Error Analyser
Powered by Dynatrace Real User Monitoring

What is it?

Real User Monitoring from Dynatrace captures an enormous amount of information about users that access your application – both for their behaviour and their performance. Whilst analytics platforms can point towards drop-offs in user journeys (revenue generating or otherwise), Dynatrace brings the context of **if this happened due to errors or performance.**

The Error Analyser is an application which looks to quantify:

- How many users **received an error**?
- How many users then **abandoned their journey**?
- How many of those users were "lost" and **did not return** to complete their journey?
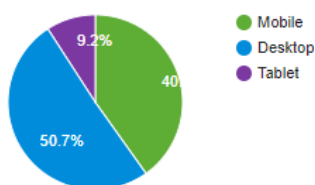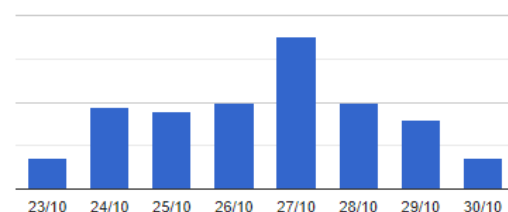
Based on these "lost" users, the Error Analyser can then assess the business impact in the context of 1 or more use cases:

- **Lost orders:** Quantify the revenue at risk from users that have not converted (and did not return) after encountering an error.
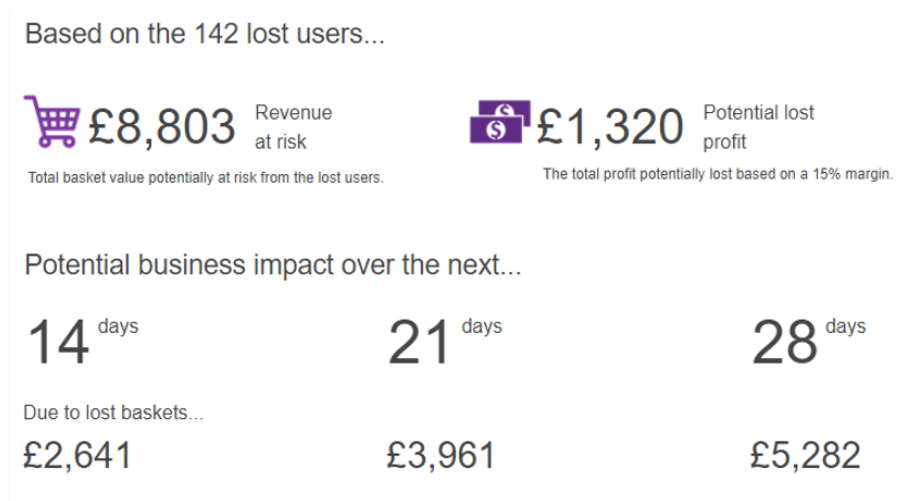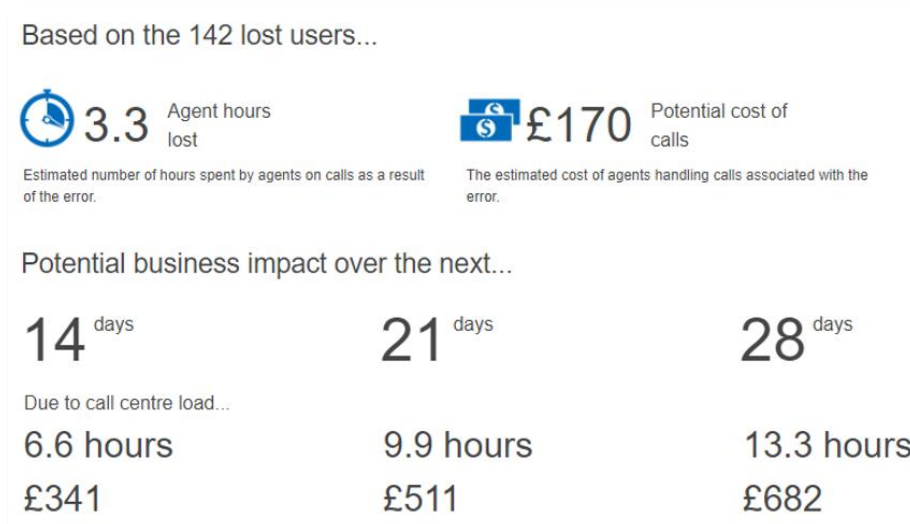- **Agent hours:** Estimate the hours (and cost, where relevant) to be spent by support staff, dealing with enquiries due to an error.
- **Incurred costs:** Total up the potential costs incurred from an error hitting a user, for example a penalty due to an SLA.

🛒 Lost orders

Based on the 142 lost users...

🛒 **£8,803** Revenue at risk
Total basket value potentially at risk from the lost users.

💵 **£1,320** Potential lost profit
The total profit potentially lost based on a 15% margin.

Potential business impact over the next...

14 days   **21** days   **28** days

Due to lost baskets...

£2,641   £3,961   £5,282

For a revenue generating application, Dynatrace can capture the basket/order value attached to a specific user. For the "lost" users who quit their purchase due to an error and then don't return to complete it, the Error Analyser shows the total value attached to these users over the last 7 days (and if relevant, can take your net profit margin into account).

🎧 Agent hours

Based on the 142 lost users...

⏱ **3.3** Agent hours lost
Estimated number of hours spent by agents on calls as a result of the error.

💵 **£170** Potential cost of calls
The estimated cost of agents handling calls associated with the error.

Potential business impact over the next...

14 days   **21** days   **28** days

Due to call centre load...

6.6 hours   9.9 hours   13.3 hours
£341   £511   £682

Where application issues lead to calls into the call centre, the Error Analyser is able to estimate the loss in productivity and also cost where relevant. This is achieved by providing figures such as the estimated percentage of users that call in due to errors and average call length. Error Analyser will then base this upon the real life "lost users" seen in the Real User Monitoring data.

💵 Incurred costs

Based on the 142 lost users...

💵 **£17,750** Potential costs incurred

The estimated revenue impact from users hitting the error in your application.

Potential business impact over the next...

14 days	21 days	28 days
Due to incurred costs...		
£35,500	£53,250	£71,000

Certain errors will have a fixed cost associated with them, for example if an error indicates an SLA breach that may have a fixed financial penalty. Providing that fixed value to Error Analyser will add up the total financial impact of all errors so far in addition to the future projections by carrying on at the current rate.

Pre-requisites

For all use cases, Dynatrace requires your Dynatrace environment URL, an API token (with User Session Query Language access), the name of your session property containing the error message and the name of the action which counts as a user "converting" in your application. Each use case then has specific information required to produce output on the business impact.

Define your errors

The error analyser centres on errors presented to users in the web UI, the more specific the better – and try to avoid low impact errors like incorrect password. Typically, these will be surfaced in a specific error "box" or "toast" such as the example on the right. These will need to be extracted as session properties, CSS selectors work well for grabbing it off the page but JavaScript variables have also been useful. Please store these as a **string**.
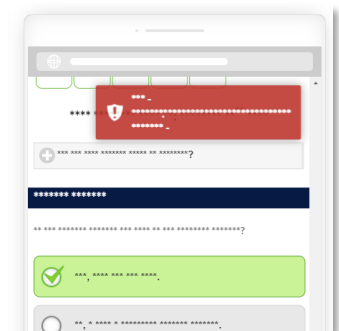
Define your conversions

To understand if a user counts as "converted," the error analysers asks for the name of your conversion action. This is the name of the action **as it appears in a user's session**. Naming rules may be useful to remove variables such as order ID.

|		
16:17:17	Loading of page /orange-trip-details.jsf	314 ms
16:17:20	Loading of page /orange-booking-review.jsf	429 ms
16:17:23	Loading of page /orange-booking-payment.jsf	369 ms
16:17:27	Loading of page /orange-booking-finish.jsf	2.34 s

Capture returning users accurately

To make sure that you can tell when a user with an error returns later, please enable user tracking in the application settings.

🛒 For lost orders…

Extract your order value

To understand revenue loss, you must capture a user's order value. This will again be captured as a session property. CSS locators will work well unless the actual cart value is hidden on some pages, typically it will already be stored in a global JS variable, for example in "dataLayer." Please store this as a **double**. Dynatrace always takes the **last** value, so it will update as they add/remove items.
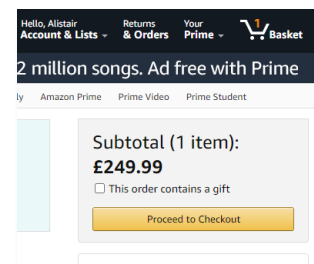
Provide a profit margin (optional)

In come cases, a profit margin needs to be taken into account when analysing the business impact as this is the true cost lost to the business. In these situations, please provide an integer between 1 and 100 so that Error Analyser can tailor the output to this value.

🎧 For agent hours…

Percentage of users that are likely to call in

Based upon existing data, what percentage of callers are likely to call in if they experience an error? This can be done by analysing a specific historical incident where the rough impact is known (in terms of number of users) and matching up in your CRM how many calls were received by users who experienced the same issue.

Average length of a call in minutes

Using your existing CRM, provide how long the average support call lasts – if possible please provide this value where it is filtered to users experiencing IT errors specifically rather than other issues related due to user knowledge.

Average cost of a call (optional)

If tracked, please provide the average cost of a call into the call centre when a user needs support. Typically, we see this in the range of between £8 and £15.

For incurred costs…

Cost of an error

This is a static value which is incurred whenever a specific error happens. For example, some legal proceedings must now be recorded and if an error happens, the proceeding must be repeated. This means every time the "recording failed to save" error occurs, legal fees are incurred to repeat it.