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Context Intelligence

The ability to understand and analyze the context in which website visitors are operating enables the system to provide optimized and personalized experiences to users, generate analytics data for informed decisions, and support various tasks related to web content management, marketing, security, and user engagement. The data available helps understand the impact of context on performance, and how applying different rules can best optimize the site.

User contexts include web browser type, client device type, mobile device type, network connection, geolocation, security, and bots. Rules can be created to provide different experiences and promote marketing initiatives based on context.

Yottaa can analyze a client's HTTP request, figure out its specific context, and then adjust the optimization settings for certain website properties accordingly. It can then apply these context-specific settings to redirected HTTP requests and responses.

Understanding the context of site visitors allows several context related actions to be taken, including:

- Applying optimizations to speed performance, improve engagement, and increase conversion rates.
- Implementing targeted marketing campaigns to drive engagement and sales.
- Protecting the site, inventory, and user information from malicious traffic.
- Narrowing impact of anomalies enabling informed actions to be taken.

The data analysis helps to better understand the audience, how and from where they are accessing the website, and which pages they are visiting. Having context intelligence informs responsive web design decisions. It ensures that websites are optimized for various screen sizes, devices, and orientations to provide a seamless experience to users regardless of their context.

Profile Rules

User profiles can be created and defined based on the context of the site visitor. They can be created to apply different configurations to different segments of customers for a better, more tailored visit experience. This includes changing the loading sequencing or enabling/disabling features and applications based on customer context. Example applications of the profile rules could include:

- Enable tests for comparing different load orders by assigning different sequencing rules to different profiles.
- Create user profiles for different geographic locations, if you want these user groups to have access to different third parties (like a currency converter, translation software, or special fonts).
- A Profile which detects mobile visitors by looking for the connection type and screen resolution could load different image resolutions or video. It could remove, move, or change some apps, such as ads or promotions, to versions that are better suited to a small screen or low bandwidth mobile device.
- Reduce bounce rate off landing pages from an Ad or campaign by increasing performance by not loading some applications.

User Profiles

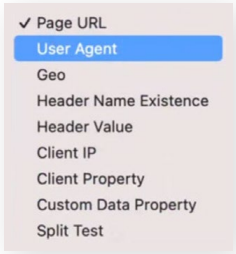
Websites often cater to diverse user segments. Context intelligence helps in segmenting the audience based on factors like device, location, browser, network, header, client IP, or custom data property, allowing for personalized content and experiences that resonate with specific user groups. With user profiles, you can segment your customers into groups and create customized configurations for each. You can also create profiles for pages or groups of pages on your site and segment configurations that way.

	NAME	APPLIES TO	LINKED RULES	PUBLISHER	
⠿	A/B Testing	Matching Page Views	2	Pending Publication	≡
⠿	Default Profile	All Page Views	3	Live	≡

Example of two profiles which have been created, one to help perform split A/B testing, the other (Default) makes it easier to change parameters if required.

Applying Profiles and Rules

Profiles can be applied to individual conditions or can be built to be more complex and use several different conditions. Some conditions (User Agent, Header Value, Custom Data Property) simply look for a match of some sort (contains, equals, doesn't equal, in, starts with, etc.), others have a more defined list of options available as shown in the tables.



Page URL	Geo	Client Property
Pathname	Country Name	Language
Full URL	Country Code	Page Title
Pathname	Region/State	Color Depth
Hostname	Region/State Code	Browser Resolution
Extension	Metro	Screen Resolution
Protocol	City	Connection Type
URL Parameters	Zipcode	Round Trip Type
	Longitude	
	Latitude	
	Continent	

'Apply To' options along with some of the selection conditions

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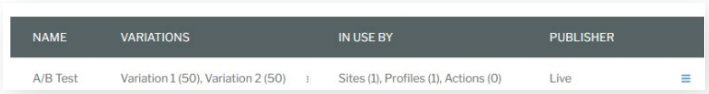
Split Tests

Split tests are a useful feature for website optimization as they can be used to determine the most effective configuration of rules to apply or enable. A split test can be applied to test individual performance rules, security rules, or third parties. Split tests allow assigning a percentage of traffic to any specific rule to test its impact compared to other settings. Data gathered from split tests can be fed into customers' Adobe/Google/analytics platform. Examples of split test applications include:

- Load app A before onload and defer app A until after onload. This helps determine app load sequencing.
- Determine impact of a single app to the website by having x% of traffic to load the app, and y% of traffic not to load the app. This could determine whether to use the app, restrict the pages it is loaded on, or not load it at all.
- Compare two apps with similar functionalities. Have 50% of traffic load app A while 50% of traffic loads app B.



A split test has been created and is live with a 50/50% split applied to one site and using one user profile

Split tests are different from the Continuous Impact split A/B test which is used to show the impact of an optimized versus unoptimized site. Split tests can also help in the creation of User Profile rules or use different Profiles to run split tests.

The effect of applying Profiles on performance is expanded on in the Real User Monitoring datasheet*.

Context Segmentation

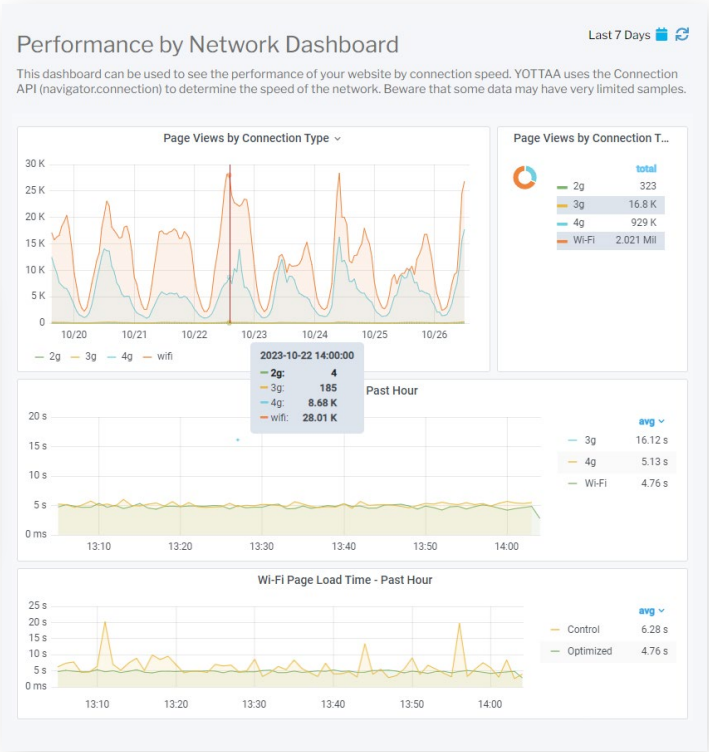
A full range of performance metrics, errors and anomalies, and other site activity are gathered and made available on dashboards and tables. This data can be filtered down by selecting different contexts to gain an understanding of the visit experience and visitor behavior based on the context. The main segmentation that can be applied to the charts and dashboards are for device and browser. Network and Geolocation are other segments that can be applied. Page Categories are listed for most metrics so that the context of where visitors are going can be seen.

Context Segmentation Options			
Device	**Browser**	**Network**	**Geolocation**
Desktop	Chrome	Wi-Fi	Country
Tablet	Safari	Cellular	Region
Mobile	Firefox	Other	City
	Edge		User Agent
	Other		IP

Depending on the metric being viewed the visitor experience for different segments can be better understood and help prioritize and focus optimization efforts or help with marketing engagements. The page load metrics and Google Core Web Vitals* provide insight to the performance experience based on the context of the visitor environment and how they are accessing the site.

Aggregated performance metrics include page load views and times, Google Core Web Vitals, violations and errors, and trend information, and can be segmented by applying the context options.

More detail on the metrics is available in the Real User Monitoring (RUM) Datasheet* and Google Core Web Vitals Datasheet*.



Website optimization is a primary function of Yottaa and identifying the visitor context allows the visitor experience to be modified. This can be to improve performance, provide specific content, personalize the visit, and deliver a better overall site experience. User Profiles can be defined which will segment visitors and take different actions based on met criteria.

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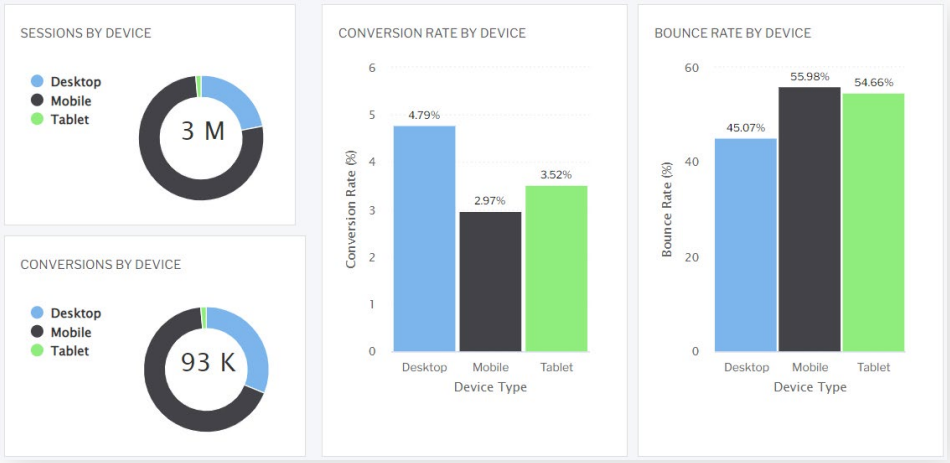
Conversion Rates and Bounce Rates

Bounce rates, conversion rates and page categories give an insight into visitor behavior. The bounce rate and conversion rate are indicators of visitor engagement and relate directly to revenue. Seeing the rates in the context of device type, the breakdown for number of sessions would show that over 75% of site traffic is from mobile devices, but they only have 60% of the overall conversions. Mobile also has the highest percentage bounce rate and lowest device type conversion rate percentage. This may suggest that with more focus on optimizing the mobile experience these indicators could both be improved. Page categories visited show where visitors to the site are spending their time and can allow more personal content to be created to make the pages more compelling or for introducing sales and marketing campaigns.



Example of bounce rate and conversion rate in the context of device used to visit the site.

PAGE VIEWS BY PAGE CATEGORY

PAGE CATEGORY	% OF TRAFFIC	PAGE VIEWS
Homepage	11.27%	433997
Cart/Checkout	9.03%	347900
Search Results	2.30%	88658
Account	2.50%	96142
Hard Coolers	2.19%	84418
Soft Coolers	2.70%	103872
Drinkware	41.16%	1585612
Gear	< 1%	25285
Tumbler	< 1%	1500
Custom	1.25%	48193
Coolers	7.56%	291243
Bags	4.32%	166560
Accessories	< 1%	30830
Order Confirmation	1.48%	57150
College	< 1%	138
New Arrivals	< 1%	7453
Investors	< 1%	5
rambler	< 1%	1275
Fall Color Collections	1.62%	62257
ID Me	< 1%	1527
Misc. Landing Pages	5.19%	199870
Gifts	< 1%	25
Uncategorized	5.68%	218666

Understand visitor behavior by which pages they visit.

Patent: System and method for context specific website optimization

The patent is for what we call “Context Intelligence” This patent allows Yottaa to change the optimizations based on the “Context” of the client or other parameters. It also allows the page to be tested to see where the problems of the website are and change them to be better. There are claims on the general types of optimizations but not specific ones. Also claims for Security features covering DDOS, firewalls and BOT mitigation.

US Pat. 9,674,258

Websites are visited in many different contexts. To a large degree, the success or failure of a website depends on how well the website responds to requests in these contexts. Some of these contexts include web browser type, client device type, mobile device type, network connection, security and search engine bot. Understanding the visitor context allows site performance to be improved and the visitor experience to be more relevant, leading to higher engagement and greater loyalty and conversion.

The Next Step

Don’t just assume that your eCommerce site is performing as fast as it needs to – be sure with a free, no obligation Yottaa trial. Start the process today with a FREE Performance Snapshot. **Click HERE for more information. You can’t afford not to.**