

FEATURE OUTLINE

SmartCloud platform

SmartCloud is Smart Parking's real-time, global scale, intelligent IoT services platform which enables sophisticated and flexible services to be created using open web interfaces.

Smart Parking launched SmartCloud in early 2018 after partnering with Google during their deployment of the Cloud IoT Core platform.

This allows a complete solution for connecting, managing and absorbing data from IoT devices, and has meant we have been able to completely redefine and streamline how we manage the deployment, activation and administration of sensors and devices.

Features and benefits

Live information dashboards

SmartCloud delivers general purpose and per user customisable dashboards. Each dashboard displays live information visualisation tiles, allowing users to view their site at both an overview and granular level. This expanding suite of information rich tiles can be used to create all types of customised dashboards, which can be displayed via HTML5 on any modern web browser using the dashboard web link.

Data analytics & reports

SmartCloud incorporates industry-leading BigData storage and query technology, which enables megabytes to petabyte scales of data analytics and on-demand reporting.

The platform also delivers a broad range of default analytical reports for common types of analysis requirements. Reports can be kept private or shared with individuals, groups, or made publicly viewable and are capable of being fully interactive with various filters and query parameters. The resulting information can also be embedded into websites or distributed as a web URL link.

SmartCloud embeds the ability to use the Google Data Studio WYSIWYG report editor, while also supporting the ability to allow other BI tools to also connect to the underlying BigQuery database. All data is continuously streamed into these BigQuery database views, which means that the latest information is always available within seconds of being created or recorded. SmartCloud is AI ready and incorporates sophisticated knowledge graph data linkage capability.

SmartCloud rules

SmartCloud incorporates rules definition and processing functionality that enables powerful capability to specify business rules for all types of desired data driven outcomes.

The objective of this functionality is to enable business managers and analysts to define, refine and investigate all types of business driven requirements from the SmartCloud Platform without needing to rely on software developers to make changes.

SmartCloud Rules essentially perform 'If this then that' types of logic sequences. These can be chained together and can be applied to groups of objects that are being managed by SmartCloud. These objects might be sensors or measurements but can also be events or information sets such as time or date.

SmartCloud rules can be either specific to a SmartCloud Service Pack, or can bind multiple service pack details together to create standardised solution services within your business or municipality. SmartCloud rules are triggered for action by the occurrence of live events - which means that the system performs all operations in a continuous processing manner, rather than delayed batch type processing.

SmartCloud service packs

The SmartPark Service Pack is based on over a decade of experience and smart parking functionality delivery across the world. The SmartPark Service Pack deploys the comprehensive and advanced suite of smart parking solution capabilities onto SmartCloud. This extends from management and maintenance of parking space sensors, counters, indicators, signs and displays, through to the provision of sophisticated parking operational services for guidance, payment, enforcement, organisation, monitoring, and analytical reporting.

Our in-house research and development team are constantly developing new service pack offerings to compliment the SmartPark Service Pack and/or service other smart business requirements. Due to the open nature of the platform we can also allow outside developers to integrate with our system, meaning we can deliver a future-proof solution for the expanding realms of smart cities and businesses.

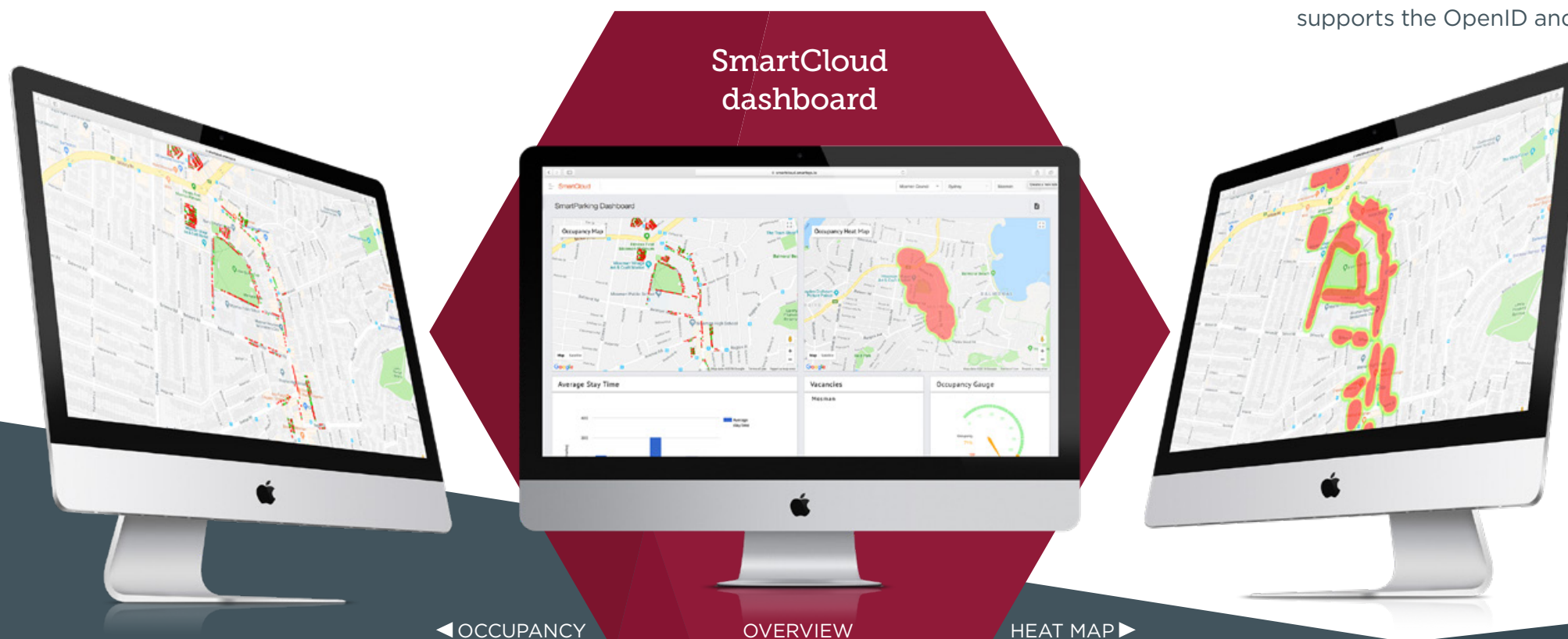
Federated user identity management

SmartCloud uses an advanced Identity and Access Management(IAM) capability, which supports the OpenID and OAuth2 standards. Based on this identity authentication foundation, SmartCloud supports both direct and federated user account access login mechanisms, while also enforcing secure roles and access rights for every user for all data and functionality managed by the SmartCloud Platform.

Data security, locality and resilience

The SmartCloud Platform is built using the highest levels of industry security technology and operational practices.

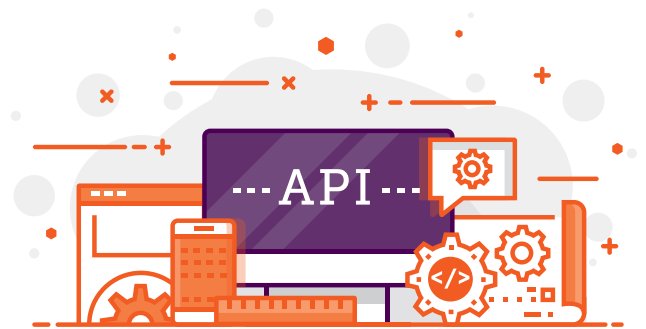
It is hosted within defined global regions on the Google Cloud Platform(GCP). This means that SmartCloud data is held within specific region zones to conform with requirements for maintaining data locality compliance with local country regulations.



All data in SmartCloud is encrypted in-flight and at-rest. Data availability and resilience delivered via GCP essentially defines the industry benchmarks.

SmartCloud API library

SmartCloud is based upon 'API First' policies and practices. This means that SmartCloud is created and delivered via a comprehensive library of web service APIs that adhere to the OpenAPI and other industry standard specifications. SmartCloud APIs cover all levels of the platform capabilities, from low level data events to high level data analytics capabilities. These APIs are also served according to administrative policies for traffic management, security validation and bot detection, two-way SSL/TLS, API key validation, OAuth2/SAML, and other various security compliance levels.



Serverless architecture

SmartCloud is completely based upon a cloud based serverless micro-services architecture. This is the same design which is used by the leading cloud services systems on the internet, and delivers the highest levels of dynamic scaling on demand, availability, rigorous security, consistent responsiveness, optimal efficiency, and future proof utility class continuous feature delivery. This also results in a cost effective operating platform, as we can base pricing on consumption, rather than pre-purchased units.

SmartZone management and monitoring

SmartZones are the network communications environments in which sensors and devices have information communications with SmartCloud, via our flexible SmartSpot gateway units. These zones are the places in your country, city, town, or business location where you need to sense, control, and display information - the 'Things' zones of modern Internet of Things (IoT).

The SmartCloud platform provides the full lifecycle management for definition, control, monitoring, and analysis of the sensor data within a SmartZone, resulting in a more streamlined way of managing a raft of smart city services.

Universal device connectivity

SmartCloud incorporates an advanced IoT communications framework, which enables secure and open expandability to embrace all types of sensor or device with the ability to be network connected. This IoT framework is designed to autoscale to many millions of devices for any customer site, and is the core substrate for creating powerful and comprehensively multi-functional SmartZones.

Australia

+61 (0)3 30135 9020
australia@smartparking.com

New Zealand

+64 (0)9 869 3001
nz@smartparking.com

United Kingdom

+44 (0)845 230 3081
uk@smartparking.com



smartparking.com