Business Dashboarding and Reporting

Become a **master in business analytics**, and bring back a whole new perspective on digital experience to your business. In this session, learn how to use reporting beyond the traditional use case as we demonstrate real-world examples of business insights, conversion analytics and user experience from our own customers.

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Who Are We?

Or who you are stuck with for the next 30 minutes?

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John Kelly Sales Engineer Dynatrace



Ben Rushlo Services Dynatrace

Common Business Questions & Use Cases

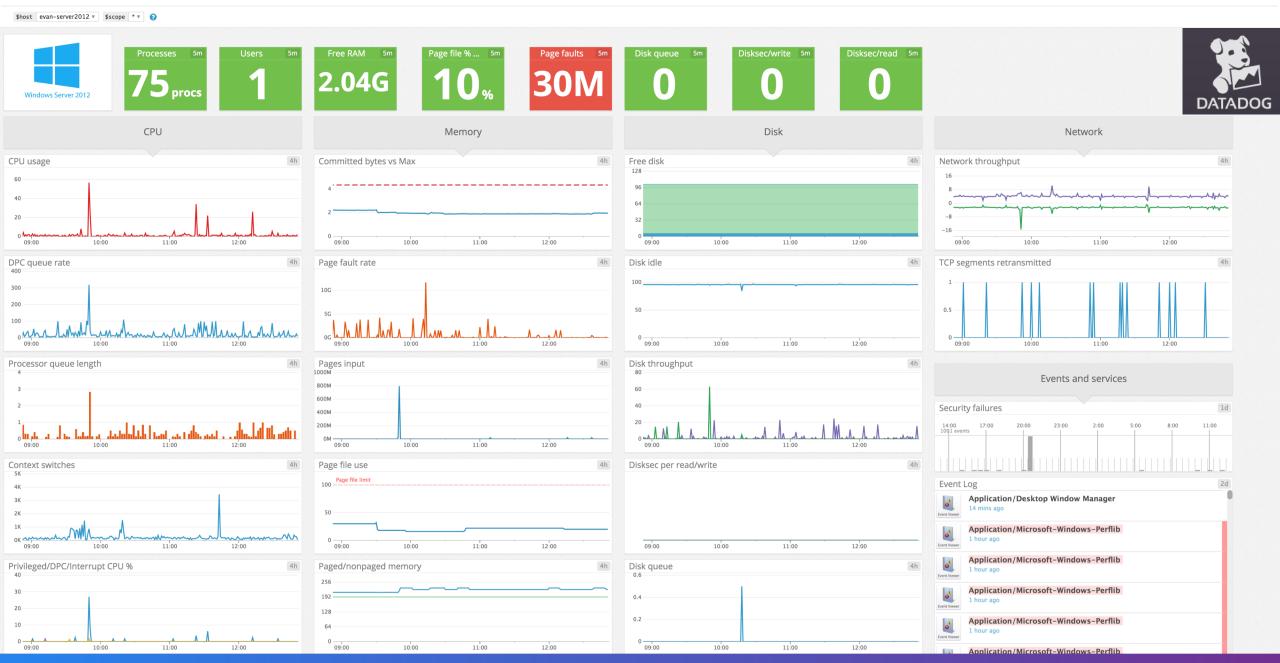
- Understanding where performance and user behavior intersect
 - Did my latest release focused on performance optimization improve bounce rate?
- Revenue and conversion funnels
 - Where are user dropping out of my conversion funnel?
 - How many dollars am I losing as part of this drop?
- User paths/business transactions
 - Pages/actions are great, what about common paths?
 - <u>Within my most common paths, where at the performance hot spots?</u>

Common Business Questions & Use Cases

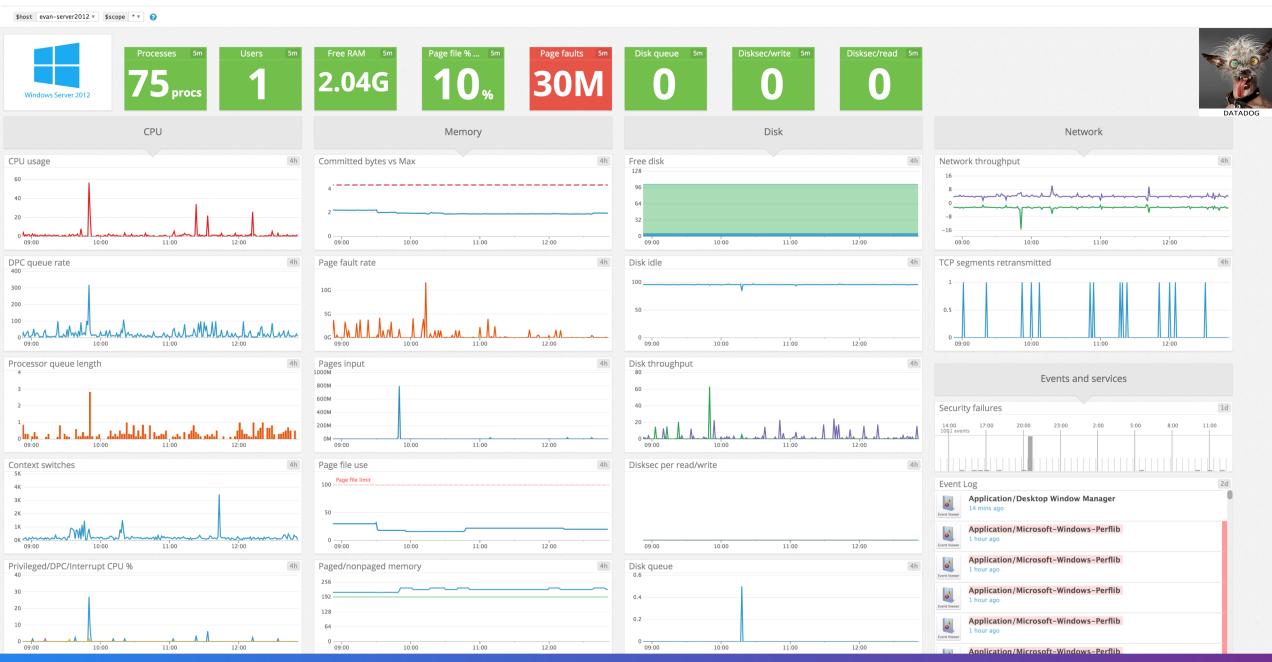
- Exposing user behavior to technical teams to enrich decision making and value proposition
 - I wish I could understand engagement metrics to see if the performance changes we are making are supporting the overall business goals
- Executive reporting monthly summaries, trends and changes over time
 - My executives are not going to be in the product, how to I give them the data they need to manage the business?
 - How can we zoom out to the big picture?
- Finding hotspots in user behavior and performance (bounce, slow VC etc.)
 - Given our limited time and resources, where should I focus my optimization efforts?

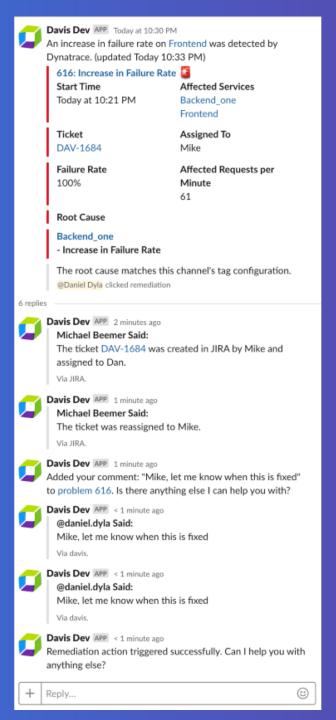
The State of Dashboarding Past

★ Windows Server 2012



★ Windows Server 2012





The State of Dashboarding Present



Timeframe: Last 24 hours Management zone: All Owned by student0003@trial.dynatracelabs.com





Funnel Step Analysis



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Revenue

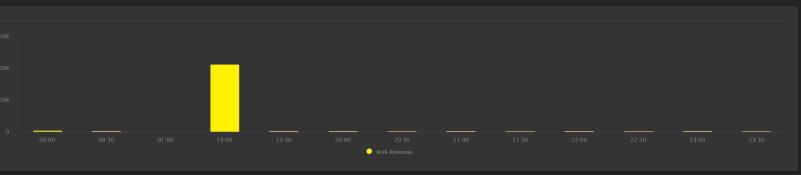
Timeframe: Last 6 hours Management zone: All Owned by student0003@trial.dynatracelabs.com



Risk Revenue



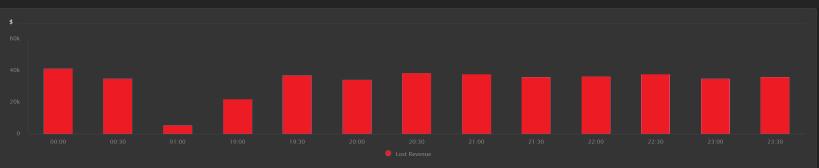
Risk Revenue Over Time



Lost Revenue

434096 Lost Revenue





Sign in

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Dashboards	User sessions query						
Create custom chart	USER SESSIONS QUERY Create advanced queries on completed user sessions using user sessions query language. View Documentation 🗹						
Reports							
Analyze	<pre>select sum(usersession.doubleProperties.finishamount) as "Revenue" FROM usersession</pre>					Run qu	iery
Problems							
User sessions			Save change	s to dashboard	Clone	to dashbo	ard
Log files	In order to improve performance results are based on sampled data. Refine the query for more precise results.						
Smartscape topolog	y						
Diagnostic tools	Visualization: Bar Chart Line Chart Pie Chart KPI Table Only						
Monitor	Revenue						
Applications							
Synthetic							
Transactions & servio	res						
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Revenue

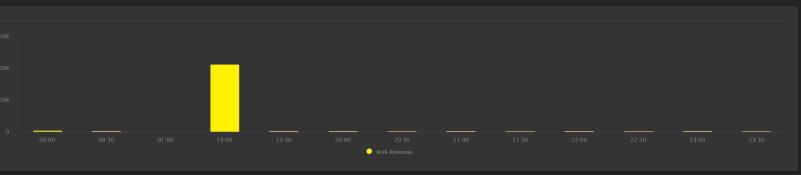
Timeframe: Last 6 hours Management zone: All Owned by student0003@trial.dynatracelabs.com



Risk Revenue



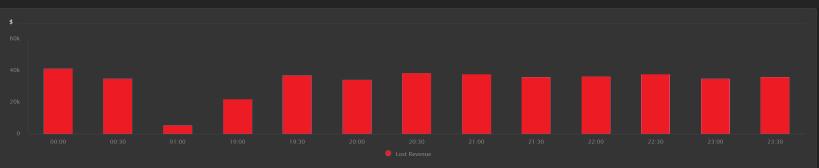
Risk Revenue Over Time



Lost Revenue

434096 Lost Revenue





Sign in

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jdynatrace •	← ➡ Q Search HaveFunCompany: qys97832 Setup 44% complete ✓ Last 24 hours > 6
Dashboards & reports	User sessions Vuser sessions query
Dashboards	User sessions query
Create custom chart	Create advanced queries on completed user sessions using user sessions query language. View Documentation 🖸
Reports	
Analyze	select sum(usersession.doubleProperties.finishamount) as "Risk Revenue" FROM usersession where useraction.apdexCategory="TOLERATING" or
Problems	useraction.apdexCategory="FRUSTRATED" or useraction.apdexCategory="UNKNOWN" or useraction.apdexCategory is null
User sessions	
Log files	Save changes to dashboard Clone to dashboard
Smartscape topology	In order to improve performance results are based on sampled data. Refine the query for more precise results.
Diagnostic tools	Visualization: Bar Chart Line Chart Pie Chart KPI Table Only
Monitor	
Applications	Risk Revenue
Synthetic	
Transactions & services Databases	
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Network	4647968
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AWS	4647968
Azure	

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Revenue

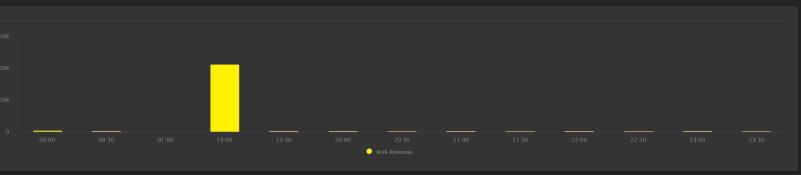
Timeframe: Last 6 hours Management zone: All Owned by student0003@trial.dynatracelabs.com



Risk Revenue



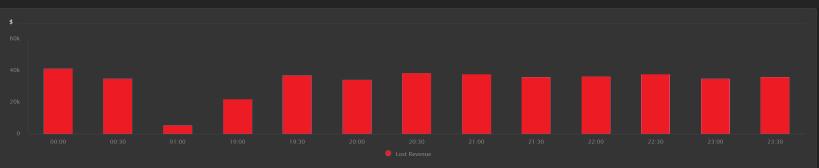
Risk Revenue Over Time



Lost Revenue

434096 Lost Revenue





Sign in

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Dashboards & reports	User sessions Vuser sessions query						
Dashboards	User sessions query Create advanced queries on completed user sessions using user sessions query language. View Documentation 🗳						
Create custom chart	Create advanced queries on completed user sessions using user sessions query language. View Documentation 🛽						
Reports							
Analyze	select sum(usersession.doubleProperties.bookingamount) as "Lost Revenue" FROM usersession where	e useraction.name!=	'Finish"		Rur	n query	
Problems							_
User sessions		Save cha	nges to dashboard	Clone	e to das	hboard	
Log files	In order to improve performance results are based on sampled data. Refine the query for more precise results.						
Smartscape topology	Visualization: Bar Chart Line Chart Pie Chart KPI Table Only						
Diagnostic tools							
Monitor	Lost Revenue						
Applications							
Synthetic Transactions & services							
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Revenue

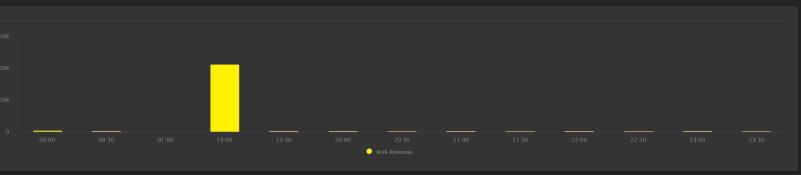
Timeframe: Last 6 hours Management zone: All Owned by student0003@trial.dynatracelabs.com



Risk Revenue



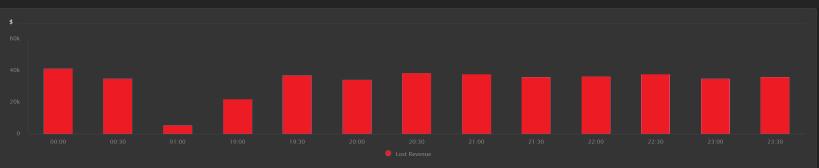
Risk Revenue Over Time



Lost Revenue

434096 Lost Revenue





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Lost Revenue Analysis by Apdex Rating

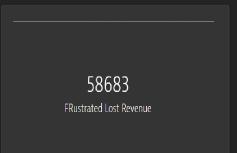
Timeframe: Last 24 hours Management zone: All Owned by student0003@trial.dynatracelabs.com



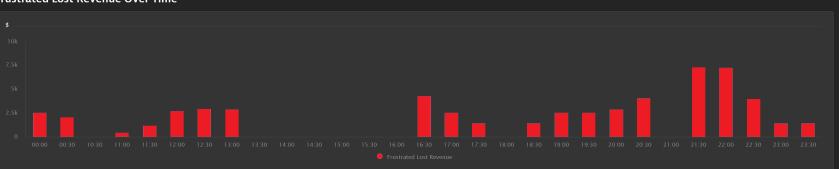
Tolerating Lost Revenue Over Time







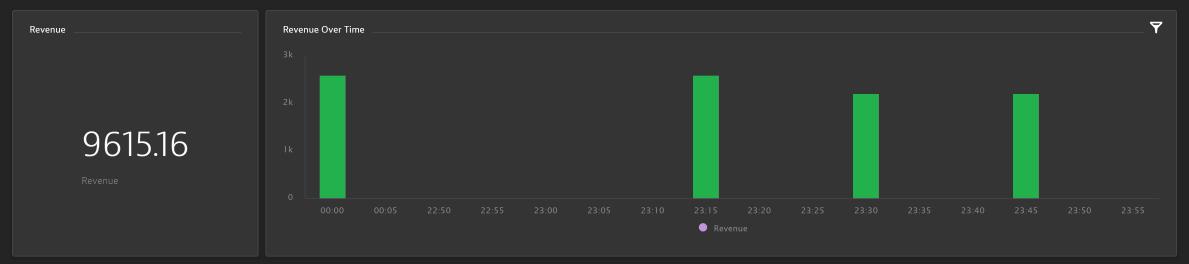
Frustrated Lost Revenue Over Time



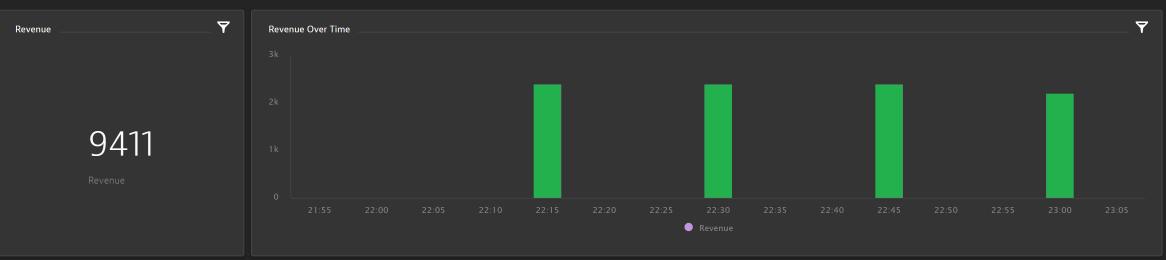


Revenue Compare

Current Timeframe



Previous Timeframe





Last hour > 57

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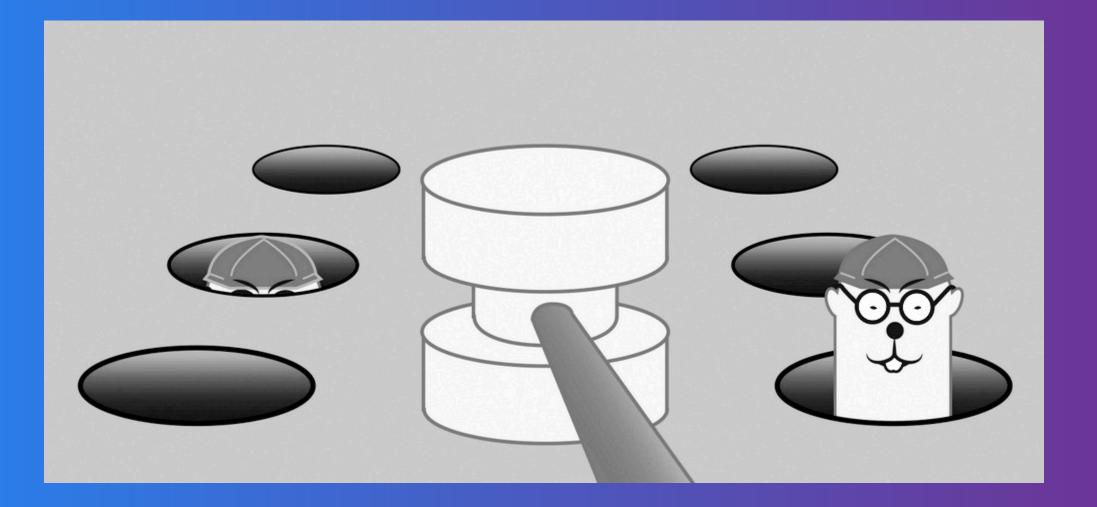
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Dashboard Story



I Still Love Those Dashboards



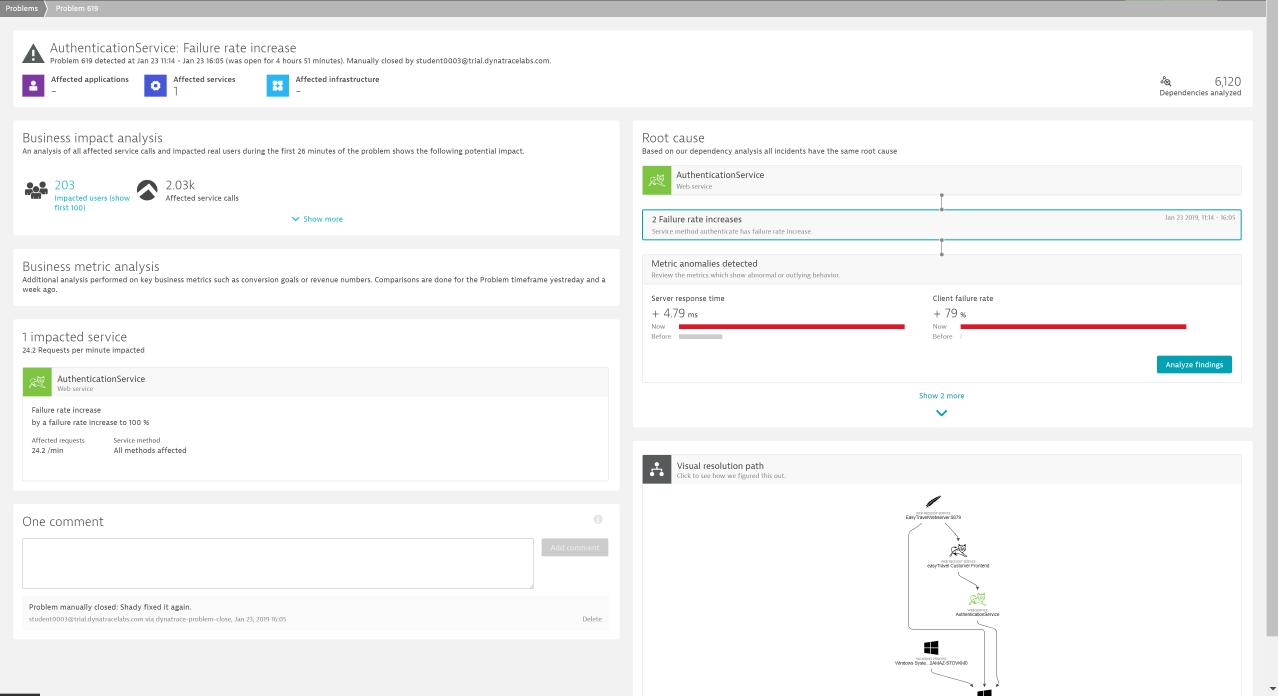
The State of Dashboarding Future

"Dynatrace...The Future is here now. The line between a dashboard and an internal web page will fade."

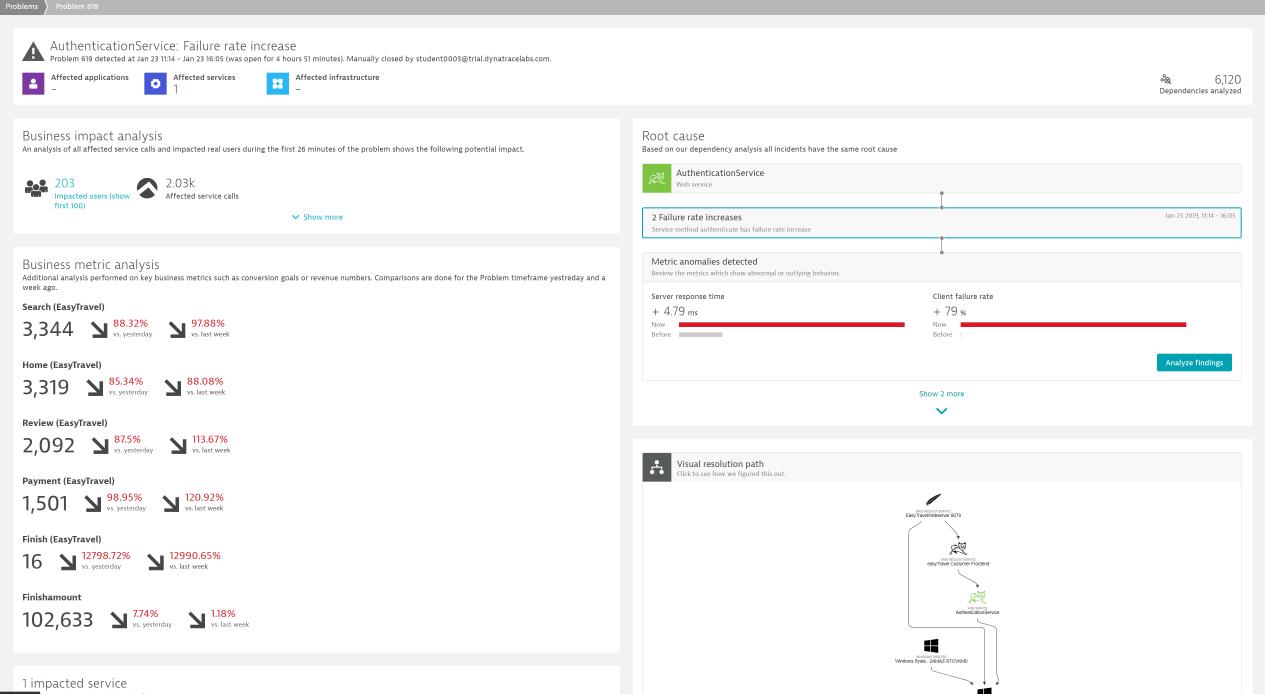
Tech Shady, Perform 2019

Contextual Regurgitation





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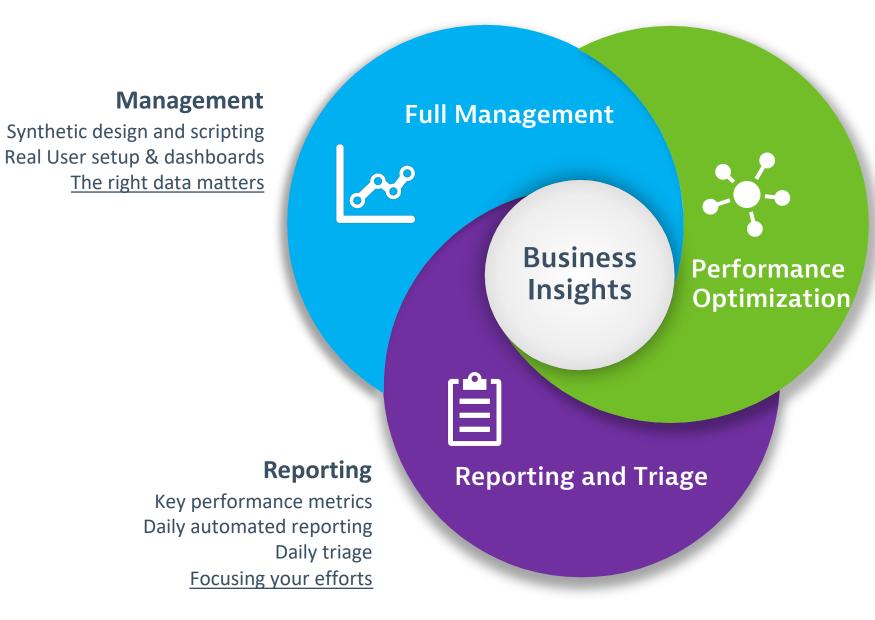
Final Thought

If You Remember One Thing ...

The line between a dashboard and other internal web pages will fade

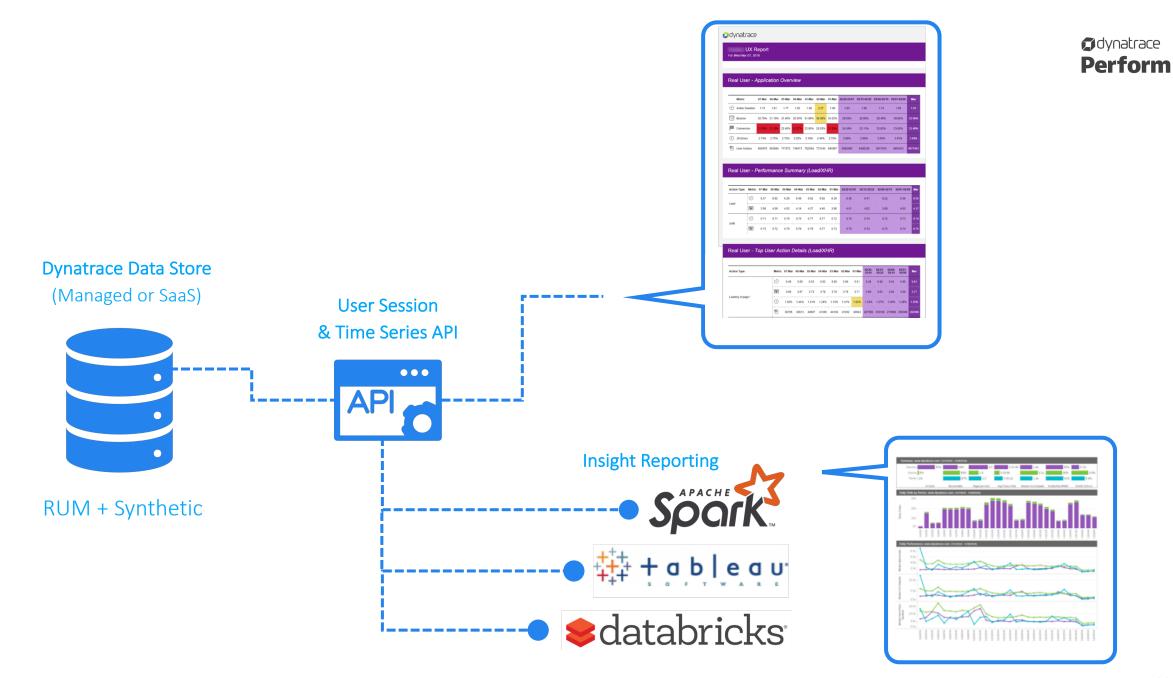


Business Insights Analytics



Optimization

Expertise based analysis End to end optimization Business Context Improving what has impact



Automated Reporting Example

Get data out of a tool and into your users hands

Quickly spot trends and changes to your application

Create an ongoing dialogue about performance

Combine Synthetic and Real User in the same view

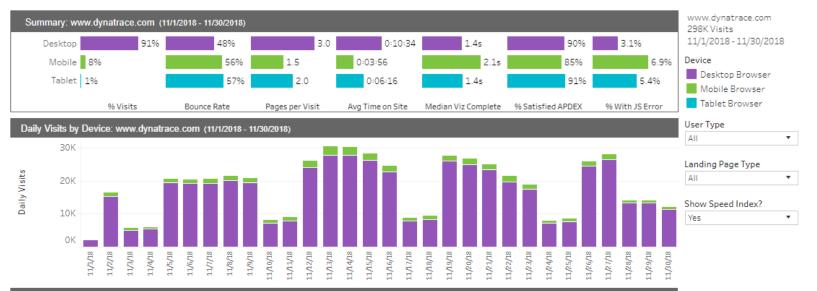
For k	UX F Med Mar 07, 20	teport 18	t										
Re	al User - A	Applic	ation	Over	view								
	Matrix	67 Mar	66 Mar	65 Mar	64 Mar	63 Mar	63 Mar	dd Mar	02/22 02/04	4945 49/99	03/08 03/45	03/04 03/08	Mar
0	Metric Action Duration	07-Mar 1.72	06-Mar 1.81	05-Mar 1.77	04-Mar 1.82	03-Mar 1.98	02-Mar 2.27	01-Mar 1.90	02/22-03/01	02/15-02/22	02/08-02/15	02/01-02/08	Mar 1.91
0	Action Duration	1.72	1.81		1.82	1.98	2.27	1.90					
_	Action Duration	1.72	1.81 31.10%	1.77	1.82 30.50%	1.98	2.27 36.48%	1.90	1.83	1.89	1.74	1.85	1.91

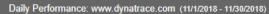
Real User - Performance Summary (Load/XHR)

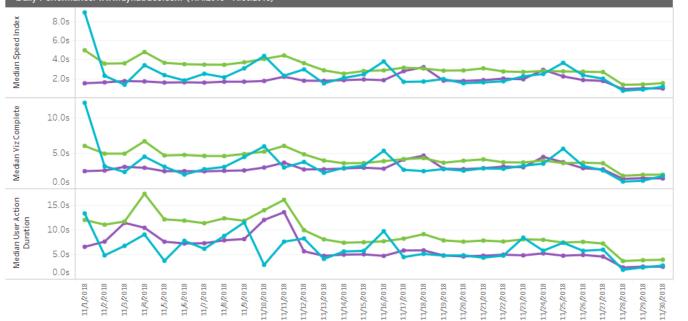
Action Type	Metric	07-Mar	06-Mar	05-Mar	04-Mar	03-Mar	02-Mar	01-Mar	02/22-03/01	02/15-02/22	02/08-02/15	02/01-02/08	Mar
Load	0	6.27	6.92	6.29	6.48	6.62	6.82	6.29	6.36	6.41	6.22	6.36	6.55
rose	۲	3.98	4.09	4.02	4.14	4.27	4.45	3.98	4.01	4.02	3.09	4.00	4.17
XHR	0	0.71	0.71	0.70	0.75	0.77	0.77	0.72	0.74	0.74	0.72	0.73	0.74
AHR	۲	0.73	0.72	0.70	0.76	0.78	0.77	0.73	0.75	0.74	0.73	0.74	0.75

Real User - Top User Action Details (Load/XHR)

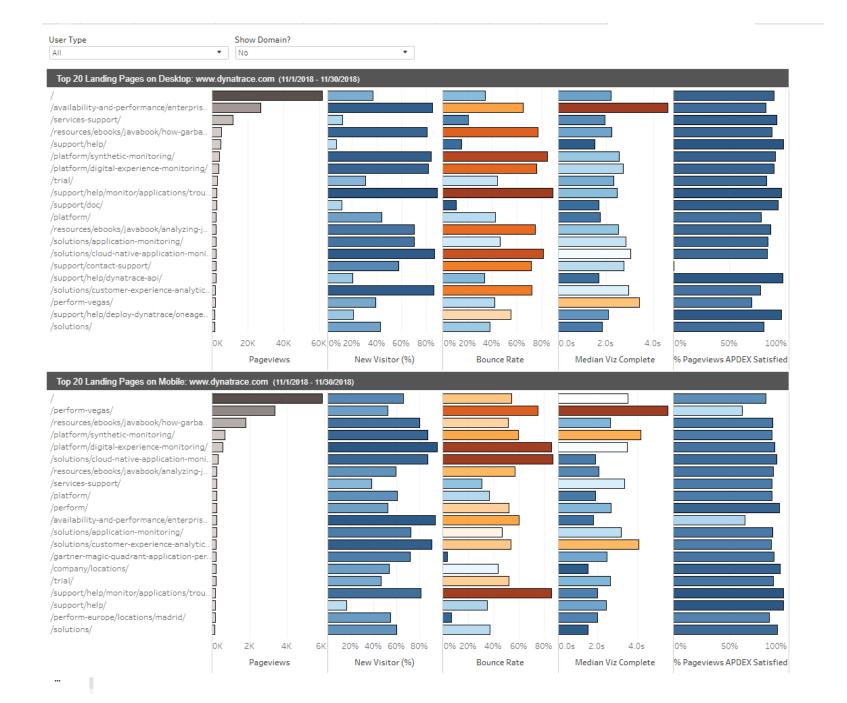
Action Type	Metric	07-Mar	06-Mar	05-Mar	04-Mar	03-Mar	02-Mar	01-Mar	02/22- 03/01	02/15- 02/22	02/08- 02/15	02/01- 02/08	Mar
	Ó	5.46	5.89	5.53	5.62	5.65	5.66	5.51	5.48	5.45	5.43	5.46	5.61
	۲	3.69	3.87	3.73	3.78	3.79	3.76	3.71	3.69	3.63	3.64	3.68	
Loading of page /	0	1.42%	1.44%	1.41%	1.24%	1.13%	1.31%	1.52%		1.27%	1.35%	1.29%	
	也	36795	36513	40907	41359	44139	41352	40943	287588	310108	279598	265066	2820

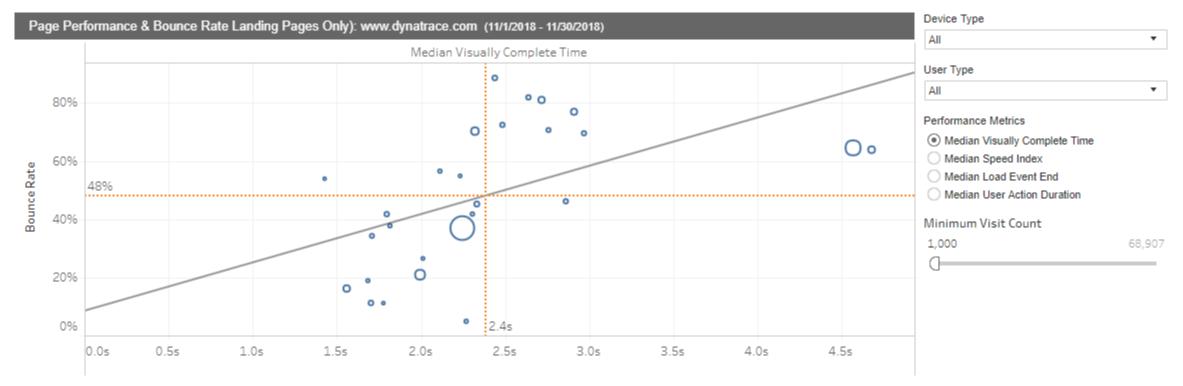




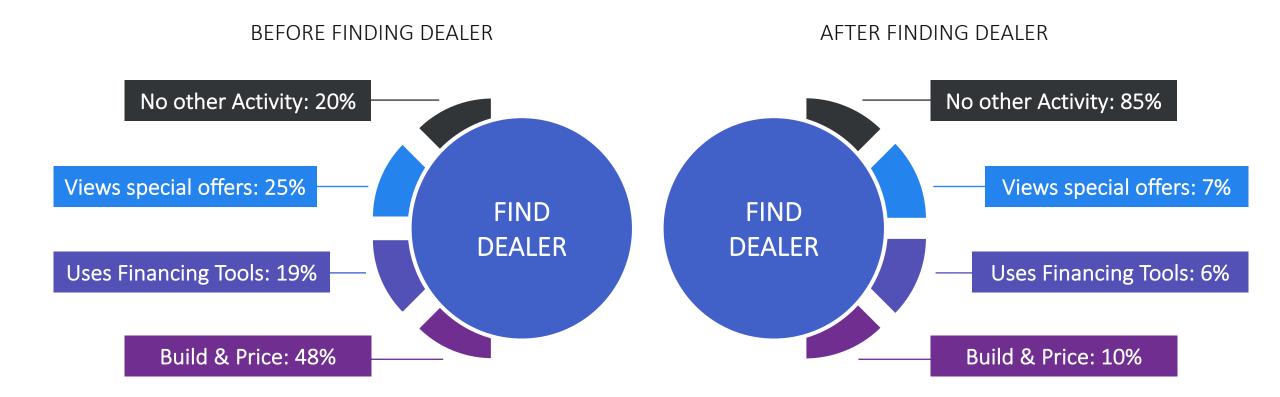


Top 25 Pages: www.dynatrace.com (11/1/2018 - 11/30/2018	3)										Device Type
	Pager	views	Median Sp	peed Index	Median Vi	z Complete	Median Lo	ad Event	% Pageviews	with JS Error	All
	Landing	All Other	Landing	All Other	Landing	All Other	Landing	All Other	Landing	All Other	User Type
/	68,910	72,298	1.6s	1.5s	2.25	2.1s	3.0s	2.8s	3.4%	1.0%	All
/company/customers/	541	36,889	1.3s	0.5s	1.9s	1.2s	3.1s	1.3s	5.5%	0.2%	Charles Damaire 2
/availability-and-performance/enterprise-cloud-monitor	27,459	5,297	3.1s	2.0s	4.6s	3.0s	5.5s	3.8s	6.1%	1.2%	Show Domain? No
/platform/	2,650	29,195	1.0s	0.4s	1.8s	1.4s	3.3s	1.9s	5.1%	0.7%	
/services-support/	11,867	16,601	1.7s	0.7s	2.0s	0.9s	3.5s	1.9s	3.2%	2.6%	Show Speed Index
/technologies/aws-monitoring/	616	18,190	1.3s	0.8s	1.9s	1.3s	3.4s	1.8s	14.3%	0.2%	Yes
/partners/	599	17,563	2.0s	0.8s	2.8s	1.1s	5.3s	2.2s	6.0%	0.1%	
/support/help/	5,243	9,089	0.9s	0.5s	1.6s	0.8s	1.9s	0.9s	0.3%	0.2%	
/trial/	3,207	9,044	1.5s	0.8s	2.3s	1.3s	3.1s	1.5s	4.7%	4.1%	
/solutions/	1,645	9,568	1.3s	1.0s	1.8s	1.3s	2.8s	1.8s	3.6%	2.0%	
/platform/digital-experience-monitoring/	4,586	6,471	2.0s	0.6s	2.9s	0.8s	3.7s	1.0s	4.2%	0.5%	
/support/help/deploy-dynatrace/	1,170	9,736	1.2s	0.5s	2.0s	0.7s	2.5s	0.9s	0.3%	0.2%	
/support/doc/	2,759	8,102	1.2s	0.7s	1.7s	0.9s	3.1s	1.5s	1.6%	1.6%	
/perform-vegas/	5,568	2,976	3.4s	1.25	4.7s	1.5s	6.8s	2.0s	13.0%	4.9%	
/platform/application-performance-management/	1,197	6,913	1.5s	0.9s	2.25	1.1s	3.4s	1.6s	6.7%	2.9%	1
/resources/ebooks/javabook/how-garbage-collection-wo	7,030	872	1.4s	0.5s	2.3s	0.7s	3.2s	1.3s	2.5%	2.3%	
/support/help/dynatrace-api/	2,166	5,017	1.1s	0.3s	1.7s	0.5s	2.3s	0.7s	0.6%	0.7%	
/support/help/monitor/	381	6,615	1.2s	0.3s	1.7s	0.5s	2.3s	0.7s	1.0%	0.3%	
/support/contact-support/	2,165	4,696	1.5s	0.8s	2.8s	1.0s	3.8s	1.3s	99.2%	97.5%	
/support/help/get-started/	675	6,011	1.2s	0.3s	2.1s	0.6s	2.4s	0.7s	0.4%	0.1%	
/platform/synthetic-monitoring/	4,914	920	1.6s	0.8s	2.7s	1.3s	3.5s	1.9s	4.2%	2.8%	
company/	841	4,674	1.0s	0.9s	1.6s	1.2s	2.6s	1.9s	3.7%	1.4%	
/support/help/deploy-dynatrace/oneagent/supported-te	1,652	3,848	1.4s	0.6s	2.1s	0.9s	3.0s	1.2s	1.9%	0.3%	
/technologies/	990	4,099	1.6s	1.1s	2.2s	1.3s	3.6s	1.8s	7.2%	2.8%	
/support/help/deploy-dynatrace/managed/	588	4,052	1.1s	0.5s	1.9s	0.7s	2.6s	1.1s	1.2%	0.2%	

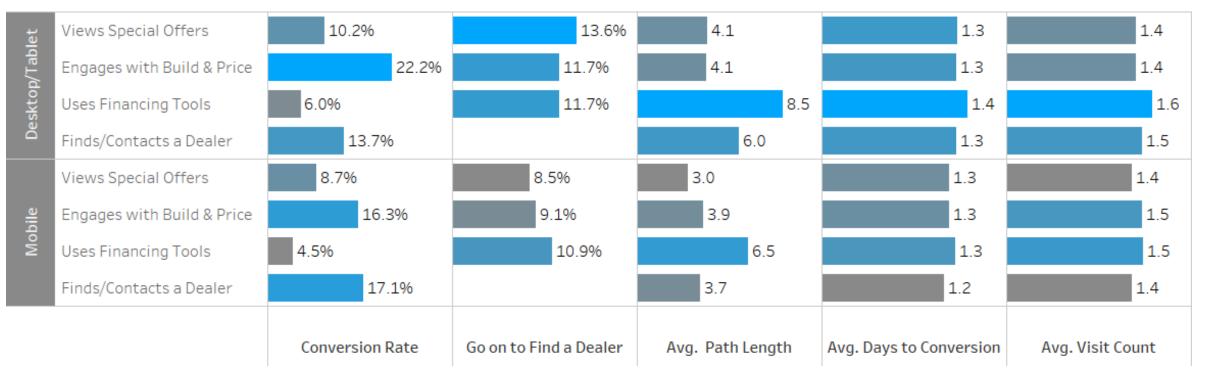




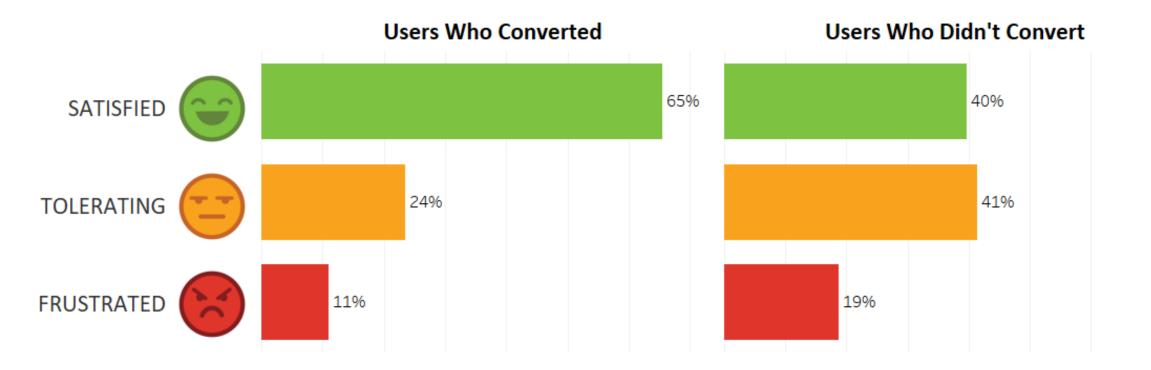
Top 100 Landing Pages Only. Data is shown for pages only. All XHR actions are excluded from analysis.



ONSITE CONVERSION SUMMARY



% PAGES/ACTIONS BY APDEX PERFORMANCE SCORE



TOP 15 MOST COMMON PATHS ON DESKTOP & MOBILE

Page Path	Desktop/Tablet	Page Path	Mobile
Load / > Load /zenith	4К	Load /zenith > Xhr /services/dealers/distances/by/zipcode	4K
Load / > Load /special-offers/index.html	ЗК	Load / > Xhr /services/dealers/distances/by/zipcode	ЗK
Load / > Load /find-retailer/index.html	ЗК	Load /zenith > Load /ratings	2К
Load / > Load /vehicles/quicksand/index.html	ЗК	Load / > Load /zenith	2К
Load / > Xhr /services/dealers/distances/by/zipcode	ЗК	Load / > Load /vehicles/quicksand/index.html	2К
Load / > Load /vehicles/canyonero/index.html	ЗК	Load / > Load /ratings	1K
Load / > Load /ratings	2К	Load / > Load /mobile/special-offers/index.html	1K
Load / > Load /vehicles/mountie/index.html	2К	Load / > Load /vehicles/canyonero/index.html	1K
Load / > Load /vehicles/edison/index.html	2К	Load / > Load /vehicles/mountie/index.html	1K
Load /zenith > Load /ratings	2К	Load / > Load /vehicles/krb/index.html	1K
Load /find-retailer/index.html > Load /find-retailer/index.html	2К	Load /mobile/special-offers/index.html > Xhr /services/utility/geo	1K
Load /zenith > Xhr /services/dealers/distances/by/zipcode	2К	Load /vehicles/index.html > Xhr /services/vehicles/models/2018	1K
Load / > Load /vehicles/krb/index.html	2К	Load / > Load /mobile/find-retailer/index.html	1K
Load /zenith > Load /build-your-own.html	1K	Load /zenith > Xhr /services/contact/updatesignup/	1K
Load /build-your-own.html > Xhr /etc/designs/powell-motors/build	1К	Load / > Load /vehicles/edison/index.html	1K

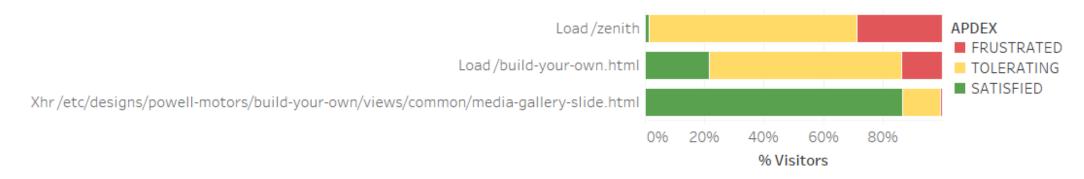
*Only includes visits that did not bounce.

1K

Page Path

Load /zenith > Load /build-your-own.html > Xhr /etc/designs/powell-motors/build-your-own/views/common/media-gallery-slide.html

INDIVIDUAL PAGE PERFORMANCE OF PATH



Ødynatrace Perform

PAGE ORDER

Select a page to see the next most common pages/actions

First Page/Action

Load/	274K
Load /zenith	
Load /index.html	
Load /vehicles/canyonero/index.html	
Load /vehicles/mountie/index.html	
Load /vehicles/quicksand/index.html	
Load /build-your-own.html	
Xhr/services/dealers/distances/by/zi	
Load /vehicles/krb/index.html	
Load /vehicles/edison/index.html	

	Second Page/Action				
	[NONE]	51K			
	Load /vehicles/quicksand/index.html	18K			
	Load /vehicles/canyonero/index.html	15K			
>	Load /vehicles/mountie/index.html				
	Xhr /services/dealers/distances/by/zip	14K			
	Load/	13K			
	Load /vehicles/krb/index.html	12K			
	Load /vehicles/edison/index.html	12K			
	Load /build-your-own.html	11K			
	Load /zenith	11K			

	Third Page/Action					
>	[NONE]	116				
	Load /	11				
	Xhr https://secure-akns.powell-motors	7K				
	Xhr /etc/designs/powell-motors/build	6K				
	Load /build-your-own.html	6K				
	Xhr /etc/designs/powell-motors/build	6K				
	Xhr /etc/designs/powell-motors/build	4K				
	Load /vehicles/canyonero/index.html	4K				
	Load /vehicles/quicksand/index.html	4К				
	Load /vehicles/mountie/index.html	4К				

	Fourth Page/Action	
	[NONE]	154K
	Xhr /etc/designs/powell-motors/build	7K
	Load /	6K
>	Xhr /etc/designs/powell-motors/build	4K
	Xhr /etc/tags/powell-motors/retailer-c	ЗК
	Xhr /bin/reverse-proxy	ЗК
	Xhr https://secure-akns.powell-motors	ЗК
	Load /build-your-own.html	ЗК
	Xhr /services/vehicles/models/marketi	ЗК
	Load /vehicles/canyonero/index.html	2К

Dashboarding Roadmap Highlights



Dashboarding and reporting



WYSIWYG dashboard editor (S158)



Markdown tile (S160)



Custom tile filters (S164)

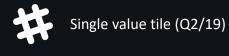


Dashboard import/export API (Q1/19)



Common metric interface (Q1/19)



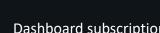




Charting improvements (Q2/19)

Group sharing

 \bigcirc Admin capabilities & 1 permissions



Dashboard subscription





Thank you

dynatrace
Perform

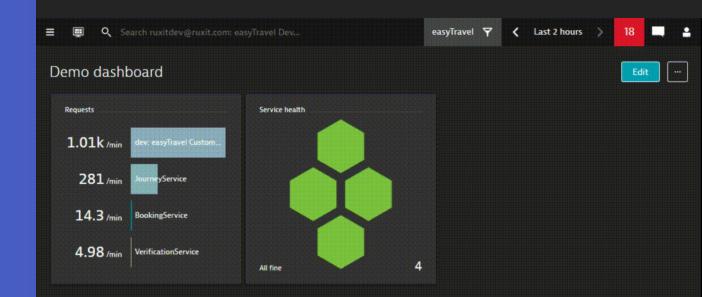
Public dashboarding

- Advanced sharing feature
- Addresses reporting use cases
 - Dashboard access for external people
- Ideal for NOC screens
 - No sign-in required
- Secured access via auth-token



WYSIWYG dashboard editor

- Create dashboards faster
- "What you see is what you get" editor
- Add tiles via drag-and-drop
- Full touch support



Blog post:

https://www.dynatrace.com/news/blog/build-dashboardsfaster-with-drag-and-drop-dashboard-editing/

A Markdown tile

- Rich text support
- Hyperlinks
- Images (at a later stage)
- Advances dashboarding use cases (overview \rightarrow detail)

Dash	boa	De	elete t	ile					
Please consider the following dashboards									
<u>General (</u>	overv	<u>iew</u>							
<u>All cluste</u>	er hea	<u>lth</u>							
<u>Suspensi</u>	on								
· ·	•								

Markdown

Markdown enables you to put rich text on a dashboard.

#Dashboards

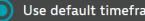
Please consider the following dashboards

[General overview] (https://demo.dev.dynatracelabs.co m/#edit;gtf=l_2_HOURS;id=0193ca81bf21-4cf5-bf94-e15b64eafe80)

[All cluster health] (https://demo.dev.dynatracelabs.co m/#edit;gtf=l 2 HOURS;id=0193ca81bf21-4cf5-bf94-e15b64eafe80)

[Suspension] (https://demo.dev.dynatracelabs.co m/#edit;gtf=1_2_HOURS;id=0193ca81bf21-4cf5-bf94-e15b64eafe80)

Timeframe Mode

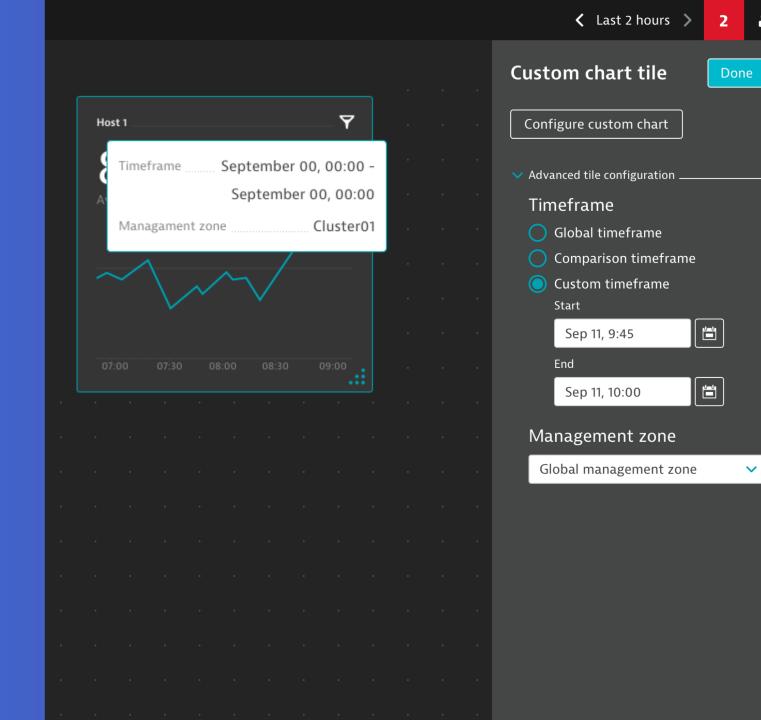


Use default timeframe

Use comparision timeframe

Custom tile filters

- Override time frame per tile
- Override management zone per tile
- Optionally override default (inherit)
- Comparison use cases (this week / last week)
- Creation of overview dashboards
- Custom workflows in combination with the markdown tile



Dashboard import/export API

- Export existing dashboards to JSON
- Layout & chart configurations
- Dashboard CRUD operations

Use cases

- Provision new environments
- Dashboard templates

	Dashboards 🗸							
	GET /dynatrace/dashboards List dashboards							
	Get a list of all dashboards							
	Parameters Try it out							
	No parameters							
	Responses Response content type application/json 🗸							
	Code Description							
200 List of dashboards in response body								
GET /dynatrace/dashboards/{dashboardid} Get dashboard								



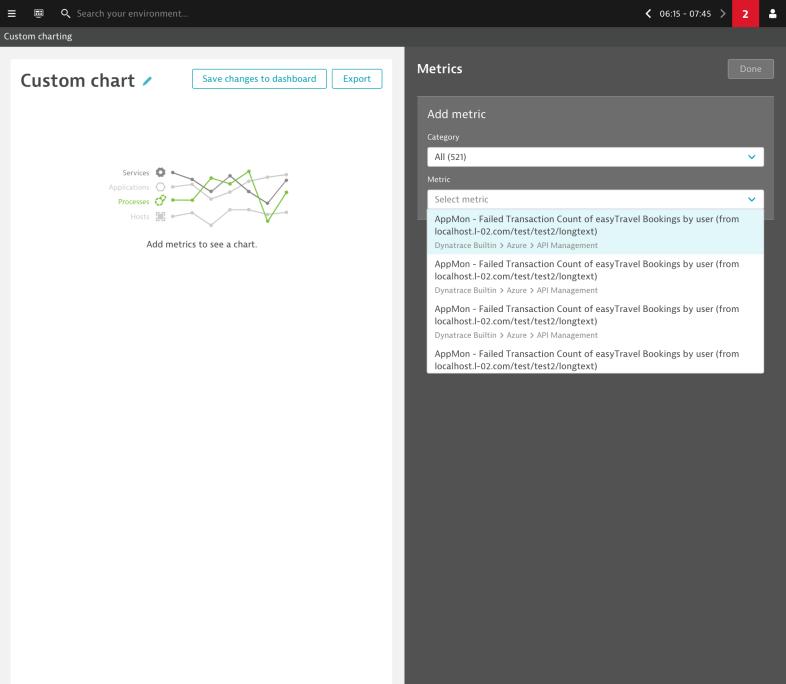
- No more confusion about metrics
- Common interface for charting, alerting and public REST API

Improved metric picker

- Filter list of metrics
- Search metrics by structure

Advanced workflows

• Get REST call from chart configuration



Next topics

\$ Single value tile

- Business reporting (KPIs)
- Single or multiple metrics
- Display total values
 - aggregated over time frame
 - aggregate across entities

💷 🔍 Search your environment...

Demo Dashboard



Total aggregation

• Aggregate metrics across entities

- Drastically improves splitting capabilities
- Better business charts (e.g. pie charts)
- Great in combination with single value tile

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	✓ Processes JVM GC t	×	^				
	Chart type Aggreg Chart type Aggreg Chart type Sum Dimensions Process (default entities)						
	poolname	▼ Start typing to filter					
	Process ID	▼ Start typing to filter					
	gcname	▼ Start typing to filter					
	Chart results Filtered by cf:space Showing 13 results.	ce: All ×				Acctime	-
	Name					A GC time (Sum) ▼	
	tomcat easytrav	2		2.74 s			
	tomcat easytrav	2		2.43 s			