



ORDNANCE SURVEY RESPONSE TO OFGEMS TARGET OPERATING MODEL AND DELIVERY APPROACH CONSULTATION

Responsibility for this document

Phil Wyndham is responsible for the content of this document.

Change history

Version	Date	Summary of change
1.0	March 2015	First issue

The impacts of the concepts and views described in this document have been assessed and where appropriate, changed, in accordance with the requirements set out in Ordnance Survey's Equality scheme.

Trademarks

Ordnance Survey is a registered trademark and OS logos are a trademark of OS, Britain's mapping agency.

All other trademarks are acknowledged.

Approval for issue

Phil Wyndham - Strategic Development Manager

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EXECUTIVE SUMMARY

Ordnance Survey (OS) is pleased to provide our response to Ofgem's Same day Switching Target Operating Model consultation paper.

Within the Data Requirements section page 16 section 6.09 – we fully support your reference to have accurate address data for each supply point including, where appropriate, the Unique Property Reference Number (UPRN).

We also believe that a look up table provided to Energy Suppliers containing the matched UPRN and meter reference points - as achieved within the National Energy Efficiency Framework (NEED) by Department of Energy and Climate change (DECC) see below - could be an important piece of data to support Smart Meter Implementation Programme and Same Day Switching. However whilst the UPRN can be shared royalty free and on an open basis (new OS policy launched March 2015) – the intellectual property ownership for the meter numbers themselves will need to be confirmed and their permission gained for such data sharing.

Our purpose, as Britain's mapping agency, is to provide the underpinning location framework upon which public sector organisations, regulatory bodies and infrastructure and utility companies rely to plan and deliver services, in line with Government's Location Strategy; UK Location Strategy document:

<http://data.gov.uk/library/place-matters-the-location-strategy-for-the-united-kingdom>

Historically, Ordnance Survey has supplied location data to organisations throughout all sectors of the utility and infrastructure industries and their respective regulators, and also to 3500 public sector bodies. However, we believe that technology has now developed to the point where a much more powerful model is feasible.

Our vision is that all stakeholders in national utility and infrastructure services will be able to have common access to a shared location referencing framework. Rather than each organisation maintaining its own data holding, a shared version of the truth will be accessed and served directly from the central portal, enabling the sharing of information both within and between organisations and sectors.

We would welcome the opportunity to explore in more detail how we can work together to help you meet your objectives, whether through bi lateral meetings, as members of appropriate stakeholder groups or with stakeholders to create a proof of concept.

INTRODUCTION TO ORDNANCE SURVEY

Ordnance Survey is Britain's National Mapping Agency, responsible for creating and updating the definitive mapping and geographic information database of England, Scotland and Wales. We provide services, both in the UK and internationally, to governments and commercial entities based on our knowledge, skills and understanding of location data and geography. Established in 1791, Ordnance Survey will transform from an Executive Agency and Trading Fund to a government-owned company from April 2015; press release: <http://www.ordnancesurvey.co.uk/about/news/2015/os-set-to-become-government-owned-company.html>

Our core business is focused on the collection, creation, maintenance, management and supply of geographic information to meet the needs of all aspects of national infrastructure requirements. In this regard we are heavily relied upon by all utility providers – energy, water and communication infrastructure companies. Under the terms of the Public Sector Mapping Agreement – the Public Sector receives access to our detailed data products for all core government business activities including:

- Creating and monitoring policy
- Operational management of government

- Delivering government business and public services
- Making information available to the public
- Performing any other function required by statute
- Passing /sharing derived information and/or data to third parties under licence, where that third party is undertaking activity in support of the member's core business

We provide approximately 28,000 direct customers with high quality mapping data, services and solutions across the government, business and leisure markets. We are also now actively working in a consulting and advisory capacity with government agencies across 13 jurisdictions worldwide. In addition, together with our extensive network of over 300 partners, and in collaboration with many of our strategic customers, we have developed applications built on our data which are relied on by thousands more end users.

Interoperability by enabling collaboration across functions, disciplines and organisations is central to our role. To this end we are active in the promotion and development of open standards. This is borne out in our active participation and engagement with: the British Standards Institute (BSI), the Open Geospatial Consortium (OGC), the International Organization for Standardization (ISO), the World Wide Web Consortium (W3C) and the United Nations Initiative on Global Geospatial Information Management (UN-GGIM). We consider this work to be vital in ensuring that we can help organisations invest in and benefit from a location referencing framework.

BS7666 is the British standard for the representation of address information, in particular with reference to gazetteers. It is divided into four parts, with the most relevant parts being parts 1 and 2 which cover street gazetteers, and land and property gazetteers (LLPG). The essential elements of BS7666 as far as an LLPG goes are as follows:

BLPU (basic land and property unit)	In simple terms, this is a piece of land or property.
UPRN (unique property reference number)	A nationally unique number assigned by local authorities in order to give a unique identity to a BLPU.
LPI (land and property identifier)	This is often what is commonly called the street address. It is the identity given to the BLPU. It must contain at least a PAON (see below) and every BLPU must have at least one LPI (although a BLPU can often have more than one LPI).
PAON (primary addressable object name)	Part of the LPI, usually a building name or street number.
SAON (secondary addressable object name)	Part of the LPI used when describing the likes of flats or sub-units. A SAON cannot exist without an associated PAON.
Street	All LPIs must contain a reference to a street in the street gazetteer. If a property does not lie on a suitably identifiable street, then one must be created. Unusual examples include islands in the middle of the Thames.
Postcodes	Optional as many addresses are not "addressable", meaning they do not have post-boxes. Postcodes are assigned to properties by the Royal Mail

LOCATION REFERENCING FRAMEWORK

INTRODUCTION

Everything happens somewhere, and infrastructure, or services relating to it, is inherently geographic or location-based. Making use of location as a common reference links otherwise disparate datasets and enables information about people, properties and assets to be identified, analysed and communicated effectively. At its heart, a location referencing framework is about enabling a single version of the truth.

Ordnance Survey address information is considered by our customers to be a key to efficient location referencing.

ADDRESSING

At a governmental level, the need for a single definitive address infrastructure has long been recognised.

Press release: <https://www.gov.uk/government/news/new-national-address-book-to-be-free-to-emergency-services>

As a result, in 2011 Ordnance Survey and the Local Government Association formed a joint venture company, GeoPlace, tasked with maintaining Britain's authoritative address register – available in the market as a dataset called AddressBase® Premium.

Each address record is identified by a Unique Property Reference Number (UPRN) and has a precise geographic location and a set of attributes relating to a number of attributes including – functional classification, pre build address, historic address, alternative address, objects without postal address, addresses with multiple occupants, local authority BS7666 addresses, Royal Mail postal addresses where matched to a UPRN and coordinates. The UPRN represents an important foundation for data sharing and interoperability and as a unique and persistent identifier. The UPRN unambiguously reference addressable properties (for instance homes, businesses and civic functions) in an open way. Sharing of the UPRN, we suggest, is a highly effective way of enabling consumer switching, particularly now that sharing is now facilitated royalty-free and open terms. Press release:

<http://www.ordnancesurvey.co.uk/about/news/2015/uprn-release-sharing-location-data.html>

And updated UPRN policy statement

<http://www.ordnancesurvey.co.uk/about/governance/policies/addressbase-uprn.html>

The figure below illustrates the property lifecycle – plot to provisional address, to postal address, to historic address (demolition).



The importance of addressing is apparent – for example - in two current government programmes:

- The Department for Energy and Climate Change (DECC) statistics department has matched UPRNs with meter reference numbers for its National Energy Efficiency Data Framework (NEED), for both electricity and gas meter references – to an accuracy level of 97% domestic properties and around 50% for non domestic properties. We believe that a look up table provided to Energy Suppliers containing the matched UPRN and meter reference points could be an important piece of data to support Smart Meter Implementation Programme and Same Day Switching. However whilst the UPRN can be shared royalty free and on an open basis (new OS policy) – the intellectual property ownership for the meter numbers themselves will need to be confirmed and their permission gained for such data sharing. Within DECC, outputs from NEED have been used in a variety of formats and media to inform a number of important policies, including:
 - Estimates of savings from insulation measures to inform development of the Green Deal and ECO programmes
 - Consumption by income and tenure to inform Fuel Poverty policy
 - Consumption by property attributes to inform development of heat policy
 - DECC’s Heat Map
 - Compare My Energy (Energy UK tool)
- Under the Ofwat Open Water programme, a competitive market for water and sewerage services will be in place, initially for contestable (non-household) customers in England by April 2017. The programme has an inherent need for a centrally-held record of premises, with a unique reference for each premise linked to meter and service points to support the data model for registration and future customer switching.

Ensuring that consumers are well served by regulated industries requires a consistent view of all types of consumers, properties and their associated addresses, and this consistent view also facilitates consumer engagement and switching. Mis-matches between addresses are a notorious problem, due to both differences in format and lifecycle changes, and this is exacerbated by the scale of address churn; we record over 5 million addressing changes each year in Great Britain. In our experience, many regulated organisations struggle to maintain local databases with imprecise and outdated records. Significant benefits can result from linking addresses to a persistent and unique identifier.

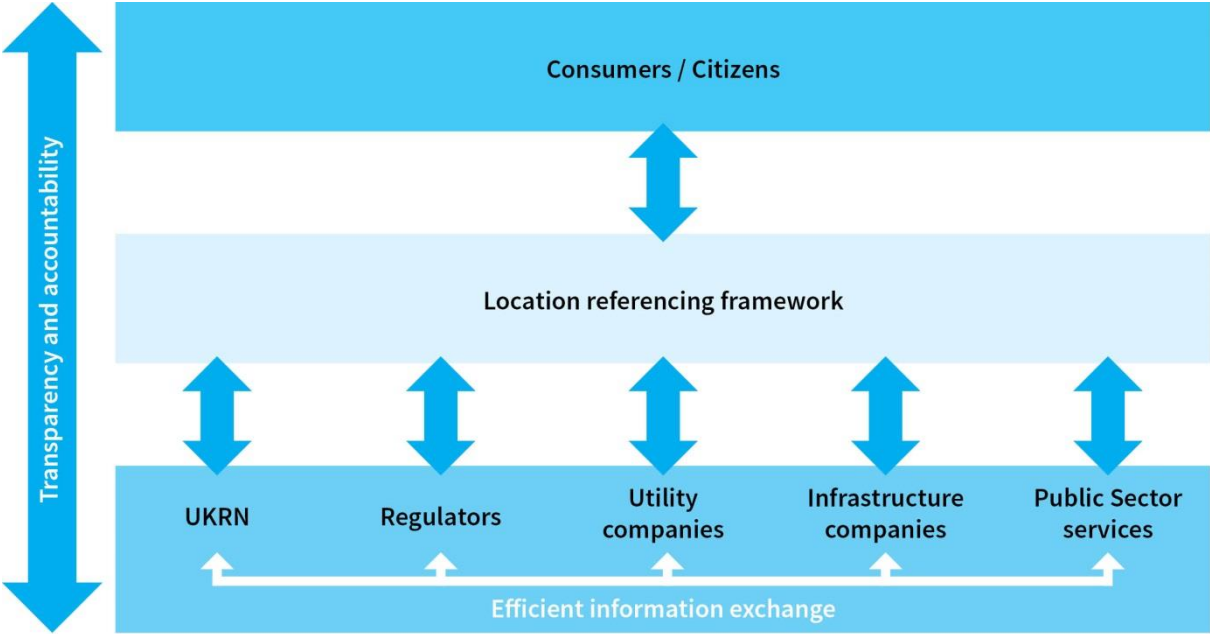
A VISION FOR THE FUTURE

Throughout our response, we have described the value of utilising a location referencing framework. In the context of utilities and infrastructure, everything happens somewhere; location is the binding thread that links people, property, assets, plans and events.

Historically, Ordnance Survey has supplied location data to organisations throughout all sectors of the utility and infrastructure industries and their respective regulators, and also to 3500 public sector bodies. However, we believe that technology has now developed to the point where a much more powerful model is feasible.

Our vision is that all stakeholders in national utility and infrastructure services will be able to have common access to a shared location referencing framework. Rather than each organisation maintaining its own data holding, a shared version of the truth will be accessed and served directly from the central portal, enabling the sharing of information both within and between organisations and sectors.

This vision is illustrated in high-level form below.



Many of the concepts and examples that we have touched on in this document, stem from the proven cost efficiencies and improved outcomes – not least consumer value – that are possible when sectors and departments can share information effectively. Moreover, for the regulatory community, a shared single version of the truth is a powerful tool enabling improved transparency, accountability and governance to the benefit of consumers.

CONCLUSION

In our response, we have outlined Ordnance Survey’s views on how Ofgem’s Target Operating Model could benefit from a location referencing framework, leading to positive outcomes for regulators, producers and consumers alike. Our experience of working with central and local government, parish councils, together with water, electricity, gas and infrastructure consumers in helping them to meet regulatory objectives is unique. By co-operating with the Ofgem, Ordnance Survey can assist with consistent policy adherence as well as reducing waste, delay and the cost of re-work.

We would welcome the opportunity to explore this topic with you in more detail.

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