



Received & Inspected

AUG 14 2015

FCC Mail Room

4876 Santa Monica Avenue, Box 111. San Diego, CA 92107
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August 4, 2015

Ms. Marlene Dortch
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Via ECFS

RE: Application of Charter Communications, Inc., Time Warner Cable Inc., and Advance/Newhouse Partnership For Consent to the Transfer of Control of Licenses and Authorizations, MB Docket No. 15-1-19.

Dear Ms. Dortch,

CNS has reviewed the proposed peering policy of New Charter and urges the FCC to withhold any decision on the merger until important peering issues can be resolved. While we certainly agree the proposed peering policy is a big step in the right direction, it still does not provide BIAS consumers with an open Internet.

The fundamental flaw of the proposed peering policy is that it is rooted in "Long Standing" and "Industry Standard" peering policies of Internet Service Providers who have no obligation to provide their customers open Internet connectivity as BIAS providers do to their consumers. It is not appropriate for it to be applied by any Broadband Internet Access Service because it still falls short of providing truly open Internet connectivity to consumers. This is detailed in our Rebuttal to Response of Time Warner Cable Inc. to Informal Complaint of Commercial Network Services (Ticket #356684) and Amendment to original complaint.

The new peering policy will stand for many years to come, long after current management is gone and likely shape the peering policy of other BIAS providers too. For this reason, it is important that an approval is granted only after a peering policy which will ensure open Internet connectivity for BIAS consumers is produced. This is not possible with a peering policy framed around an Internet Service Provider and not a Broadband Internet Access Service with actual obligations to BIAS consumers.

We urge the commission to withhold any decision until after important issues raised in our informal complaint are resolved.

No. of Copies rec'd 0
List ABCDE

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized 'B' followed by a series of loops and a long horizontal stroke extending to the right.

Barry Bahrami
Chief Executive Officer

cc:

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O' Rielly
Jonathan Sallet, General Counsel,
Bill Lake, Media Bureau Chief
Mindel De La Torre, International Bureau Chief
Matthew DelNero, Wireline Competition Bureau Chief
Roger Sherman, Wireless Telecommunications Bureau Chief
Owen M. Kendler, Office of General Counsel

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445 12th Street, SW
Washington, DC 20554

Electronically Filed

RE: CNS Rebuttal to Response of Time Warner Cable Inc. to Informal Complaint of Commercial Network Services (Ticket #356684) and Amendment to original complaint

To Whom It May Concern:

This letter is our rebuttal to the response of Time Warner Cable (TWC) to the informal complaint we filed against them (Ticket #356684). We are also amending our original complaint to clarify a violation by TWC of the "no-unreasonable interference/disadvantage" standard.

In the original complaint, I listed the third violation as "failure to fulfill their obligations to their BIAS consumers by opting to exchange Internet traffic over higher latency (and often more congested) transit routes instead of directly to the edge provider over lower latency peering routes freely available to them through their presence on public Internet exchanges, unless a payment is made to TWC by the edge provider." I intended this to be both a violation of their obligation to the BIAS consumer to deliver to the edge *and* the obvious violation of the no-unreasonable interference rule. However I now understand this may be confusing with the complaint coming from an edge provider and so with this rebuttal, I am amending the third violation in our original complaint to specifically be a violation of the "no-unreasonable interference/disadvantage" standard.

As I am also a TWC BIAS consumer at my residence, if it becomes necessary I will submit a separate complaint in my personal capacity which specifically focuses on the same conduct we are bringing to the attention of the commission.

TWC's claim that requiring a BIAS provider to open peer on public peering exchanges where they maintain a presence would "result in tremendous inefficiency" is absurd. There is nothing technically efficient about a management policy specifically ignoring a superior direct and freely available route over a common peering exchange where both networks maintain a presence and instead sending traffic through third party transit routes unless a ransom is paid. It is unlikely to "conform to best practices

and technical standards adopted by open, broadly representative, and independent Internet engineering, governance initiatives, or standards-setting organization”¹.

TWC attempts to cloud the dispute by suggesting we are attempting to peer from around the globe and do not want to pay our own reasonable transit costs:

CNS—like countless other edge providers around the globe—can reach TWC’s broadband subscribers by availing itself of competitively priced transit services offered by a wide range of backbone providers. That CNS does not wish to bear the modest costs associated with such transit services does not establish a regulatory violation.

On the contrary, our network extends at our own expense from the most south west tip of the continental United States through a mix of P2P wireless links over water and extremely rugged terrain and into private leased fiber line connecting San Diego to Los Angeles. From Los Angeles, we carry our own traffic east across the continental United States to NYC, again by private leased line and at our own expense. In NYC, we carry our own traffic to NJ – again by private leased line and at our own expense - in order to connect with a major peering exchange and multiple private peers there. And from NYC, we also carry our own traffic further east across the Atlantic to the United Kingdom, again by leased line and at our own expense. From the United Kingdom, we carry our own traffic even further into Europe over more private leased lines and at our own expense into Amsterdam and Frankfurt in order to connect with major peering exchanges there.

We connect to and maintain a presence on major peering exchanges along the way and at our own expense – including two² where TWC and CNS both maintain a presence. Between Los Angeles and Europe, we currently peer with more than 1000³ networks settlement free over primarily public Internet exchanges⁴. Eventually, both ends of our network will connect in Sydney, Australia.

To remotely suggest that we as an edge provider, who have already done the heavy lifting of bringing our network to a technically feasible gateway of every BIAS provider along the way, should also unnecessarily be subject to the transit “tax” of each BIAS provider would cause significant harm to the virtuous cycle. Make no mistake; if at the end of this dispute TWC is still not peering, we will not be purchasing “transit” from them no more than we will be purchasing “transit” from the other BIAS providers we may meet along the way. It only means TWC BIAS consumers will continue to be

¹ Paragraph 145 of the Open Internet Order

² One IX is located on the US west coast and another on the US east coast. We previously believed TWC was a member of NYIIX, which is geographically near Equinix NYC. But “tw telecom” in the member list is actually Level 3. However, this is not relevant to the dispute because the loss of NYIIX as a common point of presence is incidental due to the close proximity to Equinix NYC. Any dispute to the contrary is unlikely to pass the no unreasonable interference standard. If TWC will come clean on their public peering exchange points, we will continue to build out to them.

³ <https://radar.qrator.net/as29697/peerings>

⁴ While we do maintain private settlement free peering (over one or more dedicated cross connects and not over a public Internet exchange where both networks maintain a presence), those links primarily connect to brokers and financial services in order to better facilitate traffic exchange between our algorithmic traders and their chosen edge providers. One ISP in the UK peers with CNS privately (over dedicated cross connect) at their own expense and settlement free. The total number of private peers off a public Internet exchange is less than 40 and the vast majority of our peering is facilitated through public peering exchanges as it has traditionally been done all across the Internet. All of our peering is settlement free.

disconnected from the open Internet and our exercise of free expression will continue to be impacted in violation of congressional policy and FCC regulations.

In the "Factual Background" section of the TWC response, TWC declares our complaint to be unfounded and inflammatory:

Although the Informal Complaint contains various inflammatory and unfounded accusations about TWC, the parties' negotiations prior to June 2015 had been cordial and largely routine. Barry Bahrami, the CEO of CNS, approached TWC in September 2014 with a request to interconnect directly with TWC's network. Mr. Bahrami said at that time that his company operated six webcams in San Diego. Mr. Bahrami made no mention of the other services that CNS now states that it provides, such as hosting "algorithmic traders" or streaming "AM [r]adio station[s]."

While I believe we have only made our position precisely clear, the only possible intention of the statement "Mr. Bahrami made no mention of the other services that CNS now states that it provides, such as hosting "algorithmic traders" or streaming "AM [r]adio station[s]." is to inflame the argument.

Full Definition of INFLAMMATORY⁵

- 1 : tending to excite anger, disorder, or tumult : seditious
- 2 : tending to inflame or excite the senses

The fact is I was merely introducing ourselves to the commission and whatever we use our network for really plays no part in the TWC decision to peer – and they know it. Therefore, it is this statement itself that is actually inflammatory because (as if it would have made a difference) it is clearly beside the point. The only possible intention of this statement is to provide a smoke screen for their subsequent justification of the TWC peering policy through comparisons rooted with "long standing" and "industry standard" peering policies of ISP's – not BIAS providers⁶.

TWC's policy identifies various industry-standard criteria that a candidate for settlement-free interconnection must satisfy, including the requirement that the network operator "must sustain a monthly average of ten (10) Gigabits" of Internet traffic volume to and from TWC's network and "must meet the [TWC network] at a minimum of four (4) mutually agreeable geographically diverse Demarcation Points in the United States."

Our position is that TWC "long standing" and "industry standard" peering policy is inappropriate in their new role as a BIAS provider, dangerously inefficient towards the goal of open Internet connectivity for BIAS consumers and clearly being applied to leverage their position as Gatekeeper and unreasonably squeeze "transit" fees from edge providers for services the BIAS consumer has already paid for. As you know, TWC is a Broadband Internet Access Service – not an Internet Service Provider. The broadband Internet access they offer their consumers is not symmetrical as it is with an actual Internet Service Provider such as Level 3. That is, the maximum download speed advertised to TWC consumers

⁵ <http://www.merriam-webster.com/dictionary/inflammatory>

⁶ The peering policies of the BIAS providers offered by TWC are also applying their same "long standing" and "industry standard" peering policies too, policies established as ISP's and not BIAS providers. We will submit more peering requests to other BIAS providers as we build out our network.

tremendously exceeds the maximum upload speed by as much as 15:1⁷. This is ideal because broadband consumers tend to download much more data than they upload⁸. Compare that with a real ISP, such as Level 3 where their customers have symmetrical access and can upload data as fast as they can download.

I also should point out that ISP's have no mandate to provide an open Internet to their customers like BIAS providers do to their *consumers*. Requiring any minimum traffic requirement in order to peer over the public peering exchange where both networks maintain a presence is like requiring voters to appear at voting booths in full busloads or pay a fee. Certainly the voters who walk to the polls have the same right to vote without unreasonable interference as BIAS consumers do when communicating with their chosen edge provider. And as I will articulate further down in this rebuttal, they have already paid the fee anyway.

For these reasons, the "long standing" and "industry standard" TWC peering policy is grossly inappropriate in their new role as a BIAS provider and another demonstration of unreasonable interference.

Further, the "possible ways to connect with TWC through Level 3 and other transit providers" offered by TWC are not just or reasonable options because they ignore the obviously technically feasible point of interconnect, are unnecessary, lesser quality end to end and ultimately are impassable because they require transit through networks with restrictive peering policies. They effectively require an additional payment to actually complete the service for which the BIAS consumer has already paid TWC for – to deliver to the edge.

Level 3's own blog⁹ details the quality of these restrictive alternatives because some BIAS providers are not maintaining their peering ports. This behavior has created a de facto paid fast lane to BIAS consumers on the TWC network, which again violates the no paid prioritization and no throttling rules.

In their defense, TWC claims our complaint should fail "as a matter of law for the simple reason that the 2015 *Open Internet Order* expressly declined to extend the substantive open Internet rules for retail broadband Internet access service—including the prohibitions on paid prioritization and throttling—to Internet traffic exchange. The *Order* is unambiguous on this score: "To be clear, consistent with the NPRM's proposal, we are *not* applying the open Internet rules we adopt today to Internet traffic exchange.""

But their quote is incomplete and when taken at face value is also out of context. The commission has plenty of authority to rule in favor of CNS.

203. At this time, we believe that a case-by-case approach is appropriate regarding Internet traffic exchange arrangements between broadband Internet access service providers and edge providers or intermediaries—an area that historically has functioned without significant Commission oversight.

Given the constantly evolving market for Internet traffic exchange, we conclude that at this time it would be difficult to predict what new arrangements will arise to serve

⁷ <http://www.timewarnercable.com/en/plans-packages/internet/internet-service-plans.html>

⁸ This is a demonstration that BIAS providers will indeed efficiently adapt to market forces and benefit from it.

⁹ <http://blog.level3.com/open-internet/observations-internet-middleman/>

consumers' and edge providers' needs going forward, as usage patterns, content offerings, and capacity requirements continue to evolve.

Thus, we will rely on the regulatory backstop prohibiting common carriers from engaging in unjust and unreasonable practices. Our "light touch" approach does not directly regulate interconnection practices. Of course, this regulatory backstop is not a substitute for robust competition. The Commission's regulatory and enforcement oversight, including over common carriers, is complementary to vigorous antitrust enforcement.

Indeed, mobile voice services have long been subject to Title II's just and reasonable standard and both the Commission and the Antitrust Division of the Department of Justice have repeatedly reviewed mergers in the wireless industry. **Thus, it will remain essential for the Commission, as well as the Department of Justice, to continue to carefully monitor, review, and where appropriate, take action against any anti-competitive mergers, acquisitions, agreements or conduct, including where broadband Internet access services are concerned.**

TWC again attempts to create a smoke screen for their subsequent interpretation of the obligations of carriers to interconnect by declaring my correspondence with them to be "littered with threats and misrepresentations". While the specifics are again not relevant to this peering dispute and merely serve to provide a smoke screen for their subsequent interpretation of the Act, it is important we respond in order to demonstrate our hands are clean.

CNS's unreasonable practices are on full display in the email correspondence attached as an exhibit to its Informal Complaint—correspondence that is littered with threats and misrepresentations by CNS's CEO, Barry Bahrami. For instance, Mr. Bahrami wrote that CNS would "throttle . . . [T]ime [W]arner . . . traffic" if TWC did not accede to CNS's demands—a threat that is flatly inconsistent with the Internet openness principles identified in the Order. Mr. Bahrami also repeatedly asserted that CNS already "peer[s] without payment" with various other large ISPs, including Cox and Google, but those assertions are demonstrably false; online databases of peering relationships in the industry show that CNS is not a direct peer of Cox, Google, or any other large ISP.

- TWC is taking "throttling" out of context to mean slowing down. Our alternative has been to put TWC viewers in line to view the San Diego Web Cam in order to *somewhat* optimize the image quality for all TWC BIAS consumers; much like an art studio would put visitors in a line at the door when capacity is limited. For us to slow down any TWC viewer would require the connection is fast enough to slow down to begin with, which we have demonstrated it is not. In order to avoid any confusion and maximize the picture quality to TWC viewers, we have since changed the presentation for TWC viewers to be a high resolution still image instead of streaming 720p video like viewers on Cox¹⁰ and other providers as far away as Romania¹¹ and beyond are enjoying. We prefer to not present our home town through an

¹⁰ Cox and Time Warner Cable are the two monopoly BIAS providers serving San Diego County.

¹¹ Telekom Romania Communications S.A. (AS9050) peers with AS29697 in multiple locations. This is just a random sample and should not be interpreted by TWC to mean they are our only peer.

unnecessarily degraded image. This ultimately is another example of unnecessary interference to our freedom of expression.

- What I said was "Cox is onboard" and the comment is again being taken out of context. It was intended to express that Cox BIAS consumers are enjoying the San Diego Web Cam in 720p. Cox is reachable through Hurricane Electric¹², who operate under an open peering policy and are also a direct and settlement free peer of CNS over public Internet exchanges in multiple locations¹³.
- I will spare TWC the education on how to properly look at BGP adjacencies and instead invite them to utilize our publicly available looking glass (<https://helpdesk.commercialnetworkservices.net/index.php?/Knowledgebase/Article/View/106/0/cns-looking-glass>). A good easy to read list of our IPv4 peerings is available at <https://radar.qrator.net/as29697/peerings> and our IPv6 peerings can be found at <https://radar.qrator.net/as29697/ipv6-peerings>. Qrator.net is the best way to analyze this data because they have established eBGP sessions with our network in Los Angeles, New York City and in the UK. Thus, they have a full view of our global BGP routing table from three different locations.

While I am addressing the subject of clean hands, I need to bring to the attention of the commission the fact that shortly after our filing of the original complaint, TWC deleted the listing of their public peering exchange points from the major public peering database peeringdb.com¹⁴. I am confident if the Enforcement Bureau requested record archives from PeeringDB, they would find a formerly maintained record. This is clearly an attempt to conceal their points of presence on major public Internet exchanges in order to make interconnection over these public IX' appear technically inefficient and costly to the commission for purposes of this dispute. I have attached the official membership rosters of Any2¹⁵ and Equinix NYC¹⁶ which prove TWC does indeed maintain a presence on these exchanges. I am sure they maintain a presence on other exchanges too, and if they would simply come clean on their locations they will find edge providers like CNS will build out to reach them most efficiently, increasing the forward momentum of the virtuous cycle. However with the public listing having been deleted from peeringdb.com by TWC, it would require some investigative work to determine who/where they are. This behavior is not conducive to a fair resolution of our dispute. The records listed on PeeringDB.com are typically posted and maintained voluntarily and in good faith by the respective networks in order to help identify peering opportunities between those same networks.

¹² <http://as6939.peeringdb.com>

¹³ We approached Cox to peer but we did not meet at a common peering exchange on the west coast. We are at Any2 and they are at Equinix Los Angeles, just a few blocks away. Although Cox was interested in peering, "a few blocks" is not "at their front door" and so it would be unreasonable for us to demand settlement free peering. Then, around the time the 2015 Open Internet Order was published, Cox became reachable through open routes provided by Hurricane Electric (HE). These routes do not suffer congestion issues either. Cox viewers were instantly watching the San Diego Web Cam in 720p. It made perfect sense to me because in my experience working with Cox over the years, they tend to focus on providing their consumers with good service. And this move did just that by opening their routes on pretty much every peering exchange worldwide. In any case, the point is Cox routes are reachable without passing through restrictive peering policies and congested routes.

¹⁴ Please see attached Exhibit 'B', a hard copy of the peeringDB.com listing as of August 2, 2015. Note the edit date is June 24, 2015. Public peering exchanges are gone and their peering policy is listed as 'Restrictive'.

¹⁵ Any2 Participant List.xlsx

¹⁶ EquinixNYCParticipantList-20150520.xlsx

In the remainder of their response, TWC discusses how section 251(a) of the 1996 FCC report and order might apply to them and the fees they may impose.

Moreover, while the Act (in Section 251(c)(2)) imposes heightened obligations on incumbent local exchange carriers (“ILECs”) to provide interconnection “at any technically feasible point,”⁵⁴ other telecommunications providers often choose to interconnect indirectly with ILECs. A principal reason for such indirect interconnection—even in a context where a competitor has a regulatory right to insist on direct interconnection—is that ILECs may impose charges for direct connections, making indirect interconnection more economically efficient.

We will stipulate TWC is required to provide interconnection “at any technically feasible point”. What is more technically feasible and cost effective than a direct route provided by a common public peering exchange where both networks maintain a presence? It is unlikely that any explanation TWC can offer will satisfy the no unreasonable interference standard.

Under current TWC interconnection architecture, even an indirect connection is not possible because they require passage through transit networks with restrictive peering policies requiring an additional payment. While this may have passed scrutiny by the 1996 definition of the Act, it falls short of honoring their new obligations to the BIAS consumer under the 2015 Open Internet Order and is therefore an unreasonable default on their requirement to provide interconnection “at any technically feasible point”.

TWC has neglected to include a key new responsibility to their BIAS consumers in their interpretation of fee arrangements required to connect with them over public peering exchanges – paragraphs 195 and 338 of the 2015 Internet Order:

195. The definition for broadband Internet access service includes the exchange of Internet traffic by an edge provider or an intermediary with the broadband provider’s network.

...

338. In the *Verizon* opinion, the D.C. Circuit concluded that, in addition to the retail service provided to consumers, “broadband providers furnish a service to edge providers, thus undoubtedly functioning as edge providers ‘carriers.’”⁸⁸⁸ It was because the court concluded that the Commission had treated this distinct service as common carriage, that it “remand[ed] the case to the Commission for further proceedings consistent with this opinion.”⁸⁸⁹ We conclude now that the failure of the Commission’s analysis was a failure to explain that the “service to edge providers” is subsumed within the promise made to the retail customer of the BIAS service.

Thus, any fees TWC are claiming due them to exchange traffic for their BIAS consumers with our edge over a common public Internet exchange where both networks maintain a presence have already been paid by the BIAS consumer who is requesting the data from our network in the first place. Any demand for additional payment by TWC to exchange traffic over the obviously technically feasible and most ideal point constitutes unreasonable interference. Let's not forget, it is the TWC BIAS consumer who is requesting data from our network over the BIAS service they are paying for. We are not irresponsibly flooding their ports with traffic nobody has requested. That would best be addressed under a (new) BIAS provider's abuse policy, not a peering policy.

They further back up their interpretation by claiming "Allowing unlimited connections at each exchange point would exceed available network capabilities and would threaten to slow the Internet to a crawl." This statement is absurd and has no chance passing the no unreasonable interference standard.

By their explanation, participating networks of public peering exchanges should immediately grind to a halt every time a big network like Google or Microsoft¹⁷ joins. On the contrary, those peering exchanges become even stronger examples of open connectivity, efficiency and redundancy. All participants benefit from it and those peering exchanges with (open) "BIAS" providers are thriving Internet ecosystems today¹⁸.

Despite TWC's irrelevant claims to the contrary, we do indeed peer with Microsoft and Google over public Internet exchanges in multiple locations¹⁹. Our network is not any slower for it. In fact both are a little faster, more efficient and redundant *because of it*.

TWC closes their response with this:

Moreover, preventing TWC from entering into paid arrangements with CNS and other network providers where the exchange of value is unbalanced would shift those added costs to TWC's subscribers—including those with no interest in accessing the content that those providers deliver. Such an approach also would eliminate incentives to establish a collaborative relationship to exchange traffic and to undertake upgrades in an efficient and predictable manner.

This statement suggests TWC will incur added costs just for open peering on the public Internet exchanges where they maintain a presence. It has no chance of passing the no unreasonable interference standard.

Make no mistake, their presence on any peering exchange does not require any additional hardware or software to be deployed or even patch cables plugged in for every new peer that joins. This is purely a management policy to not accept the technically feasible and obviously superior route. It is a software configuration.

¹⁷ Both networks maintain a reasonably open peering policy

¹⁸ LINX and AMS-IX are two fine examples.

¹⁹ <https://radar.qrator.net/as29697/peerings> or our publicly available looking glass: <https://helpdesk.commercialnetworkservices.net/index.php?/Knowledgebase/Article/View/106/0/cns-looking-glass>

Participants on a public peering exchange are not immediately bogged down by traffic flowing between other unrelated participants either. These exchanges would not exist if they did. In the case of TWC, traffic will naturally only flow through their ports when a TWC BIAS consumer requests some sort of content – reasonably assumed to be of value to that BIAS consumer – and when the port offers the best route to the destination.

Certainly there will be cases where it is reasonably justifiable for edge providers to establish private peering (over a dedicated connection and not through the peering fabric the public exchange provides) with a BIAS provider, typically where there is high traffic flow between the networks. Those cases should indeed be subject to reasonable commercial terms. But “reasonable commercial terms” has historically been whose turn is it to pay for the cross connect²⁰ because both sides of the circuit understand it is mutually beneficial and technically ideal that it be established in the first place.

The truth is that the only expense TWC or any BIAS provider will incur by open peering on the public peering exchanges where they maintain a presence is the already regular expense of responsibly augmenting those IX ports as BIAS consumer demand requires.

I believe there is no hope for both parties to come to a mutually agreeable resolution. And so for this reason, I respectfully request the commission to proceed with our complaint.

Sincerely,



Barry Bahrami
Chief Executive Officer

cc:

Matthew A. Brill
Jeff Zimmerman

²⁰ <http://blog.level3.com/open-internet/observations-internet-middleman/> “Each party pays to augment its own network to allow for more traffic exchange (the expense to augment capacity is not significant for either party). And since we often choose to interconnect in a third party data center, the networks usually agree to share the cost of the cross connects by paying for them on an alternating basis.”

Exhibit "B"

http://www.peeringdb.com/view.php?asn=7843

- [Navigation](#)
- [Home Page](#)
- [Logout](#)
- [Your Records](#)
- [Peering Record](#)
- [User Account](#)
- [Search Records](#)
- [Networks](#)
- [Exchange Points](#)
- [Facilities](#)
- [Common Points](#)
- [Suggestions](#)
- [Comments](#)
- [New Exchange](#)
- [New Facility](#)
- [Help](#)
- [FAQ](#)
- [Statistics](#)

Company Information

Company Name Time Warner Cable
Also Known As TWC
Company Website
Primary ASN 7843
IRR Record AS-ROADRUNNER
Network Type Cable/DSL/ISP
Approx Prefixes 7000
Traffic Levels 1 Tbps+
Traffic Ratios Balanced
Geographic Scope North America
Looking Glass URL
Route Server URL
Notes IPv4 Maxpfx: 10000
 IPv6 Maxpfx: 200
Protocols Supported Unicast IPv4 Multicast IPv6

Date Last Updated 2015-06-24 21:23:50 UTC

Peering Policy Information

Peering Policy URL
General Policy Restrictive
Multiple Locations Required - US
Ratio Requirement Yes
Contract Requirement Not Required

Contact Information

Role	Contact Name	Telephone	E-Mail
NOC	TWC NOC	877-777-2263 Opt 1,4, 1	noc.austin.backbone-ndc@twcable.com
Technical	PeeringOps		DL-TWC-PeeringOps@twcable.com
Sales	Barry Parris		barry.parris@twcable.com
Policy	Ethan Meiselman		DL-ATG-PEERING@twcable.com
NOC	Maintenance Notification		TWC.Maintenance.Notifications@twcable.com
NOC	Dean DeBack		dean.deback@twcable.com

Public Peering Exchange Points

Exchange Point Name **ASN** **IP Address** **Mbit/sec**
 No records

Private Peering Facilities

Facility Name	ASN	City	Country	SONET	Ethr	ATM
CoreSite - LA1 - One Wilshire	7843	Los Angeles	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Ashburn (DC1-DC11)	7843	Ashburn	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Chicago (CH1/CH2)	7843	Chicago	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Dallas (DA1)	7843	Dallas	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Los Angeles (LA1)	7843	Los Angeles	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Palo Alto (SV8)	7843	Palo Alto	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix San Jose (SV1/5)	7843	San Jose	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equinix Vienna VA (DC7)	7843	Vienna	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Level(3) Chicago Kingsbury	7843	Chicago	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Level(3) Newark	7843	Newark	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telx Atlanta	7843	Atlanta	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telx New York (111 8th)	7843	New York	US	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1 2 of 2 Next > Last >>

NOTE: Sending Unsolicited Commercial Emails to contacts mined from PeeringDB will result in a ban and public embarrassment.

PPS: PeeringDB is preparing for version 2, see <https://beta.peeringdb.com/docs/> for details.

(c) 2004-2015 PeeringDB, All Rights Reserved. Please contact support@peeringdb.com with questions/problems.