

HEAnet 2009 Conference

Wireless Mesh Networks Survey (interim report)





Background

- Preliminary questions on WMN sent to HEAnet client list.
- Following responses, HEAnet decided to commission a survey on WMN in HEI's
- iLink was selected to carry out survey

Objective of survey

- Summarise current usage of WMN in HEAnet client institutions, both for research and production purposes. (Primarily from a deployment perspective)
- Consider WMN instances in public networks in Ireland, such as metro or community services.
- Indicate motivations for deployments
- Describe the equipment involved.
- Where possible, describe interoperation and handover of WMN with other wireless technologies, including WiMAX (IEEE 802.16) and the 3G set of standards.

Objective contd.

- Provide quantitative and referenced measures of performance of WMN
- Describe management of the service, whether in-house or outsourced.
- Where appropriate, give reasons for trials being completed and not subsequently implemented.
- Provide indicative costs of WMN deployments, including end-user costs.
- Identify proven applications that use WMN features, such as direct multicast.

Survey Approach

- A shortlist of HEI's were contacted
- An interview approach was taken in the form of phone and e-mail correspondence
- A short questionnaire was circulated
- All those contacted responded
- Others contacted were Ward Solutions , Wexford CoCo and Commercial developer of WMN equipment.

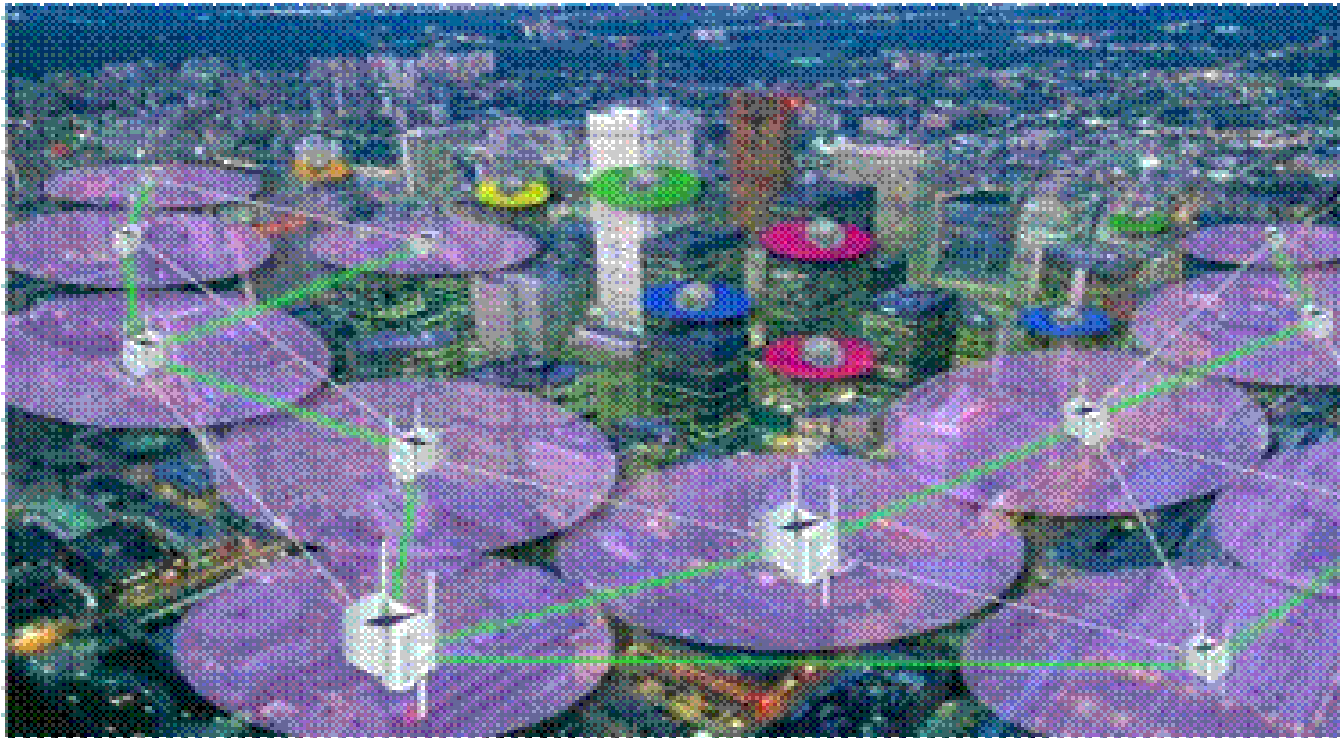
Sample Responses

- Small WMN deployments in the main for research purposes (4 to 16 in size)
- WLAN deployments providing campus hotspots.
- 800 AP WLAN in UCD
- Plans by some institutes to deploy WMN in 2010 for CCTV , VoIP , further research
- Eduroam backend is priority for some?

Interim Summary contd..

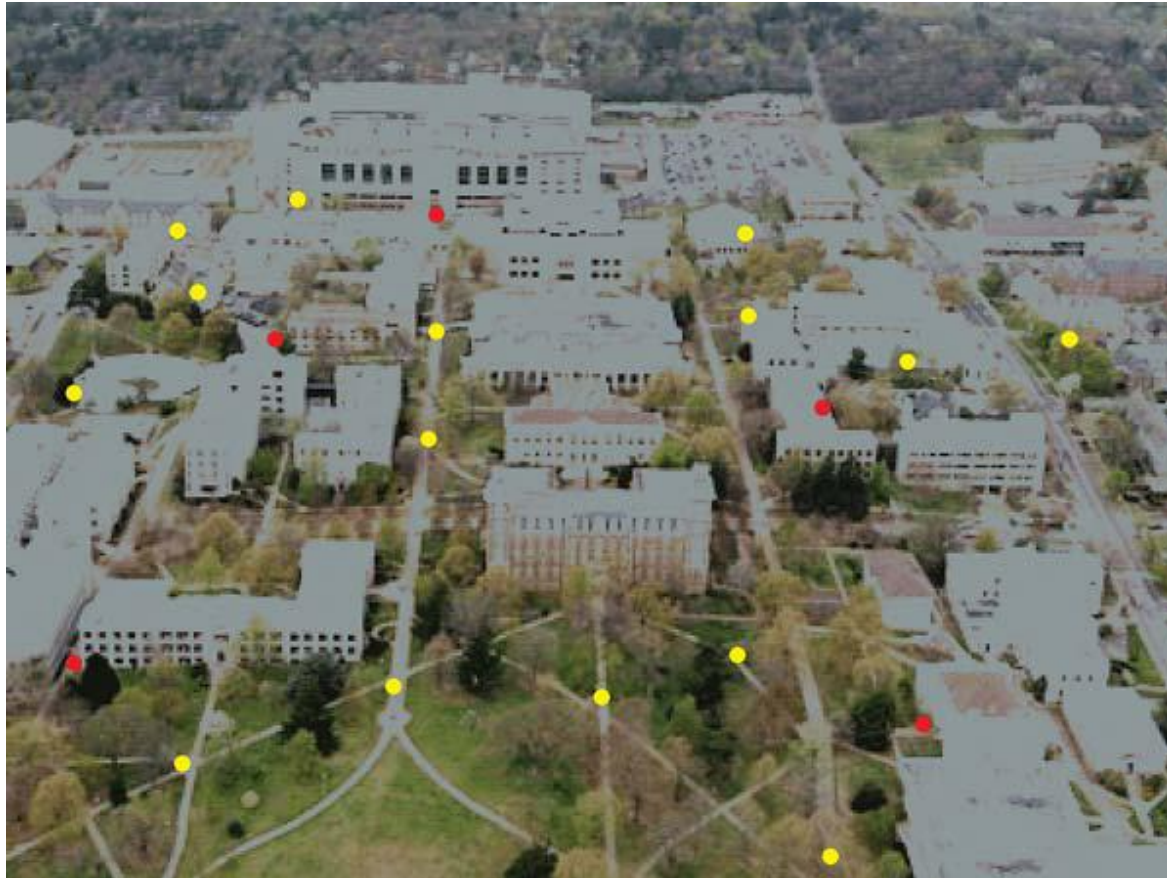
- Wifi access part of HEAnet wireless strategy
- Campus wide network needs extending
- WMN could be used for this
- E.g . Eduroam made available in Groningen City WMN

What is a WMN-City?





What is a WMN-Campus?



Public WMN example-Wexford

- Wexford City
- 13 Nodes
- Used for CCTV by Garda
- One Kiosk
- Selected set of websites accessible
- Not fully functional
- Other trials , Carlow , DDA , Derry



Examples in other countries

- Google WMN covers 11.5 square miles with over 300 Aps (nodes) in Mountain View
- Groningen – initiative between Groningen University , Hantze University and Gronigen Municipality
- Oulu – City & University



Next Steps

- Contact other HEI's that have deployed or researched WMN
- Complete final report
- Assess the technology as one that could be part of the HEAnet wireless strategy.



Thank you

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