



VISUALISE

Watershed, March 18th 2008



Professor David Bull



Overview

- Background and motivation
- Aims
- Partners
- Objectives and Achievements
- Architecture and Deployment
- Demonstration Film
- Technical Details



Background and Motivation

- Large scale public media-centric events are commonplace. Examples include:
 - motor sport (WRC, Formula 1), athletics (Olympics), rock festivals (Glastonbury) and golf (Open).
- Spectators at large scale live events often have a poor viewing experience:
 - Location-limited, information-limited and lacking personalised content.
- Such events may deploy a huge infrastructure of production equipment with many fixed and portable cameras, but....
- Most of the content is not available to local spectators

Aims

- VISUALISE aims to provide an enhanced experience for spectators through local area access to a rich range of media via hand-held devices.
 - Includes spatially and temporally shifted (non-directly viewable) events or locations, archive material and statistics.
- For example, spectators at a golf event are able to select a location of interest (1st tee), experience all key events (holes in one) and also follow a favourite individual.



Partners

- 3CRL
- BT
- Inmarsat
- ISC
- Maniac Films
- ProVision Communications
- Technology Strategy Board
- Turner Broadcast
- U4EA
- University of Bristol -CCR
- Util4



Objectives and Achievements

- The exploitation of Off-the-Shelf user equipment:
 - Phones and PDAs
 - Standardised wireless networking (WiFi)
- Video compression & steaming technology for use with wireless broadband networks in difficult environments:
 - Packetisation, Error Control, Link Adaptation and Low Latency
- Integration of fixed (service park and trackside) and mobile (in-car) cameras into a live-viewing infrastructure, linked to background and timing information.
- GPS-based Tracking and Alert.
- Enhanced user interactivity through customised terminal interfaces.
- Rapid planning and deployment of networks.
- Demonstration hosted by ISC at the UK 2006 and -07 World Rally Championships and at the 2007 Belmont Horse Trials.

VISUALISE User Interface



SS14

Time: 09:41:30

SS1 Port Talbot

No	Driver	Pos	Time	Diff 1st
4	M.HIRVONEN	1.	9:15.2	+00.0
1	S.LOEB	2.	9:21.7	+06.5
3	M.GRONHOLM	3.	9:27.2	+12.0
9	J.LATVALA	4.	9:29.2	+14.7
8	C. ATKINSON	5.	9:34.2	+19.0
7	P.SOLBERG	6.	9:34.5	+19.3
2	D.SORDO	7.	9:41.5	+26.3
17	X.PONS	8.	9:42.3	+27.1
20	M.OSTBERG	9.	9:46.6	+31.4
16	M.WILSON	10.	9:48.1	+32.9
5	M.STOHL	11.	9:48.7	+33.5
21	A.MIKKELSEN	12.	9:55.9	+40.7

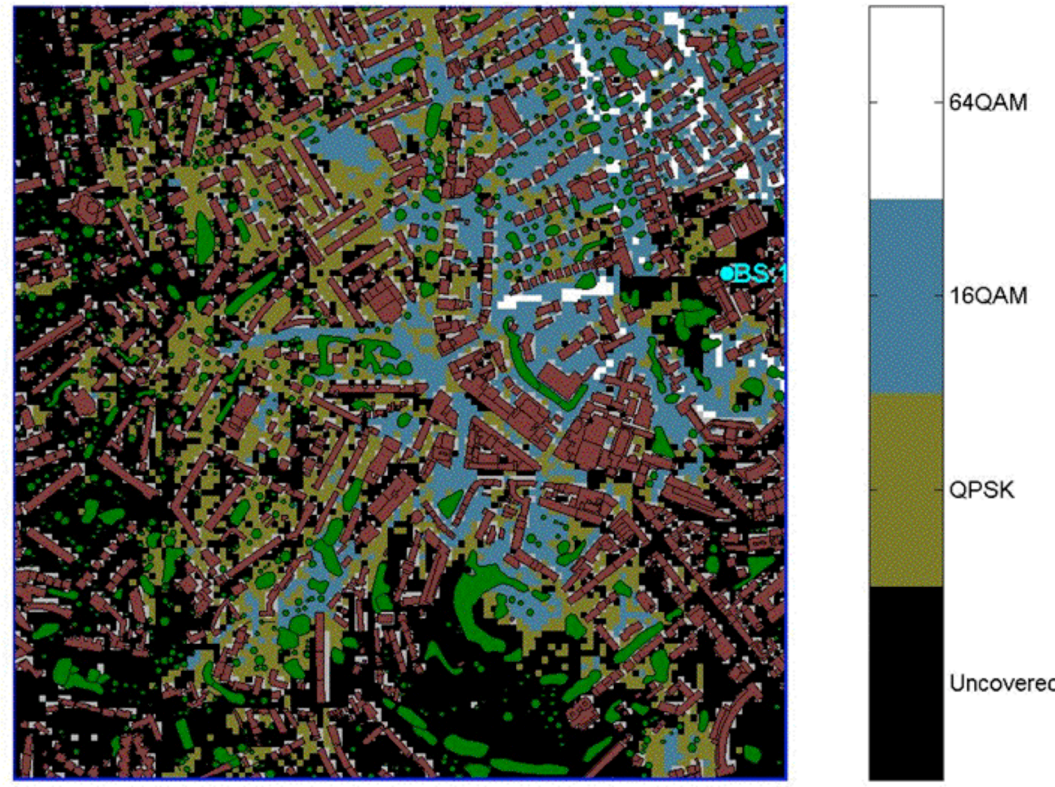
Drivers

- Sheikh Khalid Al Qassimi BP Ford WRT
- Chris Atkinson Subaru WRT
- Marcus Gronholm Ford WRT
- Mikko Hirvonen BP-Ford
- Jari-Matti Latvala Stobart VK
- Sebastien Loeb Citroen Total

Live Demo

- A user interface has been developed for Windows Mobile 5 and 6 devices to integrate and deliver the VISUALISE features

Propagation Modelling and Planning



IEEE 802.16e: Mode distribution for 16 sectored BS, 5.4GHz,
7.5MHz Bandwidth (18dBi BS antenna gain)

Key Benefits

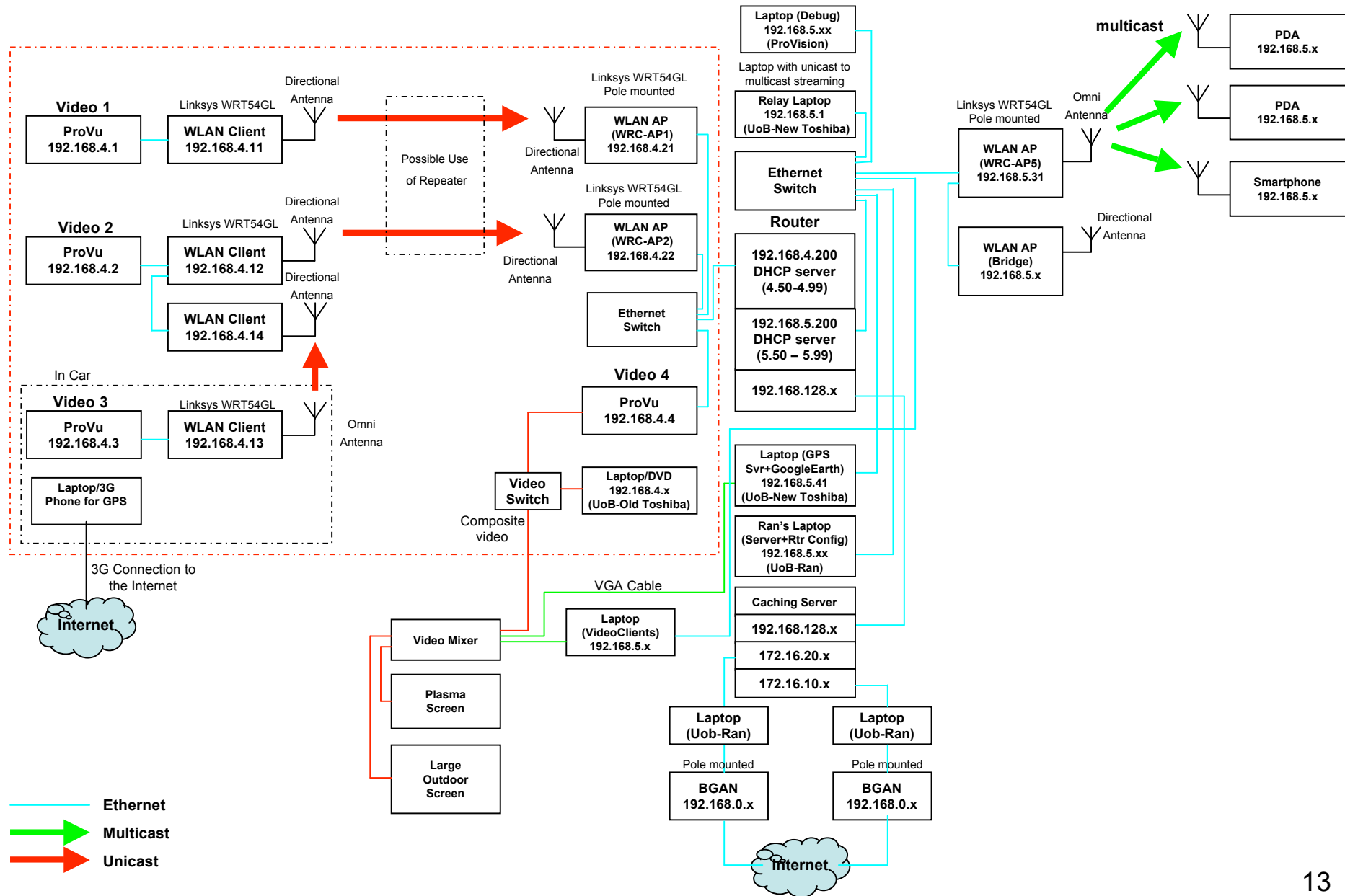
- **Spectators:**
 - Enhanced experience/information service for spectators.
 - Space and time shifting- Live Audiovisual, Live timing, Live locations
- **Event organisers:**
 - Attraction of larger audiences. Ability to generate additional revenue via betting and advertising.
- **ITC companies:**
 - Sales of network services and terminal equipment.
- **Event participants:**
 - Raised profiles of individuals and teams.
 - Sponsor related links



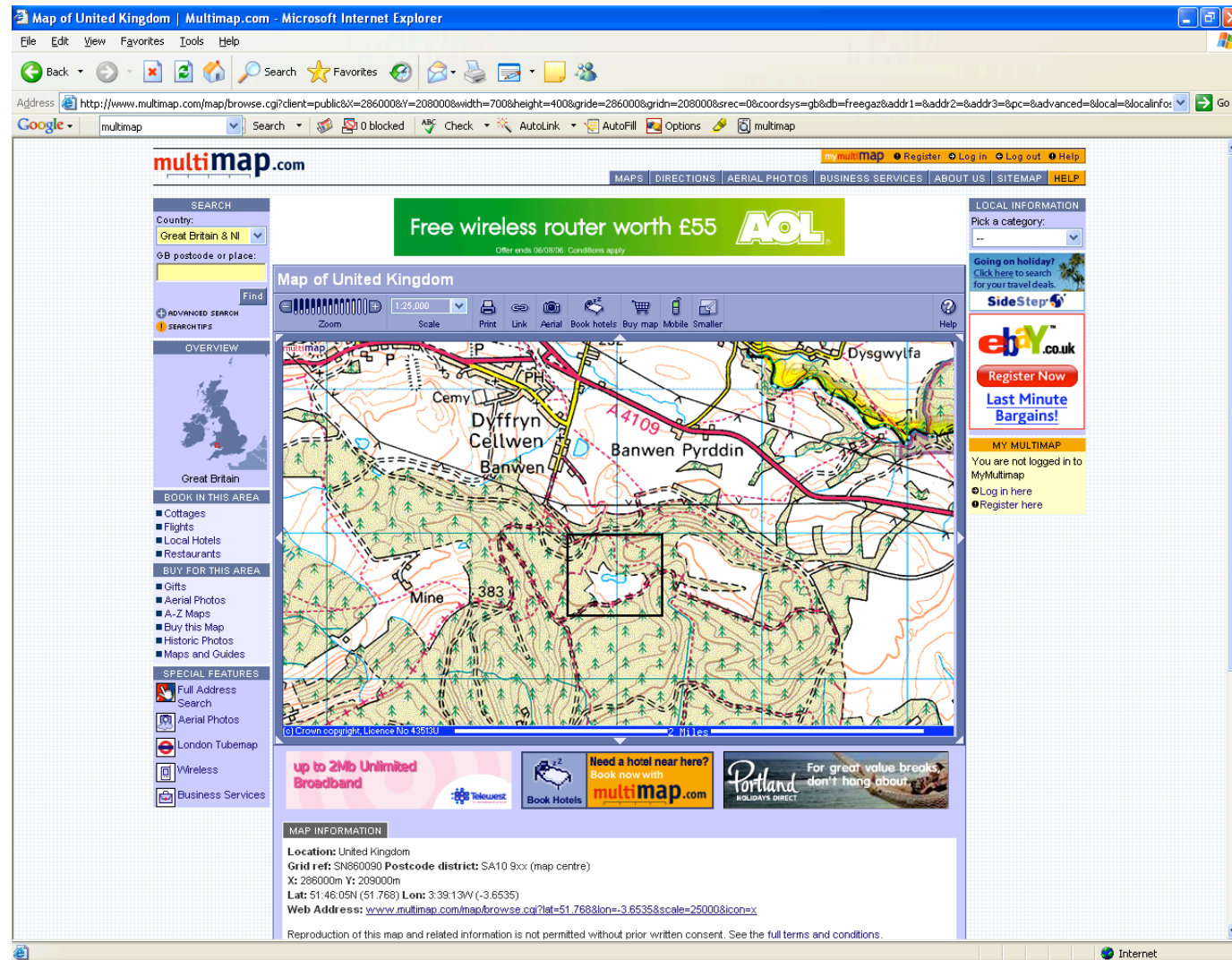




WRC 2007 Network Configuration



WRC 2007 – Walter’s Arena



Note: Lake identifies Arena

VISUALISE is ...

- A new service to radically enhance the spectator experience
- An innovative fusion of video, network and wireless technologies
- An interactive, user driven, non-linear content service for Internet and mobile phone distribution
- An advanced collaborative research and development project funded by the Technology Strategy Board

So how does it work?

