

## ADDRESSING THE NATION

Britain's Association for Geographic Information argues the case for a definitive national address infrastructure

In pursuit of its mission "to maximise the use of geographic information for the benefit of the citizen, good governance and commerce" Britain's Association for Geographic Information (AGI) has recently stated its policy on addressing. The move follows completion of the Acacia programme [final report downloadable from <http://www.voa.gov.uk/publications/acacia/acacia%5Fprogress%5Fdec03.htm> - Ed].

### Definitive addressing

Is there such a thing? In principle, addresses seem a simple concept, but this is not so in practice. As well as the common use of an address for a domestic or commercial property, there are more complex entities, such as institutions, unconventional dwellings, mixed commercial/residential properties, varied household structures and multi-occupancy. The picture is further complicated by the vagaries of business addresses and, further, non-habitable entities that have an 'address' of interest to the utilities, emergency services, property tax collection and many other operational functions. While many may not be postal delivery points, they need to be reliably addressed for other purposes.

Much commercial and government information (local and central) relating to individuals and businesses is explicitly located using an address in official records. Address information is critical for a wide range of central and local government programmes, each of which involves or supports government expenditure totalling billions of pounds. And each requires mechanisms for the automated handling of definitive and verifiable addresses.

The financial impact of an inadequate addressing system is difficult to quantify. However, known inefficiencies have associated direct and indirect costs vastly in excess of implementing a reliable national addressing system. The Valuebill project to join-up local billing authorities and the Valuation Office Agency [details at <http://www.localgovnp.org/default.asp?sID=1095851782152> - Ed] has built a substantial business case on the foundation of better addressing.

### National asset

The inclusion of addresses in the EU INSPIRE Directive and the UK e-Government Interoperability Framework (eGIF) recognise their importance in government thinking. Addresses, collected into a definitive computerised national address register or gazetteer, would be a fundamental part of a national information infrastructure. At present, no single system exists in which physical assets such as houses, shops, farms, etc. can be defined in unambiguous terms. Currently, the only publicly-available dataset is the Royal Mail's Postcode Address File. While this is a definitive list of postal delivery points, it references only about 60 per cent of buildings (as shown on maps, aerial photographs and satellite imagery).

### Counting the cost of ambiguity

Addresses are frequently ambiguous and often contain errors. Lists of addresses are either incomplete or contain duplicates for the same property due to transcription errors. This situation leads to expensive, and sometimes life-threatening situations that could be avoided if there were an adequate national address system.

The highest profile examples of inefficient addressing can become major national news stories. For example, the accumulation of intelligence about an address is a fundamental part of the work of the intelligence and emergency services. Police forces spend much of their time attempting to locate crimes and the present address sources have been inadequate for that task on many occasions. No doubt similar difficulties exist for other agencies.

The 2001 Census was compromised - albeit in a relatively small number of complex urban areas - in that substantial numbers of new and multi-occupied dwellings were omitted from the count. While these omissions involve a relatively small number of very high profile addresses, the fact that they have a pronounced impact on the support grants awarded to local authorities and on the distribution of Health Service resources undermines confidence in the count.

The costs of incorrect addressing are very high and, currently, unaudited. The opportunities for improvement are great. The AGI has always supported the concept of a national infrastructure for addressing, within the vision for a national geographic information strategy. In particular,

the AGI sponsors the committee of BSI responsible for the British Standard for addresses (BS7666) and is involved in international standardisation efforts for address data including the European INSPIRE initiative.

It has also supported the principles behind the National Land and Property Gazetteer (NLPG) and its Scottish and Northern Irish counterparts (DNA and Pointer), both of which have been designed to provide a definitive source of addresses. Due to a range of institutional problems, these are not yet complete or in regular use. However, they have yielded important lessons for a national approach, including the role of local authorities as responsible for approving address naming and numbering schemes.

The Advisory Panel on Public Sector Information (APPSI) Panel recommended that: "the Government moves more rapidly towards a single coherent set of policies in relation to Public Sector Information (PSI) across the entire public sector. The lack of coherence, coupled with the culture and legacy issues of PSI ownership by a multiplicity of national and local government departments and agencies can be a significant barrier to the effective commercialisation of PSI by the private sector (and the effective re-use of PSI generally)." Addressing clearly comes under this category.

### **The AGI view**

In recognising that addressing is a central aspect of geographic information and that the current situation on this issue in the UK is far from satisfactory, the AGI's view is that:

1. There is a range of different business requirements for addresses. However, there is a core set (residential and business premises) that is most widely used
2. Users who require a single source of up-to-date addresses, a National Address Infrastructure, and a simple pricing structure for access and use, do not feel that their needs are being adequately met
3. For different business uses, different forms of address (postal or geographic) are required. There is no single current address solution able to satisfy this and no single organisation able to supply all the address information that others require. A simple list of addresses is inadequate - a more complete solution will recognise the many functions performed by addresses, their use in data linkage and the variations on addresses that should be accommodated
4. The current address update process is fragmented, leading to missing and erroneous addresses and causing major problems to the effective and efficient operation of modern government and other services. There is widespread duplication of effort in managing addresses and current address solutions are not meeting the requirements effectively
5. Claims on ownership of address resources by various public organisations has held back the realisation of a national resource of major strategic value
6. Addresses have a key role in many e-government initiatives and a central national address infrastructure is essential for many major initiatives, such as the Citizen Information Project, to deliver what is expected of them.
7. The addressing model should recognise the process of address creation/management for specific purposes and integrate these processes to best effect
8. There are a range of anticipated benefits from a definitive National Address Infrastructure, including access to a quality assured comprehensive address dataset, improved service provision, improved operational efficiency, an improved basis for policy formulation, plus the opportunity to create new products and services
9. Development and maintenance of such an infrastructure should be readily affordable (if public sector royalty claims are discounted) although some set-up and maintenance funding will be necessary
10. The legislation covering address matters is fragmented, incomplete and frequently contradictory.

Given the above, the AGI therefore recommends that:

1. A single addressing solution be adopted for the UK, with regional variations recognised within the overall framework
2. The Audit Commission and National Audit Office should be encouraged to explicitly quantify the costs to government of an inadequate address infrastructure
3. A central steering body should be set up to specify, direct, own and oversee the national address infrastructure with a very senior Single Responsible Officer in a lead organisation in government. The steering body should not seek to exploit any intellectual property right created

4. An implementing authority should be appointed to manage the address infrastructure, manage the address update process, and control the quality of the address data
  5. Suitable liaison and data exchange arrangements must be established between key parties, embracing the needs of all users and recognising the contributions of Royal Mail and local government
  6. The issue of IPR for addresses and related pricing and commercial issues must be resolved as a matter of urgency, with consideration given to the role of addresses as a critical part of the Public Sector Information (PSI) infrastructure
  7. **The place of addressing in national legislation should be reviewed to determine whether a change in legislation is required, as has been done in Denmark**, for example.
  8. The AGI should prepare more detailed evidence of lessons learned from past initiatives to guide future developments, and should encourage and support an independent expert review of requirements and the optimum solution to ensure that it meets the wider user needs.
- Abridged from an AGI Policy Statement on Addressing, issued October 2004. More at <http://www.agi.org.uk>