

# Geoscape APIs streamline Government's service delivery in NSW.

## Overview

Many governments rely on online transactions to get support and services to customers.

With millions of online government forms being completed every day – from registering a birth to applying for a fishing licence – accurate validation of address data helps users progress smoothly through a form all the way to 'submit'. This quick and seamless experience is what the public expects.

When it comes to whole-of-government address management, NSW Government agencies and departments use a trusted unit of the NSW Department of Customer Service, DCS Spatial Services, to enable fast, collaborative and efficient digital solutions across the state.



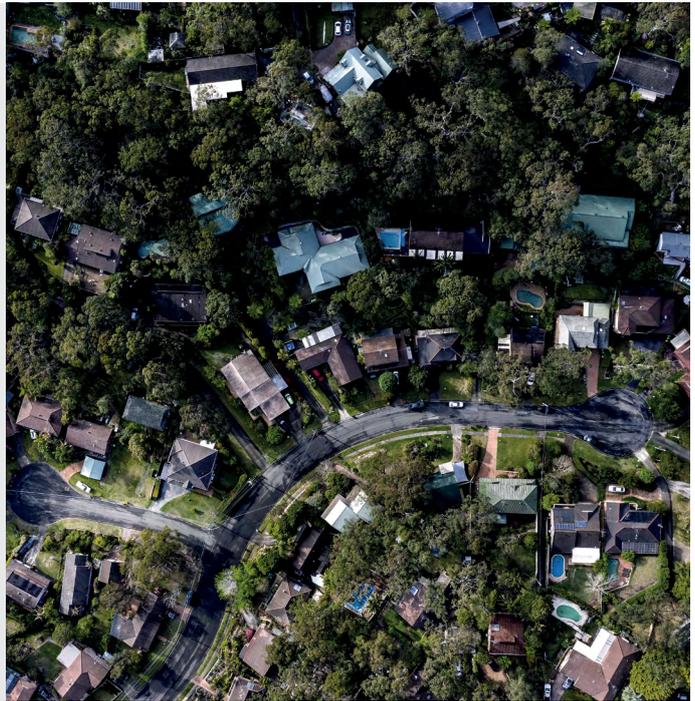
**At the core of DCS Spatial Services' address verification are Geoscape APIs.**

*"We needed consistent national address coverage for issues we're facing now and Geoscape were able to provide that."*

Dr Greg Windsor, Manager of the Administrative Spatial Program,  
Spatial Services, NSW Department of Customer Service

## Highlights

- Over a million API calls per week enable accurate customer address verification based on data that's updated daily.
- Geoscape APIs have a wide range of customisable options for developers, so they can be tailored to meet the needs of many applications within government.
- Standardised predictive address validation is used in online forms across NSW Government.
- During disaster and pandemic management such as bushfire and COVID-19 grants, accurate reporting by LGA, electorate and usage critically inform policy decisions.



## Challenges

Effective and efficient government service delivery relies on up-to-date, accurate and easily accessible address data. Knowing a customer's address is a critical element in verifying their identity and what grants or services they may be entitled to.

The DCS Spatial Services team planned to develop reusable components, including address validation, as part of the NSW Government's 'Digital Design System'. This would improve efficiencies and commonalities, so development teams didn't start from scratch each time they needed to include addresses.

### Lack of consistent national data

The team looked to develop address services in-house, but soon worked out that state-based systems stop at the border. They needed consistent and up-to-date national address coverage, particularly for times of emergency like bushfire or quickly managing requirements like COVID-19 border permits.

In addition, the team wanted to know more about where transactions were happening to gain greater insights into the types of government support and services required in particular areas at specific times.



## Solution



An address tool called **NSW Point** was developed for NSW state government agencies to use. It allows users to select an accurate physical or mailing address in an online form. Geoscape APIs – **Predictive API** and **Addresses API** – are the backbone of NSW Point. They enable address verification using reliable and authoritative national address data.

**The data not only covers the whole of Australia but it also uses source data that is consistent across jurisdictions and updated daily through longstanding supply arrangements with each Australian state and territory.** The API's enable machine-to-machine checking of address data in the moment that it's required.

With the help of Geoscape APS's, DCS Spatial Services also aggregates and maps government service delivery locations to multiple administrative boundaries, including LGAs, ABS Mesh Block, localities and electorates.

*"While some providers may offer APIs with only one reference dataset, with the Geoscape APIs we can validate against multiple sources. And there are thousands of address amendments made every month in every state. We can be sure the most up-to-date information is there with the Geoscape APIs."*

Dr Greg Windsor, Manager of the Administrative Spatial Program, Spatial Services, NSW Department of Customer Service

**Service Point captures several data points from agency systems, including:**

- location
- type of service
- service provider
- transaction date

*"We can buy as one entity for the NSW Government and it makes governance easier with one account holder."*

Dr Greg Windsor, Manager of the Administrative Spatial Program, Spatial Services, NSW Department of Customer Service

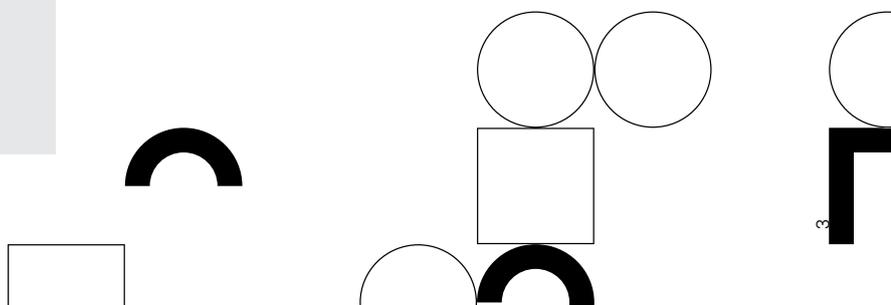
## Results

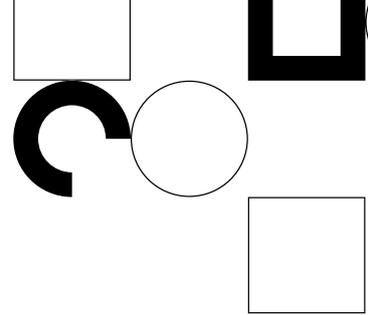
NSW Point is now being used for many grants and programs, allowing the government to put in checks and controls that save the customer time. Service NSW – a one-stop-shop for government information and services – relies on NSW Point in their online forms after previously using a different source for address verification that wasn't always accurate or reliable.

Using NSW Point has significantly reduced the cost and effort associated with the development and maintenance of web applications that require address data – particularly for developers. Plus, there is now less reliance on technical geospatial skills within each department.

For privacy assurance, the Service Point de-identifies through geotagging so no personal details are used, including functional separation of transactions. It has controlled access and all pre-processing is done before it is downloaded to users so the data cannot be re-engineered. Data is private, protected and individuals cannot be identified.

Together, NSW Point and Service Point – backed by **Geoscape APIs** – enable trends to be identified quickly to better inform decision-making.





## About Geoscape APIs

Geoscape APIs have a wide range of customisable options for developers, so they can be tailored to meet the needs of many applications within government. They offer seamless, scalable and secure integration.

The **Predictive API** is an address verification service. It has predictive text and auto-complete functions and suggests possible address matches as users type in online forms. It verifies the addresses entered against trusted sources. It also appends geographic coordinates to each address to enable them to be mapped to a location. Developers can control what type of address is suggested – physical or mailing or both, and whether suggestions include alias addresses. The 'include' parameter in the Addresses API controls whether information like LGA, ABS Mesh Block, or other administrative boundary (or all of them) are returned.

The **Addresses API** enriches address data by attaching additional attributes to each address, such as LGA, ABS statistical area / Mesh Block, and state and Federal electorates, to enable analysis and reporting.

## About Geoscape

Geoscape is the digital Australia – the big picture with every detail. It combines data derived from satellite and aerial imagery with data from other private and public sources, including the governments of Australia. Our data is continually updated and is reliable and available in a variety of formats for easy integration and flexibility of use.

Geoscape delivers the power of location to businesses and governments. Our data is used in telecommunications, service delivery noise modelling, urban planning, property development, emergency management, and more.

Geoscape Australia is an independent and self-funded company owned by the governments of Australia.

# Sample Geoscape data today.

