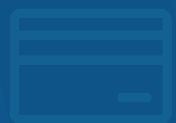


# Leading **Travel Websites** Report 2022

An analysis of the top global travel brands and how to build a website strategy to surpass the competition, improve customer experience, and avoid data breaches.



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## About the Web Vitals Index

The Web Vitals Index is an organisation set up and powered by RapidSpike for the ranking of eCommerce websites across the world to improve customer experiences, social impact and brand loyalty for the good of every online customer.

The Web Vitals Score is made up of several critical ranking factors including: Google's new Core Web Vitals, Performance Over Time, Accessibility, Website Structure and Reliability. These are weighted based on importance which in turn shows an overall 'Web Vitals Index Score'. Once scored, the brands are able to benchmark themselves against competitors and take proactive steps to improve - not just for bragging rights, but to convert more customers and deliver ecommerce revenue gains.

Consumers expect fast, safe & reliable online experiences, and highly-performing websites improve conversions & loyalty. The Web Vitals Index follows in RapidSpike's commitment to making the web faster, safer, and easier for everyone to use. The goal is to demonstrate the brands working the hardest - irrespective of size - to improve overall website performance, brand loyalty and user experiences for every online customer.

In this report, we will be using data from the Web Vitals Index for the top global travel websites to see how the industry is performing as a whole, who is doing well and what checks can be made to make improvements.



“



### Hear from the CEO

Gav Winter, CEO - RapidSpike & Web Vitals Index

Traditionally, we've seen eCommerce brands ranked in terms of trust levels or customer satisfaction scores, but online purchasing is soaring - not least as a result of the pandemic, and instead websites need to be highly performing in order to compete. True website performance cannot be a one-off measure, it is way too complex, with many moving parts, and things go much deeper than a top level score. The Web Vitals Index is a strong indicator of the digital impact a brand is really having.

”

## The 2022 Travel Landscape and COVID - 19 Timeline

\$2.4

trillion estimated global losses in the airline industry in 2020.  
- Visa

98.3%

fall in monthly air passenger arrivals to the UK in April 2020.  
- Office for National Statistics

90%

reduction in corporate travel budgets in 2020.  
- Deloitte

The travel industry was hit harder than any other industry throughout the pandemic. Frequent changing of rules and restrictions resulted in multiple setbacks. Travel companies had significant difficulties navigating the field and it wasn't without devastating losses. The Office for National Statistics (ONS) data shows that turnover in travel and tourism businesses declined to 26.0% of February levels, compared with 73.6% in all other industries. Visa predicts that the global travel industry loss was an estimated \$2.4 trillion. The timeline of events affecting the travel industry during the pandemic has been vast. In this timeline, we have highlighted key events for selective countries.

At the start of the pandemic, it was expected that by restricting travel to China, the virus could be contained, however it is now known that widespread contamination of the virus had already occurred in early January. The first large-scale restrictions came in March 2020, with multiple countries going into lockdown. A group of US airlines requested \$50 billion in assistance packages to deal with the financial damage already caused by the pandemic. The ONS reported monthly air passenger arrivals to the UK fell from 6,804,900 in February 2020 to 112,300 in April 2020, a fall of 98.3%. Non-essential travel was the first to be restricted on a global scale, however research from Deloitte shows that corporate travel also showed significant reductions with most US-based companies' travel budgets declining by 90% or more beginning in early 2020.

During the pandemic, various attempts were made for countries to open up travel, tourism and borders, however this proved to be continually challenging. The pattern which followed included countries opening their borders, seeing an increase in covid cases and then shutting down travel and reinstating restrictions.

Reopening travel came in November 2021 for the U.S., and in March 2022, the UK removed all travel restrictions, however, there are still measures in place on a global scale to prevent the spread of the virus. Travel has finally seen more consistent levels of consumer engagement, and although not back to pre-pandemic metrics, the trajectory is looking positive for the industry. In this report, we examine the current digital travel landscape post-COVID-19, and which travel companies are leading digitally as the industry opens back up.

Jan 20	<ul style="list-style-type: none"> <li>29/01/20 - U.S., Europe and Asia suspend flights to China</li> <li>30/01/20 - WHO declares coronavirus outbreak is a PHEIC</li> </ul>
Mar 20	<ul style="list-style-type: none"> <li>11/03/20 - U.S. blocks travel from the EU</li> <li>16/03/20 - U.S. airlines request \$50b in assistance packages</li> <li>17/03/20 - EU closes borders to all non-essential travel</li> <li>12/03/20 - U.S. issues a level 4 'Do not travel'</li> <li>24/03/20 - Australia bans overseas travel</li> <li>26/03/20 - England lockdown 1</li> </ul>
Apr 20	<ul style="list-style-type: none"> <li>02/04/20 - 91% of Americans ordered to stay at home</li> </ul>
Jun 20	<ul style="list-style-type: none"> <li>02/06/20 - Italy and France reopen borders</li> <li>08/06/20 - Travelers entering the UK to self-isolate</li> <li>03/07/20 - UK ends travel restrictions from 50 countries</li> </ul>
Sep 20	<ul style="list-style-type: none"> <li>09/09/20 - U.S. stops screening international travelers</li> <li>12/10/20 - UK new travel restrictions</li> </ul>
Nov 20	<ul style="list-style-type: none"> <li>05/11/20 - England lockdown 2</li> <li>20/12/20 - EU countries put restrictions on UK travelers</li> <li>25/12/20 - The U.S. CDC requires UK travelers to have a negative test</li> </ul>
Jan 21	<ul style="list-style-type: none"> <li>01/02/21 - EU tightens travel restrictions</li> <li>06/01/21 - England lockdown 3</li> </ul>
Mar 21	<ul style="list-style-type: none"> <li>22/03/21 - Britain bans travel from outside the UK</li> <li>29/04/21 - EU approves EU-Covid-19 certificate</li> <li>19/05/21 - The EU opens its borders to vaccinated U.S. travelers</li> </ul>
Jul 21	<ul style="list-style-type: none"> <li>29/07/21 - England removed quarantines for U.S. and EU travelers</li> <li>30/08/21 - The European Union halts non-essential travel from the U.S.</li> </ul>
Nov 21	<ul style="list-style-type: none"> <li>08/11/21 - The U.S. reopens to fully vaccinated international travelers</li> </ul>
Mar 22	<ul style="list-style-type: none"> <li>18/03/22 - All COVID-19 travel restrictions removed in the UK</li> </ul>

References: Think Global Health 2022, Institute for Government, 2022 and British Foreign Policy Group 2022

## The 2022 Digital Travel Landscape

The ecommerce landscape had a paradigm shift during the pandemic, websites had to transform to meet new consumer needs and demands for digital booking options. The market size of the online travel booking platform industry worldwide amounted to roughly \$517.8 billion in 2020, and although the travel industry has always had a strong online presence, the pandemic has accelerated this further. According to Statista, digital bookings championed with 65% of worldwide sales in tourism and travel being made online in 2020. Brick-and-mortar sales dropped significantly due to restrictions and primarily in-store travel brands suffered. Hays Travel, a predominantly brick-and-mortar brand, reported a loss of more than £34 million in 18 months to April 2021.

Travel purchases tend to be more of an investment for consumers, therefore consumers take time to browse deals. Not only does this cause high competition in the industry, but it also leads to high cart abandonment rates. SaleCycle reported the average abandonment rate for online travel sites was 87.90% in 2021, with an abandonment rate of 85% on desktop and 91% on mobile. Therefore customer user journeys need to be reliable, fast, and secure for brands to compete.

Travel websites are typically highly complex with advanced user journeys, third parties, large imagery, and videos. Usually, the travel industry is well-prepared for changes to regulations and restrictions to services, however during the pandemic, travel companies have had to continuously change web pages to keep their website up to date with current events. Website functionalities changed to reflect this including additional third parties such as Live Chat. These changes can have serious implications for user experience, performance, and security.

Due to the complexities of travel websites, they are not fully optimised for mobile, despite not being the core device for booking travel, they do have a purpose and therefore website owners should correctly optimise mobile sites. Most consumers will not use a smartphone to make their purchases but to browse. SaleCycle explains how 70% of all customers do their research into holiday bookings on a smartphone, however 80% of users in the United States still prefer to use their desktop or laptop when making a booking.

Consumers can be more loyal to user experience or price than brand loyalty and this appears to be true for travel websites, PWC reported that 55% of consumers are likely to explore new air travel brands. Therefore it is more important than ever for travel websites to focus on creating a good user experience. Google's new user experience initiative Core Web Vitals has now rolled out and travel brands should aim to pass these metrics to compete.



**\$517BN**

worldwide market size of the online travel booking industry.  
- Statista



**65%**

of worldwide sales in tourism and travel were made online in 2020.  
- Statista



**87.90%**

abandonment rate for online travel sites in 2021.  
- SaleCycle



**55%**

of consumers are likely to explore new air travel brands.  
- PWC

# Travel Industry Web Vitals Results

We analysed data from the top global travel websites, made up of both ecommerce sites and review websites. The league table from Web Vitals Index as well as additional RapidSpike data has been analysed to gain a thorough understanding of the online travel leaders. The Web Vitals Index scores are made up of performance, accessibility and reliability factors including: Lighthouse scores, Web Vitals scores and Uptime scores. We have currently disregarded the Progressive Web App (PWA) score because that technique is not widely adopted yet, therefore it wouldn't be particularly fair to include. Data has been collected across a 9-month period, Web Vitals Index league tables are reset every Sunday.

A Lighthouse audit is run alongside Core Web Vitals tests and uptime checks, together these statistics create the Index score. Seven-day averages of these metrics are collated weekly, run through our Index Calculator to produce a single, computed score and then the websites are ranked by this against each other and according to their industry. In addition, RapidSpike data such as Speed Index compliments these statistics to give even further insights into the landscape.

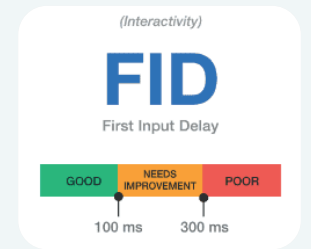
Note: The web vitals index does not attribute whether the company is an aggregator or a fully ATOL-protected organisation. This is purely about the website, not the manner of how the travel is sold and we recommend using a protected supplier.

### Scoring brackets:

- 0 to 49 (Red): Poor
- 50 to 89 (Amber): Needs Improvement
- 90 to 100 (Green): Good



#	Company	Perf. /100	LCP /ms	FID /ms	CLS	Access. /100	SEO /100	BP /100	Uptime %	INDEX Score
1	Trivago	63	1752	128	0.00133	90	92	98	100%	79.7
2	Holiday Pirates	62	2420	139	0.00525	89	100	100	100%	78.8
3	Hainan Airlines	40	4014	81	0.00650	91	91	87	100%	72.7
4	Hotels.com	54	3095	93	0.00465	94	92	73	100%	69.8
5	Make My Trip	44	2320	154	0.01132	80	92	87	100%	69.5
6	Sky Scanner	41	4709	132	0.07211	96	100	80	100%	69.1
7	Booking.com	42	3105	111	0.00001	93	83	80	100%	68.5
8	Holiday Check	43	2308	352	0.01977	75	92	81	100%	66.5
9	Emirates	38	3180	270	0.02010	94	76	93	99.91%	66.1
10	Neilson	41	5208	189	0.01143	87	83	87	100%	65.8
11	Air China	57	3923	77	N/A	78	70	80	99.69%	65.8
12	Travel Zoo	33	6809	126	0.00014	92	100	77	100%	65.3
13	Last Minute	34	5128	142	0.00993	81	83	100	100%	65.2
14	Travel Supermarket	44	4299	134	0.11802	100	100	73	100%	64.8
15	On The Beach	36	3950	235	0.04236	86	92	82	100%	64.8



All three Core Web Vitals must have 'Good' scores to pass.

## Performance

Highly-performing websites convert more customers. By improving page speed and detecting issues affecting your web page performance, performance scores can vastly improve. Across the board, travel websites performed poorly in the performance category with the average travel performance score being just 50 and the lowest score observed being 10. The highest score was 63 from Trivago, however Trivago's performance score has been as high as 94 which would put them among the top-scoring websites for performance. Google explains fluctuations in scores can be caused by a number of things including A/B tests or changes in ads being served, internet traffic routing changes, and browser extensions that inject JavaScript. Our recommendation to websites which fluctuating performance scores would be to monitor scores and how these scores differ depending on website traffic to then take further action in ensuring consumers are delivered good performance even at peak times.

## Accessibility

Creating accessible websites is incredibly important as it allows for more people to be able to properly access a website. Additionally, search engines use accessibility scores as part of their ranking factors.

Travel websites performed well in this category with average accessibility at 74 and the lowest score being a 57 which although falls within the needs improvement bracket, is better than seen in other ecommerce categories. The accessibility audit weights accessibility factors differently, however these are usually simple fixes and improving this score can boost your overall Index score. Top players for accessibility with a perfect 100 score are:

- Travel Supermarket
- RyanAir
- American Airlines

## Best Practices

Best Practices Lighthouse audits look at a website's code development. Best Practices scores can be improved by looking at website health. Part of the measures needed for a high Best Practices score are security-focussed and therefore it is important to improve scores for the health of your website and the protection of customers. Travel websites performed reasonably well in this area with an average score of 77. Some websites also featured perfect 100 scores:

- Holiday Pirates
- Last Minute  
Hostel World

Ways to improve Best Practices include ensuring websites are kept up to date with security procedures to avoid known security vulnerabilities, as well as being protected with HTTPS. When linking to another page using the target="\_blank" attribute, your website can suffer performance and security risks, therefore it is important to look into how Google identifies safe links. Other important Best Practices aspects travel sites should focus on getting right are good user experience audits including making sure images have the correct aspect ratio and that user location is not requested on page load.

## SEO

Due to the competitive nature of travel websites, it is not surprising that most websites performed highly in this category. The average SEO score was 87. This category saw travel websites perform the best in, with several websites with perfect 100 SEO scores.

Web pages should be optimised for search engine results to gain better visibility in search engine rankings. Therefore it is important to make sure search engines understand your content, can crawl and index your pages and are mobile-friendly. Making sure pages have relevant title elements, meta tags, and alternative text on images is a great step in boosting scores.

## Speed Index

A metric not featured on the Web Vitals Index but within RapidSpike is Speed Index. Speed Index measures how quickly content is visually displayed during page load. Speed Index scores should be within 3.4 seconds to return a 'fast' score, anything longer than this can cause frustration for customers and has the potential for abandonment. Therefore it is a good metric to track.

Travel websites in general performed well in this category with the average travel website speed being 2.97s. There were some anomalies with some websites taking as long as 7.8s to become visibly populated. Based on location, 70% of the top US travel and airline sites have a fast Speed Index and 75% of the top UK travel and airline sites have a fast Speed Index. Unfortunately, speed is not everything though, only 22% of websites with a good speed index score passed Core Web Vitals on desktop or mobile, meaning user experience is often neglected on travel websites.

## Core Web Vitals Results

Core Web Vitals is a new user experience initiative by Google. These vitals are used to measure the user experience stages of a web page – loading, interactivity, and visual stability. They apply to all web pages and should be measured by all website owners. Website owners need to pass each of the signals to provide a good experience for users.

### Largest Contentful Paint (LCP)

LCP measures loading performance. This is the amount of time to render the largest content element visible in the viewport, from when the user requests the URL. Typically, this is a video, image, or large text element. To fall within the 'Good' threshold, LCP should occur within 2.5 seconds of when the page first starts loading.

Travel websites often have difficulties with LCP scores due to large images/videos for marketing purposes. Results from the Web Vitals Index show that only 19% of travel websites pass LCP. This was the lowest-scoring Core Web Vitals category for travel websites and shows that there is an industry-wide issue in this area. The most common causes of a poor LCP that affect travel websites are:

- Lack of pre-loading
- Slow server response times
- Render-blocking JavaScript CSS
- Slow resource load times
- Client-side rendering

### Improve LCP Scores

To remediate these issues websites must optimised their server, use server-side rendering and route users to a nearby CDN. CSS and critical Javascript should be minimised and non-critical CSS deferred. It is recommended to optimise caching assets and serve HTML pages cache-first.

Look into how images, videos, and other large files are affecting your load time. Using a Webpage Test you can view a waterfall of elements and their load times, here you can view which resources are taking the most time to load. It is also important to look at third-parties and identify slow and unnecessary third-parties.

### LCP

19%

of travel websites had 'pass' scores for LCP

37%

of travel websites had 'needs improvement' scores for LCP

44%

of travel websites had 'poor' scores for LCP

### FID

92%

of travel websites had 'pass' scores for FID

4%

of travel websites had 'needs improvement' scores for FID

4%

of travel websites had 'poor' scores for FID

### CLS

44%

of travel websites had 'pass' scores for CLS

23%






of travel websites had 'needs improvement' scores for CLS

33%

of travel websites had 'poor' scores for CLS

### ★ TOP 5

### LCP

1		Trivago	1752
2		Holiday Check	2308
3		Make My Trip	2320
4		Holiday Pirates	2420
5		Hotels.com	3055



## First Input Delay (FID)






FID measures interactivity. This is the time from when a user first interacts with your page to the time when the browser responds to that interaction. This could be clicking on products or different pages. To fall within the 'Good' threshold, pages should have a FID of less than 100 milliseconds.

In general, travel websites performed the best in this section with 92% of the top global travel websites falling within the 'Good' band.

The main cause of a poor FID is heavy JavaScript execution. Optimising how JavaScript parses, compiles, and executes on your web page will directly reduce FID.

Google recommends the following:

- Break up Long Tasks
- Optimize your page for interaction readiness
- Use a web worker
- Reduce JavaScript execution time

★ TOP 5		FID
1	 Air China	27
2	 Hainan Airlines	81
3	 Virgin Holidays	95
4	 Despegar	102
5	 Booking.com	111

## Cumulative Layout Shift (CLS)






CLS measures visual stability. CLS measures the sum total of every unexpected layout shift that occurs during the entire lifespan of the page. This includes ensuring graphics and other visual elements are in their right place – so a user can experience them as intended. The less layout shift on the page, the better the user experience. To fall within the 'Good' threshold, pages should maintain a CLS of less than 0.1.

Travel websites struggle with CLS and it is visibly noticeable on websites. Often travel websites have heavy imagery and ads, these are often seen shifting when the page is loading. Only 44% of the top travel websites had a Good CLS score.

The most common causes of a poor CLS are:

- Images without dimensions
- Ads, embeds, and iframes without dimensions
- Dynamically injected content
- Web Fonts causing FOIT/FOUT
- Actions waiting for a network response before updating DOM

Some suggestions to fix CLS issues are to always include width and height size attributes on your images and video elements. Ads are one of the largest contributors to layout shifts on the web, so be sure to only run critical third-parties. Avoid inserting new content above existing content, so any layout shifts that do occur are expected. Finally, be careful downloading and rendering web fonts as these can cause layout shifts.

★ TOP 5		CLS
1	 Booking.com	0.00001
2	 Travel Zoo	0.00014
3	 Trip Advisor	0.00028
4	 Trivago	0.00133
5	 Air Canada	0.00181

## Helping Neilson Rank In The Top 10 Global Travel Websites With Improved Web Vital Scores By Up To 42%



### Challenge

Neilson's online offering provides package holidays that are inclusive, active and fun. With approximately 60% of their total holiday bookings now being done online, over £45 million of Neilson's total revenue in 2021 can be attributed to website transactions. Website monitoring is therefore a business critical function to ensure online revenue is protected and customers remain loyal and satisfied.

Richard Scales, Digital Product Owner, believes the challenge in website monitoring for travel websites is highly complex compared to other eCommerce brands stating, "With holidays, it's very different to a normal website that sells products because the products we sell have so many variations. So to check that your website is running, you need to monitor all the variations. There's so many variables to any holiday booking."

Neilson's website has risen in market share of booking channels rapidly since Richards arrival at the company (from a mere 20% in 2021), so finding a monitoring solution that was advanced enough to support the website's goals as it scales was imperative. Due to its increasing impact on overall revenue, if the website is not performing optimally, has broken functionality or an un-secure checkout, the resulting impact is monumental.

Alternate booking channels are not always available, for example call centers are closed on Sundays, and one singular Sunday in January took £250k of business via the website. Therefore, it is important the website is accessible 24 hours, 365 days of the year.



### Solution

Previously Neilson utilised an incumbent product, however quickly realised this solution was not proactive, and didn't have the monitoring depth to find every issue that was contributing to performance problems on their website.

Richard was tasked with finding a better solution and synthetic monitoring was the solution to their monitoring needs. Neilson needed a platform that gave them the ability to monitor complex user journeys that could pinpoint problems quickly. They decided to trial RapidSpike, primarily swayed by the option of a managed service to set up and maintain user journey scripts, allowing Richards small in-house development team to focus entirely on the development roadmap.

After utilising the free trial and tailored onboarding service to build a sample script, Richard was impressed by the functionality of RapidSpike's industry leading platform and frictionless transfer from their incumbent tool, and decided to begin the implementation immediately.



### From the Client

Richard Scales, Digital Product Owner - Neilson

I wanted a tool that's proactive and can act as a mystery shopper - showing us why something is broken, which is not always the website, it could be back office systems like the reservation system for example where someone has loaded up the wrong flight or third party systems like postcode lookup wasn't working - RapidSpike gives us this visibility and narrows down the issue in hand to fix.



**1.3 million**

Checks made monthly (average)

**42%**

Improvement in TTFB performance

**16%**

Improvement in performance score

**22%**

Improvement in CLS scores

**44%**

Increase on the Web Vitals Index

**12 issues**

per month affecting customers found



### Key Results

Neilson are already benefiting from RapidSpike's 24-hour proactive monitoring. Due to the level of coverage the platform provides, they can now query their backend systems, and are alerted whenever there is a problem that may be affecting customers or conversions, be it intermittent issues or new events.

Over the last three months RapidSpike has already identified multiple live issues that were affecting customers (an average of 12 per month). Using our industry leading platform and actionable insights, Neilson have been able to improve their FID score by 4%, their CLS by 22%, overall performance score by 16%, and their TTFB (time to first bite) performance by a huge 42%. This has led to the company featuring in the global Top 10 travel websites on the Web Vitals Index, amongst global travel websites.

Richard now feels confident that with monitoring in place they can narrow down any issue with customer journey problems, back-end solutions, and third-party performance. So far the platform has delivered 3,700 alerts, and in the first quarter of 2022 over 3.7 million checks were made across the account. RapidSpike is now considered a business critical solution.

**10**



Neilson

**INDEX Score**

**WVI 65.8**

Overall score based on all metrics measured across the index.

# Website Reliability Checks

The fragility of the internet means many cogs are working in tandem and at any moment, those cogs could be disrupted. Making sure websites are up and running is a key priority for technical teams. Travel websites are often the subject of news headlines when issues occur due to the large impact on consumers. Booking flights and holidays online is now the norm and consumers value fast, reliable and safe websites. Although website reliability involves basic website checks, they should not be neglected. Travel websites need to undertake reliability checks and have a contingency plan in place to avoid downtime, improve customer happiness, and manage reputation.

## 1 Uptime

Travel websites, in particular global sites, need to ensure their web pages and servers are up and working around the world. Using uptime monitoring, availability should be monitored from various locations around the world to prevent a different experience in different countries. This check is the very basics of monitoring - it will say whether the web page is up or down, however more advanced monitoring is needed for travel websites to understand if the page is up with errors.

Websites should monitor individual pages for correct status codes and response time. Uptime checks can also be customised to check for specific content in the HTML, such as a word or phrase.

Travel websites tend to have lots of urls in their sitemap. Therefore a good monitoring service to have in place is for the sitemap. Sitemap monitoring lets you test your XML sitemap. The monitor parses your sitemap and dynamically tests every single URL to report on its HTTP response.

## 2 Domain Name Monitoring

Domain names are responsible for driving customers to the website as well as ensuring critical business emails can be received. Domain name monitoring tracks all parts of the domain WHOIS record and notifies if something has changed from a previous value.

It's important for travel websites to monitor their domain expiry, as customers can be loyal to brand names. Domain hijacking is where a third party would change the name servers associated with a domain name in order to redirect website users to another website. This method is commonly used in Phishing attacks so that users are tricked into entering credentials on the untrusted and rogue site in order for the third party to further leverage these for financial gain. If a hacker gains access to a domain they then have the power to redirect traffic and take control of any email using that address which could cause significant reputational damage.



### Latest Results

Date	Status	Response	HTTP Code	Test Location
Tue 6 April 2021 – 10:41	↑	97.6ms	200	Washington
Tue 6 April 2021 – 10:37	↑	830.5ms	200	Dublin
Tue 6 April 2021 – 10:31	↑	738ms	200	San Francisco
Tue 6 April 2021 – 10:27	↑	843.3ms	200	Dublin
Tue 6 April 2021 – 10:22	↓	—	0	London

Displaying 1 - 5 of 356





## Top Tip

James Tyler, Head of Technology - RapidSpike



“Travel websites often have seasonal sales and website reliability should be tested before and monitored during these events. In preparation for sales, websites should ensure they can scale up their infrastructure to meet the increase in traffic.

It is important to ensure hosting solutions can be scaled up and down over the period. This means you can accommodate higher traffic to your website, and then decrease hosting and save on associated costs when the traffic decreases. Scaling infrastructure can include adding more machines, or for cloud-based solutions using auto-scaling and load balancing. Thinking about ways to mitigate load would also be useful - utilising visitor queuing mechanisms can help you control traffic flow and implementing serverless and caching technologies could help in absorbing traffic better.”

### 3 SSL Certificate

SSL Certificates provide encryption between the client and server and protect any sensitive data such as credit card details when sending data over the public internet. These certificates only last for a period of time and tracking the expiry date of these is vital for site reliability.

Google will penalise websites without SSL, displaying a ‘Not Secure’ message to customers so ensuring the certificate continues to be valid is important. SSL monitoring is important for all websites, however in the competitive travel market, customers are highly concerned with their security and will opt for a more secure site.

Travel website owners should monitor for any changes including expiry date and the issuer as an added layer of security to ensure that nothing has been changed.

### 4 Status Page

If a website does encounter downtime, a custom status page is the best way to let the correct technical teams or customers know. A status page can be available on its own unique generated URL. The pages can be kept private for internal use by managers and support staff, who can check it whenever they encounter customer problems, or can be public so customers can check if there’s an issue with the website.

Pages should be configured to automatically refresh every minute to keep anyone with access to the page up to date with the latest information. If a company does decide to make their status page public (recommended), it can be customised with company branding. Often customers will take to social media, in particular Twitter, to investigate if there has been an issue with the company’s website. Status pages can be pinned to the top of the page for easy access for customers.

#### Website Pages - HTTP (aggregate)

HTTP monitors your website's overall availability and uptime.

↑  
**All Passing**  
STATUS

🕒  
**1098.7ms**  
AVERAGE RESPONSE

🕒  
**510.8ms**  
LATEST RESPONSE (AVG)

⚠️  
**∞ (n/a)**  
LAST STATUS CHANGE (7 DAYS)

🟢  
**100%**  
UPTIME

## Website Performance Checks

Website performance should be monitored to check the health of your web pages to avoid major customer-affecting issues like poor performance and on-page errors. With the average consumer only waiting 3 seconds before leaving a website, being slow is the new down. Although travel websites tend to have more complex usability, consumer expectations are still the same. Website owners need to ensure website speed is optimised, key customer journeys are working as they should, and user experience is prioritised can help boost conversions and keep customers happy.

### 1 Critical User Journeys

A Synthetic User Journey is a path that a real user takes when using a website or app. Most websites are built to allow users to complete one or more key goals and can help to check the performance of a website from the customers' perspective. Synthetic user journeys are our most popular tool used by travel clients to ensure slow load times, missing pages or failing checkouts don't affect customers' experience.

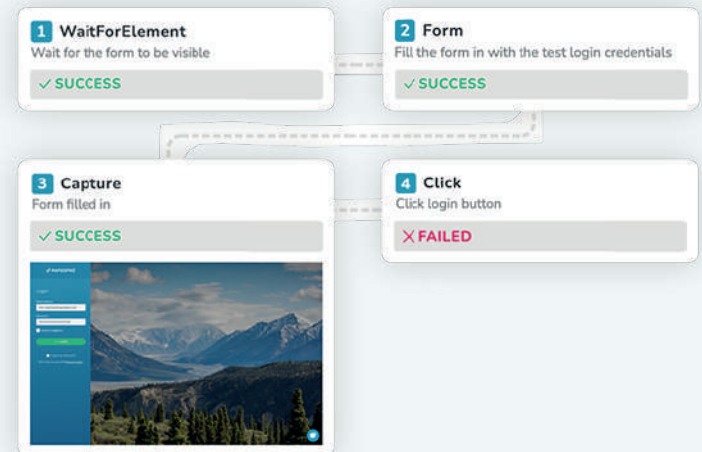
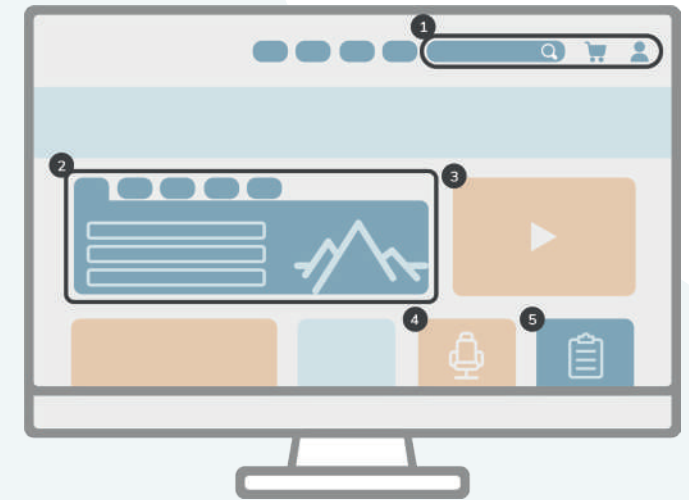
Key travel journeys which can be monitored include:

- Complex booking journey
- Payment gateway journey
- Search functionalities
- Account login
- Brochure download abilities

Synthetic user journeys highlight bottlenecks customers may be experiencing, and give an understanding where improvements can be made. Actions can be customised to take into account specific needs like popups or calendar inputs. If a customer needs a function to complete a task, a user journey should be used to test. Synthetic user journeys help to pinpoint issues and drill down to their root-causes to resolve them quickly, as well as proactively manage customer experience and prevent customer basket loss. In addition to checking key performance metrics, synthetic user journeys and also test website reliability and security.

### 2 Video User Journeys

For more complex customer journeys with multiple steps like holiday/flight bookings, a video user journey can be used to record the journey test being performed. This feature makes it easier to identify issues clearly, and therefore resolve them faster. A video user journey is a full recording of a journey, as a user would see it. It can be useful to inspect the journey in greater detail to identify which step has issues and how they occurred.

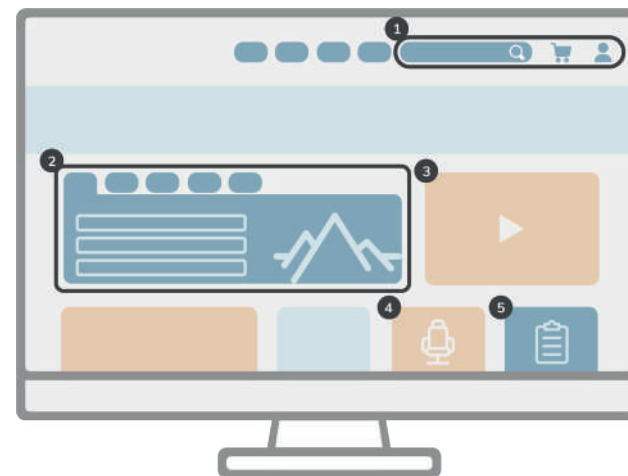


### 3 Webpage Performance

Travel websites are notoriously complex and interactive, therefore testing the performance of key pages is essential to know where there are opportunities to speed up and in turn convert more customers. In our analysis, the main issues travel websites have with page performance include: large images/videos and multiple third-parties.

Images, videos and downloadables need to be compressed. A webpage test can show a detailed waterfall of elements on a page, which can help in identifying slow-loading or large assets. Webpage tests can perform a deep analysis of a webpage, downloading every element, script, cookie, image and third party. Checks need to be made from the initial connection, how long it takes to load all the webpage content, to an interactive DOM.

Third parties should be monitored closely as they pose both a performance security threat. Managing and assessing third parties can show performance impacts, errors and issues. Travel websites often participate in seasonal sales such as Blue Monday and Black Friday, we would recommend only essential third parties are used at these times to improve website speed.



#### Third Parties

24 3rd Parties	78 Individual Files	1,887kb Total File Size	10.171s Total Load Time				
Domain	Files	Combined Size	Combined Load ↓	Weighted Speed	Avg Speed	Speed Score	
1 hs-scripts.com	2	960 b	1.454 s	1 b/ms	727 ms/request	Very Slow	▼
2 gstatic.com	25	1.106 kb	1.364 s	811 b/ms	55 ms/request	Fast	▼
3 googleapis.com	3	7 kb	823 ms	8 b/ms	274 ms/request	Slow	▼
4 hsforms.com	2	3 kb	790 ms	3 b/ms	395 ms/request	Very Slow	▼
5 google.com	15	139 kb	593 ms	234 b/ms	40 ms/request	Very Fast	▼

### 4 User Experience Metrics

User experience is an important area of website performance to monitor. Google's recent initiative - Core Web Vitals, focuses on three key aspects of the user experience: loading, interactivity, and visual stability. Failing any part of these will impact SEO.

Of the three Core Web Vitals (Largest Contentful Paint (LCP), First Input Delay (FID), and Cumulative Layout Shift (CLS)), travel websites commonly have issues with CLS, which measures visual stability. Complex travel websites need to minimise unexpected layout shifts to provide a stable user experience.

Knowing your Core Web Vitals scores in a one off test is not enough for travel websites to have a good understanding of their scores. Core Web Vitals need to be continuously monitored to see how different users accessing a website from a different device or browser may experience a website. Monitoring Core Web Vitals scores in a clean environment on both mobile and desktop allows website owners to benchmark performance and make appropriate changes.

### 5 Google Lighthouse Audit

Google Lighthouse is an open-source quality testing tool built by Google. Lighthouse is a great tool for analysing your website in order to improve your overall site performance. Lighthouse analyses a given URL and performs a series of audits, testing on a number of broad categories, including; Performance, Progressive Web App (PWA), Accessibility, Best Practices, and SEO. A Lighthouse test can help debug any issues which may be holding a website back from performing efficiently, and effectively.

## Writing a Complex Travel Synthetic User Journey

A Synthetic User Journey is a path that a real user takes when using your website or app. Most websites are built to allow users to complete one or more key goals. For some travel websites this might be to simply host a catalogue and telephone number on the website, for others it may be more complex including destination search, passenger forms and payment gateway.

For each goal, we can define the series of steps a user would take to complete it and from this create a unique user journey monitor. This monitor can be run regularly at any hour, from anywhere in the world. The monitor behaves like a real user - using a browser that downloads page elements, pauses between actions, looks for content and interacts with buttons and form elements. User journeys can be configured to follow any sort of key application process, from simple browsing of a website to complex interactions, communicating with an API, and much more. For this reason, every user journey scripted by RapidSpike is bespoke and tailored to your requirements. It is important travel websites in particular monitor their critical user journeys to ensure customers can complete steps without errors and in a timely manner.



### 1 Load Homepage

The first step of any travel associated journey is to load the homepage to ensure there is enough time for the site to fully load before interacting with any elements. Other actions can be included here however we recommend including this in the next step to set a clear distinction in case of a failure between the page loading and the first time interaction with the page.

Start the journey with a 'WaitForElement' action using an element you are going to interact with. A good example is a search button with the action set to wait for the element to be clickable. Following this we recommend a 'Capture' action so you can view how the page loads at the start of each test.

### 2 Enter in a Booking Search

The second step starts to interact with the site by filling out the search information. Each search will be unique however they follow a very similar structure, including a text input field, date selectors and dropdowns.

The first interaction will likely be entering a destination using a 'SendKeys' action. Depending on the form this may need to be followed by a 'WaitForElement' on the search suggestions and a click to confirm your chosen destination. Depending on the date selector you will either need to enter the date into the input field using a 'SendKeys' or potentially open a date picker using a 'Click' to open the selector and another 'Click' to confirm the selection. Finish the step with a 'Capture'.

### 3 Search for Flights

The third step very simply clicks search and waits for the page and its results to load. This step starts by clicking the search button which is then followed by a 'WaitForElement' to wait for the page to become interactable. We would recommend using the selector of the flight button you are going to click on in the next step.

Finally add a 'Capture' which is especially useful to view the results that are appearing incase information is missing or changes. Being able to identify how the information is inputted is important in case additional 'Waits' need to be added.





#### 4 Selecting From Flight

Step four selects the destination flight from the search list. This may come with a few options or potential for an upgrade which will need to be considered. These might appear as pop-ups meaning extra actions/steps need to be added.

Firstly use a 'Click' on the booking you want to choose. We would recommend keeping the selectors not too unique as this list will change depending on location and other factors. It is however good practice to keep the selector unique, this can be achieved with nth-child or Xpath.

Next include a 'WaitForElement' to ensure the next page loads correctly. The next page will be the return flight so using a similar selector to the 'Previous' click should work fine. Finally add a 'Capture' as the final action in the step.

#### 5 Selecting Return Flight

This step should be almost identical to the previous step as you are just selecting the return flight which will likely be a similar page to the destination flight.

Firstly add a 'Click' to the return flight you want to choose. Next add a 'WaitForElement' to allow the next page to load. Finally add a 'Capture' as the final step. This capture is important as it will capture the flight overview information for everything the journey has selected.

Optional: Popups may occur offering upgrades which will need extra steps. If this is needed, then popups can be incorporated into the journey via an 'Ifassert' action. The journey checks for the element like a continue button, if the button is there then there will be a 'Click' action and that will close the popup. If it checks and it can't see the element then it will go to the 'then' scenario - which will continue the journey.

#### 6 Passengers

Step six is when we reach the personal details section for adding in the passenger information for this flight. On a standard booking journey, we would recommend keeping this as simple as possible and sticking to a standard one adult per flight, although you do have the opportunity for multiple passengers if this is a key functionality needing to be tested.

Firstly start with a 'Click' to proceed. Click continue as a guest, assuming they do not have an account then this is the point in which we would test guest function. Once completed, the journey will continue as a guest. If a log in function was required instead, this would need to be a separate journey due to the complexities of this journey.

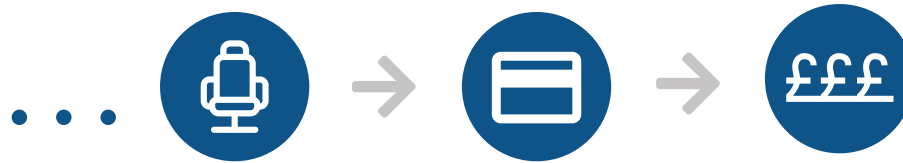
Next add a 'WaitForElement' to allow the next page to load. Dropdowns for selections may be necessary at these steps, as well as additional interactions using a 'SendKeys' action. Finally, finish with a 'Capture' action.



#### Top Tip

Harry Burton, Customer Success - RapidSpike

"You can randomise actions such as the destination in order to test different scenarios on your site such as passengers, miles, or upgrades. We recommend not randomising everything but using the 'PickItem' containing a selection of locations prior to the 'SendKeys' will increase the potential of the journey."



## 7 Choose Your Seat

The next step is to choose a passenger seat. The step will start with a 'Click' to proceed, then add a 'WaitForElement' for the page to load. The journey will then click on a seat which can be randomised if necessary. This step may come with a few options or upgrades which will need to be considered. These might appear as pop-ups meaning extra actions/steps need to be added to click or close popups. Finally a 'Capture' will be added to show evidence of the step.

Video user journeys can be particularly useful in complex journeys like booking holidays, as they can give a better picture of the journey when there may be more actions a user would have to take before proceeding.

## 8 Proceed to Payment

The next section of steps focuses on the payment gateway, a crucial step to avoid basket abandonment. The step will start with a 'Click' to get onto the page and confirm the order. The next actions will include a mixture of 'SendKeys' for payment fields and 'Form' actions for the personal billing data. Dummy payment details will be entered at this point which we are expecting to fail.

If you have iframes present on your page, you will need to use a 'SwitchToIframe' and enter payment details then 'SwitchToDefault' - if they detect an iframe in the payment then they will need to use those two actions.

## 9 Complete Payment

The final step is to complete the payment, in a synthetic user journey this will be to ensure the payment has failed. Start this step with a 'Click' action to place the order, then use a 'WaitForElement' action to wait for the error message in response to the dummy card details. Finally, a last 'Capture' action will be used to show evidence of the completed journey.

RapidSpike synthetic user journeys can detect payment theft as part of your monitoring, particularly useful on journeys with sensitive data like payment information to help in the detection of web-skimming attacks like Magecart.

## Why RapidSpike?

RapidSpike's Synthetic User Journeys can keep up with complex travel websites, optional steps useful to travel companies can include custom HTTP headers, cookie manipulation, deal upgrades, and suggestions. RapidSpike Synthetic User Journey monitor provides a wealth of data about pages and their elements to give you all the data needed to improve your site speed, customer experience and security including:

- Individual and total page speed
- Speed, size and location of all elements loaded
- Global IP map showing of all elements loaded
- Tracking of all third parties – load times, sizes and speed
- Full waterfall view of elements as they are loaded
- Identify issues detected: failures, slowdown, missing elements
- Browser and Server logs

## Don't have the time or resources to write your own scripts?



Managed user journeys can take away the pain of managing your monitoring by having RapidSpike create the scripts for you, help you debug issues and understand a Magecart Attack if you detect one.

## RapidSpike Are The Secret Sauce Behind Leading Travel Brand



### Challenge

As an industry-leading leisure and tourism booking business, this client has a very complex online footprint. With over 140 million organic website visits and nearly 30 million paid visits a month – if their website goes down or is not optimally performing, it incurs a high cost. This company turns over billions of dollars – so if their website was down for even one hour – it would cost them upwards of \$780,000 dollars.

They were previously outsourcing their monitoring needs to a service-based provider, meaning they lost control of editing their complex user journeys and continuously needed to spend money to request changes. This became frustrating as the client had skills in-house within their engineering team, so the need for an easy to use, self-serve platform was apparent. A self-serve option was provided by the previous provider, but it was overly complex, messy to code and ultimately highly resource intensive.

To decide on a provider they created a scoring system. Evaluated against 10 other suppliers, including Dynatrace, Uptrends, New Relic and Eggplant, RapidSpike came up top with a score of 89/100. We also identified a key opportunity using their scorecard to move up to an impressive 92/100 by implementing Single Sign On (SSO).

89%

Score on vendor scorecard

179 million

Website Visits Per Month

223,324

Checks per month



### Solution

Firstly, we outlined their specific user journey requirements, including monitoring their core websites, third-party sellers and individual page functionality. Most importantly, they wanted to monitor the entire action of booking a trip, from homepage to payment.

Milestones were then agreed, the first of which involved building all critical and basic journey paths in our app – aided by RapidSpikes customer success team who empowered the client to build their own scripts. Secondly, we began increasing the frequency of the user journeys, which were initially set to 60 mins to avoid increased running costs.



### Key Results

The client has begun improving upon their website performance, and RapidSpike have carried out over 200,000 checks per month on their account so far. They have successfully transferred and improved upon all of their previous scripts, and will continue to use RapidSpike as the secret sauce behind their website monitoring strategy to implement automated synthetic user journeys at scale.



RapidSpike has absolutely helped us. The product is far easier to use than our previous platform, and the service is fantastic. No service provider I have worked with has given me enough value that I know the names of their support team members; they are doing really good things.

- Senior Engineering Manager at Anonymous Travel Brand



## Website Security Checks

Due to the market size of the travel industry, it is important travel websites have both preventative and reactive security procedures in place to avoid massive data breaches. Malicious attack attempts look to exploit poor configuration from date patching, cross-site scripting or injection vulnerabilities on the website. The best approach to website security is defence in depth. A multi-layered approach using a plethora of tools can provide coverage across a variety of potential security issues. Attackers are coming up with new ways to disguise their attack techniques, therefore travel companies need to continuously analyse their sites for vulnerabilities as well as monitor for attacks present. Having security procedures in place can help protect customers' data, prevent massive fines and avoid damage to business' reputation.

### 1 Security Checks

Being proactive in preventative measures against security attacks is the first step to building a strong security foundation. Travel websites need to keep infrastructure up to date with the latest software versions and patch vulnerabilities before they are exploited. Vulnerability and port scans should be performed regularly to detect open and closed ports, out-of-date software, configuration issues and harmful vulnerabilities.

Google's Safe Browsing list monitors sites for malware, including social engineering, phishing, and other security issues. Inclusion on this list results in websites being removed from the Google search engine results, and any direct visitors to a site will receive a warning message.

### 2 Security Headers

When a customer visits a website, the metadata in the header tells their device how to act, how to respond and what rules to expect. On simple sites, the header might be just a few lines of code and a link to a CSS file, but on more complex websites as we often see in the travel industry, the header can become larger and larger, until the complexity starts to introduce risks and lower the overall performance of the website.

HTTP Strict Transport Security (HSTS) header lets a server declare to browsers that it will only interact with them over HTTPS. This provides a defence against man-in-the-middle type attacks, and ensures that all traffic and data types on your site are encrypted. Security headers form a good baseline defense against a range of attacks, and as such, it is recommended that they be utilised.

	<b>Passing: Grade A+</b> SSL Cipher	<a href="#">VIEW</a>
	<b>3 Header Issues</b> Security Headers	<a href="#">VIEW</a>
	<b>Passing: No issues</b> Safe Browsing	<a href="#">VIEW</a>



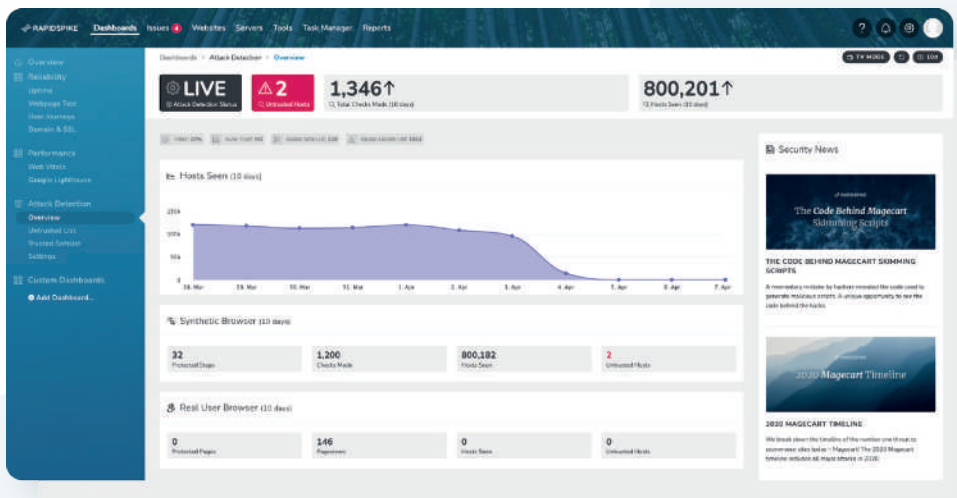
### 3 Payment Security

Payment security is incredibly important to both travel businesses and consumers due to the sensitivity of the data involved. Web-skimming attacks target consumer payment data and are the current number one threat to ecommerce websites today. Technical teams must monitor these forms to ensure data isn't being sent to a malicious host.

A new revision to the Payment Card Industry Data Security Standard (PCI DSS v4.0) means ecommerce websites will be required to build better defences against web-skimming attacks. Websites will need to both prevent and detect attacks to help mitigate the security risks highly dynamic web pages bring.

RapidSpike can detect Magecart breaches, website skimming, formjacking and supply chain attacks with our Attack Detection tool. Attack Detection is made up of three layers of protection: Client-Side Security Scanner, Synthetic Attack Detection, and Real User Attack Detection. These three services work as a blended service to offer a best-in-breed defence in depth solution to client-side security issues.

This monitor scans a website looking for known patterns, the appearance of new JavaScript files, and also where customers are sending data to. Attack Detection can either protect everything or choose the areas of your site which are the most vulnerable, for instance the payment gateway. This multi-layered approach means websites can examine more data points than ever before to understand exactly where customers' information is being sent to, allowing companies to both proactively and reactively detect data breaches on the client side faster than ever.



### 4 Third Parties

Travel websites often require third parties to enhance user experience and for marketing activities. The average ecommerce website has 85 third parties, including advertising, analytics, application performance monitoring, helper libraries, fonts, image libraries, social, customer success tools, AI, video, hosting, payments and content delivery networks to name a few. Each of these third parties brings their own risk to a website and need to be monitored to ensure they are not damaging the security of a website.

Paris-based advertising company Adverline was hacked and their advertising retargeting scripts were directly compromised, loaded on to numerous websites providing ticketing and flight booking services as well as self-hosted retail websites stealing customers' payment details. 277 businesses were compromised. The attack was present from November 2018 and was still present two months later. The malicious code delivered through Adverline's ads performed a page URL check with keywords found on checkout pages. This attack is believed to belong to Magecart group – Group 12.

Using Attack Detection, third parties are monitored and can be placed into a Trusted List. Any new host detected will be shown in an Untrusted List where the host URL and requests made will be shown, as well as which step of the journey it was found on. Data shown will include the host URL, the site discovered on, step discovered on (if applicable) and requests made, which can help with domain-spoofing/squatting attacks. To monitor security effectively, keeping this list up to date will ensure you have full visibility over hosts and get the most out of the data.

**Prism** | rbs  
retail business solutions

“ RapidSpike has absolutely helped us to protect our long term brand reputation. Peace of mind goes a long way, the fact we are able to pull specific whitelists out of RS and tell clients exactly which external hosts they have communicated with is vital. In the event the hack was re-implemented we would have known about it within the hour. RapidSpike was the first step in recovering our brand reputation.

- Jared Gammel, Associate Developer at PrismRBS

## Travel Industry Data Breach Case Studies

Travel websites are key targets for cyberattacks, the reward for compromised data is high in this industry due to the sensitivity of the data involved. Over the years, there have been a number of attacks on travel company websites, airlines, booking and tourism websites have suffered a variety of cyber attacks, with some companies suffering multiple attacks. By analysing some of these attacks and being aware of tactics used by hackers, security procedures can be put in place to prevent attacks.



- 3 month-long data breach
- 2 years worth of records accessed
- 880,000 affected payment cards
- \$110,000 fine

On March 1st, 2018, Expedia-owned Orbitz disclosed a breach in which hosted travel rewards redemption service had been hacked. The hackers were able to access personal information stored on its consumer and business partner platforms. The attack took place between October and December 2017, however records date back to January 1st, 2016. Information accessed included names, addresses, dates of birth, email addresses, and credit card information.

Orbitz, acquired by Expedia in 2015 for \$1.6 billion, put security procedures in place for the compromised platform and said the current website was not involved. Orbitz notified consumers of the breach and offered a year's credit and identity protection services. In 2019, the company reached a settlement with the Pennsylvania attorney general's office of a \$110,000 fine.



On March 1st 2021, in an email to members, Malaysia Airlines revealed a 9-year data breach involving data registered between March 2010 and June 2019.

The data security incident occurred at a third-party IT service provider, not Malaysia Airlines' own infrastructure. The hack exposed frequent flyer member data in its Enrich program. Malaysia Airlines claims there is no evidence of the data being used maliciously. Data stolen included customer name, date of birth, contact information, and various frequent flyer data such as number, status, and tier level.

### easyJet

- 9 million customers affected
- 5 month-long breach
- 2,208 customers had financial information stolen
- £18 billion class-action lawsuit

On 19th May 2020, EasyJet provided a Notice of cybersecurity incident in which they revealed that in January 2020, they became aware of a breach in which 9 million customers had been affected in a highly sophisticated attack. Customers who booked flights between October 17th, 2019 and March 4th 2020 were affected with email addresses and travel details accessed. Additionally, 2,208 of those customers had credit card details accessed.

EasyJet warned the nine million customers whose email addresses were breached to be wary of phishing attacks.

UK cybercrime reporting agency Action Fraud said that by May 2020 there were 51 reports of credit card fraud resulting from the EasyJet data breach and the estimated loss to credit card holders stands at £11,752.81.

EasyJet's fine is yet to be determined, however GDPR states that they could face fines from the ICO of 4% of the airline's 2019 turnover. Additionally, law firm PGMBM is planning to file an £18 billion class-action lawsuit against EasyJet.

More cybersecurity issues for the firm include an investigation by Which?, in September 2020 exposed hundreds of security vulnerabilities on the websites of major airlines including 222 vulnerabilities across easyJet's nine domains in June 2020.

#### Which? Explains:

"The vulnerabilities included two critical flaws, with one so serious that, if exploited, an attacker could hijack someone's browsing session. This could open up opportunities to steal private data. In response to our research, easyJet took three domains offline and resolved the disclosed vulnerabilities on the other six sites."



- 420,000 customers affected
- 15 day-long breach
- £20m fine
- 16,000 consumers claimed compensation

In 2018, British Airways suffered a devastating web-skimming attack, affecting 420,000 customers over a 15-day period. The data breach was first disclosed 6th September 2018. Customers who booked flights through the website or BA app were directed to a fake website checkout that siphoned off their personal and payment information.

The group responsible for the attack 'Magecart', inserted 22 lines of JavaScript code via a vulnerability to siphon credit card details. Personal details included names, usernames, passwords, addresses and credit card details. The web-skimming attack was executed using a tactic called domain spoofing. Web-skimming attacks often include domain spoofing to assist in going undetected. British Airways malicious skimmer exfiltrated card details to a spoof domain, 'baways.com'.

Monitoring where data is being sent to is imperative for travel companies, using a detection tool, British Airways would have been alerted to this attack in minutes not weeks, meaning the malicious code could have been removed and vulnerability patched much sooner, protecting hundreds of thousands of customers' personal and financial information.

The General Data Protection Regulation (GDPR) came into effect in 2017, British Airways were one of the first companies penalties to be made public since the new regulations came into force. British Airways were fined £20m down from £183m by the Information Commissioner's Office (ICO), to be equivalent to 1.5% of its global turnover, although 4% of turnover could have been fined. Law firm PGMBM also filed the largest opt-in group action class action in UK history, in which 16,000 customers signed up for the action against the company.

**Information Commissioner Elizabeth Denham said:**

"People's personal data is just that - personal. When an organisation fails to protect it from loss, damage or theft, it is more than an inconvenience. That's why the law is clear - when you are entrusted with personal data, you must look after it. Those that don't will face scrutiny from my office to check they have taken appropriate steps to protect fundamental privacy rights."



**Top Tip**

Sam Jenkins, Principle Security Developer - RapidSpike

A good indicator of the legitimacy of the domain is to check the WHOIS record and view when and where the domain was registered, and who to. Often attackers only register the domain a few days or weeks before an attack takes place. In the case of British Airways 'baways.com' domain was used, consumers were unaware of this domain not being part of the British Airways group, however the company should have been aware much sooner.



## Recommendations

The COVID-19 pandemic impacted the travel industry, unlike any other industry. With stay at home orders meaning travel for leisure coming to an abrupt halt and other travel heavily reduced or suspended. Demand is high post-pandemic with consumers now looking to book their first holidays in years. Consumers are not necessarily loyal to travel brands, with other factors including price and user experience impacting purchasing decisions. PWC reported that 55% of consumers are likely to explore new air travel brands. Travel websites have to improve website experience in order to compete.

Statista reports the market size of the online travel booking platform industry worldwide amounted to roughly \$517.8 billion in 2020. As forecasted, the market size of this industry is expected to reach approximately \$983 billion in 2027. In 2020, 65% of worldwide sales in tourism and travel were made online, predicted to go up to 72% by 2025. Travel brands need to prioritise website reliability, performance and security to secure revenue, improve customer experience and avoid data breaches.

Consumers expect and deserve fast and secure websites. Despite the differences in complexities that travel websites have, consumers still expect a similar level of performance and user experience to other industries. With the direct correlation between website speed and conversion now widely acknowledged - with every second saved over three seconds is said to boost conversions by 7% - even marginal gains of 0.1% could represent millions of extra revenue for the largest travel brands.

### Reliability

The availability and reliability of websites is the cornerstone of a good website strategy. Without uptime and essential website checks, consumers may not be able to access a website in the first place. In general, travel websites have good uptime scores of 99.89%, however consumers' expectations are greater than this and will expect nothing less than 100%.

Website outages often become both news and social-worthy, therefore travel websites should take precautionary measures to mitigate outages, especially in holiday sales periods. Before sales, travel website teams should estimate traffic increases, undertake load testing or stress testing, and scale-up infrastructure to support the expected increase. A status page should be created to avoid confusion and let customers know what is happening with the website.

**\$983 Billion**

Predicted market size of the online travel booking platform industry worldwide by 2027.



## Performance

Having a highly-performing website is now the new normal, consumers expect fast websites with good user experience. With the average travel website speed being 2.97s, this is great news for consumers. It is our prediction that website speed expectations will continue to increase. Travel websites need to ensure both desktop and mobile websites can meet new expectations.

Although travel websites in general are fast, only 22% of travel websites with a good Speed Index score passed Google's new initiative - Core Web Vitals on desktop or mobile. Core Web Vitals has fully rolled out on both desktop and mobile now and only 2% of the top global travel websites are currently passing Core Web Vitals on both desktop and mobile. Travel brands need to make significant improvements to performance and web vitals scores in order to meet expectations from consumers, as well as avoiding negative SEO impacts. The good news is that there's still time to improve performance and web vitals scores to get ahead of the competition. We predict that Google will continue to adjust their Web Vitals to deliver new standards websites need to adhere to, therefore technical teams need to keep up to date with the industry standards.

Making sure customers can complete critical journeys is essential for sales. Travel websites have high cart abandonment rate, SaleCycle reported this to be 87.90% in 2021, therefore user journeys should be reliable, fast, and secure for brands to compete. Using synthetic user journey monitoring, travel websites can ensure all key processes are working as they should to maximise and protect revenue.

Highly performing websites are not only good for consumers but can also reap significant sustainability savings. We predict sustainability to become increasingly important to web teams. RapidSpike CEO Gav Winter explains: "If an eCommerce team mistakenly uploads an image that is 1MB too big, that might not seem bad at all, however, downloaded 1 million times, that's 1 million megabytes of server, network and user device time, plus electricity and transport time, which not only costs you and your customers money, but costs our planet too".

## Security

Security issues are prevalent in the travel industry and travel brands have to be proactive with a multi-layered security approach to avoid being the next news headline. The new PCI compliance means that all websites that transact online will need to monitor those transactions for web-skimming attacks. During the pandemic, we saw a 20% rise in web-skimming attacks, and Magecart continues to be the number one security threat to online websites today. Although known travel web-skimming attacks only made up a small number of attacks in 2020 (3.7%), our security experts predict this will continue to be a problem in the travel industry and websites need to take a proactive approach to avoid data exposure, fines and reputational damage.

Gav Winter explains "Website identity and payment theft will continue to grow. One of businesses' biggest vulnerabilities comes from third parties through the back door such as social media and geo-location tools, 95% of all successful attacks come from human error. The responsibility is not only on consumers to be cautious but big business too. It should not be a once-a-year box-ticking exercise for them. Hackers change tactics all the time."

"The travel industry faces more of a threat of attacks right now due to hackers being aware of the demand for holidays, as well as the continuous changing of websites in order to keep up with travel restrictions. This gives hackers more opportunity to blend into changes when carrying out attacks. It is vital travel brands closely monitor their website for vulnerabilities in a preventative measure and monitor third parties for detection of attacks in the current landscape."

### Want to find out more?

Book in a FREE website audit today with one of our friendly website specialists.

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