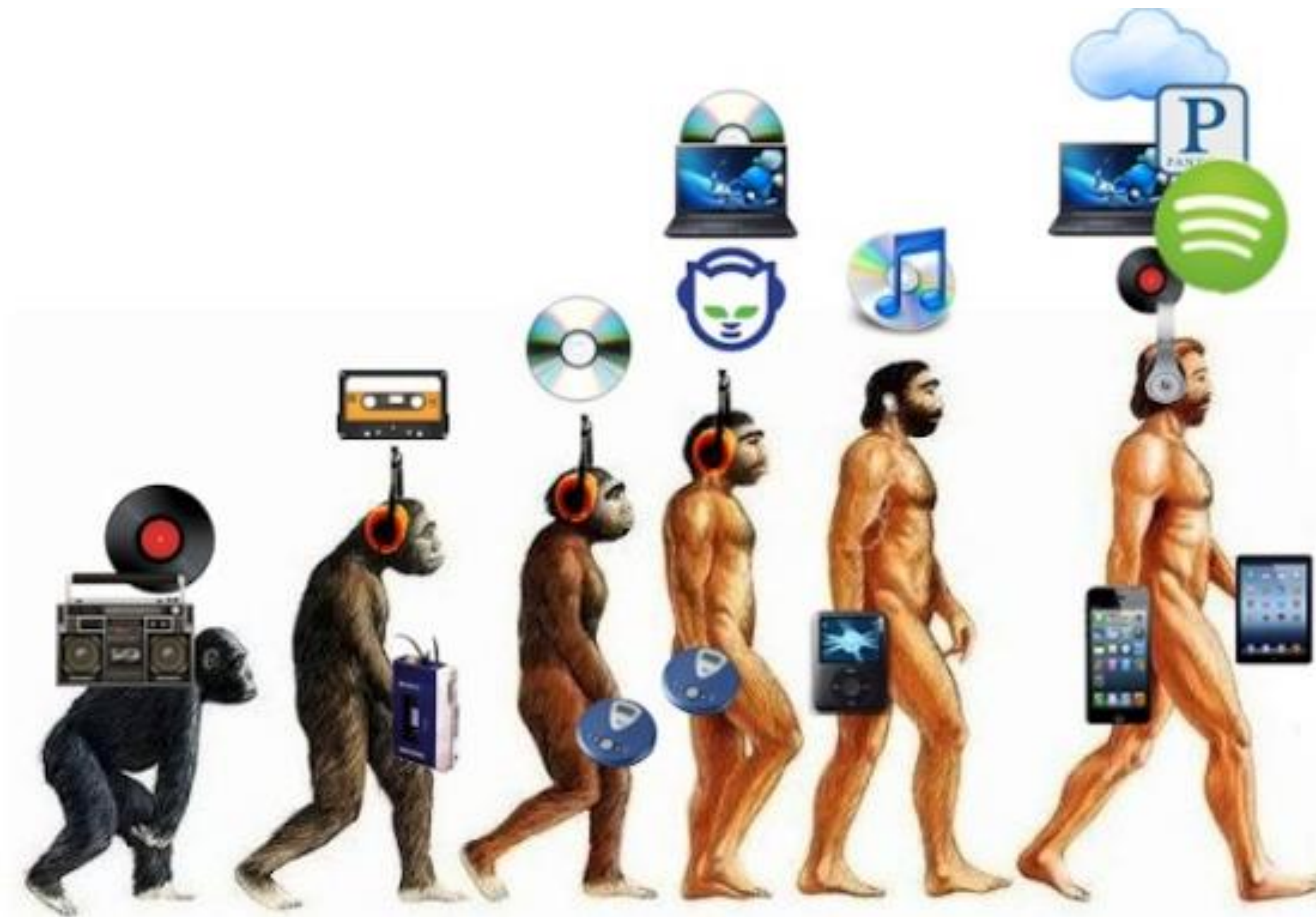




Welcome to the DAB  
Family of Standards



One family provides the most cost effective delivery of digital radio and mobile TV

## DAB: 1995

Original audio with PAD and data services standard;

EN 300 401 Main document

TR 101 496 Guidelines of use and operation

## T-DMB: 2006

Added video services for Mobile TV and enhanced data streaming TS 102 427 Data Broadcasting - MPEG-2 TS streaming

TS 102 428 DMB video service; User Application.



## DAB+: 2007

Enhanced audio service efficiency;

TS 102 563 Transport of AAC audio

## Hybrid: 2015

Optimised digital broadcast radio and IP connectivity;

TS 101 499 Hybrid Digital Radio (DAB, DRM, RadioDNS); SlideShow; User Application Specification

TS 102 818 Hybrid Digital Radio (DAB, DRM, RadioDNS); XML Specification for Service and Programme Information (SPI).



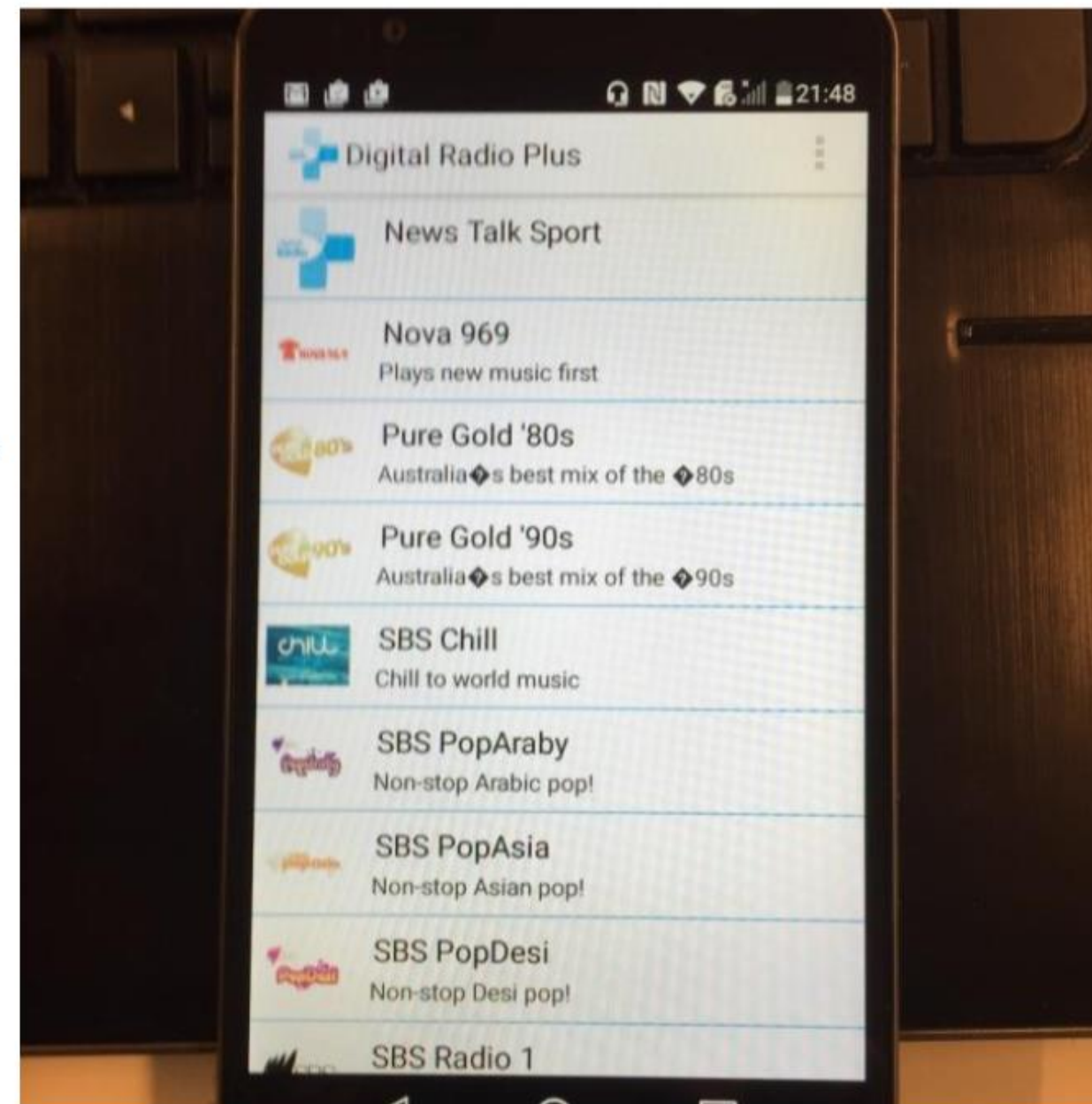
Simulcast stations (AM / FM)

During the transaction analogue/digital transmit in analogue and also in digital to make smoothie the transaction

New DAB+ only stations like extend the brand portfolios.



Easy to choose a station, listener has more information about the services available



No more need to remember the station's frequency!!!

Services are listed alphanumerically  
Increasing use of logos for brand recognition.



## Dynamic Label Segment (DLS) - Text

- Straight forward, effective;
- Up to 128 characters per text segment;
- All DAB+ receivers have DLS text display;
- Good receivers block text display or have an appropriate scrolling speed.





- Further strengthens the audio message;
- Standalone advertising during song items;
- Promotion of station activities;
- Traffic and weather reports;
- Sports results and stock market information;
- Local news, happenings, community events.

**Traffic** e.g. TMC and TPEG can provide up to the moment information on:

- current traffic flow and congestion
- fuel locations and prices
- parking

**News**

- Hierarchical categorized data service

**Custom Applications** can be developed





T-DMB is the video delivery service within the DAB family of standards.

Currently transmitted in **South Korea, Norway and the Netherlands.**

Can received on variety of devices including **smartphones** and handheld **portable receivers** and USB dongle receivers.

## Service and Program Information (SPI):

- Station/service logos
- Website links
- Program schedules

## Announcements:

- Traffic information / channel
- News, weather, travel information

## Service Following:

- Links services in different areas on different ensembles
- Provides continuity of service for services across multiple service areas

**Emergencies** can be signaled using Announcements in DAB+

There are also alarms within the Announcements signaling

These can be used for **switching on receivers** from standby mode

Can be used to switch the ensemble being received to the one with the emergency warning information

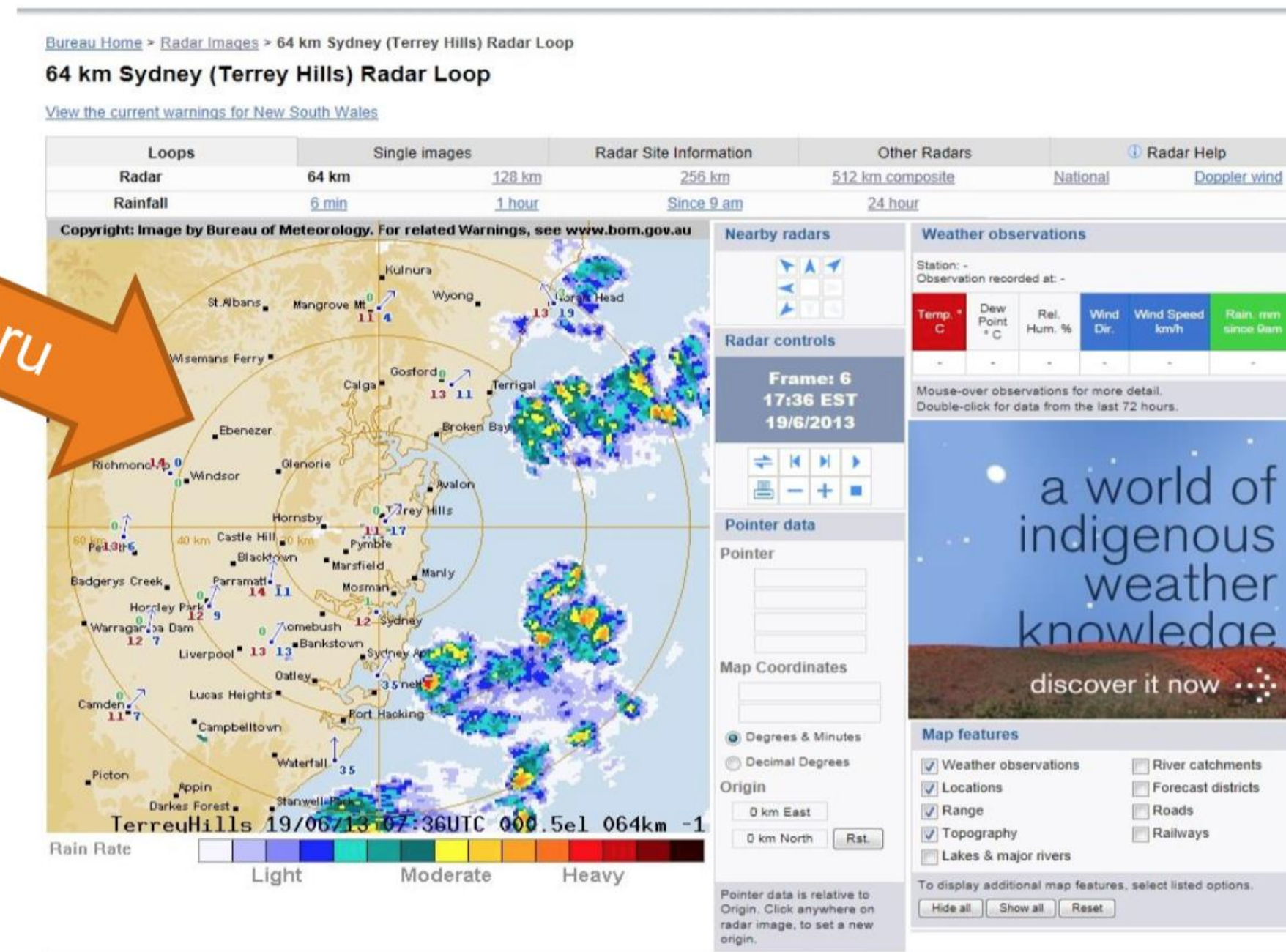
Announcement switching is also used for other services such as Traffic Announcements and traveler information





Accessing a website from a URL delivered associated with the information provided

Click thru



DAB can provide rich multimedia to support information delivery.

Text and Images can have embedded links to provide additional information if the radio receiver is connected to the Internet.



[www.dbbroadcast.com](http://www.dbbroadcast.com)



[www.screen.it](http://www.screen.it)