

INTERNATIONAL PEERING POLICY

Guidelines for potential international peering partners

LAST UPDATED SEPTEMBER 2021



CONTENTS

| | |
|--|----------|
| 1. Introduction | 3 |
| 2. Interconnection Requirements | 4 |
| Bilateral Peering. | 4 |
| Geographic Scope. | 4 |
| Backbone Capacity. | 4 |
| Public peering. | 4 |
| Access to the AARNet Mirror. | 4 |
| 3. Operational Requirements | 5 |
| 4. Requests for peering | 6 |



1. INTRODUCTION

AARNet Pty Ltd (APL) operates a national network (AARNet) on behalf of its shareholders (the Australian Universities and CSIRO), collaborating organisations and other related parties. It is focused on providing a high quality, redundant and resilient service to its clients and will enter into peering relationships if it feels that such a relationship will be to the overall continuing benefit of APL and its clients.

This Policy applies to all requests for settlement-free interconnection with AARNet, either via dedicated connections (“direct peering”) or via traffic exchange at a multiparty network access point (“public peering”) and should only be taken as a general guide to the approach that is taken by APL in deciding to peer with another Internet Network. APL will have no legal or other obligations as a result of providing this document. Each request to peer with AARNet will be considered by APL on a casebycase basis and is subject to execution of a formal agreement setting out the terms and conditions that may apply to that particular peering arrangement.

In addition to the criteria set forth below, APL’s ability to enter into peering arrangements with another Internet Network are subject to normal commercial and technical considerations including the requester’s financial stability and the availability of peering ports and AARNet’s backbone capacity in particular locations.

APL conducts periodic internal reviews of its Peering Policy to ensure that the criteria for peering eligibility are consistent with APL’s network growth and expansion. This Peering Policy will be revised on a regular basis to reflect this analysis. Existing peering partners may be asked at times to re-qualify for continued peering.

APL has separate policies based on the primary place of business of the requester, the scope of their network and their traffic mix. This policy applies to requesters who provide service predominately outside of the Commonwealth of Australia.



2. INTERCONNECTION REQUIREMENTS

BILATERAL PEERING.

APL requires that any agreement be bilateral. APL will not enter into any agreement that requires a multilateral peering arrangement as APL doesn't believe this provides adequate control over the quality of any interconnection arrangements.

GEOGRAPHIC SCOPE.

The Requester shall operate an Internet Protocol based network predominately outside of the Commonwealth of Australia.

BACKBONE CAPACITY.

The Requester shall have a fully redundant backbone network, in which the majority of its interhub trunking links shall have a capacity of at least 10Gbps.

PUBLIC PEERING.

APL currently prefers to arrange bilateral peering agreements internationally using public peering facilities where APL is collocated. Dedicated peering would only be considered if traffic levels warrant it.

ACCESS TO THE AARNET MIRROR.

It is currently APL's policy that access to the AARNet Mirror not be provided outside of the Commonwealth of Australia.

3. OPERATIONAL REQUIREMENTS

The following operational requirements apply both to the Requester and to APL:

- » Each Internet Network must establish and maintain traffic exchange links of a sufficient robustness, aggregate capacity, and geographic dispersion to facilitate mutually acceptable performance across the interconnect links.
- » Each Internet Network must operate a fully functional twenty-four hour, seven days a week (24x7) Network Operations Centre or provide a mechanism to report and action fault reports 24x7.
- » Each Internet Network must set next hop to be itself, the advertising router of the network. Each Internet Network will propagate such routes to its transit customers with its own router as next hop.
- » Each Internet Network shall implement “shortest exit routing” and advertise routes consistent with that policy, unless both Internet Networks mutually agree otherwise based on special circumstances.
- » Each Internet Network shall not establish a route of last resort, i.e., default route, directed at the other party.
- » Each Internet Network will restrict its advertisements to non-transit routes originating within the geographic region for which peering is established and will not propagate the received route announcements outside such region.
- » Each Internet Network must operate a fully redundant network, capable of handling a simultaneous single-node outage in each network without significantly affecting the performance of the traffic being exchanged.
- » Each Internet Network must provide a looking glass service to review the routes being received. This will be used for confirmation of traffic flows, troubleshooting of interconnection-related issues, and auditing purposes.
- » Each Internet Network must be responsive to unsolicited email and network abuse complaints, as well as routing and security issues, providing a knowledgeable technician within a two-hour period after notice.
- » Each Internet Network must filter routes at their network edge, i.e. only listen to the routes that their customers have pre-registered so that such customers do not announce routes that are not registered.
- » Each Internet Network will announce consistent routing announcements to the other. Consistent announcements require that all routes be announced at all peering sites with the same aggregation properties.
- » Each Internet Network must register all prefixes that may be announced by them in a publicly accessible Internet Routing Registry, RADB is preferred.
- » APL has a preference for using MD5 passwords on any routing exchange.
- » Each Internet Network must have a www.peeringdb.com entry that is kept up to date with abuse and noc details.



4. REQUESTS FOR PEERING

All requests for settlement-free interconnection should be submitted to AARNet via electronic mail to peering@aaarnet.edu.au. The Requester should include information that addresses the requirements and include a copy of their network map and peering policy, if available.