

Lecture 14. Website monitoring

Definition

Website monitoring is the process of checking web page or web application availability, performance and functional. It allows you to be sure that your online products are always available and your potential customers don't suffer unexpected downtimes.

There are many methods to **monitor your website performance** and they are divided into two main categories: internal and external monitoring.

External monitoring

External monitoring allows you to monitor all your web resource parameters. First of all, define what criteria you need to monitor.

- Web page availability or uptime rate ([Uptime Monitoring](#))
- Average Web page load time (Full Page Monitoring)
- Web page functionality ([Synthetic Transaction](#) Monitoring)
- Web page stress resistance ([Web Stress Tester](#))
- [Real User Monitoring](#) (quantity of users)
- API monitoring (JMeter)

Internal monitoring

Internal monitoring can be used in your local network when a resource which should be monitored is not available from global network. For Internal or [server-device monitoring](#) all you need to do is [download](#) and install [Monitis](#) Smart Agent for [Linux](#) or [Windows](#), then add Server/Device monitors from your Monitis dashboard.

Types of website monitoring

1. URL Monitoring
2. URL Sequence Monitoring
3. Website Content Monitoring
4. Synthetic Transaction Monitoring

URL monitoring

When a website which has multiple pages or sub-pages needs to be monitored, a web monitoring service that can capture the sequence of URLs with all the performance stats can be useful. Applications Manager website monitor records all transactions in sequence for every URL that has been accessed from the parent URL, in the sequence of clicks. While most real time website monitoring tools offer uptime and health information of single URLs, Applications Manager website performance monitor allows users to track availability statistics of all URLs in the sequence of transactions. Check out and payments pages of online shopping sites are a few examples of critical path flows to monitor with URL sequence monitoring.

Website Content Monitoring

One of the most important aspects of website monitoring for any business organization is monitoring the content hosted on the website. Defacement is one of the subtle forms of hacking where the content of the website is modified or a potentially malicious content is inserted and without website monitoring tools, it becomes extremely difficult to locate such subtle changes and they often go unnoticed until business starts to get affected and it becomes obvious. With Applications Manager's Website performance Monitoring, monitor websites and identify any unauthorized modifications made to the HTML elements of your page, configure alarms and also restore your original content.

Uptime monitoring

[Uptime monitoring](#) is a regular checkup of availability and response time of a website from different location. It is critical for every business. If page is not available, it means that your business is not available in internet. Your potential customers will be dissatisfied or, even worse, will move to your competitors' page. You should be the first person who is informed about any issue connected to your web page in order to react as quick as possible. There are many tools and sources for web page monitoring.

Full Page Load Monitoring

The average web users perceive load time as being 15% slower than it actually is. It gets worse. When recalling the experience, users remember load times as being 35% slower.

In average, users believe they spend 9 minutes per day waiting for slow websites. This translates to two full days every year.

With the growing demand for speed and all the psychology on top, knowing your site is up is not enough. You need to know what element, when and where becomes a showstopper. With help of **Monitis Full Page Load monitoring** you will get load time information on each element, for each hour. Comprehensive report on all the resources will instantly identify cause of failure if a page is not loading during expected period of time.

Synthetic transaction monitoring

Synthetic [transaction monitoring](#) uses predefined script to perform the same actions as your users. You can easily record a script with transaction recorder and then set up monitor which will use the recorded script. If you need a custom script you ask Monitis Support team will record and upload the script for you within 48 hours (intricate scripts may take longer).

Script will imitate web transaction flow and check the functionality of each step. You can choose loading time for each step or action and if time is higher than predefined, the monitor will generate an alert and notify you. In alert notification you will see all necessary information: cause of alert, in which step the script is failed and the screenshot of your page at the moment of failure.

It means that you will be immediately informed if your page or one of steps will not function as expected. Monitis Synthetic Transaction Monitoring allows you to run the script starting from every 5 minutes. And different locations are also available for this type of monitoring, allowing you to keep a control from all business-crucial locations. This will help you be safe 24/7/365 of any unusual behavior.

Real User monitoring

Real User Monitoring ([RUM](#)) collects data from actual users to give your insight into the performance of your website.

Monitis Real User Monitoring allows you to monitor real user interaction with your website to determine if the users access different pages on your website quickly and without errors and to identify and troubleshoot performance problems.

RUM is collecting user data about your website page views and load time and where the time is spent, starting from the moment the user enters the page address or clicks the link until the web page has completely loaded and rendered to the user.

Thank you for your attention!