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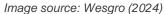
1. About this Report

This report is based on tourism destination insights from a mobile location data insight dashboard. This is designed to uncover actionable insights regarding tourists' visitation patterns and markets of origin, location affinity, times and duration of visits, and tourist demographics.

The report details insights regarding the Cape Karoo region for the period between January and December 2024.

The mobile location data was used to analyse the travel behaviour of tourists visiting the Cape Karoo and the nearby towns of Beaufort West, Laingsburg, Prince Albert, and Matjiesfontein.







2. Executive Summary

Rove Mobile Location Data was used between January and December 2024 to gain insights into the travel behaviour of both domestic and international tourists visiting the Cape Karoo. The following findings were observed:

Domestic tourists:

- The data provided insights into the travel patterns of 69,861 domestic tourists who visited the Cape Karoo in 2024. It was found that most tourists who visited the Cape Karoo were from the municipalities of Cape Town, Tshwane, and Johannesburg.
- The average length of stay for domestic tourists in the Cape Karoo was 1.4 days, with 17.4% being repeat visitors. In addition, 72.5% of domestic tourists stayed for just one day and in February and August, the average length of stay ranged from 1.5 to 1.6 days.
- Visitor numbers were evenly distributed throughout the year, with just over 20% of visitors choosing to spend the night in the Cape Karoo between January and December 2024.
- Beaufort West had over 60,000 domestic tourist arrivals, making it the most popular destination. Laingsburg and Prince Albert attracted 4,392 and 3,606 tourists respectively. In addition, Matjiesfontein saw 1,358 tourist arrivals.

International tourists:

- The mobile location data offered valuable insights into the travel patterns of 177 international tourists who explored the Cape Karoo.
- Over 60% of international tourists visited the region for only one day. Looking at the different months, tourists stayed longer in the summer, with an average of 2.3 days in January and 2.5 days in February respectively.
- In 2024, the sample size for international tourists visiting Beaufort West, Laingsburg, Prince Albert, and Matjiesfontein was low.



3. Exploring the Charms of the Cape Karoo: Tourism Insights

- Dark Sky Tourism: The remoteness of the Karoo offers the perfect conditions for stargazing. Removed from the city lights and with minimal light pollution, the Cape Karoo offers a number of stargazing experiences.
- Natural Landscape: There are 2918 named mountains in the Western Cape. Seweweekspoort Peak (2,325 m) is the highest in the Western Cape. This is where you will find the 27km Swartberg Pass which is considered one of the finest mountain passes in the world: an untarred road that winds to the summit 1,585 metres above sea level.
- Culture & Heritage: Rock Art: The rock art site at Nelspoort covers a vast area and features hundreds of engravings including Gong rocks and historic towns.
- The region of folklore: The Cape Karoo is known for its folklore including stories about mermaids, ghosts, and other mysterious beings. There are a number of tours in many of the towns including an excursion involving ghost stories at the Lord Milner Hotel in the Matjiesfontein.
- The Cape Karoo is known for being "off the grid" which refers to experiencing the vast, open landscapes of the Cape Karoo region, completely disconnected from modern amenities.
- Cuisine: The region is known for Karoo Lamb and traditional cuisine.
- Matjiesfontein Space Site: Matjiesfontein will be one of only three, 18- to 24-meter communications LEGS (Lunar Exploration Ground Sites) antennas strategically placed around the globe to ensure near-continuous connectivity between astronauts on NASA's Artemis spacecraft and those who will subsequently come to work on and around the lunar surface.



4. Cape Karoo Mobile Location Data Insights: Methodology

What is mobile location data?

- This is Geo or spatial data from smartphones. When a user installs an app, they
 are often asked to share their location data with the company which provides the
 app, and other companies who are partners with the app publisher.
- Users can "opt in" to location sharing (or choose not to "opt in"). When they opt in, then their phone collects data and shares it with the publisher companies.
- All data collected is anonymised and does not include any personally identifiable information.

Why use mobile location data insights?

- Mobile location-based data offers a more granular lens on visitor behaviour and provides a much larger sample size.
- These insights aim to facilitate a better understanding of visitor movement throughout the Western Cape's six regions.
- Mobile location data serves as a sample. It does not represent 100% of visitors, and it should not be treated as such. Like any sampling method, it can be subject to biases or lack of volume.

Factors influencing the International and Domestic Sample Counts:

The volume of mobile location data capture counts is influenced by several factors including but not limited to:

Data Source Variability

- Changing volume of mobile applications collecting and sharing data
- Data privacy and regulatory changes affecting sharing of data (GDPR, mobile OS policy changes etc.)

Data Collection and Processing Variability

- Mobile network and internet connectivity
- Mobile infrastructure technical issues (hardware failures, solar flare activity)
- Tourist logic to segment tourist from non-tourist mobile devices

Mobile Use Variability

- Tourists disabling data transmission services due to high international data costs
- Tourists not using partnership apps as often.

While all mobile devices are affected by above, International mobile device counts are affected more than Domestic mobile devices when it comes to both mobile use fluctuations and data privacy restrictions. Tourists use their phones differently when travelling internationally – they may want to avoid additional out of country fees and only use their phone through wi-fi service. Tourists may not use the partnership apps they normally do while on extensive holiday. Restricting data privacy laws are also affecting the international landscape affecting data that can be shared which may affect processing that identifies tourists.



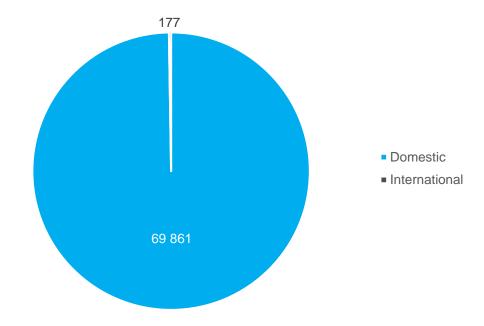
Cape Karoo Visitor Trends Mobile Location Data Insights



5. Cape Karoo Mobile Location Insights: Sample Size

- The insights for this report were analysed from a sample of 69,861 domestic and 177 international tourists who visited the Cape Karoo between January and December 2024, as seen in Figure 1.
- Regarding domestic visitors, 19,069 were from Cape Town, 6,091 from Tshwane, and 5,949 from Johannesburg. This can be seen in Figure 2.

Figure 1: Sample size of domestic and international visitors to the Cape Karoo region, Jan-Dec 2024





5. Cape Karoo Visitor Trends: Origin of Domestic Tourists

Cape Town 19 069 Tshwane 6 091 Johannesburg 5 949 Ekurhuleni 4 262 Mangaung 2 574 Mossel Bay 2 188 George 2 007 Drakenstein 1 672 Stellenbosch 1 504 eThekwini 1 246 Other 8 857

Figure 2: Municipalities of origin for domestic tourists to the Cape Karoo, Jan-Dec 2024



5. Average Length of Stay and Repeat Visitors

- On average, domestic and international tourists spent between 1.4 and 1.6 days in the Cape Karoo which is reflected in Figure 3.
- Figure 4 shows that 22.6% of international tourists and 17.4% of domestic tourists were repeat visitors to the region.
- However, findings also indicated that 72.5% of domestic and 63.8% of international tourists visited the Cape Karoo for just one day. This can be seen in Figure 5.
- Figure 6 illustrates tourists' average length of stay in the Cape Karoo during the different months in 2024. On average domestic tourists stayed 1.6 days in February and 1.5 days in August 2024.
- International tourists stayed on average for 2.5 days in February, 2.3 days in January, 1.8 days in November, and 1.6 days in June 2024. This can also be seen in Figure 6.

Figure 3: Average length of stay, Jan-Dec 2024

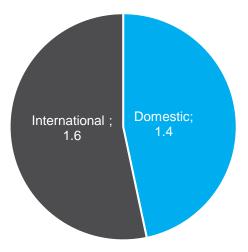
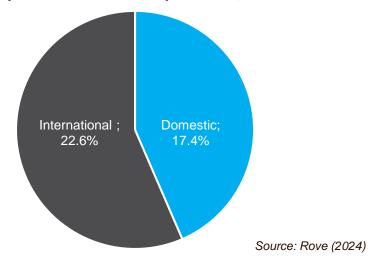


Figure 4: Repeat visits to the Cape Karoo, Jan-Dec 2024





5. Average Length of Stay: Days and Months

Figure 5: Average length of stay (number of days) in the Cape Karoo, Jan-Dec 2024

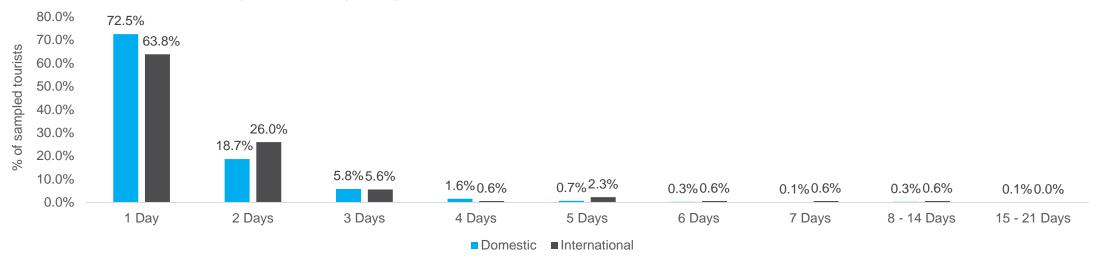


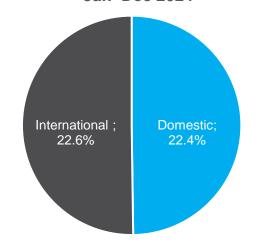
Figure 6: Average length of stay in the region, Jan-Dec 2024





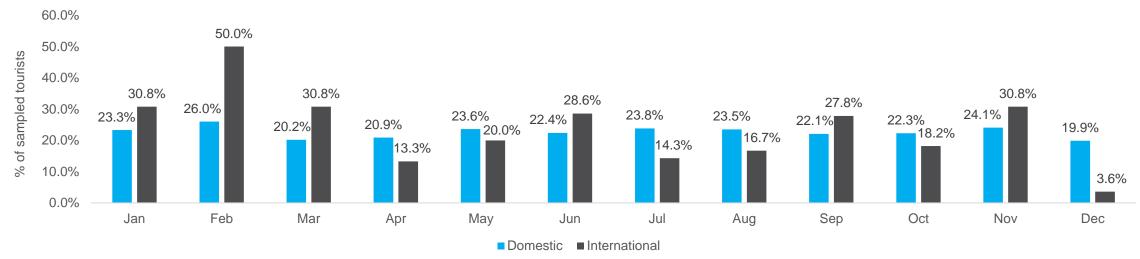
5. Cape Karoo Visitor Trends: Overnight Stays

Figure 7: Overnight stays in the Cape Karoo, Jan-Dec 2024



- Over 20% of sampled international and domestic tourists preferred to stay overnight in the Cape Karoo. This can be observed in Figure 7.
- As presented in Figure 8, February emerged as the most favored month for international tourists, with 50.0% opting to stay overnight in the region during this time.
- In contrast, domestic tourists exhibited a more even distribution throughout the year, with just over 20% choosing to spend nights in the Cape Karoo between January and December 2024.

Figure 8: Overnight stays in the Cape Karoo by month, Jan-Dec 2024





5. Cape Karoo Visitor Trends: Arrival and Departure Days

- Figures 9 and 10 indicate that Friday, Saturday, or Sunday were the most popular days of arrival and Sunday was the most favoured departure day among domestic tourists. On the other hand, international tourists arrived mostly on weekends between Saturday and Sunday and departed on either a Sunday or Monday from the region.
- This data emphasises the strategic consideration that both domestic and international travellers often align their itineraries with those specific days. Such insights are invaluable for stakeholders in the tourism sector, enabling them to better comprehend the behavioual patterns and preferences of distinct tourist segments. By leveraging this information, businesses and organisations can enhance their service offerings and improve operational efficiencies to meet the needs of these travellers more effectively.

Figure 9: Popular arrival days of the week in the Cape Karoo, Jan-Dec 2024 25.0% 20.0% % of sampled tourists 15.0% 10.0% 5.0% 0.0% Wed Mon Tues Thur Sat Sun 16.5% Domestic 13.3% 11.4% 12.5% 14.3% 15.7% 16.2% 16.4% 9.0% 15.8% 12.4% 9.6% 17.5% 19.2% International

Figure 10: Popular departure days of the week from the Cape Karoo, Jan-Dec 2024 25.0% 20.0% % of sampled tourists 15.0% 10.0% 5.0% 0.0% Tues Sun Mon Wed Thur Sat 12.3% Domestic 14.1% 11.5% 13.3% 15.6% 15.6% 17.6% ■ International 17.5% 9.0% 11.3% 13.6% 13.6% 15.8% 19.2%

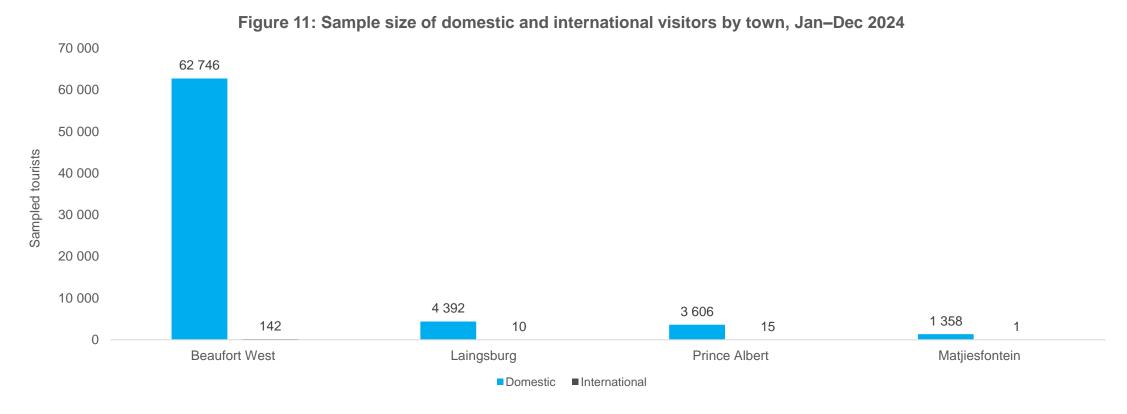


Cape Karoo Visitor Trends by Town Mobile Location Data Insights



6. Cape Karoo Visitor Trends: Visitor Breakdown by Town

- In 2024, Beaufort West attracted over 60,000 domestic tourist arrivals. Following Beaufort West, Laingsburg and Prince Albert received 4,392 and 3,606 tourists respectively, while Matjiesfontein recorded a modest 1,358 tourist arrivals. This distribution of tourist arrivals is illustrated in Figure 11, highlighting the varying levels of appeal that these towns have.
- In 2024, the sample size for international tourists across all five towns was low.





6. Cape Karoo Visitor Trends: Domestic Visitors' Average Length of Stay by Town

- Figure 12 reveals that domestic tourists visiting the highlighted towns stayed for an average of one or two days. This short duration of stay underscores the towns' appeal for brief getaways, rather than extended vacations.
- Beaufort West and Matjiesfontein stood out among the towns in the region, attracting over 70% of domestic tourists, which indicates a strong local appeal. Laingsburg followed closely, with 69.3% of tourists spending one day in the area. In comparison, Prince Albert had a lower share, with only 40.1% of visitors staying for a day. This can be seen in Figure 12.

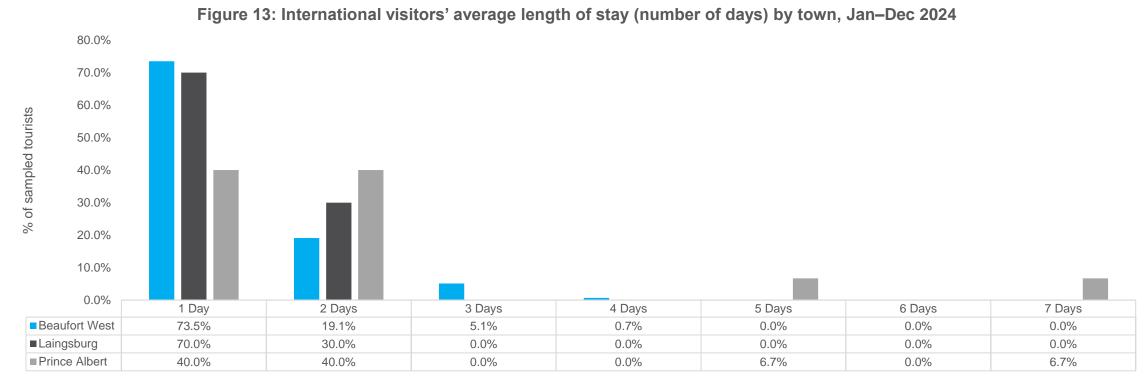
Figure 12: Domestic visitors' average length of stay (number of days) by town, Jan-Dec 2024

90.0% 80.0% 70.0% % of sampled tourists 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0% 1 Day 3 Days 4 Days 5 Days 6 Days 7 Days 8 - 14 Days 15 - 21 Days 2 Days ■Beaufort West 0.9% 79.2% 14.7% 4.0% 0.5% 0.2% 0.2% 0.3% 0.1% 1.0% 0.8% 0.2% 0.3% Laingsburg 69.3% 23.8% 4.5% 0.1% 0.1% ■ Prince Albert 40.1% 33.6% 6.0% 2.3% 0.7% 0.2% 1.1% 0.1% 15.9% Matjiesfontein 1.5% 70.8% 21.7% 4.9% 0.1% 0.3% 0.1% 0.4% 0.0%



6. Cape Karoo Visitor Trends: International Visitors' Average Length of Stay by Town

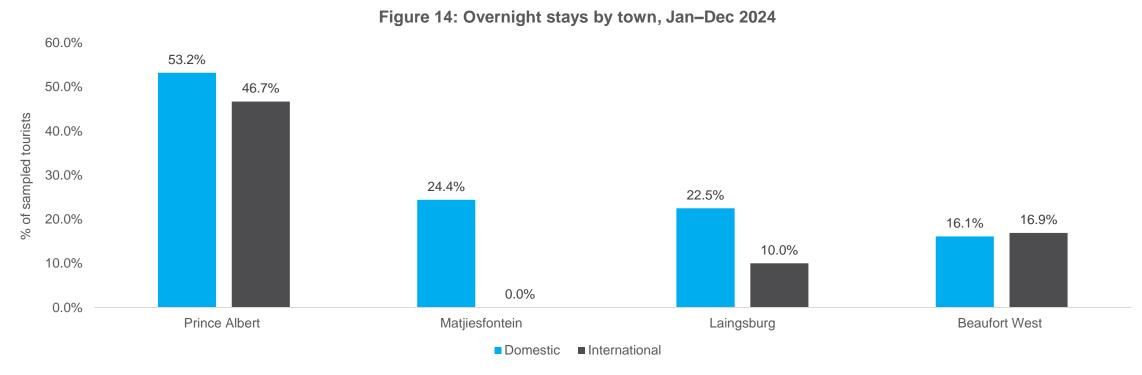
- In the analysis presented in Figure 13, it is evident that international tourists visiting the highlighted towns preferred brief stays, typically ranging from one to two days. Noteworthy is the fact that Beaufort West garnered the attention of 73.5% of international visitors who spent just a single day in the town. Laingsburg demonstrated a similar trend, with 70.0% of its tourists also staying for one day.
- In contrast, Prince Albert reported a comparatively lower percentage of international tourists, with only 40.0% of its visitors remaining for one to two days in the town. This disparity in visitors' length of stay underscores the varying appeal of these locations and suggests potential areas for tourism development and marketing strategies.





6. Cape Karoo Visitor Trends: Overnight Stays by Town

- Figure 14 reveals that Prince Albert attracted the highest number of overnight tourists, with a 53.2% share of domestic visitors and a 46.7% share of international tourists. This indicates that Prince Albert was the most favoured town for both overnight domestic and international travellers.
- · Matjiesfontein attracted 24.4% of domestic overnight visitors.
- Laingsburg received a share of visitors, with 22.5% of overnight stays accounted for by domestic tourists and 10.0% by international visitors. Conversely, Beaufort West had the lowest figures among the three towns, bringing in 16.1% of domestic and 16.9% of international overnight tourists.





Appendix: ROVE Mobile Location Data Key Terms and Definitions



Definitions of Mobile Location Data and Tourists vs non-Tourists

About Mobile Location Data

- Privacy compliant data is collected from location-enabled apps on mobile devices. Data is collected when those location-enabled mobile devices enter our geo-fenced areas.
- Data is collected through applications (news, weather, games, texting apps, traffic, etc).
 - Year-over-year numbers could be skewed by increased app penetration and data privacy settings/policies.
 - The exception is China which does not share data...
- Think of mobile data like survey data on steroids.
 - A sample size greater than 30 yields a 95% level of confidence.
 - This may be the largest sample size of data pertaining to visitors•
- This should not be compared to visitation data.
- Many factors impact total sample size:
 - Number of app partnerships
 - Usage of apps
 - App developer policies
 - Volume of visitors

Who Are Tourists?

- A tourist is typically defined as follows:
 - A visitor who does not live or work within the study geography
 - A visitor who travels a minimum distance to the study geography
 - A visitor who appears in the study geography for a minimum period of time (exclude commuters/passers through, etc.)



Definitions of Mobile Location Data and Tourists vs non-Tourists

Primary Study Geography	Tourists are defined as:
Province/Tourism Regions	When a visitor does not live or work in Cape Town, Winelands, Cape Overberg, Weskus, Garden Route & Klein Karoo and Cape Karoo and they have travelled more than 25 miles (40km), and they have stayed in the polygon for more than 120 minutes, they are a tourist.

Notes and Considerations:

- Residents of the Western Cape are not counted as a tourists
- Minimum distance travelled to meet the definition of tourist. Distance travelled is calculated from the visitors' Common Evening Location (latitude and longitude) to the centre of the polygon
- Minimum duration of visit of 120 minutes excludes commuters driving through each region

Secondary Study Geography	Tourists are defined as:
City or Town	When a visitor does not live or work in the city or town and they have travelled more than 25 miles (40km), and they have stayed for more than 45 minutes, they are a tourist.

Notes and Considerations:

- Residents of a city are not counted as tourists to the city
- Minimum distance traveled of 40km satisfies tourist definition for minimum distance travelled. Distance travelled is calculated from the visitors' Common Evening Location (latitude and longitude) to the centre of the polygon

Point of Interest Study Geography	Tourists are defined as:
All Tourism Experiences	When a visitor stays in the polygon for more than 15 minutes and has not visited the polygon more than 20 times in any 90 day period, they are a tourist

Notes and Considerations:

- Any 90-day period refers to any consecutive 90 days in their mobile location data history
- Filter out visitors not staying for any meaningful length of time (couriers, taxis etc.).

What are Tourist Segments?

- Local Tourists: Tourists who reside within the same region.
- Domestic Tourists: Tourists who reside in South Africa outside of the Western Cape
- International Tourists: Tourists who reside outside of South Africa



Glossary of Key Terms

Term	Definition and Usage
Study Geography	A specific geography, defined by a boundary called a polygon.
Primary Study Geography	The largest area in the destination in which you want to capture mobile device data. For most destinations this is usually a country, province, or state.
Secondary Study Geography	Often destinations want to derive insights about sub-geographies within their destination, such as counties, tourism regions, and city regions.
Point of Interest	Points of interest are the smallest study geographies in your destination such as tourism businesses, parks, roadways, or city districts.
Sample	Not all people carry GPS-enabled, opted in mobile devices with location services always activated. Thus, in any period of time, in any given study geography, mobile location data is a sample. Therefore, whenever this whitepaper discusses "visitors" or "tourists" or "residents" or any other grouping of devices, it should always be understood to be a sampling of real-world visitorship or foot traffic.
Visitors	Mobile devices seen within the study geography during a specific period of time
Common Evening Location (CEL)	Derived latitude-longitude point near which a device spends most of its time on evenings and/or weekends. While most often associated with a device's home, there is nothing that inherently guarantees that it is a home (e.g. a person who works an overnight shift at a power plant).
Common Daytime Location (CDL)	Derived latitude-longitude point near which a device spends most of its traditional workweek [Monday to Friday, 8am to 6pm local time]. While most often associated with a device's office or work location, there is nothing that inherently guarantees that it is an office or work location (e.g. a person who is a stay-at-home parent).
Residents/Workers/Locals	Terms referring to a visitor segment comprising devices which are determined to have a CEL or a CDL with the study geography or within a certain (usually short) distance of the study geography. For most tourism analyses, these devices are eliminated from the project because they are not, by definition, tourists. However, it is possible to include these devices within a broader visitor study.
Tourists	Term generally referring to a visitor segment comprising devices which are determined NOT to have a CEL or a CDL with the study geography or within a certain (usually short) distance of the study geography but have come to the study geography from a different origin market.
Tourist Segments	Groupings of tourist segments which have a defining characteristic associated with their appearance in a study geography, such as "Short Haul Tourists" or "International Tourists" or "In State Tourists."
Overnighters	Term which characterises a specific visitor segment where mobile devices are seen in the study geography for more than one consecutive day. An overnight stay is defined as tourists who arrived prior to midnight (0:00) and stayed until 07:00 the following day.
Day Trippers	Term which characterises a specific visitor segment where mobile devices are seen in the study geography for less than one day.
Length of Stay	Duration of trip within the study geography. The methodology for calculating length of stay is based on the characteristics of the geography.



