

Synthetic Monitoring for Website Performance

Description

Cloudwise Synthetic Monitoring tracks web page performance metrics such as page availability, page performance, resource availability, resource performance, and first-screen load time. By analysing web performance and resource monitoring results, users can quickly and accurately pinpoint the specific causes and locations of issues. This analysis helps determine whether a problem stems from the network, the Content Delivery Network (CDN), the server, or the web page performance itself.

Functions

1. Overall Page Performance

Analyse page performance using internationally recognised metrics such as page load time, element performance, and first-screen time. Data can be thoroughly analyzed to pinpoint performance issues.

2. CDN Performance

Evaluate the performance of CDN providers, nodes, and individual elements to assess CDN efficiency and ensure optimal user experience.

3. Element Performance Tracing

Monitor the status of elements across different hosts to enable users to modify problematic elements and prevent webpage performance degradation.

4. Availability Tracing

Utilize element waterfall charts and network diagnostic tools to conduct Ping and TraceRoute checks on targets, analyze the causes of unavailability, and pinpoint faults.

5. Host Performance Statistics

Assess host performance across various domain names to provide users with insights into the status of different hosts, which supports the optimization of element distribution strategies.

Features

1. Proactive Monitoring

Simulate user access using predefined rules via monitoring nodes to enable proactive oversight, ensure real-time network performance control, and prioritize user experience.

2. Continuous Monitoring

Implement 24/7 intelligent website monitoring coupled with comprehensive fault alerting across all channels to minimize downtime.

3. Deep Dive Analysis

Enable users to delve into statistical reports and geographic maps to pinpoint and diagnose performance issues.

4. Element Waterfall Chart

Displays the availability, performance metrics, and time sequence of elements throughout the loading process.

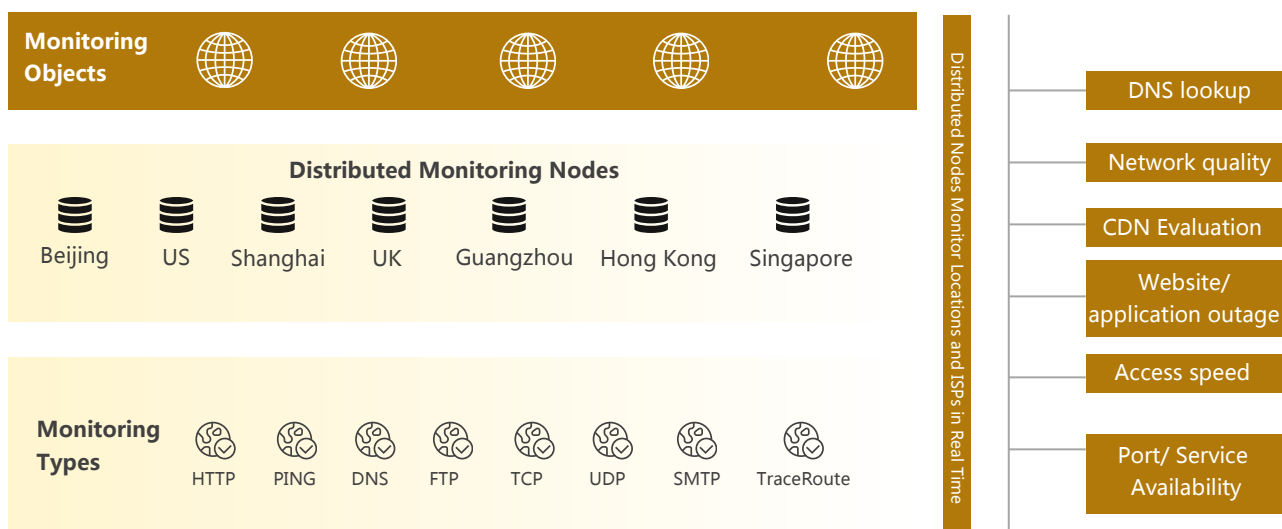
5. Simultaneous Auto Network Diagnosis

Automatically diagnose network issues affecting element loading and detect anomalies resulting from network layer faults using tools like Ping, DNS, and TraceRoute. This is particularly useful for scenarios such as verifying CDN cache node integrity.

Synthetic Monitoring for Website

Description

Cloudwise Synthetic Monitoring offers website monitoring through globally distributed nodes. These nodes evaluate network performance metrics, including network stability, server port availability, network route stability, and DNS lookup validity. This enables users to quickly identify and address issues.



Functions

1. Availability and Response Time Analytics

Reports encompassing monitoring nodes, ISPs, geographic locations, and province and ISP combinations are available for comprehensive analysis.

2. Snapshot Analytics

This feature records access data throughout the entire access process. It aids users in understanding network status during faults, analyzing fault types and durations, pinpointing fault and bottleneck locations, and determining the extent of the fault impact.

3. MTR Reports

MTR (My Traceroute) commands are executed and reports are generated in response to network issues such as request timeouts, server connection failures, denied requests, and lack of return data.

4. Alert Notifications

Supports consecutive alerts, rechecks before alerts, and customizable alert thresholds. Records faults, alerts, and system notifications, and provides detailed historical snapshot data.

5. Multidimensional Analysis Report

Provides data reports across multiple dimensions, including monitoring nodes, locations (domestic and international), provinces, and ISPs. These reports are exportable for in-depth analysis.

Scenarios

1. Website Monitoring

Offer round-the-clock availability monitoring for websites utilizing globally distributed nodes. This service analyzes key website metrics and promptly detects and pinpoints anomalies, enabling enterprises to gauge vital statistics such as response times and availability, thereby enhancing operational efficiency and quality.

2. Equipment Room Network Monitoring

Track and assess network latency, packet loss, and jitter across various locations and ISPs. Analyze network quality based on factors like time, location, and ISP, and ensure prompt notification of staff upon fault detection to facilitate quick resolution.

3. CDN Monitoring

Leverage cutting-edge website monitoring technology to evaluate CDN provider performance via global backbone nodes. Compare detection results from different locations or within the same location to allow users to objectively assess provider performance and improve the detection of CDN-related faults.

Features

1. Global Monitoring Network

Oversee applications via a vast network of over 200 monitoring nodes spanning 112 cities and key ISP networks globally.

2. Proactive Monitoring

Utilize monitoring nodes to simulate user interactions according to predefined rules, ensuring proactive monitoring, real-time network performance control, and a user-centric experience.

3. Multidimensional Monitoring

Employ a wide range of protocols, including HTTP, HTTPS, TCP, UDP, TR, DNS, and PING, for a thorough evaluation of network and service health.

4. Continuous Monitoring

Ensure uninterrupted service with intelligent website monitoring and comprehensive fault alerting mechanisms, operational 24/7.

4. Snapshots + MTR

Implement an advanced diagnostic and analytical framework that captures data before and after faults to swiftly pinpoint issues.

5. Flexible Alerts

Deploy a variety of alerting methods—SMS, email, WeChat, voice calls, and APIs—to guarantee prompt staff notification.

6. Professional Analysis Report

Generate detailed competitive analyses and offer temporal comparison reports, including year-on-year, quarter-on-quarter, as well as daily or weekly updates.

Case Study

Background

The enterprise operates a cultural community and video platform popular among young users. By the second quarter of 2020, monthly average active users soared to 172 million, with mobile users accounting for 153 million. However, as the business has grown, IT systems have expanded without correspondingly efficient monitoring, leading to delayed responses and failure to alert users during outages. Moreover, with the user base expanding, system maintenance is increasingly challenging.

Solutions

Cloudwise Synthetic Monitoring enhances the user experience for websites and apps by supervising ISP networks and analyzing snapshots to identify causes, timings, regions, and nodes. It also refines API performance for proactive alerts and optimizes CDN utilization to pinpoint issues effectively.

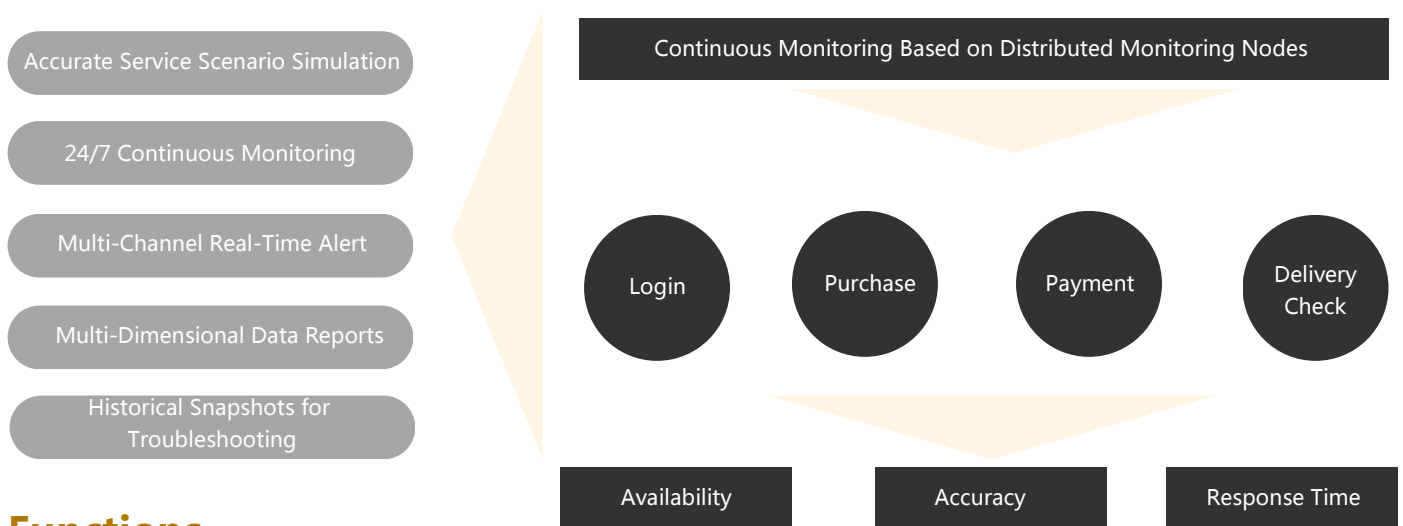
Benefits

- **Solving User Problems:** For instance, during an event, a significant decline in user access quality was detected, attributed to extended DNS resolution times. The issue was addressed promptly.
- **Problem Tracing:** Upon the launch of a new service, Web Performance Monitoring swiftly identified and rectified element performance issues, mitigating potential negative impacts before a surge in user traffic.
- **Operational Cost Reduction and Efficiency Enhancement:** The solution alleviates the burden on the operations team, facilitates communication between operations staff and developers, enhances work efficiency, and expedites the development of enterprise IT systems.

Synthetic Monitoring for Application Programming Interface (API)

Description

Cloudwise Application Programming Interface (API) Monitoring offers comprehensive surveillance of both internal and third-party APIs to proactively maintain service quality. It possesses the capability to monitor complete transactions, gathering real-time data on API response times, availability, and accuracy, thereby ensuring a business-centric approach to API performance.



Functions

1. Availability and Response Time Analytics

By location, region, and ISP, availability and response times are meticulously analyzed. Charts illustrate trends and dissect the causes behind any instances of unavailability, providing a clear view of API stability.

2. Accuracy Analytics

Data integrity is rigorously verified to ensure accurate responses. Analyses of correctness are presented in user-friendly formats, enhancing the ease of conducting availability analytics.

3. Transaction Monitoring

Monitoring encompasses transactions involving multiple steps. It efficiently tracks both simple and complex sequences, such as registration, login, search, and payment processes.

4. Snapshot Analysis

API requests, responses, and results of assertion verifications are methodically recorded. This data is utilized to streamline problem analysis and facilitate a more straightforward and effective troubleshooting process.

Scenarios

API Transaction Monitoring Services

We offer comprehensive monitoring of API transactions, including assertion verification to guarantee the accuracy of returned data. Our system tracks the availability, correctness, and response time of APIs in real time, enabling prompt anomaly alerts to mitigate losses associated with API faults.

Features

1. Global Monitoring Network

Oversee applications using a network of more than 200 distributed monitoring nodes located across 112 cities and major ISP networks.

2. Proactive Monitoring

Implement proactive monitoring by simulating user access using preset rules through monitoring nodes. This approach allows for real-time control of network performance with a focus on enhancing user experience.

3. Continuous Monitoring

Implement 24/7 intelligent website monitoring along with comprehensive fault alerting across all channels, aimed at reducing interruptions.

4. Business-Oriented

Monitor transactions that involve multiple operational steps for business flow monitoring, ensuring business stability and availability.

5. Easy Task Creation

When users import scripts, the required request information is automatically specified, allowing for the convenient creation of monitoring tasks. Users can import a single script to generate multiple requests for a transaction."

Case Study

Background

The enterprise is one of the largest in the industry worldwide, boasting more than 20,000 branches across North America, South America, Europe, the Middle East, and the Pacific region. It ranks 478th in the Fortune Global 500. To enhance user experience, the enterprise aims to monitor user interactions around the clock. This involves tracking metrics like availability and time consumption for mobile and official website APIs, ensuring real-time monitoring and rapid all-channel fault alerts within seconds.

Solution

Cloudwise Synthetic Monitoring offers API and business flow monitoring, along with user-simulated visits, to ensure the availability and performance of business and API services, as well as the accuracy of key data. The system then analyzes detection results to identify issues with user access and performance. In case of any problems, staff members are notified through multi-channel alerts, facilitating prompt fault localization and resolution.

Benefits

1. Enhance Operational Efficiency

Data reflecting real user experiences can optimize the performance of the APP client side. An all-channel alert system enables operational personnel to promptly identify performance issues.

2. Efficient Management:

Multidimensional data analytics assist leaders in making more informed decisions. A unified application performance management platform fosters better coordination, and the accumulation of knowledge helps prevent losses that may arise from staff turnover.