

Tess Newton-Cain

Fred Samuel

**Government Chief Information Officer -
Vanuatu**

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Tess: My name is Tess Newton-Cain. I'm a research associate at the Development Policy Centre. And this morning in the lead up to International ICT Day it's great to be able to have a chance to chat with Fred Samuel, who is the Government Chief Information Officer here in Vanuatu. So good morning Fred and thank you for being available today.

Fred: You're welcome Tess. Good morning.

Tess: So to start off with, as I've just said, your job title is Government Chief Information Officer. And you head up the Office of the Government Chief Information Officer where we are today. So maybe you could start by giving us some background about what the role and functions of this office are.

Fred: Thank you Tess. The office of the government CIO or Chief Information Officer is responsible for two things. First of all, we develop national policy for the ICT and telecom sector. And we oversee the implementation of those policies on behalf of the minister responsible, which currently is the Honourable Prime Minister of Vanuatu.

So we liaise with all the stakeholders - industry, private sector, the citizens, and the general public when we develop those policies. As you probably know by now, for the last three years, we've embarked on three major policies, the major one being the National ICT Policy. The Cybersecurity as well as the Universal Access Policies, which are already approved by the Council of Ministers and will be officially launched this Friday during ICT day.

So that's the first role of the Office of the Government CIO - development of policies and we oversee the implementation. Our second role, which is probably bigger than the first role is overseeing the implementation of the e-government broadband infrastructure. The data centres, the IT infrastructure, as well as overseeing the e-government application software roll out.

So the second role is a very massive one, because as you know - four years ago we completed the roll out of the e-government broadband structure. It's the largest major telecomm structure in Vanuatu, but exclusively to serve only government departments. So our role is to actually ensure the infrastructure is always online and how it's operated and managed and maintained would have to comply with best industry practice. And I'm proud to say it's one of the most, if not probably the most reliable infrastructure in Vanuatu. And it's, we understand, the first of its kind in the Pacific.

In addition to that, regarding the data centres, we have two major data centres with a fully redundant infrastructure. And that's where we house all our systems and service and our core IT infrastructure. This is where we host

the major e-government applications, for example, the finance systems, the government email systems, the passport systems, the immigration, statistics, and all the government websites. So that's within our government data centre.

So in summary I would say we're providing a private cloud environment for the government users. And also we provide IT helpdesk support. So that means there's about two thousand desktop ICT users in the government. We support all the devices. We have our call centre where users from all used by all the government and provincial offices, including the two major towns, Port Vila and Luganville. They ask for help and our staff actually help them.

So in summary we develop and implement policy on behalf of the government, but more important the Minister responsible for Telecommunication. And secondly oversee the e-government program structure as well as e-government applications roll out.

Tess: Okay. That's great. Thanks for that Fred. It's good to have that as background. So just to backtrack a bit, as we're both aware there have been a lot of changes in this sector, in the ICT sector of Vanuatu since I guess around the mid-2000s. So from the perspective of your position and your office, what do you consider to have been the most significant changes, and why have they been the most significant changes?

Fred: There's obviously there's a lot that has been happening in the industry in Vanuatu. I think if I have to go through each individual one, it will take probably the next one hour or two. But just to really highlight if I would say some of the top 4 changes that have had a significant impact on the social and economic development of Vanuatu. I think the first and foremost as we all know, it's the government decision way back in 2007-08 to actually liberalise the market and allow for a duopoly so allowing Digicel to come on board.

And eventually by April 2011 we actually removed the duopoly and it's now fully, open there. And as we speak, we have more than 10 licensees operating in the market. So I think that's the first one is it's had a lot of impact in terms of coverage. We've improved from about 16-20% coverage and penetration to now more than 90% coverage including penetration as well. So we have one of the highest penetration in the Pacific, even compared to New Zealand.

So that's the first one, that's a big impact in Vanuatu. Secondly, is the reform in the institutional governance of the sector. So while we've actually liberalised the market, we've set up the Office of the Telecom Regulator. But the government still hasn't put its Act together. So what we did back in 2011-12 is we improved the institutional governance of the sector.

So as we speak, what we did is amalgamate 3 portfolios. The portfolio of the regulator in the Ministry Public Utilities, portfolio of ICT and e-government in Finance, as well as portfolio of information and broadcasting in the Prime Minister. So it reflects on the trend of the industry.

So we've amalgamated all of those portfolios under one ministry, and it's sitting right in the Prime Minister, which is more appropriate, because ICT and telecommunications is a cross-sector cutting tool. So that's one of the biggest achievements. In addition to that, we've set up the Office of the Government CIO, which is probably like a technical advisor to the Prime Minister, the minister responsible.

So that's one, I believe it's become one of the best sector governance models in the region, where you have a very vibrant, dynamic industry with all the competitors competing. And then we have a fully independent Telecom Regulator. And then above that we have a technical advisor to the minister responsible, which is Office of the Government CIO. And then the minister responsible, which is rightly the Prime Minister.

So that's probably the second most important. That's very important. A strong institutional governance provides a healthy environment for competition to happen, and obviously for the benefit of the citizens of Vanuatu.

The third major change, I would say it's obviously the arrival of the submarine cable to Vanuatu. It's one month now since all the ISPs are connected. But definitely it will be an exciting future ahead, especially in the coming months. Just by looking at the numbers, it has significantly increased the international capacity by more than 50% and obviously the speed of internet over fibre, it's non-comparable to the satellite connectivity. That's now put us in a level playing field with any of our regional or international competitors.

So probably that's the third major one. And probably last but not the least is the drafting and the official approval of the national ICT policy, which now means Vanuatu has a very clear roadmap in terms of development of the sector. We know what we want to achieve. We have 8 core priorities in the policy. But also we are mindful of the threats. We have also our National Security Policy and the legislation has been drafted.

Also we have a very ambitious universal access program. One of the main goals of the UAP is to achieve 98% broadband coverage by 2018. So I think that's probably the fourth biggest change that has happened in the sector.

Tess: Okay. That's great. Before we move on to my next question, you mentioned that there were 8 core priorities in the ICT policy. Could you give us an indication as to what those core areas are, what that policy is designed to cover?

Fred: Absolutely.

The first one is access to ICT in education. The second one is access to ICT infrastructure and devices. The third is the e-government.

The fourth is integration of ICT into sectoral policy. So we want to push out ICT into all sectors: agriculture, trade, finance, forestry, health, etc.

The fifth is building trust, mitigating risk and threats related to ICT development.

The sixth is development of locally relevant content.

The seventh is building capacity. Obviously we want to build a very good information strategy in Vanuatu and the literacy of our citizens is paramount and very important.

And the eighth is obviously a platform for multi-stakeholder and multi-sector coordination and collaboration. So that's the top eight key priorities, as outlined in our National ICT Policy Agenda.

Tess: Okay. That's great. Thank you. So to pick up on one of those, you mentioned about the e-government and ICT being applied in each sector. So, so far, and I realise in some ways we're still in fairly early days, but how has the enhanced availability of ICT to government affected service delivery at national and regional levels, whether that's in relation to health or education or any other sector? How have you already seen it improving government's ability to deliver services?

Fred: Thank you Tess. That's a very important question, especially within the government. There's obviously a lot of services that have been affected by the announcement of ICTs. I'm not able to provide all, but I'll give you for example in terms of the e-government broadband infrastructure.

Any public office in Vanuatu at the provincial level and in town are enjoying the benefit of a broadband infrastructure. Whether you are sitting in Sola in the remote north or down south in Isangel or Malampa Province or Saratamata in Ambae, Penama Province. Anybody has access to the same type of ICT service as if they're sitting in Port Vila. So something that they never had before.

How does this affect the service delivery? It means that I give for an example the courts. Now the courts can sit anywhere and the judge doesn't have to sit in those places. He can be sitting in Vila and through teleconference being able to perform his task. The Secretary General of all the provinces, now they don't need to travel to Vila and Luganville, which is obviously costly in terms of travel, but secondly they lost days and times of work by travelling to Vila. Now they can sit back. They can actually talk and meet as well as I'll give another example. The finance department. Before you would have every LPO, every cheque printed in Port Vila. But now they can sit in the provinces and actually process those payments. They can actually even collect money.

In terms of health, the fact that there are all the health major hospitals, the five hospitals in Vanuatu are now connected to the e-government network, that means they can reach the main health administration in Port Vila in real time. They can talk to them by VOIP. They can send emails. So the fact that it has improved the level of communication; we hope it has impacts directly on the way the government delivers service to the citizens of Vanuatu. So that's one example on the government broadband infrastructure.

In terms of education, today we have what we call the Vanuatu Education Management Information System that is deployed in all the provincial government offices in the provinces. So now they're able to collect real time data for the schools and upload VMIS in real time on the education management system. That means the education ministry now have better accurate data than in the past - so obviously they can make decisions on reliable data, etc.

Regarding any opportunities that can be further pursued in this area, I would say that obviously, especially in terms of area of education, there's a lot that can be achieved. I give you for an example, this year we're rolling out 15 schools. We're connecting internet for 15 schools, as well we're giving a tablet program for, first, five schools. The tablet alone, I mean, give an example in Vanuatu today, there's a shortage of textbooks and obviously library books. But with the tablet, provided it's connected to an internet connection, you have now access to 100s of millions items of online content now and library books.

So once the teachers and students have access to all this great information in real time, that will obviously help their capacity. And hopefully ICT will contribute to improve the literacy of Vanuatu. So we're very optimistic about this program, thanks to the Australian government who have put in seed funding for this project. Our goal is starting with 15, but we have 80 schools, is to try and connect all these 80 schools and make sure all of them are connected to ICTs.

For me, that's a great - given the human resource in education, is the number one priority for Vanuatu, but also in our national ICT policy. We think there's a great opportunity there where you can fully utilise ICT to improve the human resource development of Vanuatu.

In terms of health, obviously part of the program to roll out schools is also to connect all of the health facilities close to those schools. So once we connect these health centres, one area I could see we could impact apart from just making sure the health practitioners have a clear and real time line communication with the central administration in Vila, it could also boost health information systems. So the Vanuatu government could have reliable, quality data from patients around Vanuatu in real time.

Secondly is you can even use the powerful ICT tools to help with the medical practitioners. I give for example, doctors can now have access to real time information to be able to perform their operations. But not only that, even with the video conference, which is already available. It's a proven technology in Vanuatu. You can actually remotely diagnose someone. Of course it's not easy, it's challenging to implement that. The technology can do it. But obviously the human resource has to adapt to the technology in order to perform the operations. But I'm very optimistic that's one area that could help the health services in rural areas.

Another thing is the drugs, the medicines. As you know, that's one of our biggest challenges. The God given archipelago of Vanuatu - as you know, it's a paradise, but it has its own challenges. So to actually get the medicine and to actually manage the inventory and transport it to rural areas it's always a nightmare. If we can connect this health system and they have real time access to the m-supply, which is a database that manages the inventory and the distribution of drugs, we hope that will help make the medicines available.

So I think there's great opportunity there, especially utilising ICT to improve those two sectors among others.

Tess: Well as you say, I'm sure there are other applications across a number of sectors. Now, you've made reference to the Universal Access Policy. And I think my next question is possibly more around that. Which is, you've told us a lot - you've given us some really good information about what's already in place.

But looking to the future, what do you think is still needed or is going to be needed either in terms of policy settings or infrastructure or possibly both to really extend the benefits of ICT, and I guess especially internet access to everyone in Vanuatu, especially those that are living beyond the main urban

centres of Port Vila and Luganville. What do you see as still being needed for the future in order for that to happen?

Fred: In terms of policy setting, as I outlined initially, the institutional governance, I think it's very important that the government being the main policy maker, continue to uphold and support the governance structure as it is today. I think one thing that we're proud of and one success factor, if I have to look back to all we have done over the last few years, is the strong political will both from the government as well as even from the opposition to support the reform of the sector and continue to provide a lot of this regardless of the ongoing changes of the government.

Both sides of the House continue to support the development of the ICT and telecomm sector. So I think from a policy perspective it's important that the government maintains that, and I strongly believe that it will continue to maintain that.

Secondly on the policy setting is that the policies are not written in stone. So within every 2-3 years it is important that especially the Office of the Chief Information Officer as well as the telecom regulator continue to listen to the stakeholders and where need be consult and make amendment to the policy to reflect on the challenges and especially the trend in technology and consumer demands.

Tess: Well I think that's important, because as we know it's a sector that changes very very quickly.

Fred: Absolutely. And on the policy front it's very important to provide proper resourcing and support to the development of human resource capacity both the institution of the government CIO as well as Telecomm Regulator, which I'm proud to say that we've achieved that and we need to maintain it.

So that's on the policy front. And I think it's important we continue to make a lot of awareness to provide information to all the relevant stakeholders, especially our political leaders as well as our directors and DGs within the government. So that's on the policy setting.

On the infrastructure, especially if we're looking at promoting internet access and trying to achieve our ambitious call of 98%, let me, this is a very important point. Let me state this that the implementation of ICT alone will not help to change Vanuatu. You need also other supporting infrastructure. And I continue to emphasise this in all my meetings, any public meetings.

Infrastructure obviously is a key enabler, but you need other supporting infrastructure. ICT sits on, needs the power supply. We need energy. So we

need definitely a quality, reliable power source in all the rural areas of Vanuatu. I can tell you specifically with the three major operators - the e-government network, TVL and Digicel, we still build our own power sources to reach some of the most remote places in Vanuatu.

Secondly is obviously roads. You need access to good roads to build all those telecom towers. You need good airports, good wharves. These are supporting infrastructure. But not only infrastructure, you need also other financial infrastructure. Like you need the banks to promote - you need to provide citizens access to doing business in all those areas. So you need postal services as well.

So all the supporting infrastructure if they come, they need us as much as we need them as well. But I think if we can develop together collaboratively then we will help to achieve our goals, but also achieve the overall goal of the Vanuatu government in developing the whole of Vanuatu.

So that's one of our main challenges. But that's why in the National ICT Development Committee, our members comprise all the DGs and Directors from the key line agencies. So obviously, and we participate in all other stakeholder and consultation meetings in other sectors. And we try to always get the message across that yes, they definitely need ICT and telecoms infrastructure to be able to develop social services as well as other economic services. But likewise we also need them to develop our own infrastructure.

Tess: Yeah. It's a tool, isn't it? But it's not a silver bullet. It's not the answer. As you said, it's not the solution to the problems. It's another tool that can be used.

What role, if any, do you see for donor assistance within that building of infrastructure, including financial infrastructure?

Fred: I think first of all let me acknowledge the support of the development partners, aid donors over the last few years, Australian government in particular, who have supported us a lot in all of this reform. So I think looking forward, I think technically we still need donor support to assist us. But I think it's very important that government takes the leading role. It's very important that government recognise the existing strong institutional governance structure and continue to provide the political will, continue the support, as it is today.

If we do that, that will allow development partners to actually assist us on the way.

My advice to the Vanuatu government would be, yes, we will need them, but at some stage we have to be sustainable. We have to be sitting on our own

and not have to heavily rely on donors to support us. The donors, for example, for the school connectivity project, thanks to the Australian government. They've actually chipped in a few hundred of million (of vatu) to assist us to roll out the project. But that's only for 15 schools plus 10 health centres and 5 schools for the tablet roll out.

I am very optimistic for the education program. And it's got an impact on the education systems in Vanuatu. But the government now needs to take that onwards. In what ways? Make sure that the Ministry of Education has a very clear ICT policy. Make sure that they actually put the budget available through the government recurrent to support roll out of other remaining schools as well as the ongoing maintenance and operation of the old schools. And obviously the Office of the CIO is a very good example where we build a network. The government made the funding available. And now it's fully sustainable and it's sitting on its own.

So my message is yes we will continue to seek donor assistance. But the government must take a lead, and the government needs to maintain a strong institutional governance structure. However the Vanuatu government needs to find ways to be sustainable and find ways to rely less on the aid donor funding.

Tess: Okay. Good. Thank you. Now we've made a couple of references to the role of the independent regulator, which we know has been established here in Vanuatu. How significant do you think the role of an independent regulator in this sector is for a country like Vanuatu and are there any examples you can draw on that support your thoughts about that?

Fred: First of all, I think as Chief Information Officer working for the government, heading the office of the government CIO, as a key advisor for the Prime Minister, the minister responsible, let me say it's very very important that we maintain the independent status of the Telecom Regulator. That's very important. It's very important that we continue to liaise with the Regulator, develop all our high level policies, but maintain that independence of the Telecomm Regulator and provide all the political support to the office of the regulator to be able to execute his functions and responsibilities.

I think when you have an independent Telecom Regulator, it gives the confidence to the industry, especially the private sector, that if they invest their money here, they will be able to play according to the rules of the game. And that's very important. No political influence, whatever influence that may not enable the regulator to play its function, that could be seen as a threat to the foreign businesses. So I for one fully support the independent status of the Regulator. And I continue to lobby any government of the day to maintain that.

We just provide all the support. Anything we want to do we have to make sure we prepare a policy, consult all the stakeholders. If we want to change anything, make sure it's in a policy form. But not day to day just go and demand, *I want to do this. I want to do that. Etc.*

Also it's very important that the industry respect the independent status of the Regulator. And it's very important to the industry that if they have any concern whatsoever that the first point of call is to see the Telecom Regulator. He has all the power. He has all the expertise. Even if they do not have the expertise, the government makes sure they have sufficient funding, either through government or through donor partners, to seek any world class expertise around the world to assist them to deal with any issues that the industry put forward to them to look after.

For me, I'm very pleased with the way the regulator is today. They have put in a lot of effort into the development of the local resources. They have built the capacity. I know it's still a foreign person actually sitting on that role. But eventually I hope in the not too distant future, we will be able to have a local ni-Vanuatu Telecom Regulator. I think that's one of our goals. It's not easy. And the nature of the work and the responsibility of the regulator also is not easy. So we need to emphasise a lot of training, especially if we want to promote a local ni-Vanuatu to take up the position.

Tess: Because somebody said to me a while ago, I was talking about what I think is the importance of regulators. This person said you didn't need a regulator. All you needed was for Digicel to come in and create competition and the price came down, talking about mobile phones at that stage. Now that's not something I actually agree with. And I'd be keen to get some more thinking from you.

Because my argument would be there's more to having a regulator than simply bringing the price down. That may be one result of what happened when the market was liberalised and then regulated, but my feeling is that there are other things that regulation and regulators can contribute simply than making sure the price comes down.

So what would be your thoughts on that?

Fred: First of all when there's competition, there has to be a referee. There's no question about that. You cannot create a competition without the referee in any competition, in any games. So it's very similar to the telecom industry. You definitely need the referee. You can't just have them playing without anyone actually watching.

However, having said that, you have to be very careful on the approach of the referee or the regulator. There's some countries in the world which are heavily regulated. And there are some countries in the world which are less regulated. I can tell you, put it this way - there's good competition and there's bad competition. There could be a good monopoly and a very bad monopoly. Likewise there could be a good regulator and a bad regulator or a good policy maker and a bad policy maker.

So we want a good regulator. Heavy regulation sometimes could raise unnecessary cost for the industry and rather than promoting the interest of the developing industry as well as providing good service to the citizens, it might be the opposite. We don't want that to happen in Vanuatu.

I think although the regulator is independent, I think although he's got the powers in the telecom Act, I think the approach at the moment for the Vanuatu regulator is a soft approach. If there's an issue, let's the industries - and we have a lot of examples. I know one of them was the connection rates. We let the industry talk this over and just inform the regulator of their decision. And the regulator looks it over and if they think there's some issues, they sit back with the industry and discuss and find a way forward.

Another one is in terms of the submarine cable pricing. There's no interference from the regulator. They just let the market dictate. But still you need someone. And I think the industry also needs to know that there's someone actually looking.

If we're living in a perfect world and we trust each other and we do things in the interest to serve the company but also in the interest of the citizen, maybe we might not need the regulator, but that type of environment will happen one day. We still need the regulator. But also we want to encourage industry to be mature and be talking to each other. Of course they compete with each other, but they need to be mature. They need to be professional. I'm sure they have the right capacity. If they have an issue, they need to sit together first of all; let the regulator alone. Negotiate. And if they can create something that's very good for them, very good for industry, excellent. That's what we want.

So less regulation. So I think so far, that's how the TRR is approaching the issues today in Vanuatu. And I'm pleased with this type of approach.

Tess: Okay. That's great. Fred, thank you very much for your time this morning and for certainly enlightening me about what goes on in your office and the ICT sector. As we know it's a very vibrant sector here in Vanuatu. So I'm sure if we were to get together in another 12 months time, we'd have a lot more new things to talk about. So thank you very much.

Fred: Absolutely. Thank you Tess for taking the time to interview me. Thank you.

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