Voice over IP Services — Regulatory Perspectives from the Developed and Developing World

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This article continues our four-part series focusing on the regulatory issues surrounding Voice over Internet protocol (VOIP) services. It analyzes some fairly recent CRTC decisions and follows up on VOIP regulatory concerns in the developed world.

McCarthy Tétrault Notes:

The CRTC has rendered two decisions dealing with the issues raised by Telegeographic PSAPs (public-safety answering point) for emergency services.

The Emergency Services Decision

On April 4, 2005, the CRTC released Telecom Decision CRTC 2005-21. In that decision, the CRTC made its final determinations regarding the emergency service issues raised in the Notice CRTC 2002-2.

In the Emergency Services Decision, the CRTC confirms its position that the provision of emergency services requires imposing emergency service obligations on local VOIP service providers. VOIP service offering providing only long-distance calling capability would not be subject to these obligations. Only VOIP services that provide a substitute or functional equivalent of traditional switched telephone network services are to be subject to the identified emergency service obligations.

The Emergency Services Decision examines the special complications associated with nomadic and non-geographic capabilities of VOIP services, and resolves these issues by examining three different ways in which VOIP services can be deployed:

1. from a fixed address with a telephone number that is native to one of the exchanges; the customer's PSAP (public-safety answering point; i.e., within its service area);

2. from a fixed address with a telephone number that is not native to one of the exchanges; the customer's PSAP service area (i.e., where the assigned telephone number is located); or

3. on a nomadic basis, where the customer makes calls from an address that is not registered for emergency service.

For services associated with a fixed address and a telephone number that is native to the customer's PSAP service area, the CRTC expects VOIP service providers to supply emergency services practically equivalent to those for conventional local exchange carrier (LEC) services. For such services, the CRTC requires that VOIP service providers implement appropriate interim solutions that provide a level of emergency service comparable to those provided by conventional service providers. This includes the provision of call centre agents to confirm the location of the caller and to forward the call, if necessary, to the appropriate PSAP or emergency service best able to respond.
emergency and subscriber location.

The CRTC has also asked the industry steering committee responsible for res market issues — namely, the CRTC Interconnection Steering Committee (CISC) report identifying the technical and operational issues that impair emergency local VOIP service is offered on a non-geographic basis, and a similar report aspect to service offered on a nomadic basis. In addition to identifying the r implementing emergency services in these circumstances, the reports will id solutions, make recommendations for preferred solutions and propose time frames for implementation.

Finally, the Emergency Services Decision emphasizes the importance of infor subscribers of all emergency service limitations prior to any VOIP service con requires express acknowledgement by subscribers of these service limitation: process of contracting for VOIP services.

The Regulatory Framework Decision


This decision deals with the issues raised by Public Notice CRTC 2004-2 that in the Emergency Services Decision. Most importantly, this decision sets out determinations regarding the regulatory framework that should apply to VOIP the extent to which those services should be forborne from conventional regul

VOIP service categories

The Regulatory Framework Decision begins with a discussion of various cate services.

One category of service that the CRTC singles out for specific treatment is 'peer services, which it defines as "IP-enabled voice communications services that the public-switched telephone network and that do not use conventionally as numbers." These peer-to-peer services include computer-to-computer voice with traffic routed via the Internet and without using a conventional telephone switching to establish the voice connection. The CRTC considers these peer-to-peer services to be within the category of retail Internet services, a service category previously determined should be forborne from regulation.

The FCC has also determined that these peer-to-peer communication service traditional telecommunications regulation by either the FCC or state regulato the basis that they constitute regulation exempt ‘information services’ and do ‘telecommunication services.’

Forbearance from regulation

Under its governing legislation, Canada’s Telecommunications Act, the CRTC forbear from regulation where it determines that markets are sufficiently con forbearance would otherwise be in accordance with the policies set out in the Regulatory Framework Decision, the CRTC confirms that VOIP services, other services, are not within the category of ‘retail end user Internet services’ pre from tariff and other regulation. The CRTC bases that determination on char services that distinguish them from retail Internet services. Ultimately, the C primary function of VOIP services is not accessing the Internet, but rather ac switched telephone network in order to make and receive telephone calls.

Having determined that local VOIP services are not within existing forbearan the CRTC also considers specific requests by the incumbent telephone compa forbearance orders regarding local VOIP services. The CRTC examines these forbearance in accordance with a methodology based primarily on considerat market for local VOIP services, and whether firms in that market have suffici maintain prices above those that would prevail in a competitive market.

In performing this analysis, the CRTC finds that local VOIP services satisfy th requirements as circuit-switched local exchange services and are close subst circuit-switched services. Accordingly, local VOIP services are part of the sar
as conventional circuit-switched local services. The CRTC includes access-incremental service configurations in this finding that local VOIP services are part of the same market as conventional local services.

The CRTC also notes that the incumbent local exchange carriers in Canada are providers of local service, accounting for 98 per cent of local residential revenues and 93 per cent of local business revenues in 2003. Given the definition of the relevant market as the incumbent market share of incumbent carriers, the CRTC concludes that it would not be appropriate to forbear from tariff and other regulation of local VOIP services offered by incumbent carriers at this time.

The CRTC also considers whether cable television companies provide sufficient competition to incumbent carriers in local VOIP or other voice services markets to support forbearance. It observes that although the cable companies are emerging as stronger competitors subject to obstacles compared with the incumbent carriers, including the need to upgrade conventional cable networks to permit the delivery of VOIP or other voice services, they accumulate experience in offering local voice services over time.

The CRTC also expresses concern about the competitive advantage enjoyed by incumbent carriers in their ability to migrate existing customers from conventional telephony to VOIP services, particularly given their continuing dominance in conventional local markets. Another concern is that granting forbearance from tariff regulation would permit incumbent carriers to engage in targeted below-cost pricing of local VOIP services and related bundling strategies, permitting them to continue their market dominance prior to entry of other competitors.

Ultimately, the CRTC denies the request for forbearance from the regulation of local VOIP services and determines that local VOIP services should be regulated as local exchange services including application of the CRTC’s previously determined regulatory framework governing service competition (as modified by other parts of the decision).

Application of local service regulatory framework

Having dealt with the request for regulatory forbearance, the CRTC examines the application of its regulatory framework for local service competition to local VOIP services, weighing the balance of the decision.

The CRTC’s determinations include confirmation that the existing framework for the allocation of telephone numbers, and rights and obligations pertaining to local number portability, apply to local VOIP service providers on the same basis as conventional local service providers. The requirements of directory information and subscriber listing information remain the same. The only difference is that directory listings for VOIP service are restricted to the local directory where calls to or from the assigned number are local calls. The subscriber’s service address. Local VOIP service providers have a general obligation to ensure equal access to competitive long-distance service providers without entering into contractual arrangements or otherwise obstruct access to competitive service providers.

Regarding Message Relay Service and other disability services, the CRTC confirms that VOIP service providers should offer comparable service capabilities to the extent technologically feasible. It also asks the CISC to prepare a report addressing technical issues associated with the implementation of these disability functions.

Similarly, the CRTC determines that privacy safeguards such as blocking of caller identification and disabling of call return should be implemented by local VOIP service providers to the extent that is technologically feasible. Again, it requests the CISC to assess technical issues associated with implementing these privacy safeguards using VOIP technology.

Regarding tariff-filing requirements, the CRTC confirms that incumbent carriers are required to file tariffs for local VOIP services within their traditional geographic operating territories, where the incumbent carriers do not exercise market power, the benefit of tariff regulation does not justify the benefit of tariff regulation. Similarly, non-dominant carriers that hold market power in a geographic market will not be required to file tariffs for local VOIP services, generally complying with the requirements of being a competitive local exchange carrier.

As indicated previously in this article, in Telecom Public Notice CRTC 2002-2, the CRTC made a preliminary determination that VOIP services should be subject to the same application of local service regulatory framework.
the cost of telecommunication service in high-cost areas (the 'contribution' in Canada to achieve universal service objectives). In the Regulatory Framework CRTC confirms this preliminary determination and provides further guidance which revenues from VOIP services should be contribution eligible. Generally that the revenues for services that permit access to and from the public-switched network are to be contribution-eligible, and that revenues associated with peer-to-peer communications (i.e., computer-to-computer and other communications that use conventional numbering to make a connection) are not contribution eligible.

Finally, the regulatory framework decision includes determinations requiring and telecommunications carriers to remove contractual restrictions that prohibit voice communication services from their terms of service for ISP resellers. To further determination is to ensure that ISPs offering voice services are able to offer voice communications as part of their service offerings.

Concluding comments

As indicated earlier in this article, the issues raised by the CRTC in its VOIP Public Notice are similar to issues that have been raised by the FCC and OFCOM in their own public notices and proceedings. The issues include the extent to which VOIP services should be subject to the regulatory framework established for local and long-distance services generally, particularly given the underlying technologies and service characteristics.

The CRTC’s recent decisions are among the first efforts by a regulator to deal with a market with a history of extensive voice service competition. It remains to be seen whether the CRTC’s determinations on VOIP issues will be repeated by the FCC, OFCC and other regulators examining the issues in similar service environments.

For its part, the CRTC has taken the position that VOIP services should be subject to the regulatory framework as conventional telephone services, to the extent that they provide unrestricted access to and from the public switched telephone network. The CRTC has determined that services that are subject to regulation and otherwise provide consumers with services equivalent to conventional telephone service.

The CRTC has, however, recognized that VOIP service platforms are not at present able to reproduce all of the emergency services, disability access and other service characteristics of conventional circuit-switched telephone services. The CRTC has adopted the approach of requiring VOIP services to meet these public requirements as soon as technology permits. The CRTC has included specific interim measures applicable until that time, particularly including consumers of the service limitations.

The regulatory challenges faced by countries that do not have a history of extensive service competition, and where the state of development of telecommunications networks services is more limited, are very different. These will be explored in the final four-part article.