Traffic Designations for Eircom-owned & operator-owned Interconnection Paths

Version Control

Version	Status	Update	Effective Date
3.0		Original	01st May 2015
V4.0	Final	This document is based on V4.0 Implementation of Standardised Change Control.	21/06/2017

This document follows change control procedure:

Proposed is defined as a document status when the approved document is uploaded to Proposals Section of open eir Website.

Final is defined as a document status when the approved document is uploaded to the relevant section of the open eir Website following the publication period.

For information:

- Historical Document History Table located at end of Document.
- Publish means the action of uploading a document to the website regardless of status or location.
- If there are changes to the document between 'Proposed' and 'Final', change control operates.

1. Introduction

Connections between an eircom Interconnect Node and the Interconnect Node of another licensed operator (OAO) are known as Interconnect Links.

These links can be of a unidirectional of bi-directional nature. The nature of the link is defined by the traffic requirements of the operator that "owns" the Link.

Each Interconnect Link consists of single or multiple Interconnect Paths, with a single Path consisting of a 2Mbit/s circuit between the eircom network node and the network node on the operator's network. When ordering an Interconnect Path the traffic types to be passed on the Path is indicated, the Path is then either designated to be "OAO-owned paths" or "eircom-owned paths".

This document will detail the varying traffic types carried on each of the above Interconnect Path designations.

2. Background

Given that any single Interconnection Path is designated as either an 'OAO owned paths', or 'eircom-owned paths' this would suggest that all Paths are unidirectional, allowing traffic to flow in one direction only. This however is not the case.

Interconnection Paths in Ireland only carry traffic owned by one operator. The operator that receives the retail margin from the call is said to "own" the traffic. This means that calls by customers of an operator, eircom for example, to another network operator's geographic numbers are owned by eircom. Likewise calls made by an OAO customer calling NTC numbers in eircom's network would also be eircom owned traffic as eircom receives the Retail revenue less the origination cost for the originating network.

With the above as guidance, we can determine that both traffic types described above are eircom-owned paths, while at the same time the physical direction that traffic flows is both Inbound to and Outbound from the eircom network, leading to confusion in the designation of Interconnect Paths.

To avoid confusion the following details traffic types and their associated Interconnect Path designations. All questions relating to specific traffic types should be directed toward your account manager within Carrier Services

In Qualitative Terms

Traffic Designations on eircom-owned paths Paths:

1. Geographic traffic to be terminated `off' the eircom network, on an OAO's network.
2. Non-geographic traffic originating off the eircom network for termination lon' the eircom network.
3. Calls made by a directly connected OAO customer prefixed by eircom's carrier access, carrier selection or carrier pre-selection code.

Traffic Designations on OAO-owned paths Paths:

1. OAO originated traffic to geographic numbers to be terminated lon' the eircom network.
2. Non-geographic traffic originating on the eircom network destined to be terminated 'off' the eircom network, on an OAO's network.
3. Calls made by a directly connected eircom customer prefixed by an OAO's carrier access, carrier selection or carrier pre-selection code.
4. All transit traffic being offered to eircom for onward delivery.
5. All International traffic.
6. Outbound leg of Non-Geographic traffic transiting via the eircom network for termination 'off' the eircom network.

Service Schedule	Num ber	Service Title	Description
102	eircom National	FEH	OAO-owned paths
103	eircom Call Origination	NEH	OAO-owned paths
104	National Transit	Tertiary Interconnect nodes only	Delivered to eircom via an OAO-owned path and exit the eircom network by the appropriate Service Schedule route designation
105	Access to eircom Premium Rate Services	Tertiary Interconnect Nodes	eircom-owned paths
106	Access to eircom Freephone	Tertiary Interconnect Nodes	eircom-owned paths
107	Access to eircom Locall Services	Tertiary Interconnect Nodes	eircom-owned paths
108	Access to eircom Callsave Services	Tertiary Interconnect Nodes	eircom-owned paths
109	eircom Universal Access Services	Tertiary Interconnect Nodes	eircom-owned paths
110	eircom Personal Numbering	Tertiary Interconnect Nodes	eircom-owned paths
111	eircom National Directory Services	Tertiary Interconnect Nodes	OAO-owned paths
112	eircom International Directory Enquiries	Tertiary Interconnect Nodes	OAO-owned paths
113	eircom National Operator Services	Tertiary Interconnect Nodes	OAO-owned paths
114	eircom International Operator Services	Tertiary Interconnect Nodes	OAO-owned paths
115	Emergency Services (112/999)	Tertiary Interconnect Nodes	OAO-owned paths
116	Packet Services Access	Tertiary Interconnect Nodes	OAO-owned paths
118	eircom Customer Care Access	Tertiary Interconnect Nodes	eircom-owned paths
119	International Access including northern	Tertiary Interconnect Nodes	OAO-owned paths
120	eircom Carrier Pre-Selection (CPS)	Tertiary Interconnect Nodes	OAO-owned paths
121	Access to eircom 1891 Internet Services	Tertiary Interconnect Nodes	OAO-owned paths
122	Access to eircom 1892 Internet Services	Tertiary Interconnect Nodes	OAO-owned paths
124	Access to eircom V IOP Services	Tertiary Interconnect Nodes	OAO-owned paths

Operator Services

205	Access to Operator Premium Rate Services	NEH2	OAO-owned paths
206	Access to Operator Freephone Service	NEH2	OAO-owned paths
207	Access to Operator Shared Cost Timed Service	NEH2	OAO-owned paths
208	Access to Operator Shared Cost Fixed Service	NEH2	OAO-owned paths
209	Operator Universal Numbering Service	NEH2	OAO-owned paths
210	Operator Personal Numbering Access	NEH2	OAO-owned paths
221	Operator 1891 Internet Access Service	NEH2	OAO-owned paths
222	Operator 1892 Internet Access Service	NEH2	OAO-owned paths
223	Operator 1893 Flat Rate Internet Access Call Origination Service.	NEH	OAO-owned paths
224	Operator VO IP Service	NEH2	OAO-owned paths
301	Reciprocal NON-Geographic Number Portability		N/A
302	Data Management Amendment		N/A
303	Reciprocal Geographic Number Portability Service.		N/A
401	Single Billing WLR		N/A

Note 1 — Access to emergency services will be at eircom tertiary nodes where possible but these calls will be accepted at all eircom interconnect nodes.

2.1 Further Clarifications

Near End Hand Over (NEH)

NEH allows a call, originated at a primary exchange, the opportunity to exit the eircom network at this node, should the correctly designated interconnect path with free capacity be available towards the terminating operator. Should capacity not be available here the call origination routing scheme, as published on the eircom wholesale web site, describes the controlling twinned tandem nodes that the call will rise towards in order to exit the eircom network. Calls approach twinned tandem nodes from a primary node on a 50/50 distribution basis.
Should capacity at the tandem layer not be available the call will be passed onward to the eircom tertiary nodes at Adelaide Rd and Dame Court, where all operators support interconnect links.

NEH2 — Near end hand over only available at AXE switches for these service schedules.

Far End Hand Over (FEH)

FEH allows a call originated on an OAO network the opportunity to enter the eircom network for termination at selected nodes. In the first instance all traffic destined for termination on the eircom network will be accepted at any tertiary node.
In the second instance all geographic traffic destined for termination on the eircom network will also be accepted at any tandem node.

eircom will only accept traffic destined for termination to eircom geographic numbers at any other primary and tandem nodes provided that the geographic number resides within the catchment area of that node. The eircom call termination scheme details the catchment areas associated with all allocated eircom geographic numbers.

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