13 USE CASES

from the December holiday season that prove customised guest WiFi a must

Introduction

From households and shopping malls to airports, university and business campuses, guest WiFi makes it possible to connect to the web and a world of connected devices.

But what about the benefits that organisations stand to gain from WiFi? What are they and how have advancements made it possible for companies to develop a stronger competitive advantage?
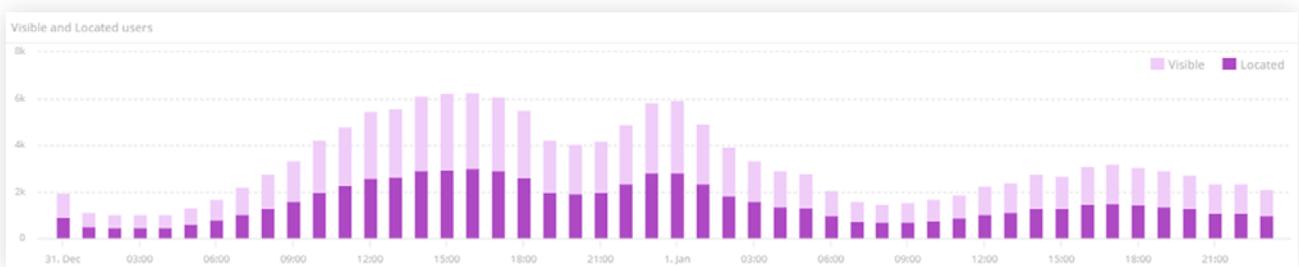
We have prepared 13 case studies to answer these questions. They come from different parts of the world and all show how effective guest WiFi access management can be as a tool for understanding guests.

All insights were derived using Linkyfi, a next-generation guest WiFi access management solution and a powerful WiFi marketing platform.
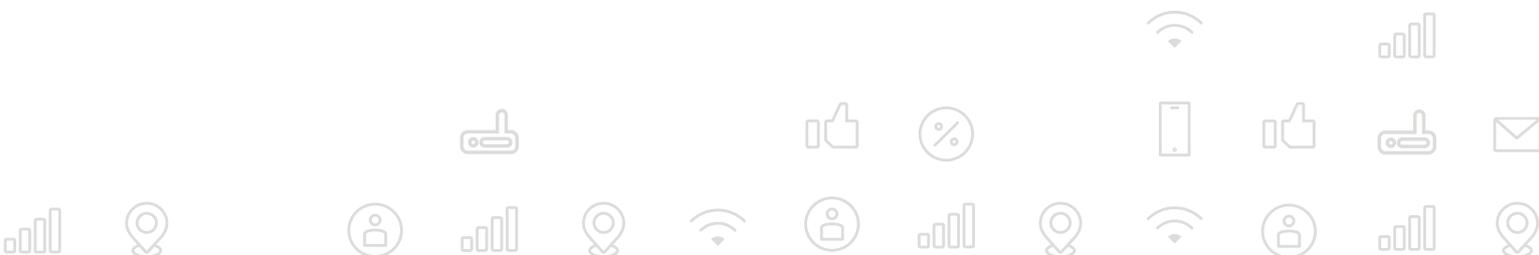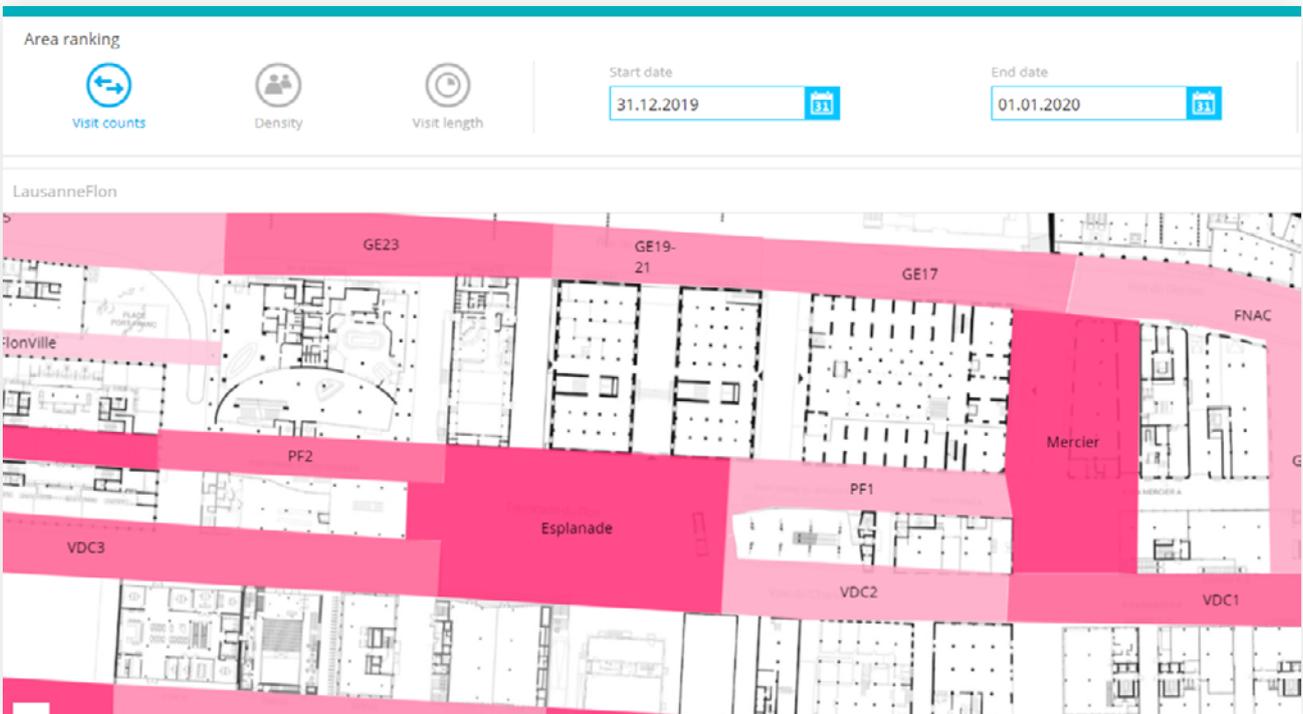
Le Flon in Lausanne

Le Flon is known as the heart of Lausanne. As a former warehouse district, it's become a buzzing area filled with restaurants, bars, clubs, boutiques, cinemas, bowling and exhibition spaces. So, what valuable insights can one derive about guests who visit this corner of the world and log into a guest WiFi?

Over the period of New Year's Eve and the New Year, there was a spike in human traffic. This traffic was most notable and related to nightlife attractions.

Here's what we found:

- We noticed traffic fluctuations stabilised around 7PM, this is likely due to people arriving and entering nightclubs for the evening.

- The majority of nightclub goers left just before midnight to celebrate the New Year outside.

- Insights from guest WiFi management allowed us to see another change in the volume of human traffic after experiencing New Year outside, as people moved back into nightclubs.

- Traffic later died down completely as guests returned to their homes. We also noticed very little traffic on New Year's day, which is likely due to people sleeping in after a night of celebrations.

How can these insights be used for the next New Year's celebration in Le Flon?

Locations can use this data to create events that draw larger audiences. While Le Flon is a major attraction for guests, knowing the ages of visitors and where they spent most of their time when visiting can help nightclubs create experiences more aligned with their guests.

As a busy area, knowing what volumes of guests the district receives can be helpful. Emergency services can better prepare for potential safety and security measures situations.

Guest WiFi in Kaufland, Poland

Kaufland is a German hypermarket chain and part of the Schwarz Gruppe. Having opened their first outlet in 1984, the chain now has over 1,200 stores in Germany, the Czech Republic, Slovakia, Poland, Romania, Bulgaria, Croatia and Moldova.

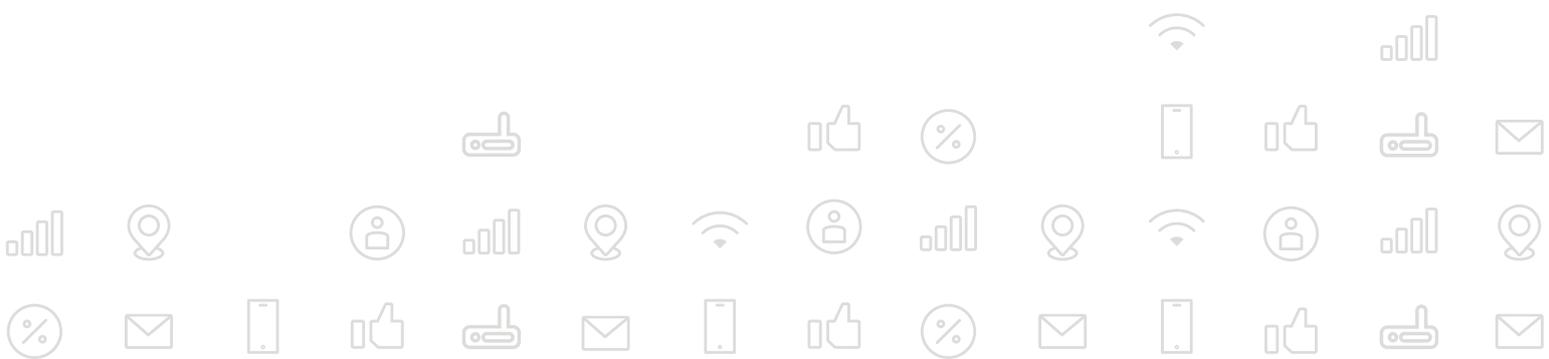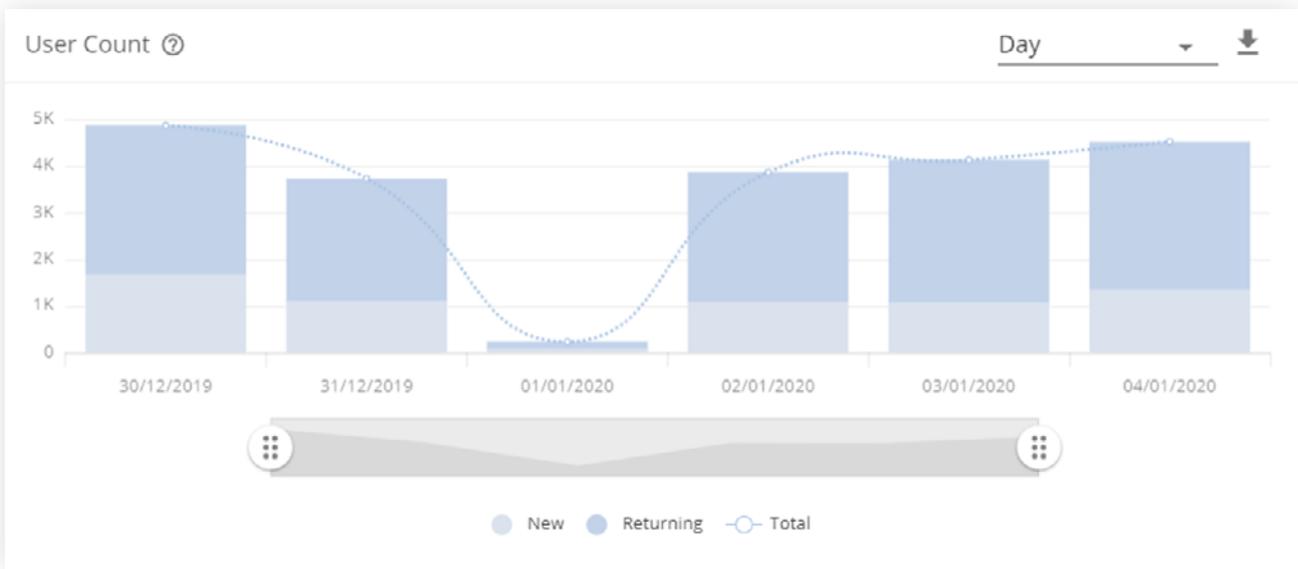Over the Christmas and New Year's timeframe, Kaufland appeared to experience an interesting traffic flow.

Here's what we found:

- December 24th presents a decrease in traffic. This could be attributed to a change in trading hours for the day.

- Christmas Day saw a steady increase in traffic all the way up to 12PM and then dropped completely by 4PM.

- The greatest surge of traffic took place on December 30th, a Sunday.

- Traffic appeared to return to normal on January 2nd. Kaufland saw steady shopper traffic rise and fall by the end of the day.

How can Kaufland use guest WiFi insights for the next Christmas and New Year's holiday?

Thanks to the guest WiFi network, understanding the amount of traffic and when people are most likely to visit the store allows for better planning. When cross-referenced with other data (think sales and revenue generated), Kaufland will be able to tell what people need most of on days like December 30th (their busiest day).

User Count

Day

New   Returning   Total

Average User Count per Hour

Costa Coffee

Most interestingly, while no traffic was recorded in Kaufland on the 1st of January, Costa Coffee appeared to attract around 2500 guests. As it turns out, people enjoy coffee on New Year's Day.

Costa Coffee may also be able to better plan for a busy New Year's Day, especially if they opted for skeleton staff considering it was the first day of the New Year. Costa Coffee may be able to determine which beverages were popular on the day to better understand their target market.

Supermarket in Kenya

While shopping in Poland shows a variety of interesting insights, across the globe in Kenya, things appear to be a little more predictable with data collected from guest WiFi. Kenya is seeing a surge in growth of supermarkets, growth that points to a more prosperous economy. But just how much do Kenyans rely on their supermarkets?
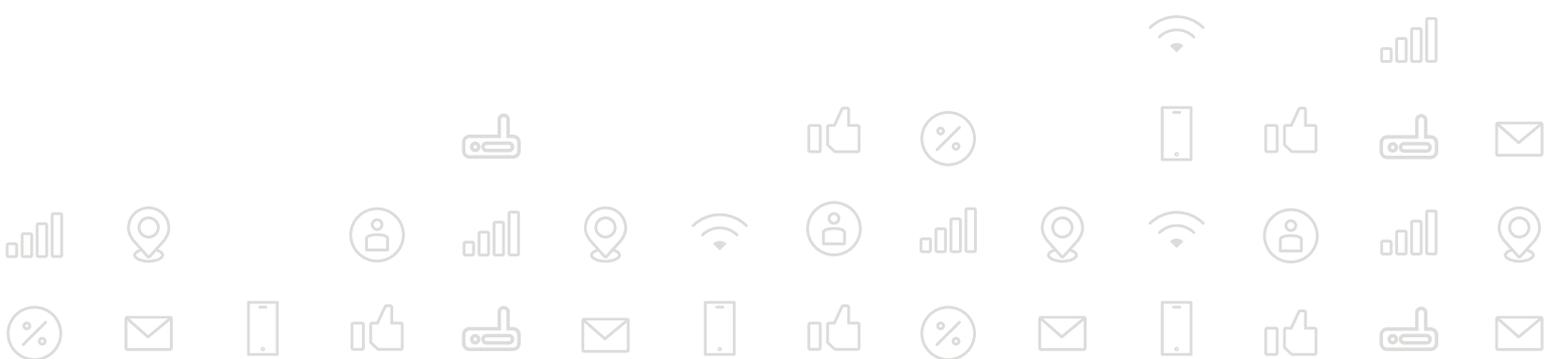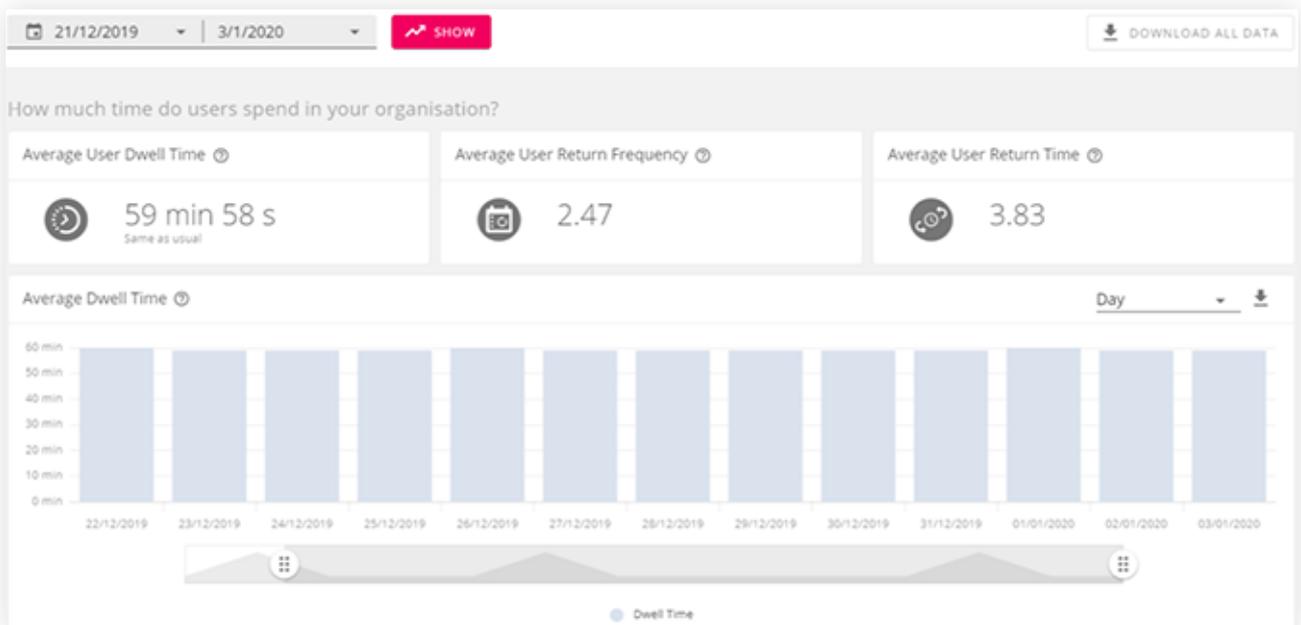
Here's what we discovered:

- Like European states, Kenya also recognises Christmas and Boxing Day as public holidays. But unlike supermarkets in Europe, Kenyan supermarkets remained open on both days.

- While shopper traffic peaked on December 24th, it remained fairly steady on the 25th and 26th and throughout the last five days of the year.

- Guest WiFi data also indicates that shoppers spent the same amount of time in-store, pointing to more predictable shopper behaviour, even in what could be expected to be the busiest time of the year.

How can Kenyan supermarkets use these guest WiFi insights for the next Christmas and New Year's holiday?

While traffic peaked on the 24th of December, it levelled out for the rest of the month. This data can be used to generate creative ways of attracting more shoppers, making it possible for supermarkets to record sales days. Discounts and special offers could be devised, along with competitions to incentivise shoppers to spend more.

Airports in South Africa

South Africa's tourism industry is healthy. Domestic and international tourists have been known to spend large amounts of money as they travel across the country. In fact, in 2017 alone, tourists spent an estimated R277 billion.

What can guest WiFi tell us about the impact tourism has on airports?

Here's a look at what we learned about OR Tambo's traffic over the last few days in December:

- Domestic travel generated more traffic than the international terminal. From December 27th through to January 3rd, more locals travelled across the country.

- Most local tourists opt for daytime flights. This is interesting considering that daytime flights are more expensive than late afternoon or evening flights.

- International tourists, however, seem to have spent their New Year's in the air as they travelled in the evening.

How can South African airports use these insights for the next Christmas and New Year's holiday?

For OR Tambo, being able to gauge the number of flyers over the December holiday can enable smarter operational planning. Planning can include managing staff and shifts, ensuring that security is strengthened during busier periods.

Data from guest WiFi can also be shared with retail outlets in the airport. Insights into how guests numbers, their ages and destinations can help retailers better prepare with the right stock and possibly offers to generate more sales.
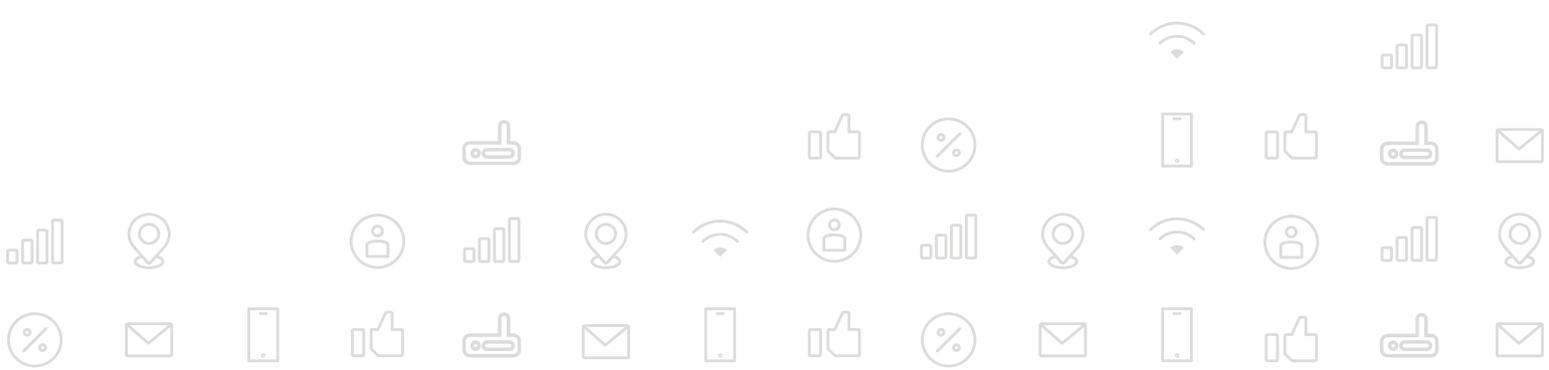
Shopping malls from across the globe

Shopping malls are magnets for shoppers. And when it comes to December spending, they attract larger crowds, giving retailers the chance to achieve record sales days.

With guest WiFi access management we can see how shopping malls from different regions faired.
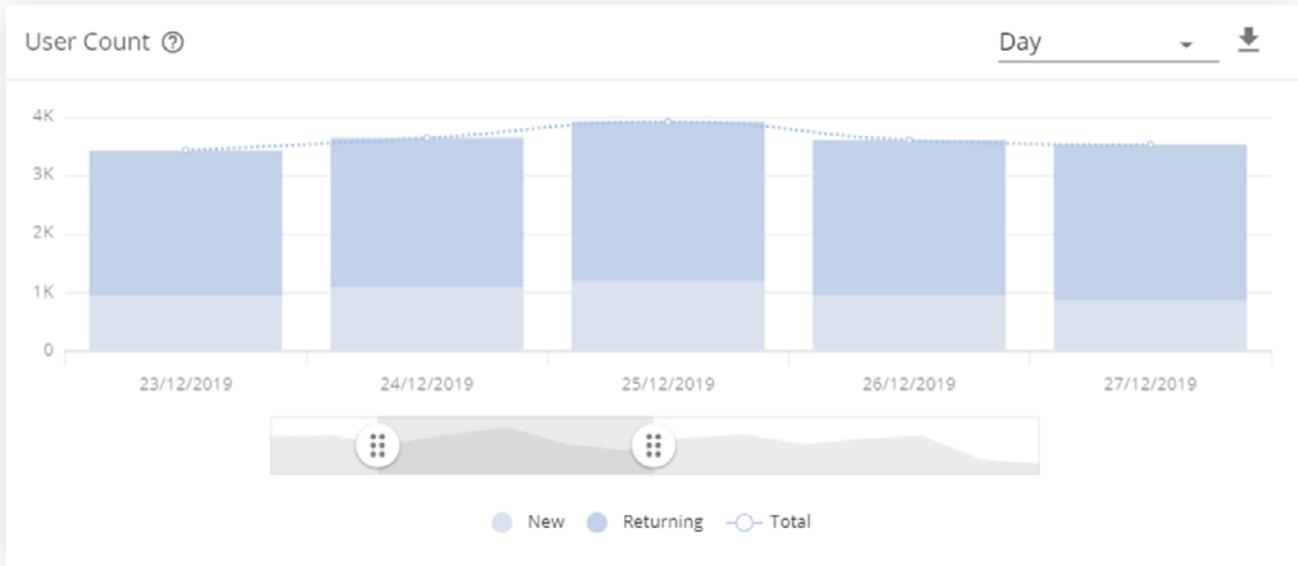
US

Less traffic was experienced on December 25th. This is a holiday in the US, so the decrease is expected. Traffic did, however, rise from December 26th, fluctuated for the last few days of the year, with the 28th being the busiest. Jan 2nd and 3rd showed steady and similar traffic, showing that it was business as usual in the New Year.
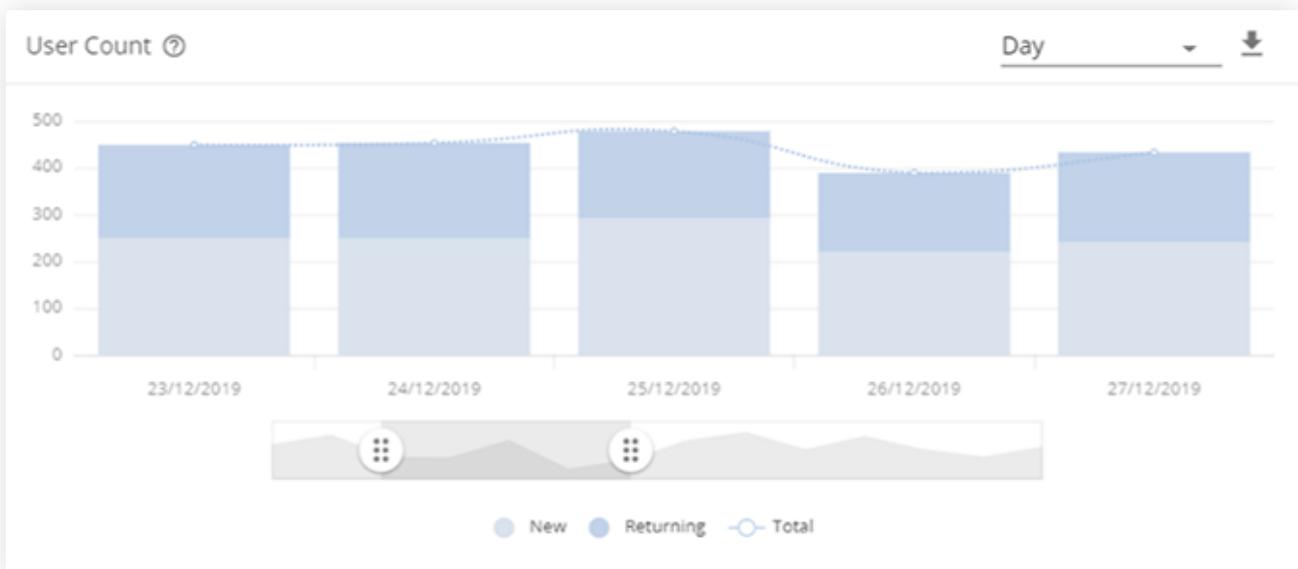
Indonesia

While Christmas is recognised as a national holiday in Indonesia, shopping malls remained open. In fact, they received more traffic on the day.
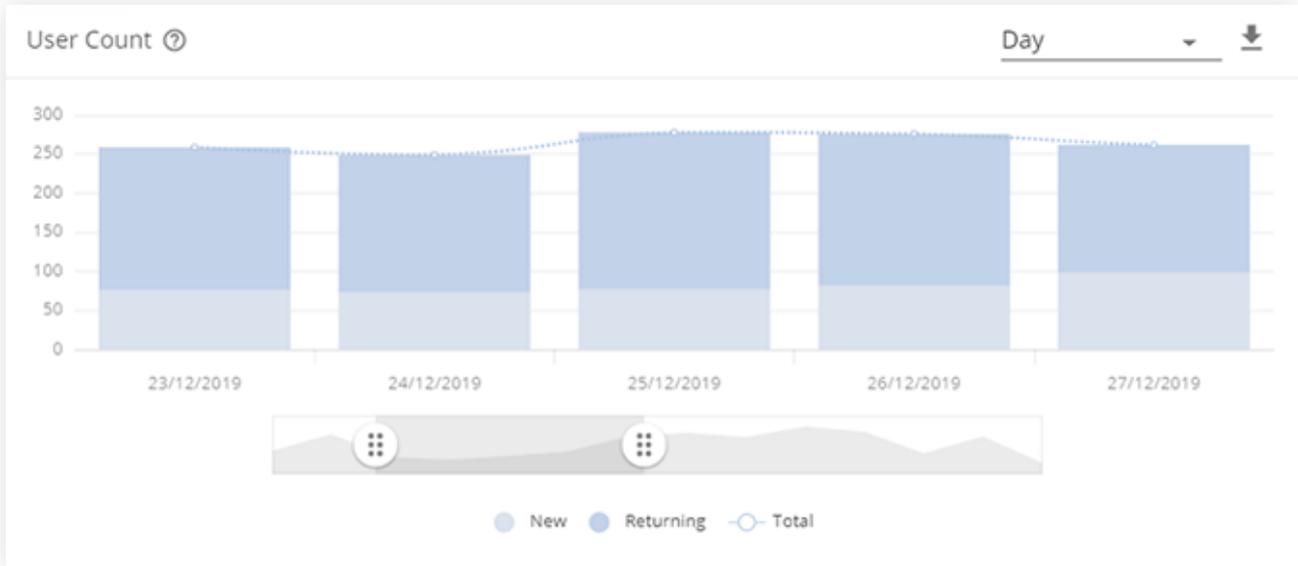

Myanmar

Like Indonesia, Myanmar shopping malls don't break for Christmas day. They did, however, see a slight decrease in traffic on the 26th.
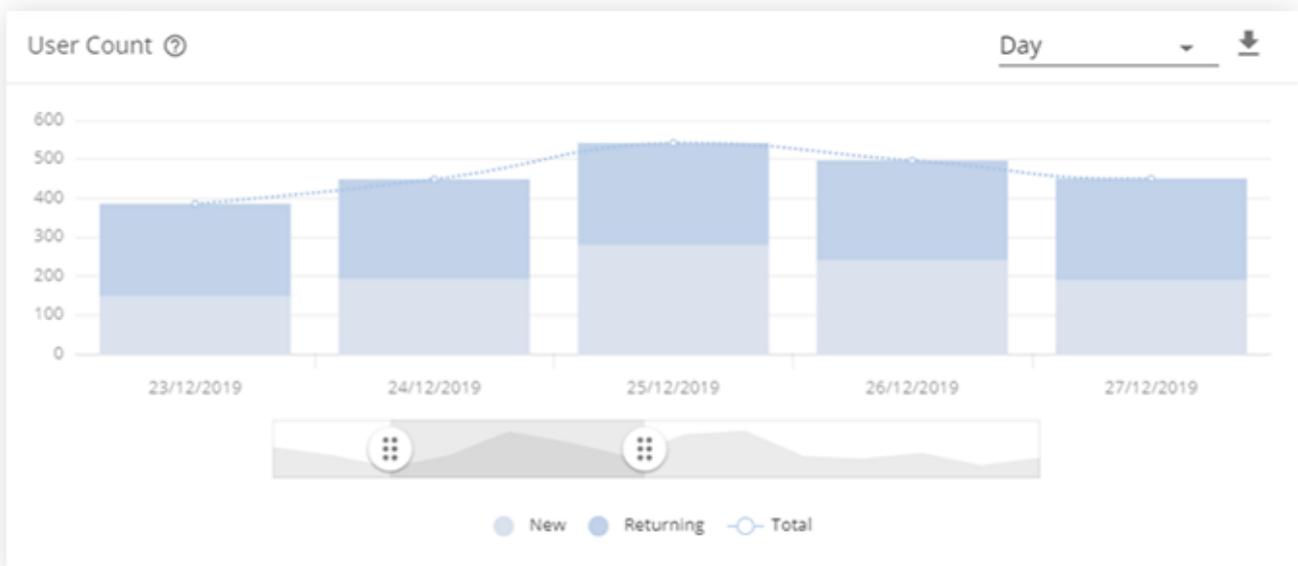
Thailand

Thailand experienced similar traffic to Indonesia. December 25th was the busiest day, while traffic seemed to be relatively steady over the last few days of the year.
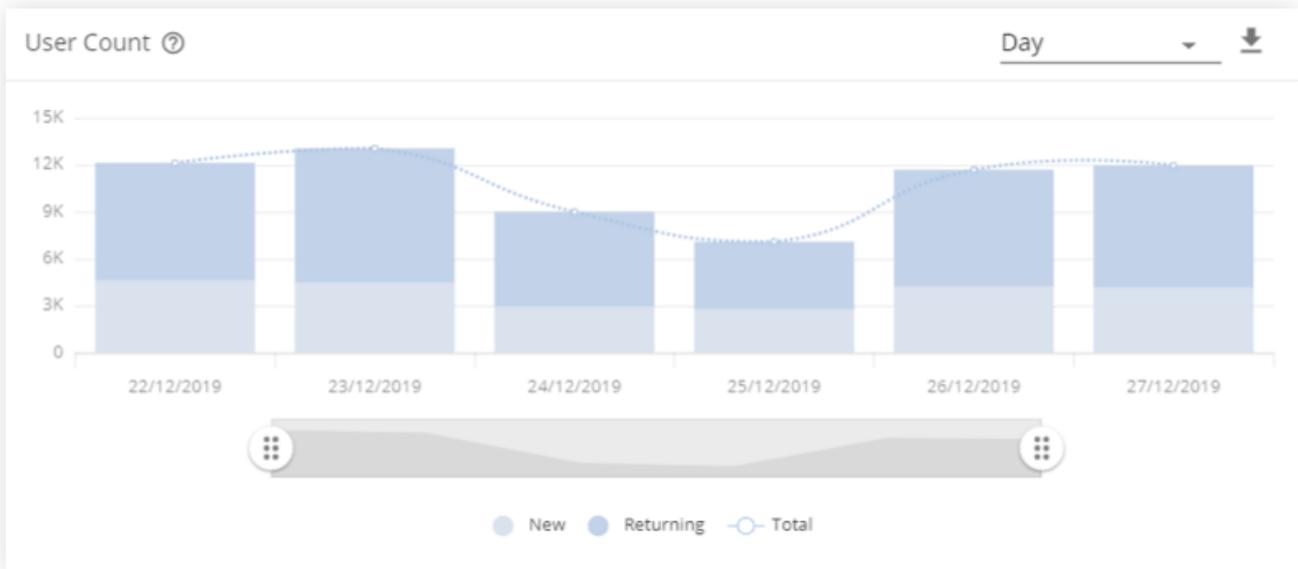

Cambodia

Like Thailand, Cambodia also experienced similar traffic to Indonesia. More shoppers visited the mall on December 25th, while traffic appeared steady over the last few days of the month.

Hong Kong

Hong Kong also shares a similar traffic influx to other Asian malls above. Traffic appears to have been steady, however, the December 24th and 25th attracted the largest number of shoppers.

Plaza Mundo in El Salvador

In El Salvador, Plaza Mundo experienced a different traffic flow. December 24th saw fewer shoppers flock to the mall. While Christmas is recognised as a public holiday, Plaza Mundo attracted shoppers in fewer numbers which grew on the 26th and 27th.

Pollo Campero

Pollo Campero, with its first store opened in Guatemala, in 1971, is now a well-known fast-food restaurant chain serving their flavorful chicken in Honduras, El Salvador, Ecuador, Nicaragua, Mexico, Spain, Bahrain, the United States, and Italy. The chain has nearly 400 locations, including more than 70 in the United States.

We compared traffic of Pollo Campero and Plaza Mundo to learn that verticals don't share similarities. While Plaza Mundo saw a notable decrease in traffic on Christmas Eve, a fast food restaurant, Pollo Campero didn't.

How shopping malls can benefit from guest WiFi data on shoppers?

Like other venues that house retailers, access to data about guests can lead to more revenue generation. As we'll see further below, smart guest WiFi management and marketing solutions give businesses the opportunity to engage more of their visitors with timely offers. Retailers are also able to develop more effective staffing plans for busy periods.

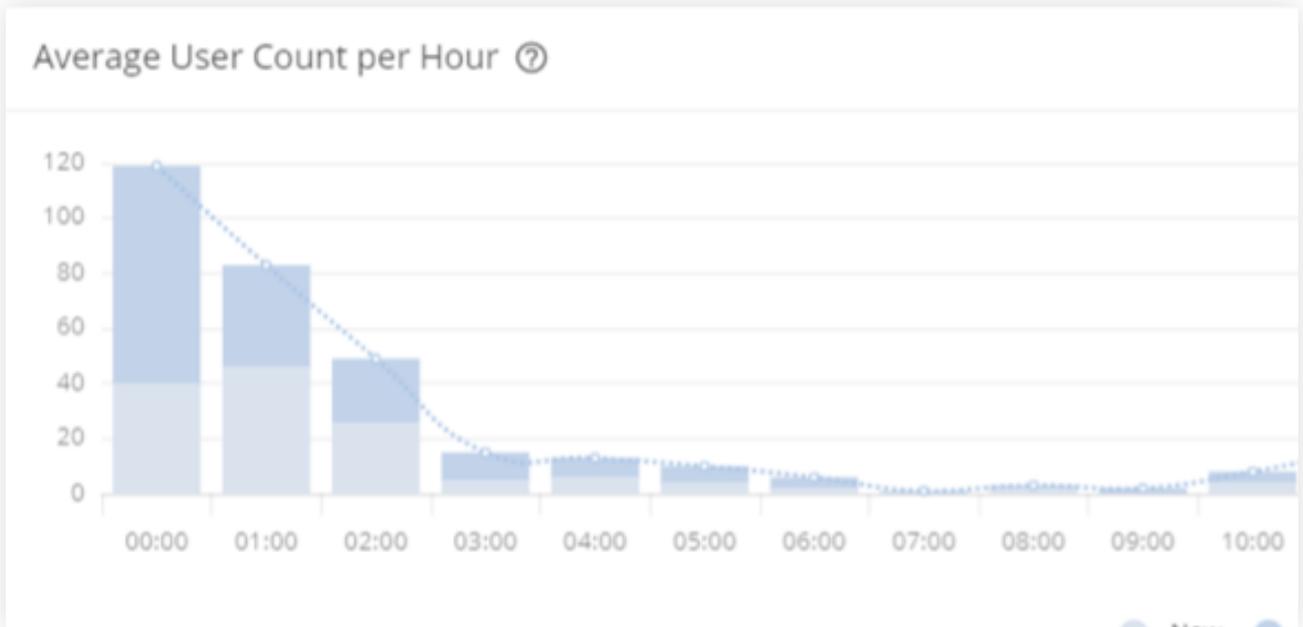# Mexican holiday resort

Mexico's tourism industry has seen an upsurge in the last few years. INEGI and Bank of Mexico reported that over 96.8 million international visitors arrived in Mexico in 2018 — up by 2 million 567 thousand visitors since 2017.

Most international visitors are drawn to Mexico's holiday resorts. In this case, we looked at how guests experienced a resort on December 31st.

Here's what we found:

• Peak traffic was experienced on the day

• Traffic grew towards midnight, likely due to an event hosted by the hotel

• Guest partied until 1AM to 2AM on January 1st, 2020
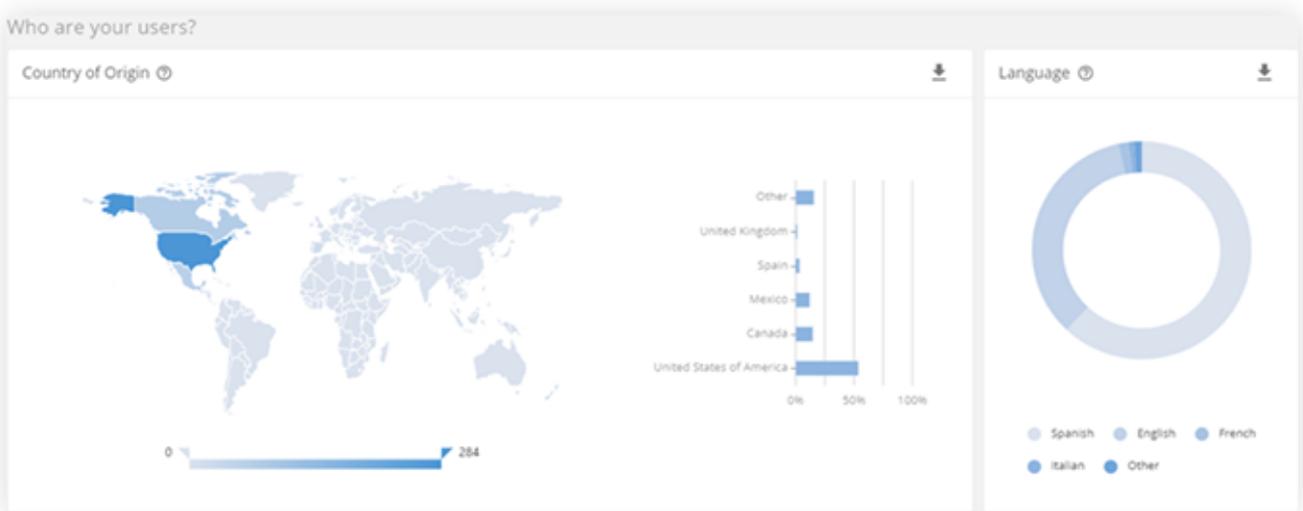
Average User Count per Hour ⑦

In addition to the above, we also learned that most guests were from the U.S and Canada, however, their language was Spanish. Also, two out of three guests were Android users.

Devices per Type ⑦

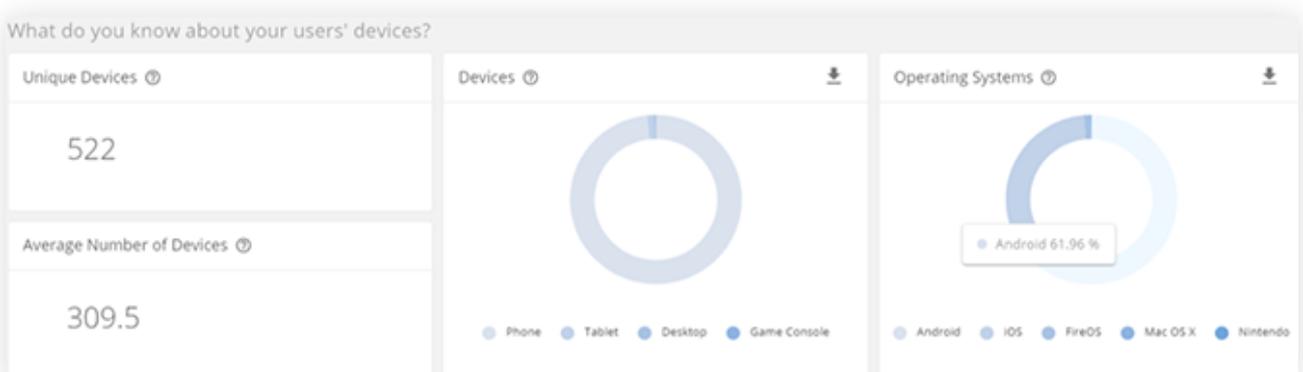| No.	Device type	Number of devices	Number of sessions	Total data transfer	Total Dwell Time
1	Desktop	1	2	64.2 MB	45 h 2 min
2	Game Console	1	1	7.1 MB	29 min 59 s
3	Phone	511	1003	55.6 GB	4283 h 1 min
4	Tablet	3	14	651.2 MB	85 h 52 min

How linkyfi empowers businesses

Linkyfi makes it easier to derive what's really happening at your location. Through insights and analysis, venues can gather visitors' age, gender, location, tell which guests are new and returning, establish guest return frequency and return time, and average dwell time.

You can also tell what device they are using (OS, language, country of origin), guest names, contact numbers, email addresses, date of birth, and more, when visitors log onto guest WiFi portals.

Linkyfi is also designed to enable smart guest WiFi marketing capabilities. Venues can leverage demographics, visitor positioning and historical data to develop highly targeted marketing campaigns using email and SMS.
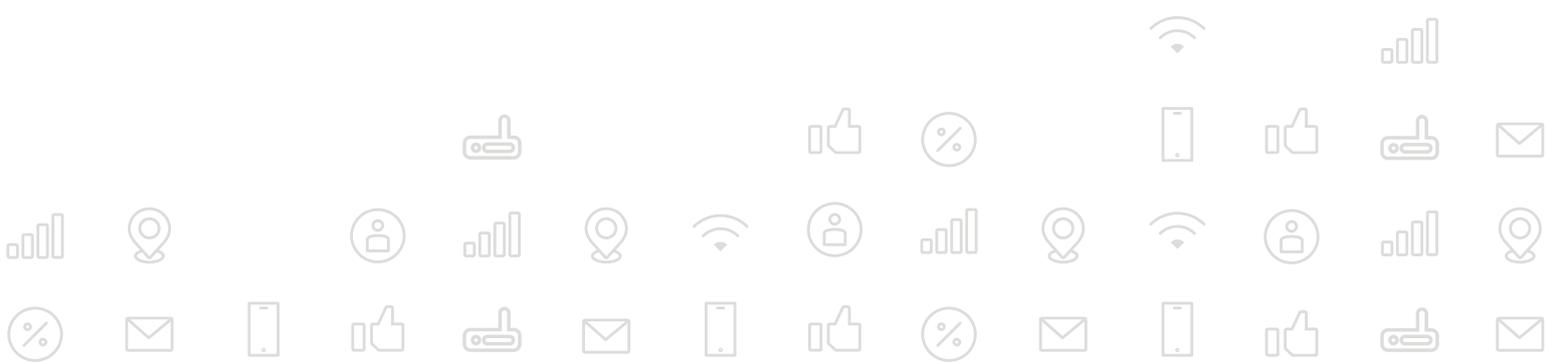
While these features make Linkyfi a powerful solution, it also accounts for unique requirements and integrations. Through our API, you can integrate third-party systems. These include REST WS for various PMS and SMS gateways.

Linkyfi is also robust enough to support multiple tenants. This works especially well for venues with numerous retail outlets. The aggregation of data ensures that all outlets are able to work towards creating an attractive venue, one that more visitors frequent.

What do you know about Wi-Fi Users?

Wi-Fi Users											Search by phrase	
No.	Photo	Devices list	First name	Last name	Email	Phone	Gender	Address	Age	Date of birth	Restricted profile	Visited
1		78009ED9C0A4					·		·		false	Hotel_
2		88299C61EB17					·		·		false	Hotel_
3		1C56FEFB0582					·		·		false	Hotel_
4		BC98DF925AF8					·		·		false	Hotel_
5		D428D5DF82F5					·		·		false	Hotel_
6		F099B607894C					·		·		false	Hotel_
7		C49880B59883					·		·		false	Hotel_
8		8082237D12EB					·		·		false	Hotel_
9		3CF86273BE96, 48C796853275					·		·		false	-, Hote
10		F08A767612B0					·		·		false	Hotel_

All businesses need data to make informed decisions. Linkyfi empowers businesses with data that can be used to enhance operations and their bottomline. Whether you're in charge of a busy airport, supermarket or shopping mall, access to data on who is visiting your establishment, where they are from, how much time they spend with you and how many visitors you receive, can help your organisation plan a more efficient operation and more predictable results.

About AVSystem

No IoT deployment is successful without proper device management—this is what AVSystem stands for. AVSystem is an expert in its field. We help companies around the world deliver better quality of service thanks to our top-class device management solutions. We also focus on WiFi VAS & indoor location as well as other systems for SDN and NFV. Apart from creating software, we actively participate in the standardization process of the LwM2M standard to enable secure device management and service orchestration in the IoT ecosystem. 100+ large companies worldwide prove the superiority of AVSystem's technology.

About Linkyfi

Linkyfi is both a public WiFi access management solution and a powerful WiFi marketing platform. It offers a variety of value-added services for WiFi networks, such as location services, time- and location-aware business analytics, an intuitive captive portal editor for corporate branding and advanced marketing engine that enables the creation of marketing campaigns based on customers' profiles.

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