



The rise of the “Infrastructure Utility”

Driving commoditised infrastructure

Last month I talked about a construct called the Infrastructure Utility and observed that organisations, generally at the large-scale end of the spectrum at this time, are pursuing the commoditisation of infrastructure in the telecommunications space despite the strenuous resistance of carriers.

Just what is this Infrastructure Utility? And why is it important in the ongoing debate that surrounds the telecommunications industry structure and commercial models and whether they help or hinder broad-based economic development in this country?

Let's go back a bit. If you're old enough, you remember not that long ago when infrastructure was king. It was complex, bloody expensive, and by no means in abundance. When I started my “real job” in “computers” some 20-late-mumble... years ago in the public service, I worked at one of four government computer centres.

These centres, deliberately brand/platform diverse, serviced the “data processing” needs of virtually the entire public service of New Zealand. These were what were collectively known as the CSD, the Computer Services Division of the State Services Commission. Younger folks will recall the successor of CSD, the Government Computing Service (GCS).

And things weren't very different in the private sector where computer rooms were spacious and filled with equipment and the green screen ruled on those office desks deemed to require “access to the systems”.

Now the pendulum has swung somewhat, hasn't it?

Distributed is one word commonly used for it. Decentralised, diverse and in many cases divested. The ICT supplier community has thrived on the explosion

of the appliance age, and why not? And the customer, from consumer to corporate, has enjoyed a period of creativity borne of internet-powered access to the world that would otherwise not have been possible.

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However, the fervour has swung too far for those of us who watch the world of communications. It enveloped the fundamental transport infrastructure at the bottom of the stack and we saw governments the world over divesting their telecommunications infrastructure in a frenzy of privatisation, the result of which is a veritable strangle-hold on our economy.

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This is the source of the debate that rages in varying stages all over the developed world – the agonising process of organising government, business and the public to wrest back the right level of control of the underlying infrastructure from incumbent carriers. That's another story and one that better pens than mine will continue to tell, but it is at the root of understanding the concept of the Infrastructure Utility.

The Infrastructure Utility, a term defined by Gartner a few years ago, is essentially a descriptor for a shared infrastructure provided to users on demand through services on a pay-as-you-drink basis. Characteristics of the

utility include robust security, an open standards foundation, accessibility and high reliability.

Users will typically stand at arms length from the infrastructure itself, utilising the capability (or not) according to demand. End-user Service Levels will become more standardised and oriented towards business outcomes, being derived from, rather than focused on, technical infrastructure performance parameters. Fixed costs will typically be far outweighed by variable costs, reflecting the on-demand nature of the utility.

What all this adds up to is crafting the delivery of underlying infrastructure as a commodity. De-coupling it from the application stack and considering the transport layer as an enabler of, rather than integrated with, the value that lies in applications and data.

The first steps in the evolution towards the Infrastructure Utility are concentration and consolidation – moving deliberately to standardise, rationalise, secure and automate. We're already

seeing such moves in both public and private sector enterprise initiatives. We're seeing an increasing number of initiatives flying in the face of established supply paradigms and placing their faith in their understanding of the drivers of their own businesses.

And as a concept the Infrastructure Utility applies equally to outsource service providers. But they'll need to embrace commercial models that will test their management capabilities and established norms.

Expect to see more enterprises moving to construct supply arrangements that deliver them the capability outputs of fundamental infrastructure as an enabling layer on which to build their business intelligence and value. Expect them to progressively resist the vertical integration of “service bundles” that have become a hallmark of the carriers' commercial models.

It is this separation that will unlock the vast potential of raw telecommunications infrastructure as a high-capacity, high-speed information highway. This is what will unfetter the creative potential of individuals and enterprises and unlock the latent potential of our economy.



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