Land and Property Information (LPI) is contracting a new Address Verification Web Service (AVWS) for use by NSW Government agencies. The AVWS is a new service to assist NSW agencies to verify address information presented by customers in service delivery transactions. The AVWS offers real-time access to the Geocoded National Address File (G-NAF), Australia’s most trusted and comprehensive geocoded national address dataset. AVWS will assist agencies to comply with the NSW Standard for Spatially Enabling Information guidelines.

**A common approach to address verification**

The NSW Government has 7.3 million customers, providing services to 2.8 million households and around 700,000 businesses, spread over 802,000 km². Delivery of essential services including health, education, public order and safety and transport consumes a majority of NSW Government expenditure ($60.5B in 2012-13). Location information is essential to the efficient management of services essential to quality of life and effective planning of future service delivery.

NSW Government business lines and agencies record between 20 million and 30 million customer transactions each year. Customer data is recorded every time people or businesses register, enrol for services or update their information. This transaction information is usually ‘verified’ and used at an agency level but at a whole of government level it remains an underutilised resource.

As customer service functions transition to delivery by Service NSW we have the opportunity to enable analysis of customer, product and service delivery information through a consistent approach to address management by agencies.

NSW Government agencies are standardising to the use of G-NAF for address verification functions. Identifying common customers in the service delivery records of the 394 NSW service agencies will be simplified as addresses are verified against G-NAF as the common reference database and the persistent ID of the verified address is recorded by agencies.

**Benefits to service delivery supported by a common approach**

An independent evaluation of the benefits of a common approach to address verification by NSW agencies was recently conducted by PricewaterhouseCoopers. It identified that realisation of benefits from a common approach to address verification depends upon:

- use of a common reference dataset for AV purposes i.e. the Geocoded National Address File, G-NAF
- recording by agencies of the persistent ID of verified addresses, for management and analysis purposes.
A consistent approach to address verification by agencies is an essential enabler for Service NSW and Human Services Data Hub strategic reforms. The critical enablement functions of address verification and address ID recording by agencies during service delivery are:

- enablement of identification of common customers in the customer and service delivery datasets of different agencies, a key task to be performed in the new service environments
- enablement of identification to the address or geocode level of where government and government funded Non-Government Organisation (NGO) services are delivered to.

Benefits to planning and delivery of government services include increased ability to:

- aggregate and analyse customer and service information; to identify cost savings and efficiency improvements and provide an evidence base for better targeted, better integrated and more effective future service delivery programs
- cross-reference address records across business lines, to ‘capture once and use many times’, to avoid costs in service delivery
- integrate spatial and demographic information relating to trends in demand, customer needs and local delivery capabilities; can inform and target improved service planning
- identify gaps and overlaps in service provision infrastructure, both within government and within the NGO sector.

How address verification works

Address verification supports service delivery by verifying an address presented in a form by a customer relating to a government service or function. The address is checked against a specified reference dataset of addresses.

Where the address can be matched to a recognised address, a ‘verification’ response is returned. An address ID and the ‘official’ form of the address can also be returned and recorded. Where the address cannot be matched, candidate ‘potential match’ addresses can be returned, or alternate ways to match the location can be attempted.

NSW Government agencies are standardising to the use of G-NAF for address verification functions. The AVWS adds to resources already available to NSW agencies for address verification, including PSMA Australia’s G-NAF reseller network.

The AVWS can operate in real-time as an online form is completed, or can be used to verify ‘bulk’ groups of addresses in a batch processing environment.

The services accessed by an AVWS transaction are configurable to suit the requirements of a business line. For ‘simple’ transactions the AVWS can receive an address for verification and return a G-NAF match result and matched address ID. The AVWS can also provide address geocodes, and access to supporting land information web-services including Delivery Point Identifiers (DPID), address location map, lot and deposited plan information etc.
Current and future address verification arrangements

Currently agencies self-determine address management practices and while verification is generally practiced:

- no single reference dataset is used
- no single standard about the address data recorded is followed
- data matching by address is ineffective.

Current address matching capability

G-NAF is widely used by Commonwealth Government service delivery agencies for address verification and is used by some NSW agencies. G-NAF also provides access to non-NSW addresses for verification for the around 15% of service transactions that involve addresses outside NSW.

Use of a common reference address dataset by NSW agencies and recording of address ID, offers opportunity enable address data matching by verified address ID. Agencies can continue to record the version of an address that a customer prefers without negative affect to subsequent data matching.

Address matching capability with a common approach to Address Verification

How to support the common approach to address verification

Agencies may choose to verify addresses at the time of capture against a G-NAF reference address data – whether accessed through the AVWS, made available to the agency by a PSMA authorised G-NAF reseller or PSMA Cloud delivery partner, or through LPI.

LPI has analysed available options and determined through consultation with NSW agencies to implement an AVWS to augment the G-NAF delivery channels available. The AVWS offers agencies access to current, maintained address information in near real time and the ability to confirm addresses with customers during a service transaction immediately.

LPI recommends that NSW Government agencies verify addresses presented in service delivery transactions against the G-NAF dataset at the point of address capture or presentation and record:

- the official address i.e. street number, road name, road type, locality name etc
- the persistent ID of the verified address as recorded in the reference dataset (G-NAF Address ID)
- the geocode of an address, where required.
Better services for NSW Government customers

The 7.3 million customers of the NSW Government most commonly use an address as an identifier when performing transactions. The technological ability for systems to collate and analyse the full range of location-based customer data gives the NSW Government the opportunity to integrate the ‘what’, ‘why’ and ‘how’ with the ‘where’ of service delivery and planning, helping to maximise community value from the information assets held by government.

The analysis and coordination enabled by address matching contributes to improved services including:

- more tailored services delivered to NSW residents and businesses by understanding customer consumption of each service
- better information to target delivery of services, consumption of multiple services or recommending complimentary services to customers
- cross referencing existing address records in other programs at the point of service registration or service updates.

More information

More information about the AVWS can be found on the GNB website www.gnb.nsw.gov.au or by contacting the NSW Addressing Committee E: addressing@lpi.nsw.gov.au or T: 02 6332 8070.