

COINAtlantic – Sustaining the Regional Access Point to Atlantic Canada’s Coastal Geospatial Assets and Initiatives

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Background

The demand for web delivery of geospatial information has witnessed explosive growth in the past 12-18 months due to a number of significant shifts occurring in the geospatial industry. Leading the way have been disruptive web technologies that are challenging traditional means of managing, sharing and accessing geospatial information.

In the Atlantic Region, a number of pioneering initiatives are leading the way to web-enabling access to local geospatial assets. Although there remains much work to do in terms of further enabling access to these resources, today’s momentum and direction clearly supports an ever increasing quantity and quality of data becoming more broadly accessible into the future.

Sample of Existing Initiatives

- Eastern Scotian Shelf Integrated Management (ESSIM)
- Gulf of St. Lawrence Integrated Management (GoSLIM)
- St. Lawrence Global Observatory (SLGO)
- SmartBay
- Gulf of Maine Ocean Data Partnership
- GeoNOVA

COINAtlantic has been proposed as an initiative to support enabling access to the region’s geospatial assets for more effective and efficient use by government, private and non-profit organizations with interests in the region. This paper will discuss some practical strategies for effectively achieving this vision.

Best Practices – Gulf of Maine Ocean Data Partnership

The Gulf of Maine Ocean Data Partnership provides an excellent local example of how an effective partnership and initiative surrounding data sharing and

access can develop. What is particularly interesting about the data partnership is the manner in which it came into being.

In the fall of 2003, GeoConnections and the FGDC jointly funded a Canada-U.S. Framework data project based on a proposal submitted by the Gulf of Maine Ocean Observing System (GoMOOS). The project was focused on enabling a wide variety of Canadian and U.S. organizations to achieve a number of key objectives:

- Support stakeholders to publish identified spatial holdings within the Gulf of Maine to open standards
- Access point for stakeholders to interact with the distributed datasets seamlessly through a common portal - the Gulf of Maine Mapping Portal (GoMMap) www.gommap.org
- Showcase the use of this data in an identified application
- Enable future stakeholders to both contribute more data, and easily integrate stakeholder data into their own applications

It was because of the success in achieving all of the above objectives that the demand and driver for the Gulf of Maine Ocean Data Partnership occurred. It was the first step in the creation of a sustainable spatial infrastructure for the Gulf of Maine region. Much work remains to be done, but the first step and creation of momentum towards achieving this objective has begun.

Momentum towards a COINAtlantic

Important lessons can be learned from the Gulf of Maine initiative that can be very instructive for defining a clear approach to moving COINAtlantic forward. This initiative has demonstrated that by setting moderate but achievable objectives, and engaging critical stakeholders, an initial success can be achieved that can be built upon for the future.

One of the key advantages that the COINAtlantic has today is that a significant number of initiatives have already begun to make geospatial data holdings in the region accessible to open standards. What is lacking today in the Atlantic region is a seamless view and access point to these collective growing geospatial resources.

For simplicity, consider the Atlantic region as a Jigsaw puzzle. Today or in the near future, a significant number of the 'puzzle pieces' within the region are going to be completed. In addition, a number of initiatives have consolidated local puzzle pieces into blocks such as within the Gulf of Maine. What remains, is connecting these various blocks to get a complete view of the region. It is only at this point that the value of the whole will be much greater than the sum of the parts.

A collective view of the region's geospatial resources will not only increase the value of these resources, but also help identify the gaps that remain to be filled.

Momentum from Web Technologies

In addition to the institutional momentum that is leading towards supporting COINAtlantic through the various regional initiatives identified previously, technology advances are also providing opportunities to accelerate this momentum.

The 'Web 2.0' technologies that have emerged in the past year are transforming the manner in which information is shared through the Internet. By example, the success of Google Maps was achieved primarily through Web 2.0 technologies that allowed third party developers to build upon this mapping infrastructure to create highly innovative web applications.

Similar technologies to those that caused a revolution in web development around Google Maps are now becoming accessible for use with other data sources. Whereas Google Maps operates in a 'silo' around Google's own mapping infrastructure – these other technologies will allow developer driven compilation of data from multiple sources for easy integration into user applications.

The implications are that COINAtlantic could provide a similar mechanism as that demonstrated today by Google Maps for stakeholders to incorporate any geospatial data accessible via open standards within the region.

Recommendations for COINAtlantic Next Steps

The combination of technical and institutional developments in the Atlantic region is presenting a unique opportunity for some first steps towards implementation of COINAtlantic. Based on this and the experiences of the Gulf of Maine project – a few recommendations follow for how to move this forward:

1. Define a proof of concept initiative that focuses on showcasing the data that is currently accessible through a common view of the region. With the exception of strategically important datasets, be wary of the tendency to focus too much on bringing in new data.
2. Adopt and promote open standards as endorsed by the Canadian Geospatial Data Infrastructure (CGDI) as the means for accessing data from stakeholders in the region.
3. Provide simple instructions, and if possible tools, for stakeholders to publish future datasets to this infrastructure in the future. (see GoMMaP for an example of this)

4. Leverage simple Web 2.0 technologies that will allow third party developers to easily incorporate data from the region into their own web applications.
5. Promote this initiative to stakeholders who will drive demand for the data becoming accessible through COINAtlantic.
6. With the model of the Gulf of Maine Ocean Data Partnership, begin the process of creating institutional support for sustaining COINAtlantic into the future.

Summary

The development of COINAtlantic has been discussed for a considerable length of time, however never before have circumstances arisen that present such a low barrier to success.

With local success and experience to build upon, COINAtlantic has the opportunity to be a pioneer in provision of access to the region's geospatial assets. Success would make COINAtlantic a pioneer not only in Canada, but around the world.

Pioneering also brings risks – and for this reason it is critical that the next steps are clearly defined with a narrow focus that manages this risk, and maximizes the probability of success.

The concept of COINAtlantic as a focal point for access to the region's geospatial datasets is one whose time has come. With the momentum that is already ongoing for initiatives in the region, and the experience of the stakeholders, COINAtlantic is in a unique position for success going forward.