

# INEX's IXP Manager for Members



*i n t e r n e t n e u t r a l e x c h a n g e*

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## IXP Manager – History & Introduction

- IXP Manager => INEX's Provisioning System;
- Original version developed ~2005 for admin use only.
- Decided last June to redevelop it:
  - Stage 1: Slot in Replacement for the original
  - Stage 2: Member facing features
  - Stage 3: Two fold:
    - Listen to member feedback and feature requests
    - Beef up the internal / operational area

## Why an IXP Manager?



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- Streamline member management and provisioning;
- Push new features / facilities to the members;
- Highlight news / announcements;
- Reduce operational load on common queries:
  - Route Server / AS112 sessions;
  - Forgotten passwords.
- Centralised and common codebase for database schema:

## Building Blocks



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- Developed and run on L/FAMP stack
  - Linux/FreeBSD; Apache2; MySQL; and PHP5
- Follows conventional MVC design:
  - Model: Doctrine ORM
  - View: Smarty Templating Engine
  - Controller: Zend Controller (and framework)
- Front end is HTML / CSS / JavaScript
  - JS mixed bag of YUI and JQuery
    - YUI for UI elements (tabs, tables, calendars, etc)
    - JQuery for AJAX

## Focus on Members' Area



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- Logging In
- User Types and Management
- Initial Dashboard
- Review of Features Transferred from WWW
- Peering Matrices
- *My Peering Manager*
- Future Plans

# Logging In



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- Logging in on the main INEX website will now log you into the IXP Manager:

A screenshot of the INEX website's login interface. The page has a blue header with navigation links: 'about inex', 'become a member', 'media area', and 'technical'. Below the header, there is a 'MEMBER LOGIN' section with a 'Log in' button. The username field contains 'barryo' and the password field is masked with dots. To the right of the login form, there is a 'Welcome' message and a paragraph of text: 'INEX is a neutral, industry-owned Association currently 59 members. Our objective is to provide high-speed, reliable lower-latency internet access for their customers. Campus, Dublin 24 and Interxion DUB1 in Paris'.

- Auto logout after 5 minutes of no activity;
- Use your standard member username and password




# User Types and Management

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- Two member user types:
  - Member administrator (your current login details)
  - Member user (set up by the member administrator)

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User Admin Profile [Logout questzones]

 **User Admin for Questzones (Europe) Ltd**

<< first < prev 1 next > last >>

Username	Email	Mobile	Created	Enabled	Edit
barryod	barry@opensolutions.ie	353868017669	2010-06-23 14:47:28	✓	

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[Add New User](#)

- A Member Admin may only add / edit users
- New users receive



# Member User Dashboard

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## INEX :: IXP Manager

Dashboard Member Information Peering Documentation Statistics Support Profile [Logout barryod]

Overview Details Ports Statistics

### My Peering Overview

As per your [peering manager settings](#) (under the *member* column), the following is your peering overview:

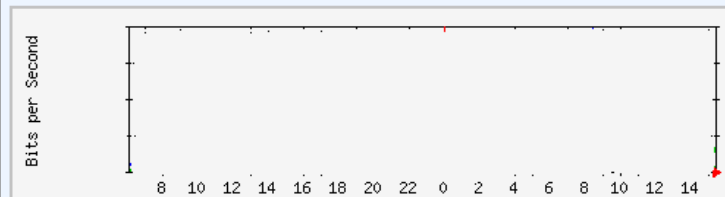
VLAN	Peered	Not Contacted	Awaiting Reply	Won't Peer
Public Peering LAN #1	0	46	0	0
Public Peering LAN #2	0	0	0	0
Total	0	46	0	0

### Recent Members

Our three most recent members are listed below. Have you arranged peering with them yet?

Name	AS Number	Date Joined	Peering Contact
IP Telecom	<a href="#">50326</a>	2010-04-19	<a href="mailto:netdev@asterisk.ie">netdev@asterisk.ie</a>
PGi	<a href="#">39915</a>	2010-04-06	<a href="mailto:emeanetworkservices@pgi.com">emeanetworkservices@pgi.com</a>
EuroTransit GmbH	<a href="#">33926</a>	2010-01-11	<a href="mailto:peering@nmc.euro-transit.net">peering@nmc.euro-transit.net</a>

### Aggregate Traffic Statistics







# Member User Dashboard

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## INEX :: IXP Manager

[Dashboard](#) [Member Information](#) [Peering](#) [Documentation](#) [Statistics](#) [Support](#) [Profile](#) [Logout barryod]

[Overview](#) [Details](#) [Ports](#) [Statistics](#)

### Connection #1

<b>Switch</b>	<input type="text" value="swi1-tcy1-1"/>	<b>Switch Port</b>	<input type="text" value="GigabitEthernet1/9"/>
<b>Speed</b>	<input type="text" value="100 Mbps"/>	<b>Duplex</b>	<input type="text" value="full"/>

### Port swi1-tcy1-1:GigabitEthernet1/9 - Peering VLAN #1

<b>IPv4 Address</b>	<input type="text" value="193.242.111.66/25"/>	<b>IPv6 Address</b>	<input type="text" value="2001:7f8:18::66/64"/>
<b>Multicast Enabled</b>	<input type="text" value="no"/>	<b>IPv6 Enabled</b>	<input type="text" value="yes"/>
<b>Route Server Client?</b>	<input type="text" value="yes"/>	<b>AS112 Client?</b>	<input type="text" value="yes"/>



## Ported Features

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- Member login on 'old' site (www) will be disabled;
- All tools / information have been transferred:
  - Member details
  - Documentation (route servers, fees & charges, etc)
  - Your detailed statistics
    - Day, week, month, year
    - Bits, packets, errors, discards
    - Aggregate and by port
  - Overall peering stats, trunk stats and switch stats
  - Support details



# Peering Matrices

- New n x n peering matrix added
  - Looks similar to publically available one.
  - Added feature – tooltips.
  - This is a first feature iteration.

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## Peering Matrix :: Public Peering LAN #2

Total potential sessions: 240. Active peering sessions: 166. Percentage active peering sessions: 69%

		2	2	2	3	3	3	3	3	3	3	4	4				
		1	2	5	6	5	6	9	1	4	4	9	9	1	2		
		1	2	1	4	8	4	4	6	1	2	5	0	1	2	0	2
		1	1	1	6	3	4	1	5	2	4	0	9	2	3	7	2
		2	3	0	6	0	1	5	0	2	5	5	3	2	3	3	7
AS112 Reverse DNS	112	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
HEAnet	1213	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓
BT Ireland	2110	✗	✓		✗	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗
Eircom Net	5466	✓	✓	✗		✓	✓	✗	✓	✓	✓	✓	✓	✗	✗	✗	✗
UPC	6830	✗	✓	✓	✓		✓	✓	✗	✗							
imagline	25441	✓	✓	✓	✓	✓		✓	✓	✓	✗	✓	✓	✓	✓	✗	✓

X: UPC (AS6830)  
Y: Digiweb (AS31122)



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## My Peering Manager

- Managing bilateral peerings is getting hard
- New members can be overwhelmed
- We've developed *My Peering Manager* to:
  - Provide a useful overview of your peerings;
  - Enable you to request and track new peerings;
  - Clearly show *your* peering matrix against other members':
    - ASN;
    - join date;
    - IPv6 enabled status;
    - peering policy; and
    - route server status.



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# My Peering Manager



## My Peering Manager

Peering VLAN:

Public Peering LAN #1 ▾



Member	VLAN	RS	IPv6	Name	ASN ▲	Policy	Peering Contact	Member Since	
	<input checked="" type="checkbox"/>			Packet Clearing House DNS	<a href="#">42</a>	open	<a href="mailto:peering@pch.net">peering@pch.net</a>	01/13/2009	
	<input checked="" type="checkbox"/>			AS112 Reverse DNS	<a href="#">112</a>	open	<a href="mailto:peering@inex.ie">peering@inex.ie</a>	09/07/2006	
	<input checked="" type="checkbox"/>			HEAnet	<a href="#">1213</a>	open	<a href="mailto:peering@heanet.ie">peering@heanet.ie</a>	09/04/1996	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			BT Ireland	<a href="#">2110</a>	open	<a href="mailto:peering@esat.net">peering@esat.net</a>	09/04/1996	
	<input checked="" type="checkbox"/>			Packet Clearing House Route Collector	<a href="#">3856</a>	open	<a href="mailto:peering@pch.net">peering@pch.net</a>	01/13/2009	
	<input checked="" type="checkbox"/>			Virgin Media	<a href="#">5089</a>	open	<a href="mailto:peering@ntl.net">peering@ntl.net</a>	08/20/1999	
	<input checked="" type="checkbox"/>			Eircom Net	<a href="#">5466</a>	open	<a href="mailto:peering@eircom.net">peering@eircom.net</a>	09/04/1996	
	<input checked="" type="checkbox"/>			UPC	<a href="#">6830</a>	selective	<a href="mailto:peering@aorta.net">peering@aorta.net</a>	07/01/2006	
	<input checked="" type="checkbox"/>			Microsoft	<a href="#">8068</a>	open	<a href="mailto:peering@microsoft.com">peering@microsoft.com</a>	12/06/2004	
	<input checked="" type="checkbox"/>			euNetworks	<a href="#">8218</a>	selective	<a href="mailto:peering@as8218.eu">peering@as8218.eu</a>	04/06/2005	



# My Peering Manager

**Member to Member Peering Request** [X]

**From:**

**To:**

**BCC:**

**Subject:**

ScreenCentre 15012 open support@screencentre.com



# My Peering Manager

**Peering Notes Dialog** [X]

**HEAnet**

2010-06-24 barryod: |

2010-06-23 barryod: Sent peering request by email.

**Submit** **Cancel**

## Future Plans



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- Opt in for Nagios email alerts
- Unseen News / Announcements Pop Up
- Tied into our SEC implementation. Alerts on:
  - Port up / down notifications
  - Port security notifications
  - Route collector peer session down
- Suggestions? [operations@inex.ie](mailto:operations@inex.ie)