



Office of the Director of
**Telecommunications
Regulation**

MEDIA RELEASE

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Emerging Technologies may offer Alternative Access to Broadband Services

Etain Doyle, Telecoms Regulator today (Wednesday 1st August 2001) issued a set of short technology briefing notes describing some emerging and evolving technologies that may help develop Ireland's *infocom* sector.

According to the Regulator "Keeping pace with new and emerging technologies is a difficult challenge facing regulators. As part of the ODTR's Forward Looking Programme we monitor trends to identify which ones may lead to development opportunities for service providers and thus, in turn, a possible need for regulatory clarity. My objective in issuing these briefing notes is to stimulate awareness and interest. I hope that some companies may be prompted to consider the potential offered by these emerging technologies and carry out their own feasibility assessments."

The popular *infocom* services of today such as telephony, email and web browsing are still mainly delivered over communications networks designed for voice and low speed data communications. Newer broadband applications currently under development require communications infrastructure that is capable of handling data rates that are much quicker.

An emerging technology known as optical wireless could prove to be a cost effective and timely networking solution for some users requiring broadband access. Optical wireless is a technology that facilitates broadband communication by using light

signals without having to install cables. This technology has a number of advantages including high capacity, high security and high reliability. It is also quick and easy to roll out and install.

Another new technology called High Altitude Platform Stations (HAPS) also offers an alternative method of delivering broadband services in the medium term . The concept is that a user on the ground is connected to a telecoms network via a station that is located high above them in the sky. This platform could be an aeroplane or a balloon. The idea is to mimic the functionality of a satellite without incurring large costs. The main advantage over terrestrial systems is that the coverage area for single HAPS is very wide. These technologies are apparently easier to deploy and maintain compared to satellite systems because they are located inside the atmosphere, i.e. not in space.

Software Defined Radio (SDR) is an emerging radio technology that is more flexible than traditional radio technologies. This is a developing technology. An SDR can be modified to operate different types of services at any time after it leaves the factory. So rather than purchase a new piece of equipment to perform a new or different function, the existing equipment can be modified by loading additional software. It is useful to think of an SDR being like a PC: a basic tool that can run various applications or programmes as needed.

The other topics, which are covered in the briefing notes, are "Ultrawideband Technology" and " Broadband VSAT's ".

The full briefing notes are available on the ODTR website www.ODTR.ie "ODTR 01/59 Technology Developments in Telecommunications - ODTR Briefing notes ". The Director welcomes any comments from interested parties.

ENDS

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