

**Over the Wire Holdings Ltd**

**Submission to the ACCC's communications sector market study,  
October 2016**



## **1. Introduction**

Over the Wire has operated since 2005. We provide voice and data solutions for businesses, offering our customers a total, integrated solution for all of their IT and telecommunication needs. We specialise in the supply of customised SIP Voice, WAN solutions, Internet, colocation, hosted services, and managed IT services solutions. ASX listed Over the Wire Holdings Ltd is the holding company for all Over the Wire brands, including Over the Wire, NetSIP, FaktorTel, Spiderbox and Sanity Technology.

Over the Wire is pleased to provide a submission to the ACCC's communications sector market study. Our submission will concentrate on a single issue that we consider to be a particular impediment to competition in the communications sector, the unfair peering and transit arrangements that characterise Australia's Internet interconnection service.

## **2. Executive Summary**

Over the Wire has considerable concerns about conduct in the market for Internet access provider services and the anti-competitive effect of the Internet interconnection arrangements between Telstra, Optus, Verizon and the TPG owned AAPT, collectively known as the Gang of Four. For reasons explained in this submission, Over the Wire considers that there is a case for the ACCC to consider regulation of this service to prevent ongoing damage to competition in telecommunications markets.

## **3. Background**

As the ACCC is aware, following previous ACCC investigations into the Internet interconnection service in 1998, Telstra entered into Internet peering arrangements with three of its competitors, forming what became known as the Gang of Four. Membership of the Gang of Four has changed over time solely as a result of acquisitions rather than recognition of changes in the access provider market, and it now consists of Telstra, Optus, Verizon and AAPT. It is our understanding that the Gang of Four peer between each other but only peer with other carriers to a very limited extent, even where the exchange of Internet traffic with another carrier outside the Gang of Four is of sufficient quantity. Instead, other carriers are required to pay very high transit charges to the Gang of Four, which refuse to pay for traffic carried over networks owned by carriers outside the Gang of Four. This imbalance impedes the ability of other carriers to compete with the Gang of Four and results in Australian consumers of Internet services paying higher retail charges. The fact that the Gang has survived intact for 18 years is evidence of the Gang member's considerable market power and ability to control telecommunications markets to protect their interests, in a manner that appears to be contrary to competition.

## **4. The ACCC's prior investigations into the Internet interconnection service**

We are aware that the ACCC has previously investigated the Internet interconnection service and that:

- In 1998, the ACCC issued two competition notices against Telstra alleging that Telstra was breaching the competition rule by charging for delivering traffic to other ISPs operating national Internet backbones on Telstra's facilities, whilst refusing to pay for traffic received from those ISPs. Telstra's response to the notices was to enter into peering arrangements with the three operators named in the notices, forming the Gang of Four. Over the Wire considers that the current state of the market for access provider services is subject to similar levels of anticompetitive conduct that existed prior to the creation of the Gang of Four.
- In 2005, after conducting an inquiry, the ACCC decided not to declare the Internet interconnection service at that time. In making its decision, the ACCC stated while that there are serious concerns that the market may be subject to the use of market power, the absence of empirical data prevented the ACCC from being able to determine whether Internet interconnection arrangements optimally reflected the relative values and costs of providing interconnection.

## 5. Gang of Four peering policies

Unlike a lot of much larger international tier one networks, the Gang of Four members do not publish domestic peering policies. Failing to have a public policy demonstrates that they have no intention to peer and gives them the ability to constantly alter any peering thresholds to ensure that they are always out of reach to prospective peering partners. Published peering policies establish the criteria that need to be reached for an Internet access provider (**IAP**) to peer with another IAP, for example the traffic volumes and ratios, geographic network spread, and depth of interconnection relationships. The peering policies of the two largest tier one networks in the US can be obtained from:

<http://www.verizonbusiness.com/peering>

<http://www.level3.com/en/legal/ip-traffic-exchange-policy/>

Information about the peering policies of international IAPs is available from PeeringDB.com, which is a website that facilitates the exchange of peering information, specifically what networks are peering, where they are peering, and the criteria used to evaluate whether the network will peer with another network.

Large content provider customers often require Australian ISPs to be directly connected to Telstra and Optus. This is because Telstra and Optus's large end-user subscriber base and strong market positions make them very important to content providers.

It appears that the Gang of Four is able to enforce continuing paid transit arrangements on its competitors because of a strategy to not peer outside the Gang and their market dominance, which as the ACCC notes has increased through industry consolidation. Though the creation of the Gang of Four in 1998 may have alleviated competition issues at that time, since then it has become a major impediment to competition in the market for access provider services. This is demonstrated by the fact that despite significant alterations in traffic volumes and network sizes in the last 18 years, the Gang of Four still have the ability to steadfastly refuse to peer, to refuse to open up membership of the Gang to carriers with comparable networks, to refuse to pay for traffic received from other networks despite making other operators pay for traffic received from a member of the Gang, and to demand the payment of transit charges that are many times higher than those charged internationally.

## 6. High cost of Internet transit in Australia

Internet transit prices in Australia are reported to be amongst the world's highest, if not the highest. It appears likely that this is at least partly attributable to the Gang of Four's arrangements and their willingness to use their dominance in telecommunications markets to stifle competition in the market for access provider services.

Cloudflare, which operates a large network that interconnects with many other networks around the world, has stated that transit prices are extremely high in Australia, costing about 17x what it pays in North America and Europe. Cloudflare says that because of transit pricing and peering refusals by Australian carriers it pays about as much every month to serve all of Europe as it does to serve Australia, despite Europe having a population of 750 million compared to Australia's 24 million<sup>1</sup>. It states that in reaction to this situation, it has chosen to remove its free customers off a small number of expensive networks, including some in Australia, which results in those carriers having to haul traffic around the world rather than be able to move the same traffic across a small amount of fibre within the same data centre. This adds to costs and is clearly inefficient.

Copies of the papers that Cloudflare published in 2014 and 2016 about the cost of worldwide bandwidth are attached to this submission. They provide an informative comparison of the peering situation in different countries, which reflects poorly on Australia. We ask that the ACCC consider Cloudflare's papers in this review.

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<sup>1</sup> <https://blog.cloudflare.com/the-relative-cost-of-bandwidth-around-the-world/> (copy attached)

The table below from DrPeering.net states that the 2015 price for transit in the US is US\$0.63 per Mbps (approximately A\$0.83 per Mbps)<sup>2</sup>. Transit charges imposed by the Gang of Four are many times higher than the US rate. As in the US, Australian transit prices have steadily declined over the years, however, they remain significantly higher than rates in the US and other jurisdictions. There is no reasonable explanation why Australian transit prices are an order of magnitude higher than US transit prices other than the Gang of Four's ability to keep prices high through the anti-competitive exercise of their combined market power.

<u>Internet Transit Prices (1998-2014) U.S. Internet Region</u>			
Year	Internet Transit Prices (in Mbps, min commit)		% Decline
1998	\$1200	per Mbps	
1999	\$800	per Mbps	33%
2000	\$675	per Mbps	16%
2001	\$400	per Mbps	40%
2002	\$200	per Mbps	50%
2003	\$120	per Mbps	40%
2004	\$90	per Mbps	25%
2005	\$75	per Mbps	17%
2006	\$50	per Mbps	33%
2007	\$25	per Mbps	50%
2008	\$12	per Mbps	52%
2009	\$9.00	per Mbps	25%
2010	\$5.00	per Mbps	44%
2011	\$3.25	per Mbps	35%
2012	\$2.34	per Mbps	28%
2013	\$1.57	per Mbps	33%
2014	\$0.94	per Mbps	40%
2015	\$0.63	per Mbps	33%

**Source: DrPeering.net**

## 7. Competition in the market for access provider services

Internet interconnection is characterised by many alternative routes between the ISP networks that provide Internet access to end-users. The access provider service is one input into a number of downstream retail services including broadband, web hosting, data housing, content and VoIP. There are strong incentives for ISPs to interconnect to maximise addressable routes that each ISP can reach. ISPs with large networks and access to many interconnection routes have decreased latency and a greater quality of service that becomes a source of circular market power that in turn attracts downstream ISPs, content and subscribers. This operates as an externality that makes it difficult for smaller ISPs to interconnect on viable terms and making them less competitive in the downstream markets. The strategy of refusing to compensate Internet access providers outside the Gang of Four, along with high sunk and fixed costs to build

<sup>2</sup> <http://drpeering.net/white-papers/Internet-Transit-Pricing-Historical-And-Projected.php>

telecommunications networks and economies of scale in the supply of access provider services are significant barriers to entry and expansion in the market for access provider services. Accordingly, we consider that the Internet connection service is an area that should be looked at further by the ACCC.

The potential solutions to this problem include:

- mandated peering arrangements, for example at a peering exchange;
- recognition of the value and investment of another Internet access provider's network through regulated domestic transit pricing; and
- defined peering policies in a form acceptable to the ACCC.

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