

Why-Fi?

Exposing/Exploring some Myths of Wireless Networking

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Project

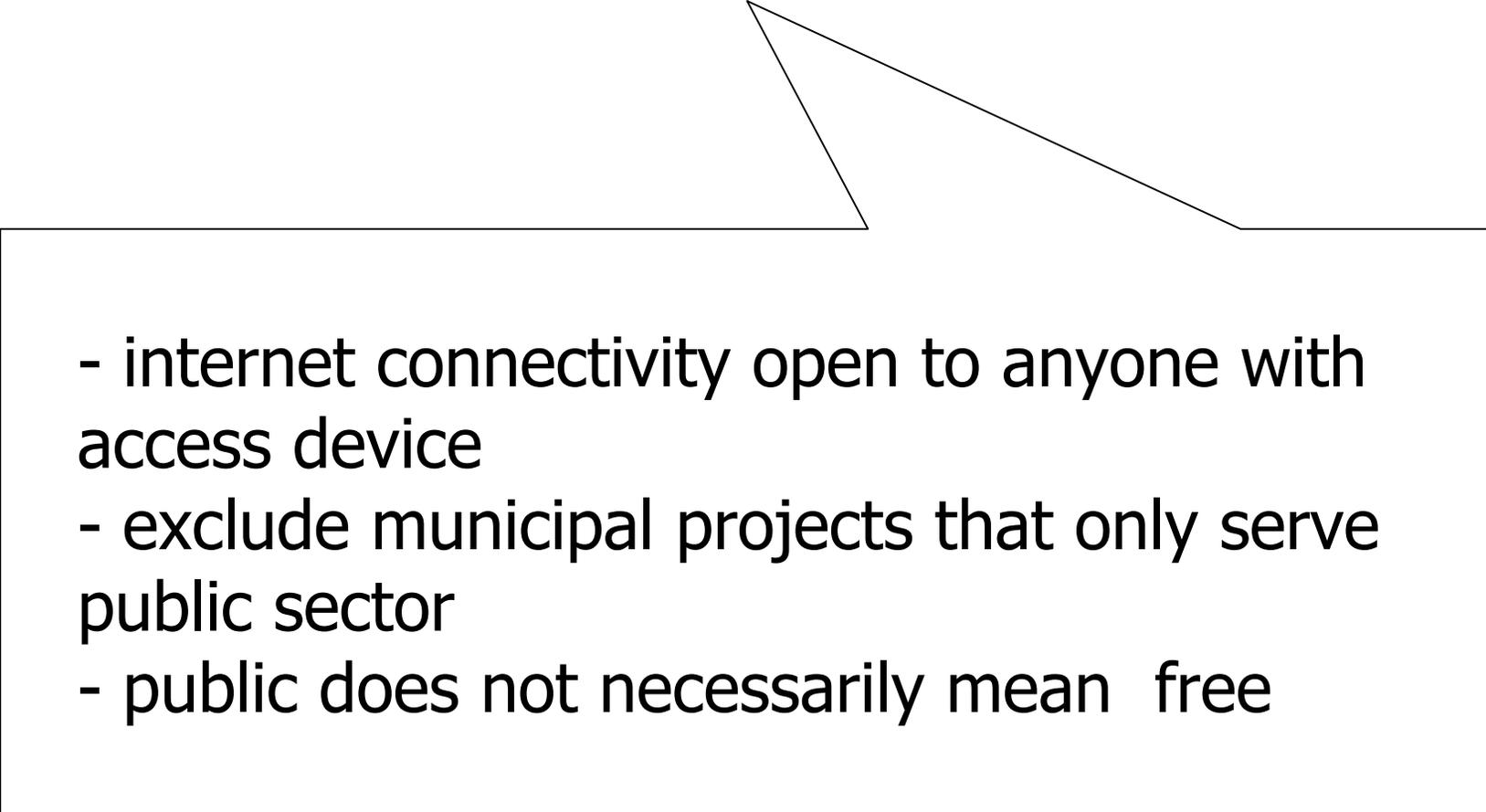


Three Points to Ponder (Provoke?)

- Contexts of Use
- Is WiFi useful?
- Commercial vs. Non-Commercial Provision

- *Where is the market, and how can it be served sustainably?*

Usage Contexts for Public B'band Networks

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- internet connectivity open to anyone with access device
 - exclude municipal projects that only serve public sector
 - public does not necessarily mean free

Usage Contexts for Public B'band Networks

Access Type

Primary

Secondary

High
**Willingness
to Pay**

LOW

<p>Internet Service Provider</p> <ul style="list-style-type: none"> - 'average' consumer, service extension to rural/remote area or household looking for an alternative to existing ISPs - household pays 	<p>Roaming ISP</p> <ul style="list-style-type: none"> - knowledge worker, mobile sales representative, professional, business traveller - individual or employer pays (fee is a business expense)
<p>Digital Inclusion</p> <ul style="list-style-type: none"> - connectivity / community building for 'under-privileged' and others - individual or household pays, may be subsidized 	<p>Roaming Open Access/ Community Building</p> <ul style="list-style-type: none"> - freelancer, student, tourist - individual pays (reluctantly)

Is WiFi Useful as Public BB Infrastructure? Yes, but...

Myths:

- location of use (especially outdoor hotspots)
- coverage, QoS and mobility
- non-commercial provision
- availability of applications (e.g. VoIP)
- long term solution to bridge digital divide



Whither WiFi as Public Infrastructure?

Access Type

		Primary	Secondary
Willingness to Pay	High	<p>Internet Service Provider</p> <ul style="list-style-type: none"> - fibre is a better long-term option than WiFi - competition from WiMAX, incumbent ISPs 	<p>Roaming ISP</p> <ul style="list-style-type: none"> - for mobility and ubiquitous coverage, 3G, WiMAX, BlackBerry offer better options
	Low	<p>Digital Inclusion</p> <ul style="list-style-type: none"> -WiFi is often 'best-effort', not entirely reliable - 'poor cousin'? - fibre is a better option for home usage 	<p>Roaming Open Access/ Community Building</p> <ul style="list-style-type: none"> -WiFi works here, but who pays for it? - what are viable 'business models'? foundation for muni WiFi?

Community Networks for 'Digital Inclusion'

- What options are there for developing community-owned fibre networks?
- Can community-centric principles to foster digital inclusion be promoted without actually providing network connectivity?
- Are there alternative forms of connectivity? (e.g. mobile phones or technology centres)

Community Networks for 'Open Access Roaming'

- Where is the community? (or the 'market'?)
- What value is provided to users (citizens/consumers)?
- Focus on providing connectivity to places where people can actually use it with ease
- WiFi bandwidth is ok, but can it be increased? (e.g. 802.11n?) If connectivity is indoors, why not try to use fibre backhaul?

Public vs. Private Provision

- Commercial providers appear to have better long-term options to provide mobile, ubiquitous, network access
- Commercial providers have control of much of the infrastructure for mobility (e.g. spectrum for WiMAX, 3G)
- What options are there for non-commercial providers to support connectivity/access alternatives? How to gain control/influence over infrastructure developments?

Desiderata for Public Broadband

- What role (if any) does WiFi play in the longer term?
- What does the WiFi experience teach us about public broadband infrastructure deployments?
- What are the key elements of WiFi deployments, and which myths should be debunked?

Work in Progress – Comments Welcome

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