# open eir [1] services in the RIO, WBARO and ARO and internal arrangements for network access for the purpose of eir services

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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- Historical Document History Table located at end of Document.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.**

## Introduction

This document is published in discharge of the obligation on eircom ltd, trading as open eir and eir, to publish sufficient information to identify, explain and demonstrate any permissible differences between the products open eir provides in the FACO, WBA and WPNIA markets and the comparable products and services eir provides for itself in these markets.

## 1. Background

FACO

In decision notice D05/15 , ComReg designated eircom as having SMP in the market for Fixed Access Call Origination and imposed a number of obligations on eircom in relation to the provision of FACO services  Section 10.12 of ComReg D05/15 requires open eir to do the following:  "At the same time and in accordance with the appropriate timelines set out under Section 9.5 of this Decision Instrument, Eircom shall, on its publicly available wholesale website in respect of products, services, facilities and processes in the Relevant Markets, identify, explain, document and demonstrate any permissible differences (in accordance with Sections 9.1 to 9.4 of this Decision Instrument) between the products, services, facilities and processes as set out in the RIO and the comparable products, services, facilities and processes which Eircom provides to itself. For the avoidance of doubt, Eircom shall keep this information updated as new products, services or facilities are developed or deployed, or existing products, services or facilities are amended."

WPNIA

In decision no D05/10 ComReg designated eircom as having SMP in the market for Wholesale Physical Network Infrastructure Access and imposed a number of obligations on eircom in relation to this market.  Section 10.10 of ComReg Decision D05/10 requires eircom to do the following: "Pursuant to its obligations of transparency, eircom shall, within four months of the effective date, publish on its website sufficient information to identify and justify any differences between the services and facilities set out in the ARO and the comparable services and facilities which eircom provides to itself.  The information shall include all material associated terms and conditions, including relevant processes, and shall be kept updated as new services or facilities are developed and deployed or existing service or facilities are amended".

Wholesale Broadband Access (WBA)

In Decision No D06/11 ComReg designated eircom as having SMP in the market for Wholesale Broadband Access and imposed a number of obligations on eircom in relation to the provision of WBA over both copper based and fibre-based infrastructure. Section **10.9 of ComReg Decision D06/11 requires open eir to do the following: "Pursuant** to its obligations of transparency, eircom shall, within four months of the effective date, publish on its website sufficient information to identify and justify any differences between the services and facilities set out in the WBARO and the comparable services and facilities which eircom provides to itself.  The information shall include all material associated terms and conditions, including relevant processes, and shall be kept updates as new services or facilities are developed and deployed or existing services or **facilities are amended".**

The products and services available in these markets are as outlined below.

## 2.  Product and Service Overview

### 2.1. Fixed Access Call Origination (FACO)

**Single Billing – Wholesale Line Rental (SB-WLR)** enables Operators to offer their own branded telephony service to their customers. Open eir provides wholesale billing details to Operators who then bill their end users at their retail rates.

**Traffic is routed to the Operator's network in line with the Carrier Pre Select 'all calls'** routing rules. Calls to all indirect acce**ss codes (including eircom '13666') are barred by** open eir on SB-WLR Lines.

Once the end user transfers to the single billing product, the required ancillary services and CPE rental product elements are also transferred to the SB-WLR account.

The SB-WLR product consists of five main elements:

- Wholesale telephone lines wholesale
- Wholesale ancillary services
- FRIACO call packages as outlined in the Interconnect Price List.
- Wholesale low value CPE items
- **Excluded call from the CPS 'all calls' product**

The following are the telephone lines eligible for SB-WLR

- Analogue PSTN lines including both single lines and multi-line groups with or without hunting
- ISDN BRA (2B) including both single lines and multi-line groups with or without hunting
- ISDN PRA (30B) both fractional and full * (the Statement of Compliance for PRAs is included in non-NGN Ethernet Leased Lines/data products)
- Hi-speed.
- Virtual Lines

Ancillary services are available on SB-WLR. These services are billed at wholesale rates to the Operator. The list of ancillary services offered for the SB-WLR product is listed in section 4.2 of the SB-WLR product description which can be located at http://www.openeir.ie/Products/Voice/Single_Billing_-_Wholesale_Line_rental/

**eir PSTN (Public Switched Telephone Network)** refers to the international telephone system based on copper wires carrying analog voice data.  Telephone service carried by **the PSTN is often called "plain old telephone service" (POTS).**

Key Features of PSTN

- The PSTN line supports the following eircom Phone Services; Voice Mail, Call Forwarding, Call Waiting, 3-Way Calling, Caller Line Identification (CLIP), Caller Line Restriction (CLIR) Call Return 1471.
- Internet Dial-up service.
- Supports Broadband, subject to successful pre-qual.
- Monthly or bi-monthly billing available.
- Directory preference options available.
- A range of Call Barring Services available
- Where an address had a previous PSTN line or where an address was pre-cabled by eircom, the service can be electronically enabled i.e. remotely connected.  These **connections are referred to an ''In Situ'' and ''Pre-cabled connections''.**
- Where an address never had a telephone line or where the line, which was previously in place was recovered, the service has to be connected by an eircom Technician and **requires a site visit. These connections are referred to as ''Standard connections''.**

### Open eir MNS

The White Label Voice Access (WLA) product offered by open eir enables non-network Operators to offer customers in Republic of Ireland a full fixed voice service without the need for capital investment in network infrastructure.

Fixed Voice Service

The comprehensive fixed voice service is provided by combining a managed virtual network component together with the existing SB-WLR product- providing all features of a fixed voice service including PSTN / ISDN PRA / FRA / DDIs / etc.

open eir MNS switches the voice traffic on behalf of the White Label customer and then **bills for calls originating from the White Label Operator's end retail customers. Un**-Rated CDR details are provided to the White label Operator who then rates the calls. These charges are then added together with the line rental charge, any excluded call charges & ancillary services charges to enable the production of a total charge for their retail **customer's fixed voice service.**

All ancillary services and fixed voice features provided on white label fixed voice lines will operate in the same way as within the wholesale SB-WLR product.

## 2.2. WPNIA

Local Loop Unbundling (LLU) enables licensed Operators to offer both voice and **broadband services independently over eircom's local access network –** also known as the local loop. It provides a two-wire metallic connection between the Network **Terminating Equipment at the end customer's premises and th**e main distribution or jumper frame at the exchange the Operator is providing service from. As part of the LLU service Operators have full control over providing their own business and consumer broadband and voice services. Operators can choose the connection and set-up option that suits best to provide services to their customers. LLU can be provided in the form of full unbundling - Unbundled Local Metallic Path (ULMP), combined Geographic Number Portability with ULMP (GLUMP) or shared unbundling **–** Line Sharing (LS).

The Physical Collocation Service is offered by eircom to other telecom Operators for use in connection with the provision of services over the eircom copper local access network as mandated by the EU Local Loop Unbundling regulations. Through physical

co-location eircom provides floor space, power, cooling and connectivity in open **eir's** exchanges to meet the Operator needs.

There is a duct and pole access product whereby an Operator can rent duct or pole space to facilitate provision of their own network

Products and services that open eir provides on an EOO basis:

- Unbundled Local Metallic Path (ULMP)
- Combined Geographic Number Portability and ULMP (GLUMP)
- Line Share (LS)
- Sub-Loop Unbundling (SLU)
- Bitstream Backhaul Service
- Physical Co-Location
- Duct Access
- Pole Access

### 2.2.1. Services and Facilities that eir Downstream Arms Provide

The eircom downstream products described in the sections below are the end-to end products that are built on the copper path from MDF to NTU that is common to ULMP/GLUMP and Line Share products as described in the sections above. These downstream services are:

- eir Consumer/Business Public Switch Telephony Network (PSTN)
- eir Consumer/Business Broadband Service
- open eir Managed Network Services (open eir MNS) White-Label Voice service
- open eir Wholesale Managed Network Services (open eir MNS) White-Label Broadband service

### 2.3. WBA

The following Bitstream services and facilities it provides on an EOO basis:

- Bitstream IP
- Bitstream MB
- Bitstream VC
- Bitstream EA

- Standalone Bistream Managed Backhaul

The following services are NGA services that are provided on an EOI basis:
- POTS based Bitstream Plus
- POTS based VUA
- Standalone Bitstream Plus
- Standalone VUA
- VEA

Note: open eir RAP also provide Bitstream Backhaul to Bitstream Operators to allow them to interconnect to the eircom network for the purposes of backhauling Bitstream traffic to their own network. There are three types of Bitstream Backhaul Service:

1. **Bitstream Connection Service (BCS):** this is an ATM based interconnect which is required to backhaul the Per VC product
2. **Bitstream Ethernet Connection Service (BECS):** this is an IP based interconnect which is required to backhaul Bitstream IP and Bitstream Managed Backhaul products.
3. **Bitstream Ethernet Connection Service via Wholesale Ethernet Interconnect Link (BECS via WEIL):** this allows an Operator to utilise a WEIL to backhaul Bitstream IP and Bitstream Managed Backhaul products in addition to NGA and data services

The NGA traffic is also backhauled via a WEIL.

The eir Broadband and open eir white label broadband products are all contained on the open eir network which means that the each end-customer connection includes routing of traffic to the eircom LNS. Therefore there no requirement for an interconnect element for these downstream business products.

### 2.3.1. Services and Facilities that eir Downstream Businesses Provide

The eir downstream services provided in the WBA market are:

- eir Consumer/Business Broadband Service
- open eir Managed Network Services (open eir MNS) White-Label Broadband service

These services are described in more detail below.

#### 2.3.1.1. Description of eir Consumer/Business Broadband Products

eir Consumer/Business offer a range of Fixed DSL Broadband packages including standard ADSL and NGB (Next Generation Broadband). Access to each individual eircom DSL

product is constrained by location from local exchanges/cabinets and also commercial availability of service in the local area from open eir RAP. All services offered to customers by eir Consumer/Business are based on services available to the fixed telecommunications Operator industry from open eir RAP and are limited by the specification of the published wholesale product (ref: http://www.openeir.ie/Products/ )

### 2.3.1.2. Description of open eir MNS White Label Broadband Product

The White-label Broadband (WLB) product is provided by combining the current Wholesale Bitstream products together with a managed ISP service delivered via open eir's ISP customer authentication, and transit and peering arrangements.

Bitstream access product components consist of Bitstream IP and Bitstream BMB products.

The managed ISP service includes:

- Provision of Radius customer profiles access to authentication, authorisation & accounting / usage details (via un-processed Radius Accounting Tickets) & access to Calling Status ID ( CSID details to facilitate customer  Mgmt & fault diagnostics),
- Customer Authentication for access to the internet is via CSID  ( not user name & password )
- Customer CPE will need to be configured with a default username & password
- Fixed IP address range management (for the allocation of static IP addresses) can also be facilitated depending on requirements.

## 3. Overview of differences in each market

The key differences for each Market are as outlined below listing the relevant part of the process and the associated systems.

### 4.1. Pre-order

1) System: Pre-qual

**Item description:**  eir submits orders for NGA and some CGA services through the UG like all other Operators.  For the Current Generation Access products eir has direct access to pre-qual through their BSS front end system referred to as eCOM

**Justification:** eir's access to prequal is a part of the existing sales process for the legacy products which have an equivalence of outputs non-discrimination standard. The same information is available to eir in pre-qual as is available to Operators via the query bitstream order. In addition the masked CLI file provides an indicative pre-qual value for each line on the network that qualifies for a broadband service whether it is CGA or NGA. Operators also receive a weekly file on the hub of their own broadband line base and the achievable speed for that line.

**Relevant Market:** WBA, WPNIA

2) System: UG

**Item description:** eir is set-up as two Operators on the UG which means they have in effect two different Operator accesses into the UG. By having two separate Operator accesses onto the UG it means that eir has twice the number of simultaneous channels / order throughput available to them than most other Operators do.

**Justification:** the number of channels / order throughput available to individual Operators is more than adequate for the relevant markets. The fact that eir has twice the number of channels / order throughput available to them would only have an impact if there are situations where more than 10 orders are being processed simultaneously, which is very unlikely. When an Operator submits more than 10 orders simultaneously a policy breach is issued to the Operator to advise them accordingly. open eir is monitoring the level of policy breaches due to Operators exceeding the allowed number of simultaneous orders. If this becomes a problem they may increase the number of simultaneous orders available to all Operators.

**Relevant market:** FACO, WPNIA, WBA

3) System: UG

**Item description:** The open eir White Label product provides Operators with the ability to buy an end to end narrowband or broadband service to sell to their customers without the need to have their own network. The products are built on existing open eir RAP products with additional capabilities developed on the UG to support business functions that other Operators would carry out on their own BSS systems.

**Justification:** The functionality that has been built into the UG does not provide additional RAP capability to open eir MNS. The specific developments allow White Label Operators to manage the service they provide to their end users much the same as other Operators who rely on the open eir RAP services. This service management includes end user authentication and authorisation etc.

**Relevant market:** FACO, WBA

## 4.2. Ordering

1) Process: ARD-ID identification

**Item description**: When ordering a product from eir through the phone number 1901, for some orders the eir CSR will log into eCom and select Provide Order. For other orders the eir CSR will log onto the UG and will follow the same processes that are available to all Operators. When using eCom the CSR can search for the customers address through Address Interface (AI) to identify the ARD-Key for this address. Once the ARD ID is identified the CSR will select the required product and place the order.

**Justification:** eir utilise this functionality when placing orders on the legacy system eCOM. While the method of access is different the same information is available via both channels. In the case of all orders placed via the UG they utilise the same processes as are available to other Operators where they have a number of methods in which they may identify the infrastructure available to a premises and the unique Address identifier associated with that premises. These processes are:

- UG Address search – this provides the ability for Operators to facility to search **eircom's address database for a unique address identifier (ARD Key) that can** be utilised in order provisioning. In basic terms the input for this query will be a full/partial address or a previous telephone number and the output will be a unique identifier (ARD Key) for the specific address. The guidelines for using this can be located at: http://www.openeir.ie/support/Unified_gateway/

- Files available on UG hub,:

    o address file which is a flat file variant of the information in the UG Address search programme, ARD key and address of all addresses that

have an ARD ID associated with it even if the address never had a connection to open eir network.

- o Address file with previous customer details: this file is the same as the above file bar the inclusion of previous customer details (name and phone number) where there is an in-situ line and the Operator has signed an NDA to avail of the additional information

- o OAO AV All Data ddmmyy.csv: this is a file that list all available paths (in-situ or pre-cabled) connected to the open eir network, the ARD ID and associated address information and if there was previously service at that premises.

- o Masked CLI file: this file details all end **user's connected to open eir** network (either working or available) the ARD ID, if the line can support a CGA or NGA product and the network information related to that line. The masked CLI is outline in the NGA IPM Appendix 2 http://www.openeir.ie/Products/Broadband/Next_Generation_Access/

open eir provides this information to Operators to enable them to develop their own search engines to be able to identify all end users and available paths connected to the open eir network

- • Line enquiry (LE): if this order is submitted with a valid structured address and or old/current telephone number that is recorded on our systems it will return the appropriate ARD ID. In the event that UG cannot identify the ARD ID the order will route to manual processing where an open eir OECC CSR will attempt to identify the appropriate ARD ID. The LE order has been changed to allow Operators enter comments that would beneficial in identifying an address. In the event that a new ARD ID is required the LE order contains an order option to allow the Operator to request a new ARD ID to be created

**Relevant Market:** FACO, WPNIA, WBA

2) Process: Full install of Bitstream appointment re-scheduling

**Issue description:** When a Bitrstream provide order for full install (PBF) order is submitted via the UG the Operator selects the relevant appointment date and can re-schedule this appointment via the UG. When a full install order is submitted via e-com

for downstream businesses there is no process to re-schedule appointments via the UG, the agent must email PCC requesting an appointment change.

**Justification:** This is justified as eir continus to meet its EOO obligations and provides a better capability through the UG.

**Relevant Market:** WBA

## 4.3. Provisioning

1) Process: Provisioning escalations

**Item description**: If an escalation is required, the eir Channel Support Services may contact open eir networks directly - the Delivery Control Centre (DCC) team for assistance. The DCC team will try to resolve the escalation so that provisioning can successfully be completed. eir will attempt to resolve the issue by contacting the Network resolver groups to get updates and to understand what is required to complete the order.

Note eir Channel Support Services can only escalate provide orders not placed via the UG through via this process. Provides placed through the UG can only be escalated through the open eir process that is available to all Operators

**Justification:** The equivalent process is available to Operators as is available to eir Channel Support Services. If an escalation is required, Operators contact open eir OECC who will attempt to resolve the issue by contacting the Network resolver groups to get updates and to understand what is required to complete the order. open eir OECC can also email the DCC team who will try to resolve the escalation. If the issue is still not resolved, open eir can engage with the Account Manager and Product Manager to ensure the order is successfully completed.

**Relevant market**: FACO, WPNIA, WBA

2) Process: Enhanced provisioning

**Item description:** For PSTN orders not submitted via the UG but submitted via eCom, these orders do not have in-built functionality to allow order re-scheduling so any changes to appointment will be notified via changes in the Service Order Reporting and Tracking Solution (SORTS) system.

**Justification:** These SORTS changes would be reflected via status notifications if the order was placed via the UG.

**Relevant Market:** FACO, WPNIA

## 4.4. Faults

1) Process – fault reporting

**Item description:** on receipt of a call from a customer reporting a fault the eir CRC agent will take the customer's details and perform initial fault screening. The CRC agent will then log a call in native FHS and will test the line (LTS) - through FHS. If the fault report is relating to broadband they will also run a sync test. They may perform additional checks which are outside the RAP service and part of the retail service provided for example credit management check, authentication of broadband service etc. Where possible, the CRC agent will diagnose a fault at front end and resolve where possible. If unable to resolve, they will assign the FHS ticket to the appropriate locker so an engineer can take ownership, and move the ticket on.

**Note:** eir can only report faults on legacy products (not ordered via the UG) on FHS.

**Justification:** The equivalent process is available to allow Operators to test the RAP services via the UG. The Operator has the ability to test the line, test sync and identify previous fault information, line signature and compare test results to previous line tests. Operators should also carry out additional testing that are part of the retail service provided for example credit management check, authentication of broadband service etc. The fault screening process is outlined in decision tree process flows which are published on the UG Hub. When an Operator reports a fault on the UG the UG performs some initial validation prior to accepting the fault which includes validating a line test and sync test (if a bitstream fault) was attempted within the previous 60 minutes of the fault report. If the tests were not attempted the fault will be rejected. If a fault report meets auto route conditions (determined by fault report code and line test results) it will be auto-routed to the relevant area within open eir for resolution. If the fault does not auto route it will flow to OECC who carry out some manual screening before deciding the appropriate action to take. They Check test results against report code/s ; Check Report History; Check Clear History; Check TIS for outstanding orders; Check Guide for Services; Check line Signatures. Based on the findings, the fault is assigned to the relevant locker so an engineer can take ownership, and move the ticket on.

**Relevant market:** FACO, WPNIA, WBA

2) Process: fault escalations

**Item Description**: If an escalation is required, eir may contact open eir networks directly for PSTN & Broadband faults that are not reported via UG and must follow the Service Assurance Fault Escalation (SAFE) process. When an escalation is raised in SAFE, open eir Works Control Centre (WCC) will check if the escalation is valid, and if so will accept the escalation. The WCC will then re-prioritise the workload, update the required works management system and assign to the Field. The Field Technician will then repair the fault report and update Advantex with the relevant clear code. eir will update their customer via phone or email when this process has ended.

Note eir can only escalate Faults that are not logged via UG via this process. Faults reported via the UG can only be escalated through the open eir process that is available to all Operators.

**Justification:** The equivalent process is available to Operators as is available to eir. If an Operator wishes to escalate a fault they contact open eir OECC advising that an escalation is required; the OECC must follow the same Service Assurance Fault Escalation (SAFE) process. The OECC will then update the Operator via UG, email, and phone call. eir also contact OECC for escalations relating to faults reported via the UG.

**Relevant market:** FACO, WPNIA, WBA

3) Process: fault appointments

**Item Description**: If a fault requires an appointment with the end customer eir will use the FHS system to book the appointment slot where as an Operator will use the Unified Gateway system **using the 'book appointment' (BA) order.**

**Justification:** The equivalent process is available to Operators as is available to eir. The same set of appointment slots are available to Operators and eir on an equivalent basis both in terms of the variety of appointment slots and the lead time to book them.

**Relevant market:** FACO, WPNIA, WBA

## 4.5. Core Network configuration

1) Pre-order: How WEILs connect to open eir Network

**Item:** WEILs connect directly to the NGN PE nodes for eir retail next generation Broadband service , and to a WBA aggregation node for other Operators

**Justification:**eir has a vertically intergrated network and eir has decided to implement the most efficient and effective network soltuon for retial / white label services. This architecture does not provided for any material differences in the functionality of the services and performance levels between retail / white label services and theat which to be experienced by Wholesale Operators

**Relevant market:** WBA

2) Pre-order: Core network solutions for retail NGA broadband

**Item:** The core network solution for the eircom Retail Next Generation Broadband service differs from the open eir Next Generation Bitstream / VUA product. The eir Retail service is built on an integrated network solution which includes subscriber management. The Unicast core network capability for the eir Retail service is pre-configured as part of deployment of new NGN nodes to support NGA. This means that eir Retail does not need to order Unicast per NGN Aggregation Node as other operators do. In addition it means that WEILs are not required by eir Retail to handover Unicast Traffic.

**Justification:** BPU are required by operators on a per exchange basis but are automatically in place for eir Retail. This is justified as eir has a vertically integrated network. The most efficient and effective technical design for the provision of the eir Retail Next Generation Broadband service supported this functionality. When eir Retail provides service to end users they do not have a second network to route their traffic instead they use the eir network. Other operators route the Unicast traffic to their own networks via specific WEILs. As it is only the operator themselves that can determine which WEILs they would like to route their Unicast traffic to it would not be realistic for eir to do it on their behalf. Instead open eir has put in place a capability that BPUs per exchange are provisioned automatically on receipt on an order from an operator. Operators can submit BPU as soon as an exchange is part of the deployment plan. This

ensures that operators are not disadvantaged and they have the flexibility to manage their service as they wish

**Relevant market:**  WBA

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