

INTERNET OF THINGS

1. INTRODUCTION

- 1.1 This report provides detail on the proposed roll-out of an Internet of Things local network that would involve small aerials being fitted to the roofs of New Forest District Council premises.
- 1.2 The work would be carried out by local Hampshire based company Barter for Things Ltd. Alex Barter, CEO and Founder, and David Pickett, Managing Director, presented and explained the project to EMT on 17th April.

2. BACKGROUND

- 2.1 Barter for Things Ltd. is a local company based in Eastleigh who specialise in the Internet of Things technology. The Internet of Things is a network of devices that can connect and exchange data, but aren't dependent upon broadband and/or cellular connections.
- 2.2 Alex Barter approached this Council in autumn 2017 about the company installing their aerials on council buildings across the district to spread their Internet of Things coverage and in turn create a new revenue stream for the Council.
- 2.3 Barter for Things Ltd. have already installed aerials on buildings owned by 2 other neighbouring authorities, and are close to coming to agreements with an additional 2 local authorities in Hampshire..
- 2.4 Relevant personnel from leisure, car parks, Appletree Court site management, ICT, the New Forest National Park Authority, and town and parish councils have all been consulted on the project to give opportunity for issues/queries to be raised. None have been raised.

3. KEY INFORMATION

- 3.1 The aerials are 60cm tall and pole-mounted with a base station. The aerials are not like TV aerials or those typically seen on houses, but rather are a small, thin stick-like object that protrudes into the air.
- 3.2 The aerials work by listening for tiny transmissions from anonymous, secured, connected 'things' (devices, sensors etc.). Once received the messages are then transmitted over the internet to the 'things' owner. The transmissions are less than 1/10,000 radio power of a mobile antenna.
- 3.3 The devices operate on a Low-Power Wide-Area Network (LPWAN), meaning this is not a replacement for broadband, but does have its uses.

3.4 Examples of application include but not limited to:

- *Asset Tracking* – Businesses and individuals can utilise GPS/LPWAN tracking devices attached to their property, e.g. fleet of vehicles, livestock, boats, to know where their things are even in remote locations.
- *Remote Monitoring* – Devices can remotely monitor water pressure, water leakages, water levels, pest traps etc. to eliminate unnecessary commuting
- *Homecare* – Connecting medicine dispensers, smoke alarms, movement detectors etc. to increase care for elderly or vulnerable (even those in the sticks).

3.5 From the Council's perspective the project could have applications for Appletree Careline and pest control services.

4. CONCLUSIONS

4.1 This project provides the Council with the opportunity of increasing connectivity in the district and creating a new revenue stream at no taxpayer cost. Subject to approval the next steps involve the two parties coming to agreement on a 5-year license, seeking final confirmation for the suitability of the eleven proposed sites, and then allowing Barter for Things Ltd. to begin site inspections with a view to pinpointing the location of aerial erection.

5. FINANCIAL IMPLICATIONS

5.1 The project would involve zero capital or operational cost to the Council. Barter for Things Ltd. would pay for the installation, electricity costs and continued monitoring of the aerials.

5.2 The project would provide the Council with a new revenue stream. Barter for Things Ltd. forecast that by end of financial year 5 New Forest District Council will net approximately £55,300 from the project.

6. CRIME & DISORDER IMPLICATIONS

6.1 None

7. ENVIRONMENTAL IMPLICATIONS

7.1 There is a chance of visual pollution, but such is the small nature of the aerials this level of pollution is minimal.

7.2 Through improved efficiency of monitoring, the project has the potential to deliver reduced carbon emissions from vehicles currently used for this purpose. For instance, pest control businesses no longer requiring manual inspections as devices even in remote places can transmit open/closed messages over the LPWAN.

8. EQUALITY & DIVERSITY IMPLICATIONS

8.1 None

9. PORTFOLIO HOLDER'S COMMENTS

I support this initiative. It will facilitate the work of local businesses and public organisations within the District and will provide the Council with a new income stream.

10. RECOMMENDATIONS

- 10.1 That the Cabinet accepts the contents of this report; and
- 10.12 That subject to the satisfactory outcome of further investigations to ensure that appropriate safeguards are in place to protect the Council's interests, the Service Manager, Estates and Valuation, be authorised to agree the suitability and location of the proposed sites, to secure all necessary authorisations and assessments, and to agree a 5 year licence to permit the installations in accordance with the terms set out in this report.

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Background Papers:

EMT Briefing Note: Internet of Things