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CVCs – Is pricing crippling the NBN?

The new dimension based CVC pricing is not going to appease the sector.

This week, Bill Morrow announced the third iteration of "dimension based" CVC pricing which will be implemented with from June this year; with further changes to follow.

Pricing on the NBN has two major elements: the AVC monthly fee based on speed tier chosen (ranging from $24 for 12/1 Mbps to $150 for 1,000/400 Mbps) and the CVC charge which reflects usage and the chosen contention ratio. The latter has been a bone of contention (no pun intended) since the beginning.

In July 2014, nbn™ Co. released (but not publicly) a consultation paper on future pricing options (see Hobson's Choice). The third option was a reduction in the basic CVC price from $20 to $17.50 per Mbps of capacity purchased. This was implemented on 1st February 2015.

A fourth option in that paper introduced the concept of dimension based CVC pricing. At that point billing was seen as a potential obstacle.

The solution that appeared in the second consultation paper of November 2015 (again, not publicly available) was to calculate for each customer the total CVC capacity purchased divided by the number of lines to determine the level of provisioning and consequently the discount tier to be applied (see table).

CVC Tiers

kbps/user	Discount
<400	$0.50
401-500	$1.00
501-600	$1.25
601-800	$1.75
801-1000	$2.25
1001-1150	$3.50
1151-1350	$4.75
1351-1500	$5.50
>1500	$6.00

This second consultation paper recognised that this would underestimate the level of provisioning to the extent that the denominator included voice-only lines. Since nbn™ Co. does not know which lines are voice-only, it suggested that if RSPs (wholesale customers) nominated which lines are voice-only, it could put these on a zero Mbps AVC and exclude them from the estimated level of provisioning.

Aggregating across all the areas an RSP serves helps remove the scale effects that led to criticisms of price discrimination. But, it seems perverse to stop customers trying broadband; which they can do with the current minimum 12/1 Mbps AVC.

Maybe this led to the third iteration of dimension based CVC pricing announced this week by Bill Morrow. It is now proposed that purchased CVC capacity will be aggregated across all RSPs and divided by the total number of broadband lines (no mention was made of zero Mbps AVCs for voice only customers) to determine the tiered discount that would be applied to all RSPs. This is to be done quarterly and will move the basic CVC price per Mbps down over time. The initial price drop is expected to be $1.75 (which is consistent with the table above and Optus saying this week

that its provisioning is 849 Kbps currently) so that the basic price will fall from $17.50 to $15.80 per Mbps (possibly from June this year).

In the table below, I have assumed that the average level of provisioning is 1.5 Mbps/user or more by 2020 so that there is a further fall of $6 (i.e. applying the table above). I have also assumed that in addition to the general decreases in the basic CVC price driven by changes in the industry average level of provisioning, that tiered discounts will also apply to individual RSPs based on their provisioning (i.e. the table above): "We see the DBD model evolving further and ideally being applied directly to each retailer rather than an industry level."

	2016	2017	2020
Kbps usage per end user	849	2,000	5,000
Basic CVC price	$17.5	$15.8	$9.8
Discount	$6.0	$6.0	$6.0
CVC price per Mbps	$11.5	$9.8	$3.8
Customers	2,000	2,000	2,000
Req'd CVC Mbps	1,658	3,906	9,766
Purchased CVC capacity	1,700	6,000	10,000
CVC fees pm	$19,550	$38,086	$37,109
CVC/customer/pm	$9.78	$19.04	$18.55
Avg usage GB pm (forecast)	125	166	391
Cents/GB	7.8	11.5	4.7

The new regime will not be enough to satisfy the RSPs who are looking to keep CVC costs per user below $10 pm.

But CVC pricing still provides a perverse incentive to degrade the customer experience to cut costs. More contested networks drive both cost and quality down. A retail service provider (RSP) can do that in its network; but why allow it on the NBN network?

The 2010 corporate plan said "CVCs can be used as proxies for usage charging" (p103). Why use a proxy when you can have usage based charging? Abolish the CVC. That removes the incentive to degrade the NBN experience and removes any lingering price discriminations between RSPs.

While we are about it, also simplify AVC pricing. We are building a network for speed and the AVC pricing is rationing it unnecessarily. By June 2017 50 percent of households will be able to order an NBN service and the FTTN will offer at least 50Mbps; and probably more. Yet, the 2016 NBN plan shows over a third of end users will be using the 12/1 Mbps AVC service (less than ADSL).

In the PC world we have seen that bigger chips and improved performance have been closely followed by more sophisticated software that eats up the new capacity. But, we have a chicken and egg situation with the NBN. We know that users are not prepared to pay for speed. Users will not need more speed until the applications require them. And the applications will not arrive until users have the speeds to use them.

We can cut through this impasse and unleash innovation if nbn™ Co. turns on speed with just one or two AVCs (say, up to 100 Mbps and unlimited). It would catapult Australia to the top of global speed ratings. More importantly, Australia would become the global lab for developers looking for ubiquitous, true broadband.

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