



Kinmuck Community Broadband Project



October 2012 - Skye

1

KCBP



Project Overview - Setting

Kinmuck Project

Kinmuck Project Setting

N E
Scotland, 10
miles from
Aberdeen.
Rural.

Little or no
broadband
available.

Exchange
miles away.

No
movement
from
BigTelCo

Community Desires !

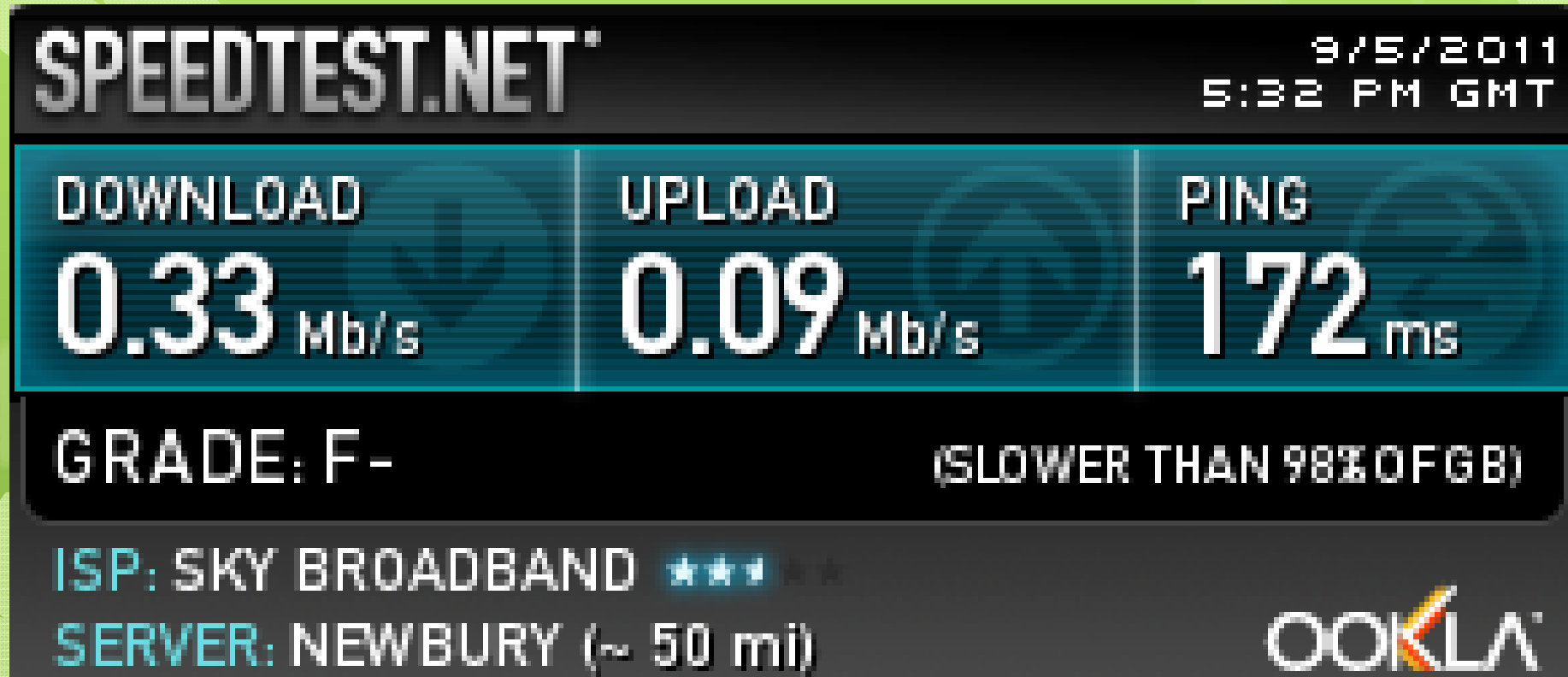
*Work at
Home.
Schoolwork at
home. Avoid
Commuting.*

*Social
media.
Video conf
&. Skype.*

*E-mail. Cloud
storage.
VOIP. Internet
TV.*

*New business
start ups.
Online
shopping.*

Customer Speed Before the Project



Project Quick Facts & Status



Design

- ▶ Deliver by Wireless
- ▶ Carrier Class Network
- ▶ Re use and recycle
- ▶ Capable of delivery of up to 100mb/sec to customer
- ▶ Hi availability & low maintenance



Community

- ▶ Caleycom – not for profit vehicle
- ▶ Strong Community Support & Take Up
- ▶ Self supporting by Subscriptions
- ▶ Leader Funding – Project total cost ~£80K



Issues

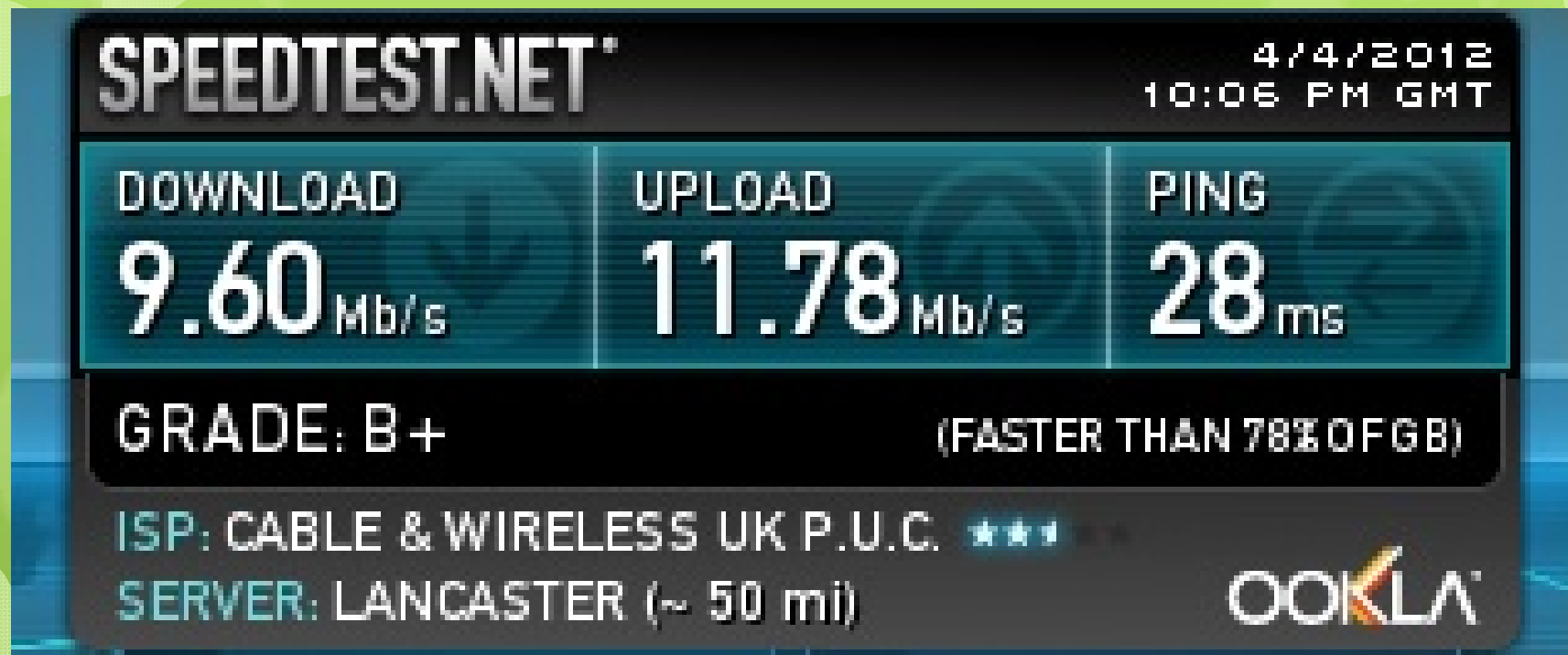
- ▶ Match Funding
- ▶ Wind turbines
- ▶ Planning Permission
- ▶ User expectations
- ▶ Amount of work!



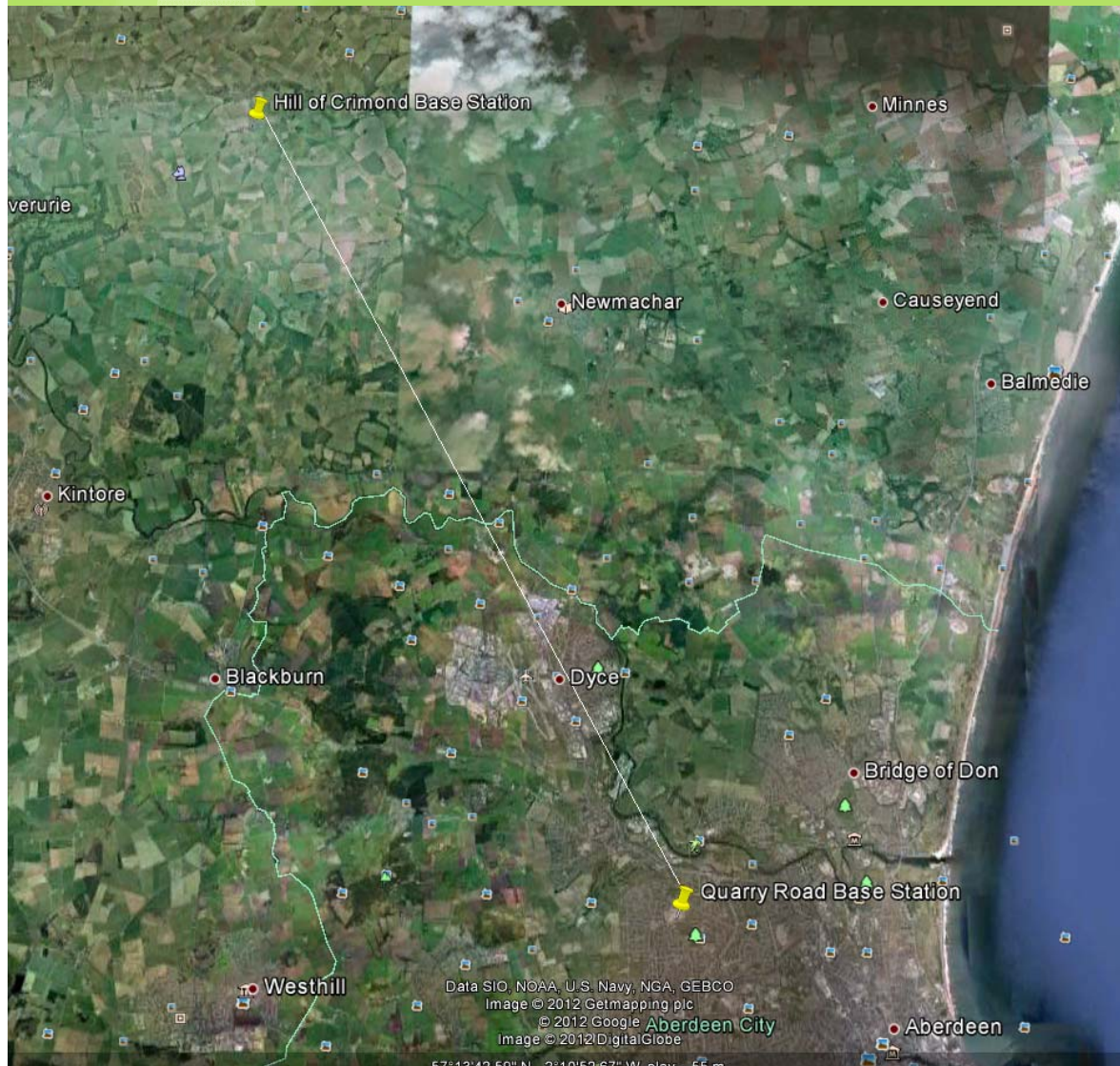
Status Now

- ▶ Operational - March 2012
- ▶ >50 Houses
- ▶ >200 -300 devices at any one time
- ▶ Self sustaining
- ▶ Looking to expand

Customer Speed now (typical)



Base Stations & Backhaul



- Quarry Road Aberdeen City to Hill of Cimond, Aberdeenshire
- 16.8 Km
- Licensed Radio Link (OFCOM)
- 13Ghz spectrum
- Fibre Backhaul from Thus –
- 100Mb bearer
- Ceragon Radio (up to 350Mb/sec)
- Aberdeen site donated by Community Member
- Hill of Crimond – paying Agri-business rental

Base Stations & Backhaul



Hill of Crimond
Using existing
steel framed
farm building.

Quarry Road
Using existing
Disused 13M
Steel ex
Telecoms Tower



6 Local Micro Repeater Sites



- Kinmuck Central – New Telegraph Pole,
• electricity supply, cabinets – planning was needed
- East Kinmuck – Existing Site donated by community
• - operational. Electricity supply, cabinets required.
- North Kinmuck – House of Community Member – being built
- South Kinmuck (not shown)
- Sinkies Corner (not shown)
- Cabin Equestrian Centre (not shown)

Typical Micro Repeater Site



- Recycled or Existing (disused) Electricity Pole
- Small Comms Cabinet & Electrical Cabinet
 - Uninterruptable Power Supply
 - Cisco Switch
 - Power Over Ethernet Adaptors
- Point to Point Radio Link
- Point to Multi Point Radio Link
- Lighting Protection & Earth Bonding
- Very low power consumption / visual impact

Kinmuck Central



Typical Customer Install



- Small Antenna
- PoE Injector
- Very Low Power Consumption



Sitenett – Main Design and Build Contractors



Next Steps

Next Steps.....

Sustain &
stabilize what
we have

Superfast
Connectivity
in November
2012

Develop &
Build
Community
Ownership

Progressively
Build
Customer
Base

Whitespace
Trial Coming
Soon.....

Improve
resilience,
and back
office systems

Contact Details

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