

DIGITAL HDRADIO™: CASE STUDIES ON NEW SERVICES AND APPLICATIONS

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ABSTRACT

Digital HD Radio is being used for many unique new applications in the world - including non-traditional broadcast uses. This presentation will highlight some of the new business models which may help stations "bridge the receiver void" and make digital radio pay before the receivers are in wide distribution.

INTRODUCTION

HDRadio is the only current digital radio solution which operates in the existing FM band. It allows the transmission of the existing unchanged FM analog signal along with digital subcarriers which provide CD quality audio – as well as the possibility of multiple digital channels. Both the conventional FM analog signal and the digital sidebands fit within the typical spectral mask allocated for FM stations.

As of July 2006 – Digital HD Radio has been on the air in over 900 stations throughout the US, Mexico, Brazil, France, Australia, New Zealand, Philippines, Thailand and Indonesia.

MAKING BUSINESS SENSE

All digital radio broadcasting systems available today require special digital receivers to take advantage of the digital quality and new services. HD Radio receivers are now available from many companies including Sanyo, JVC, Panasonic, Kenwood, Pioneer, Eclipse, Yamaha, Alpine, Boston Acoustics, Polk Audio, Radiosophy. Prices range from \$103 to \$3,000, and have fallen by 75% in the last year.

Until digital radios are common in the marketplace, stations will need to find innovative ways to financially justify their HD operations.

NEW NICHE FORMATS ON THE HD2 CHANNELS

One answer to filling the void is to use special formats that will attract audiences loyal enough to seek out the new receivers. Some stations are putting formats on the multicasting channels that don't have the market size to warrant their own station but which have rabidly loyal listening audiences.

Examples of such formats include:

- Foreign language or dialect ethnic programming
- Jazz, New Age, Blues, Country music
- All news or sport programming
- Religious programming

In some cases, the station markets the new channels on the main analog channel and even sells the HD receivers to the listeners.

SPECIALTY CONTRACT CHANNELS

Some stations have gotten contracts for special network programming to public transportation systems. In Bangkok, 10,000 buses are being outfitted for HD Radio reception to allow special programming to all the buses in the metro area. In Manila, there are discussions underway to fit HD Radio receivers to the MRT system.

HD Radio is ideal for these purposes, as the fidelity is excellent, even in extreme mobile conditions, and no new frequencies are required.

TRAFFIC DATA

The data channel built into HD Radio is being configured to accept a low speed data stream which communicates real-time traffic conditions to HD receivers in cars. The data is combined with GPS and moving map systems to allow display and alternate route suggestions on the screen. In many large cities, traffic is the most popular format.

This was displayed during NAB 2005 and 2006.

NON-BROADCAST TECHNICAL USES

Some stations are investigating using one of the HD channels for cuing to remote broadcasts. Some stations are distributing AM signals to a network of AM stations using FM HD Multicasting channels.

SCA REPLACEMENT

It is well known that RDS systems on FM can adversely affect FM main channel broadcasts. HD Radio Multicasting channels can be used to replace RDS, providing markedly better audio performance, with no main channel degradation.

CONCLUSION

The transition period for receiver deployment can be profitably utilized by creatively using the primary and HD2 channels.

REFERENCES

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