

## **ICT Policy and Legislation**

**Commentary by Paul Barker, Director, Institute of National Affairs on the paper  
by Lois Stanley of UPNG's Law Faculty**

- ICT issues are certainly topical and fast changing!
- We (the INA with UPNG and other partners) held a major workshop on ICT at UPNG in January, at which Lois Stanley made a key contribution with an earlier version of this evolving paper....clearly demonstrating the changing and somewhat secretive policy-making process, which the PNG Government has been pursuing of late, which so confuses and frustrates the public and undermine investment credibility in PNG. Her paper also highlights the impact of competition, notably with a more than doubling of mobile phone users within 3 weeks of competition commencing in 2007.
- In the January workshop it was observed that last year's Australian Election was the first worldwide where ICT was a major Electoral issue. The January workshop, however, also demonstrated that it was also an issue of major concern to Papuan New Guineans, especially since the advent of competition has shown people what they'd been missing out on till now, and especially low income earners and people in some rural areas who had no access to phones hitherto....for many of whom the mobile phone has become a valuable means to help earn a living.
- The January workshop sent a message to Government and made a contribution to the debate and policy, pressuring Government to back away from its misguided Netco/Servco Policy of late 2007 (where the core infrastructure was going to be owned or acquired by the State).
- Telikom PNG goes back in different forms to 1955, when the Dept of Posts and Telegraphs was established.
- It has enjoyed its telecommunications monopoly since then, until mid-2007, although regulatory powers and postal services were separated
- PTC was very proactive in the late 1960s/70s, pushing telecommunications as a core vehicle for national development and utilising state of the art technology to connect centres around the country. P & T obtained its first World Bank loan in 1968 and second in 1972 to enable automation of exchanges and introduce micro-wave repeater stations via mountain tops. This hitherto barely tested technology put PNG ahead of the world in affordably accessing relatively remote centres.
- But in the 1980s PTC lost its way. It became a corporation in 1981, with the intention of providing more commercial focus. Instead it acquired multiple tiers of power, with Board members not selected on their suitable skills, was politicised early on, and management increasingly subject to the appointment of cronies and interference.
- It started with a strong team of managerial and technical staff (from PNG and overseas), but with unsuitable senior appointments and often multiple changes, there was a serious loss of morale and key staff.
- Likewise, some commercial decisions, including the acquisition of the mobile phone system raised major concerns, being apparently exorbitant, very slow to become operational and lacking transparency. The Chairman resigned immediately upon signing the contract. Subsequent expansion of mobile capacity to meet growing demand was very slow. Telikom was happy to gain

increased revenue but not to make the necessary investment. Services were inadequate and totally unreliable.

- Technical regulatory control for telecommunications was placed under Pangtel in the mid-1990s, but Telikom retained its monopoly.
- Rural banking in PNG collapsed, and branches closed in the 1980s and 90s, partly over poor law and order and infrastructure, made worse by poor telecommunications, and incapacity to handle data transfers which banks now required. There was growing pressure from business and the provinces to provide independent data and internet carrying capacity, if PTC was unable to respond to demand. A few independent (and faster) back-up systems were permitted (notably by BSP for banking), but only operating under the Telikom license.
- The Morauta Government, of 1999-2002, decided that if SOEs could not be managed properly, and Ministers and Boards couldn't resist appointing cronies, then it was necessary to put these organisations outside temptation, and privatise them, letting market mechanisms apply. But only PNGBC's privatisation was concluded. Post was separated from Telikom and put under independent management. Telikom's privatisation process was virtually concluded, but subsequently rejected by the Somare Government when it entered office in 2002, despite launching a second round of bids. The Morauta Govt at the time failed to dialogue adequately and market the benefits of privatisation to the public. A major concern was also that commercial services, such as Telikom, should not simply be transferred from State monopolies to private monopolies, and that competition should be allowed to reign, providing greater benefits to commercial consumers and the wider public.
- Worldwide, the focus has generally moved on from privatisation to the need for genuine competition, as the driving force of innovation, performance and service. Privatisation is generally considered a second step for the incumbent, to enable it to become more nimble and better able to compete on the same footing. Initially, the incumbent has the natural advantage of its established infrastructure and customer base, but few SOEs around the world readily step out of their public sector ways and constraints.
- The Pacific has been the last region to open up to competition, starting with Tonga and Samoa, and PNG has been one of the slowest to take it on within the Pacific region.
- Where competition exists prices of services (for telephones, internet, and other data transmission) to consumers are generally the lowest and numbers of consumers increases dramatically (see tables below from Natasha Beschorner of the World Bank). Where the incumbent is reasonably on its toes it also benefits from increased turnover and profitability, although margins are obviously tighter.
- The arrival of competition in PNG in mid-2007 clearly demonstrated this point with mobile phones, with services widely extended (particularly by the new entrant – Digicel- into rural areas, but also by the incumbent) and prices substantially reduced. The new investment and competition resulted in an estimated 0.7% growth in GDP in 2007 alone, according to the Treasury. Certainly the new entrant has invested hundreds of millions of kina into new infrastructure around the country (with the plan to reach all provinces by early 2009), pushing the incumbent (Telikom) into making significant expenditure in new facilities, marketing and training also.

- Government should be commended for (belatedly) opening up to competition (with their 2005 Policy), but should now focus upon extending this competition promptly to all ICT. Instead, the Government has been always on the back foot, reiterating a commitment to competition, but actually seeking ways to restrict it and reverse the process they themselves set in motion.
- In recent years we continually heard from IPBC and Telikom how profits had improved, but since competition started, about how the interests of this Nationally-owned entity and its 1600 employees are threatened by competition. There seems to be little consideration of service to the public and the wider economic and social interests of this country (which is markedly more than the value of one SOE)
- Recent NEC Decisions seem to focus upon the threats to Telikom from competition from a more agile private sector operator, able to extend and provide better services. So the new competitor must be restrained.
- Major effort by Telikom has gone into countering competition through the courts, and advertising along the lines of nationalism, and attacking the new entrant for being foreign-owned. The main issue of public interest should be the coverage, quality and cost of the service, rather than ownership, which is relatively immaterial. Although Telikom certainly still remains a valuable publicly-owned enterprise, with the level of investment being made by its competitor, and plans for hundreds of millions of kina of further investment, they are a serious long term investor, and as with all investors, of course they are seeking an adequate future return on investment (or profit); though they will have to wait a long time, considering their major and ongoing new investment.
- Telikom needs to concentrate upon improving its network and service and competing; that's what provides PNG with the best benefit, rather than trying to put the clock back and hide from competition, whether by securing further government protection or through the courts. Recent 'advertorials', presented as articles in the press, attacking an international finance organisation for lending to Digicel seemed both inaccurate and xenophobic, apparently entailing doubtful journalism or advertising ethics.
- For Telikom to compete in the longer term (against more nimble commercial mobile or internet providers or against fast changing new technology) does, however, require it be freed from some of its current operational impediments. Telikom, or a successor, is needed as the benefits to consumers accrue largely from competition, and replacing one monopolist with another would be counter-productive, but that competition should be on an even basis between two nimble operators, not by one retaining excessive costs but being subsidised.
- It is true that there are high costs involved with maintaining landline networks (including new fibre-optic), and facing the worldwide phenomena of vandalism/ and copper wire theft etc. and community service obliges. All major networks have inherited various community service obligations (like retaining some unprofitable connections), especially the SOE incumbents. Interestingly in PNG, however, with mobiles, it is the new entrant not the incumbent that has taken the challenge, and seen the potential of opening up the higher cost rural market, where the majority of PNG's population lives. Likewise rural airstrips have been left to the private third level airlines (including missions), not the State-owned national carrier, to service.

- So we should commend the government for opening up to initial limited competition, but this is inadequate.
- After backing off from their initial plan of effectively privatising Digicel's infrastructure (under the Netco/Servco model), which would have had a devastating impact on the whole investment environment in PNG, not just setting back ICT, in a late 2007 and February 2008 NEC Decision, Government decided that:-
  - mobile competition should be reduced, with the withdrawal of the independent international gateway for the new entrant (the revocation of this interim license subsequently being endorsed by the Courts) , and
  - Wider competition in ICT services (including internet and international gateways, and current digital tv providers) should be deferred to protect Telikom as the only General Carrier for at least another year, but without any specified timeframe for introducing full competition under phase 2.
  - The regulatory powers of ICCC and Pangtel should be reviewed
- This is very unfortunate for PNG. The clear benefits of competition have been long demonstrated overseas and the debate has moved on, whilst PNG is still preaching the virtue of competition, but acting to the contrary!
- PNG's transport infrastructure and core services have declined extensively over recent decades, especially in rural areas, and in many places collapsed. ICT cannot replace basic road access (or education and health services), but it can provide improved access to markets, information, education and essential services. It can save lives and help educate PNG's young people, providing them opportunities to compete in a more globalised economy and workforce. Mobile phones and other ICT empowers people to participate in the economy even in rural areas, to find work or sales outlets, and can also enable people to participate better in the life of their country. This is only possible if private capital and competition is unleashed into investing in establishing the network, and making its provision affordable. Why would the Government deny its population this opportunity, by restricting investment and control to one SOE with limited financial and human capital?
- In recent years countries overseas, some with no previous phone network, have leapt forward, with almost universal mobile phone coverage and cheap prices, plus internet and data networks capable of handling vast quantities of information fast and very cheaply, as a result of competition and major new investment. This has opened the door to mobile phone banking, allowing, for example, rural teachers to check their accounts without going to town in South Africa, and Philipinos to transmit hundreds of millions of kina to relatives every day. Mobile banking has the potential to revolutionise banking for the poor and many rural communities, hitherto largely without bank accounts.
- The State has a responsibility in providing (some degree of) regulation and oversight for fair competition. It also has some role in supporting the provision of computers for schools and information centres. Even PNG's relatively impoverished and recently troubled neighbour, the Solomon Islands, has installed VSAT connections for schools and other services in all nine provinces, which is being progressively linked around those provinces by way of local direct sight connections, funded by government, donors, businesses and local communities themselves.

- PNG needs to recognise the convergence of technology, with different ways to provide the same product, using landline or cable or VSAT connections, or with the next generation of 3G mobile technology enabling a wider range of additional services from mobile phones. With constantly evolving new technology, we should not hold it back with old restrictive regulations, and should allow mobile technology to compete for internet, as well as VSAT, fibre optics/cable operators, etc.
- In the January ICT workshop at UPNG we glimpsed some of the opportunities provided to rural communities and informal sector operators from improved and more affordable communications. We've long denied opportunities in rural areas, and need to provide greater opportunities in informal and small enterprises to our growing numbers entering the workshop. ICT can greatly contribute, countering urban bias etc.
- Telikom has many advantages as incumbent, with years of monopoly
- But, as stated, it has the disadvantages of ongoing SOE/public sector mentality, including pervading corruption, well-established with some linesmen, and within higher levels over past years. Despite many dedicated and hard working staff, it generally lacks dynamism and has lost many good staff (to the private sector) whilst carrying many freeloaders. For years, for example, rather than reinvesting its monopoly income it seemed every second vehicle in NCD belonged to Telikom
- Govt should stick to its core functions, leaving business to the market, but ensuring competition thrives in ICT and other markets. If Telikom cannot be reformed (and political cronyism restrained) there's a need to privatise it, or at least part privatise it –as apparently being pursued now, (though there really is little justification for the State to retain profitable and competitive businesses like ICT). But this sale of a major public asset must be undertaken through a competitive and transparent process, to ensure the public gains the best deal and nothing underhand occurs. IPBC was set up partly to manage such privatisation processes transparently. It should not be undertaken in some covert manner, and if privatised there'd be even less justification for B-Mobile (or Telikom) to retain any exclusive market status (or monopoly powers as sole general carrier).

I'll repeat the recommendations from the January ICT workshop: -

1. Connectivity between mobile phone networks is required immediately, with affordable "termination" costs (i.e. the costs of connecting through other service -including landlines - not marked up severely). This connectivity occurred finally on 27<sup>th</sup> June;
2. ICT policy formulation must be rational, transparent and participatory – with an effective mechanism for private sector/civil society dialogue (e.g. through CIMC/or restored Impediments Committee/NWGIBI). Transparent and open dialogue is also required for media, including television aspects of ICT policy;
3. ICT policy should be forward-looking, enabling converging technology (mobile/internet/cable/VSAT/main gateways/last mile access, etc), not artificially locking PNG into obsolete, exclusive or current systems;
4. multiple independent gateways (for mobile telephony and data/internet) are required to provide competitive and better service and reliability;

5. the regulatory environment must be transparent and independent (run by ICCC, with PANGTEL as licensing authority); - (tampering with the independence of the competition regulator would send a negative message to the whole business and investment community, far beyond ICT )
6. improved rural livelihoods are a primary focus, entailing affordable access to mobile and internet including for education and banking; and
7. community service obligations must be fulfilled

In his conclusions on that workshop Ed Willett (ACCC Commissioner in Australia and Chairman of their ICT Policy Committee) observed that “it is hard to imagine a more damaging policy environment than exists in PNG at present. In addition to the prospective reversal of some promising emerging competition in mobile voice services, competitive responses from the incumbent and substantively improved service offerings to consumers; the reversal itself raises serious sovereign risk issues that threaten foreign investment in ICT and other industries in PNG in the future.

While couched in pseudo-economic terms, I view the proposal to structurally separate network and retail functions in mobile voice services as without merit. I am not aware of this approach being taken to mobile networks anywhere else in the world, let alone successfully; while competitive mobile networks have proved viable and successful in many countries, including I would argue, recently in PNG.

The proposed phasing of competition via an unspecified period of the “netco” model offers no solace, in my view. The likely effect (and perhaps design) of these arrangements is to destroy the new competition and deter future investment in competitive services.

There is clearly strong support for Digicel and competition in mobile services in PNG, so efforts to expose the current policy to public scrutiny are likely, in my view, to be successful. I consider that the Conference was a very constructive step in this direction.

However, this is clearly not the end of the policy debate for PNG. Three further key issues are:

- Ensuring any-to-any connectivity in mobile services. At the time of the conference progress appeared to be being made on this issue. However, it appeared to me that one issue at least deserved further attention: the regulation of Mobile Termination Access Services (MTAS). This has been a key issue in other countries to the development of effective competition in mobile services.
- Extending competition to mobile data services. In my view, this is now a more important issue for PNG than competition in mobile voice services. Around the world, the technological and policy issues associated with broadband services are at a watershed. The importance of these services to industry, government and education, as well as in the provision of household services, is growing rapidly. Ensuring the development and maintenance of competition in these services is a challenge, particularly in the face of interest group pressure, particularly from incumbent telcos, to stave off competition. Competition is critical not just to ensuring good value service offerings, but more

fundamentally in ensuring that alternative technologies vie for consumer and user custom, enabling sound choices by investors and consumers/users

- Extending competition to international gateway services. PNG's current international connections are tenuous and low capacity. With its monopoly firmly in place, Telikom PNG faces little incentive to develop and improve these services. There is some interest in private services via satellite and I've no doubt there would be foreign investment interest in further undersea cabling if these markets were liberalised, including possibly by Digicel and/or Green Communications, particularly if mobile data services were also liberalised. Gateway services are an important means of international voice communications, but more fundamentally, are a vital component of effective data services.....”

He concluded that “two issues should not be forgotten in the ICT debate in PNG:

- The importance of liberalising constraints on the provision of fixed services, so that large businesses and institutions are free to develop their own fixed networks.
- Interconnection between fixed and mobile services. This raises similar issues to the mobile-to-mobile interconnectivity discussion above”.

Since the January workshop the Government has approved a policy submission supposedly committed to competition under a phased approach. In reality, it seems to be more about stepping backwards and preventing competition and protecting Telikom from a more pro-active competitor, and deferring for an unspecified time the date when competition will extend from mobile phones to other ICT services. It is of concern that policy making seems to remain secretive....a private plaything of an elite club, apparently willing to go against the wider interests of the public which they profess to serve. However, Government still seems committed to restraining the prompt opening up of full competition (including of gateways) and for data services, continuing to handicap opportunities for business development and the wider community to benefit from more accessible, cheaper and reliable services.

Lois has provided a valuable, clear and matter of fact presentation of the issues and inconsistent policy development and application over recent years. With sound policy consistency one of the critical requirements for encouraging needed investment in the PNG economy (including for the latest buzz-word, Public Private Partnership – PPPs), and not just in boom enclave industries, it is hope that Government will heed her words.