ECONOMUSE

CVCs again – this is not the end game

The announced trial pricing is only a temporary fix.

Last week, some details of the current NBN consultation paper on concentrated virtual circuit (CVC) pricing were leaked. From the little we know, it will not keep the industry happy for very long. More fundamentally, the CVC approach is flawed.

The NBN consultation paper was provided only to customers through the NBN's Product Development Forum. Comments are due by Christmas.

We understand that a new tiered dimension-based discount model for CVCs – to be trialled for two years – will have discounts starting at $0.50 for up to 400kbps per end user. The eight tiers go up to a discount of $6 for over 1500kbps per end user. Current CVC pricing is based on blocks of purchased capacity but the proposed model is calculated on the average dimensioning of CVC per end user; which the NBN says makes it non-discriminatory as the discount is available to all NBN wholesale customers, regardless of size. That does seem an improvement on what we have now.

I have been unable to obtain a copy of the current consultation. NBN did offer to provide me a copy. But, only under a non-disclosure agreement (NDA); which would have meant I could not discuss it here. So, I shall just make do.

I did manage to get a copy of NBN's July 2014 CVC options paper and reported my observations in Hobson's Choice. That consultation paper looked at every combination of Access Virtual Circuit (AVC) and CVC pricing – except the option I have been trying to get the NBN to adopt for the last 7 years!

Traditionally, wholesale access products were provided on fixed price per month. The traffic related component reflected in the CVC charge has been a constant source of irritation to the industry. Initially, the price was set at $20/mbps. The first sop was a CVC Transitional Pricing Credit until the wholesale customer served more than 30,000 premises in a CSA. Later, the basic price was reduced from $20/mbps to $17.50/mbps. That was where it was when Mark Diogardi, then CTO off iinet, had a rant earlier in April this year about the "consumption tax" and the impact of Netflix.

He saw some hope in the dimension based pricing proposed the previous July as one of the options. I doubt that he would be satisfied by the new proposal.

In Are CVCs 'evil, stupid and counterproductive'?, I discussed how Mark wanted to see the CVC price come down to $1/mbps to get the cost of provisioning 8mbps per user (reflecting "a world where real time HD video cab consumed at home every night") to under $10/user per month; about the cost of on-line video subscriptions.

The following table converts the cost per mbps of CVC capacity to the cost of CVCs per customer per month. Line A is the proposed pricing with discounts for capacity per end user shown at line B. The scenarios of required capacity come from Mark and are shown at the foot of the table.

I have assumed that CVC capacity increments are rounded up (line E) as they are now. The resulting cost per month per customer is shown at line G. The following line shows the cost per customer at current CVC pricing of $17.50/mbps. The new cost per customer is lower but still way above the $10 per customer that the industry is looking for.

A	Trial CVC price per Mbps	$17.0	$15.3	$11.5	$11.5
B	Kbps usage per end user	400	1,000	2,000	4,000
C	Customers	2000	2000	2000	2000
B*C=D	Req'd CVC Mbps	781	1,953	3,906	7,813
E	Purchased CVC capacity	800	2,000	4,000	8,000
A*E=F	CVC fees pm	$13,600	$30,500	$46,000	$92,000
F/C=G	Trial per customer pm	$6.80	$15.25	$23.00	$46.00
	Current per customer pm	$8.00	$17.50	$35.00	$70.00
		Typical busy hour 400 kbps in 2014	1 HD video every 8 days @4mbps	Streaming @4mbps every second night	1x4k video every 5 days @15-20mbps

With traffic growing, there should be little or no impact on revenues. The trouble is that the NBN's current method of dribbling out cuts is not tied explicitly to growth in traffic.

The current AVC and proposed CVC pricing reflect what we had before. The AVC charge serves to limit the native peak speed of the networks and the CVC charges mean that the throughput is artificially constrained in the access network to provide cheaper service. The current pricing paradigm creates unnecessary scarcity.

Why not make the full speed of each technology available to all for an average AVC charge and replace the CVC charge with a simple equivalent gigabyte usage fee (see my earlier papers) and remove the bottlenecks in the fixed access network?

The NBN is costing staggering amounts relative to other countries – a problem that may be too late to fix. But don't also burden Australians with shrunken and choked broadband through an arcane AVC/CVC pricing scheme. That can be changed quite easily and with little or no economic impact.

John de Ridder