



Headline:

**Hibernia Atlantic To Build A New Submarine Cable Network For The Department Of Enterprise, Trade & Investment (DETI) for Northern Ireland And Department Of Communications, Energy and Natural Resources (DCENR) For Ireland**

## **Frequently Asked Project Kelvin Questions**

### **1. What is Project Kelvin? What is the purpose of this?**

Project Kelvin is part financed by the European Union's European Regional Development Fund through the INTERREG IVA Cross-border Programme managed by the Special EU Programmes Body to support strategic cross-border co-operation for a more prosperous and sustainable region. Short description of the contract or purchase(s): The DETI for Northern Ireland and the Minister for Communications, Energy and Natural Resources (MCENR) for the Republic of Ireland jointly require the provision of a direct telecommunications submarine cable connection from a new or existing North American submarine cable to the North West Region of Ireland (the landing point must be to the West of Rathlin Island), with subsequent terrestrial connections to Letterkenny in County Donegal and Monaghan in County Monaghan (and with the possibility for bidders to bid to provide additional terrestrial connections in the North West of the Island of Ireland as defined in the tender documents) and for the provision of telecommunications services over these connections as detailed in the tender documentation. The submarine cable link to the North West of the island of Ireland may be from an existing North American submarine cable (by means of a branching unit) or connect directly to a landing point of a transatlantic cable. DETI will be the prime contracting authority with the successful service provider, on behalf of itself and the MCENR. Project Kelvin is being funded by a grant from the EU INTERREG IVA Programme for Ireland, Northern Ireland and Western Scotland 2007-2013.

One of the key objectives of Project Kelvin is to improve International Telecommunications infrastructure between Northern Ireland and North America and Northern Ireland and Mainland Europe and hence fuel development in Industry, Commerce and Trade for the region.

### **2. What does Project Kelvin mean for Northern Ireland?**

Project Kelvin means the first direct International communications link of its kind into Northern Ireland. Businesses can now avail of low latency, reliable and competitively priced communications to North America and Europe. This international access will allow financial institutions, Internet-enabled businesses, academia, media companies and any other high-bandwidth entity to come into NI and conduct business. The cable will land in Portrush and will be distributed terrestrially throughout NI.



### 3. What potential customer base and/or organizations will find this new build attractive?

Any business that requires direct, low latency connectivity to North America and Europe at competitive pricing will find this new build attractive.

Also, any financials, movie studios, ISP's storage companies and/or large-bandwidth company that require a diverse physical crossing across the Atlantic for the most secure communications network will find this new build attractive. Additionally, a company looking to increase its footprint into the island of Ireland or any Irish company looking to increase its capacity and reach out to either Europe or North America will find this new build attractive.

### 4. Who is Hibernia Atlantic?

Hibernia Atlantic is the largest, privately held, diverse transAtlantic submarine cable transport provider. Hibernia is a US, wholly-owned subsidiary of Columbia Ventures Corporation (CVC). It is a TransAtlantic submarine cable and terrestrial cable network that offers over (70) redundant network Points of Presence (PoPs) throughout Canada, US, UK and mainland Europe on over 24,000 kilometers of network. Hibernia provides secure and diverse dedicated Ethernet and optical-level service up to GigE, 10G and LanPhy wavelengths and traditional Sonet/SDH services. In addition, Hibernia offers wholesale capacity prices, unparalleled support, flexibility and service. For more information on Hibernia Atlantic's cutting-edge network, please visit [www.hiberniaatlantic.com](http://www.hiberniaatlantic.com).

To view Hibernia's corporate overview video, please click here:

<http://www.youtube.com/watch?v=p0xVMLEfFrk&eurl=>

### 5. Where does CVC fit in?

Columbia Ventures Corporation (CVC), based in Vancouver, Washington, is a multinational, entrepreneurial, private equity company. The Company holds a sizable portfolio of investments in the telecommunications industry. Other CVC telecommunications investments include One Communications Corp., the Hibernia Atlantic group of companies and Magnet Networks Limited. For more information on Columbia Ventures please visit [www.colventures.com](http://www.colventures.com).

### 6. How much is this costing?

This contract has a final value of EURO €29.5M.

## 7. Where is this cable?

The cable is a new submarine cable from Hibernia Atlantic's existing transAtlantic cable that will link Armagh, Ballymena, Belfast, Coleraine, Derry/Londonderry, Omagh, Portadown and Strabane to Europe and North America. In addition, the cable will also provide links to Letterkenny, Castleblayney, Dundalk, Drogheda and Monaghan. The Northern Ireland Fibre Optic Ring known as the 'Saturn Ring' is an open access fibre ring containing some 400km of fibre providing access to the principle cities and towns. For more details, please refer to the provided map.

There will be a submarine cable and a terrestrial cable. The submarine cable from the new Cable Landing Station and the Telehouse in Derry/Londonderry, Northern Ireland will tap into Hibernia's existing transAtlantic cable which currently links Southport in the UK to Halifax in Canada, and onward to Lynn, Massachusetts in the USA. The terrestrial cable will interconnect the new Telehouse in Derry/Londonderry with Coleraine, Letterkenny, Strabane, Omagh, Armagh, Portadown, Belfast and Ballymena in a ring configuration. In addition there will be a link from the ring down to Dublin via Monaghan, Castleblaney, Dundalk, and Drogheda.

## 8. What is a cable landing point?

A cable landing point is the location where a submarine or other underwater cable makes landfall. The main cable is joined to a side cable (in the case of telecommunications this is via a submarine branching unit).

Cable landing points are usually carefully chosen to be in areas:

- That have little marine traffic to minimize the risk of cables being damaged by ship's anchors and fishing operations
- With gently sloping, sandy or silty sea-floors so that the cable can be buried to minimize the change of damage
- Without strong currents that would uncover buried cables

Such locations are rare, and will usually be the shared landfall point for several cable systems.

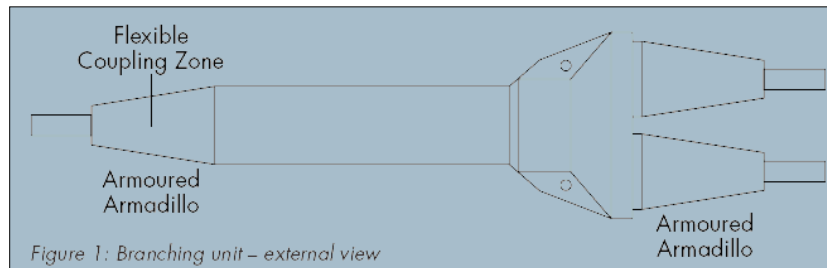
## 9. What is a branching unit and what does it look like?

An undersea branching unit (BU) acts like a fork in the road as it provides a means to divide a single cable into two cables. This functionality allows for the creation of an "express route" to



Belfast and “local routes”; the “express” route normally consists of a direct path, while the “local” route provides access to other cable stations.

The unit will look like the letter “Y” and it allows Hibernia Atlantic to tap into its existing cable and add a “tail” as such. In the case of Kelvin, the branching unit will intercept some of the existing fibres, and divert them in and out of the Derry/Londonderry Cable Station.



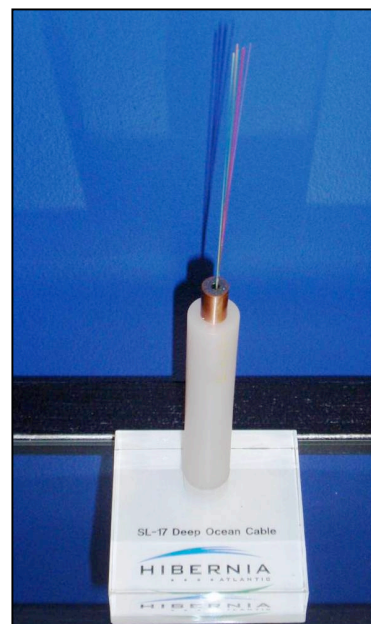
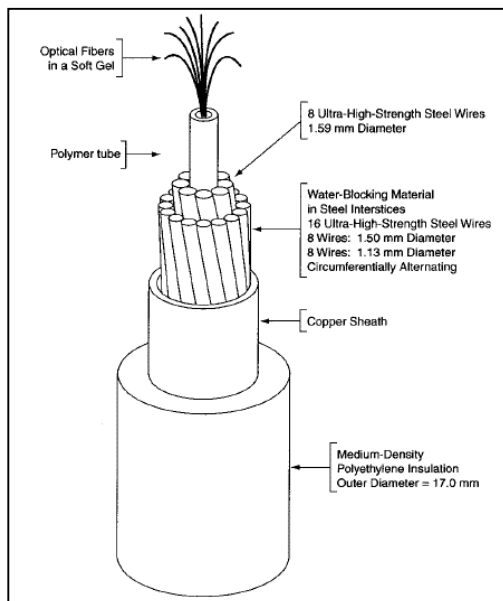
This is only representative of a BU.

### 10. What does the cable look like?

The cable is 17mm (or ¾ inch) for deep water and up to 38mm (or 1½ inch) for Double Armour at the shore.

It is layers of high strength steel armour wires wound round the cable, pine tar, copper and fiber. The size of the Armour depends on the conditions of the seabed upon which the cable is laid.

This is a drawing of a typical deep water cable. The cable shown is Hibernia’s deep water cable without any armouring.



**11. How long will it take to build?**

4-6 weeks for the submarine build  
36 weeks for the terrestrial build  
9-10 months to complete the build with progress stages included in our contract

**12. What is involved?**

Project Kelvin involves a physical insertion of a branching unit, new marine cable brought to shore in Portrush, utilising the existing Saturn ring network in Northern Ireland and the physical construction of a terrestrial route from Northern Ireland to Dublin.

**13. Where does the cable land?**

The cable will be brought to the shore in Portrush with a cable landing station in Coleraine.

**14. How much disruption will there be? And to whom? Fishing industry? Environment? Locals? What will be the noise level on shore?**

Hibernia is very sensitive to any disruption that this project may cause. We have vast experience in these types of projects and work very closely with all stakeholders to ensure the least amount of inconvenience to all concerned. This project could be compared to building a new motorway / highway but on a smaller scale. The end result for the population is a positive.

**15. Once the work is finished will you know it is there? Will there be any physical signs?**

Apart from the physical Telehouse facility and cable landing station there will be no direct physical sign. This is a low environmental impact project. What will be seen is the increase in new business that this type of project enables. The signage will not be designed to “stand-out”. It is good practice from a security perspective to keep the location of the cable station, and Telehouse’s in general “low profile”.

**16. What is a telehouse facility? Where is it going to be? How big is this? Does this mean there will be jobs for the North West of Northern Ireland?**

A Telehouse a generic name for a facility (building) in which carriers or Telecommunications Operators interconnect their networks. Each carrier will have equipment located in the building and usually at least two diverse links from the building back onto its backbone. Carriers can arrange interconnections or cross-connects

between each other within the Telehouse, usually, but not always, through what is called a Meet-Me Room (MMR). Telehouses are usually highly secure facilities designed to provide redundant power for equipment (including back-up generators) and Heating, Ventilation and Air Conditioning (HVAC) systems. The Internet is made up of many ISP's who interconnect their networks at Telehouses.

The new Telehouse facility in Derry/Londonderry will be a building where the cable is physically joined to the terrestrial network and where other service providers can connect. These service providers connect to end users who will be local business, foreign direct investment companies and potential new service providers into the retail sectors.

### **17. Will there be any jobs as a result of this Project?**

Submarine cables create employment during the construction phase and some small direct employment to maintain it. The real employment gain is in the areas that the improved communications infrastructure. As more business flows into Northern Ireland and organizations purchase our capacity, manpower will increase as a result.

### **18. What type of institutions will avail of the services?**

Any business that requires low latency, reliable and competitively priced communications to North America and Europe.

The increased bandwidth will benefit all business including:

- Internet Service Providers (ISPs), with a knock on effect to the ISPs' customers, both business and residential.
- Carriers/Telecommunications Providers and hence their customer will benefit – which is the industry in general.
- Financial Institutions including Banks, Stock Exchanges.
- Internet Enabled Businesses – All business that sell or run their business online.
- Academia
- Media/ Entertainment/ Broadcast Companies

### **19. How do people avail of the services?**

Interested companies can find out about Hibernia's services by calling Hibernia Atlantic, or emailing [sales@hiberniaatlantic.com](mailto:sales@hiberniaatlantic.com)



**20. What does this cable mean for the Island of Ireland? What are the benefits to Northern Ireland and Ireland as a whole?**

The Island of Ireland has played a hugely important role in international communications since the very first transatlantic cable went into service in 1858, which linked Canada and the West of Ireland for the first time. This new cable provides the very first modern, direct fibre optic link from Northern Ireland to North America.

**21. Does this mean I will get a cheaper IP? What difference is it going to make for the average person on the street?**

Yes, a part of the contract with DETI and DCENR is to ensure that the areas connected are very competitively priced. This inevitably will have a knock on effect to the average person on the street.

Are the ISPs really going to reduce their prices to the public? None of the UK ISPs are allowed by law to discriminate on location (with the possible exception of some of the Scottish Islands). It will make a huge difference to business that uses the link but not to someone who wants broadband at home. However some new local ISPs may start and provide some localized cheaper services eventually.

**22. How will businesses use it?**

They will utilize capacity/ bandwidth for their businesses.

**23. What is its capacity? How fast is it?**

This will be the fastest possible link from Northern Ireland to North America. In fact this will mean that Northern Ireland will be the closest physical link to North America. In addition this will be the most direct and therefore fastest link to Amsterdam from Northern Ireland.

The services on the system range 2Mb/s to 10Gb/s. The Hibernia System will be capable of providing up to:

- Northern Ireland to North America 1.92Tb/s
- Northern Ireland to UK 7.68Tb/s

Also, additional capacity will be available to Northern Ireland through the Dublin with up to 3.84Tb/s to North America and 15.36Tb.s to the UK.

**24. Why not use satellites?**

Submarine fiber optic cables carry 95% of the world's international data traffic and about 75% of the world's international voice traffic, with satellite carrying the rest. In addition,

capacity through satellites is relatively small in comparison to fibre optics and has higher latency due to time taken to bounce the signal off the satellite. Satellite services are also much more expensive than services delivered over terrestrial networks (excluding remote areas, like deserts, jungles etc.).

Satellites are particularly good in spreading signals over a wide area for mass distribution (ie: TV signals). However satellites are far less efficient in distributing point to point data traffic.

## **25. How secure is this?**

Like the rest of the Hibernia Network, it is industry leading in terms of security and diversity. In shallow waters up to about the continental shelf, the submarine cable is buried to a depth of about 0.8m below the seabed, where conditions are good for burial and offers extra protection from fishing vessels. The cable itself has sheaths of armour for the more hazardous locations. The equipment on the network and at each of the Points of Presence (POPs) will have Dual Power supplies, and back-up power mechanisms.

## **26. Your motto is 'security through diversity' – what does that mean?**

The Hibernia Atlantic network provides European and US customers with direct Trans-Atlantic connectivity, at competitive prices, with unparalleled support and service. Hibernia provides a unique network footprint that avoids traditional, congested waterways, like around NYC and London, and instead offers security through physical diversity, with northern routes that minimize risk and offer additional redundancy. For Hibernia's global network map, please visit [www.hiberniaatlantic.com](http://www.hiberniaatlantic.com).

## **27. When is this going to happen? What are the timelines?**

Work is well underway. In the late winter and early spring, planning, design and surveys were conducted. Currently, the real physical work of laying the marine cable is underway, including on land and within the sea. Hibernia's cable construction is on schedule and expects to be up and running by end of year.

## **28. When are we (the media) likely to see anything happen?**

Probably the most exciting visible signs will be early summer when the cable ships will bring the cable ashore and the construction of the Telehouse in Derry/Londonderry.

## **29. Why is NI getting this and not say the likes of Scotland (east/west)?**

Hibernia has been awarded this contract through DETI and DCENR; further questions of this nature should be directed to them.



Project Kelvin is part of Intereg IVA European funding sought by DETI and DCENR, additional funding is available under Intereg IVA for any 2 European border regions wishing to work in partnership to enhance cross border enterprise working.

**30. Are there any disadvantages?**

The only possible disadvantage is to the incumbents.

**31. You recently celebrated 150<sup>th</sup> anniversary of the first cable? What was that?**

Hibernia Atlantic hosted a black-tie event, TransAtlantic 150, on September 8, 2008 at the New York Historical Society in New York City. The TransAtlantic 150 celebrated the completion of the first undersea cable 150 years ago. The landmark event included a keynote by Cyrus Field IV, the great great grandson of Cyrus West Field, the pioneer of the first undersea cable in the Atlantic Ocean. Other guests included Hibernia's high-level industry decision-makers, politicians and members of the media. For more information, and to view a photo slideshow of the event, please click here: <http://web.mac.com/jaymiescotto/Site/TA150.html>

**32. You already have a link into Dublin. What has that meant for Dublin?**

The direct connectivity from Dublin to North America has enabled low latency communications and opened the market in terms of competitiveness. More connectivity leads to more opportunities. A protection ring and additional capacity on our 13 cities on net to Dublin and to the North.

**33. Who do I need to speak to if I want to come back to you or speak to you again?**

**CONTACT DETAILS:**

For Hibernia Atlantic **media inquiries**, please contact Jaymie Scotto & Associates at +1.866.695.3629 or [pr@jaymiescotto.com](mailto:pr@jaymiescotto.com) and Jackie Logan at [jackie@carltonbaxter.com](mailto:jackie@carltonbaxter.com).

For Hibernia Atlantic **company inquiries**, please contact Melissa Butler at +1.908.988.1990 or [melissa.butler@hiberniaatlantic.com](mailto:melissa.butler@hiberniaatlantic.com)

**To download the map below, please click on this link:**

<http://www.hiberniaatlantic.com/images/NirelandMapJune12009.jpg>



This project is part financed by the European Union's European Regional Development Fund through the INTERREG IVA Cross-border Programme managed by the Special EU Programmes Body.