Education, Sport and Culture (MESC) - Dan (Taniela) Aiafi

Ministry of Communications and Information Technology (MCIT) - Tua'imalo Ah Sam, Tuaimalo Asamu, Ronnie Aiolupotea, Manu Samoa, Anthony Saaga

Hinauri Petana (formerly CEO Ministry of Finance)

Ministry of Finance (MoF) - Tupaimatuna Iulai Lavea, Charles Ah Poe

Ministry for Revenue (MfR) - Sina Meredith

Samoa Law and Justice Sector - Tootooleaava Dr Fanaafi Aiono-Le Tagaloa

Compouting services Ltd (CSL) - Laiemau Oketevi Tanuvasa

Office of the Regulator (OOTR) - Donnie Defrietas

Electoral Commission - Papalii Malietau Malietoa

Samoa Chamber of Commerce - Ane L. Moananu

Illuminado Aloaina, IT, National University of Samoa (prev. Ministry of Finance)