efficient iP®

DDI Observability Center

Optimize Network Operations Efficiency and Performance

Highlights:

- Insightful, actionable, and reliable DDI telemetry and analytics to optimize the efficiency and performance of network operations

- Single-pane-of-glass visibility into DNS traffic and DDI health across the entire DDI architecture or per server

- Easy-to-use interactive dashboards for simple search and navigation of historical DDI and DNS telemetry over time to immediately identify anomalies

- Modern and effortless monitoring of DNS service, DDI health, and operational status to optimize network performance and ensure business continuity

- Effective troubleshooting and root cause analysis to pinpoint misconfiguration, latency, security, or operational issues to speed up incident response

- Highly-scalable, enterprise-grade platform that provides a cost-effective alternative to dedicated hardware-based analytics solutions

Network infrastructure has undergone several transformations in recent years driven by digital transformation and new business strategies. As a result, networks have expanded both in size and diversity, spanning device proliferation, IoT, edge, multi-cloud, and growing number of SaaS applications. This has led to increased complexity making them difficult to manage, operate, and protect without the essential, comprehensive observability over network activities.

In this context, organizations face the imperative of achieving full-stack visibility. And it starts with DDI, a foundational element in networking that enables network connectivity and communication. By monitoring their DDI infrastructure and associated DNS traffic, organizations can understand where and why problems are occurring, threatening network performance and overall business resiliency.

Addressing this need, the DDI Observability Center (DDI OC) provides modern, comprehensive network visibility and observability to NOCs, network, and security teams with insightful, actionable, and reliable DDI telemetry and analytics. Accessible through a unified, cloud-based visualization portal, it empowers organizations to optimize the efficiency and performance of network operations across multifaceted networks.

DDI Observability Center at a Glance

Using the DDI OC web portal, organizations can view consolidated, accurate, and up-to-date DDI insights, generated from a unique collection of DDI metrics and statistics, whatever the distributed architecture. They can monitor DNS service, DDI health and operational status, enabling them to identify anomalies, performance or configuration issues, and make quick decisions.

DDI OC also simplifies troubleshooting and speeds up root cause analysis down to the individual device or client that caused a DNS anomaly for effective incident response. Overall, it helps optimize network operations and performance over time, facilitates capacity management, and ensures service continuity for enhancing user experience.

Leveraging a highly scalable, enterprise-grade, cloud-based platform, DDI OC is reliable and sustainable for the long term. Its modern architecture is designed to collect and store DDI metrics continuously and at scale across geographies and networks. Statistics and data are processed to generate near real-time insights and analytics that users can access at their fingertips, from any device.

Key Features

Comprehensive DDI telemetry

DDI OC provides extensive, insightful DDI and DNS metrics, statistics, and analytics, enabling visualization and analysis of the health and performance of the entire DDI infrastructure in near real-time. Information viewable includes, but is not limited to:

- Average number of DNS queries per second
- Number of DNS queries
- Average recursion delay and evolution
- Error code distribution
- Cache hit ratio globally and per server
- Query type distribution
- DNS packet size evolution
- Top DNS queries, suffixes, and noticeable requests
- CPU and free memory per DDI server
- Health processes
- Disks, Disks IOs, throughput
- DNS query metrics globally and per client such as recursion time, errors and associated FQDNs, EfficientIP's DNS Guardian CQF list matches and triggers

Single-pane-of-glass visibility

From a centralized, unified portal available from any device, network teams have instant, deep visibility into DNS traffic, DDI server health, and service performance across the entire DDI infrastructure or per DNS or DDI server. This cloud service empowers them to observe global DNS traffic trends and fluctuations, providing a historical perspective on DNS data to establish a baseline for normal network activity. Additionally, it facilitates the rapid identification of DNS resolution bottlenecks or capacity issues at a glance.

Interactive dashboards

Simple, pre-built dashboards, including widgets, allow teams to easily search, filter, and browse historical DDI and DNS telemetry. They also enable zooming in and out with a visual timeline to spot trends and spikes as well as go deeper to find where the problem really lies. Widgets can be embedded into third-party business applications for broader access and monitoring.
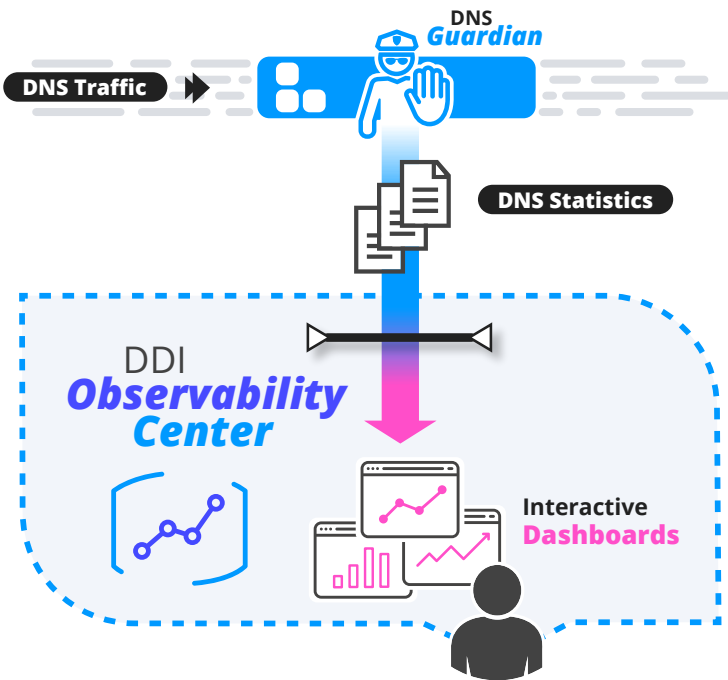

Extensive DDI telemetry from a unified visualization portal

Continuous, real-time monitoring

With DDI OC, network teams can instantly monitor DNS traffic and DDI server health to optimize network performance and ensure business continuity. The web portal enables continuous analysis of large-scale unitary or consolidated DNS data streams, using a predefined set of metrics. Rapid problem identification is facilitated by detailed statistics and analytics including DNS query volume, resolution time, and error code distribution, allowing teams to pinpoint DNS or DDI performance problems amidst data noise.

In-depth DNS query metrics per client and source IP address help spot anomalies related to high recursion time, high rate of SERVFAIL or NXDOMAIN responses, low cache hit ratio rate, or EfficientIP's DNS Guardian CQF list matches or triggers. By monitoring the performance of your DDI service including CPU and memory overflows, down to the individual process running per software appliance, you can quickly determine if your DDI infrastructure is experiencing a problem potentially affecting your network performance and get insight into possible root causes to accelerate investigation.

Simplified troubleshooting

Once an anomaly is identified from the DDI OC portal, it can be immediately investigated to determine its nature, such as an operational or capacity issue, misconfiguration, or security threat. Continuous historical records and detailed DNS and DDI metrics facilitate troubleshooting, which is accelerated by correlating related metrics from the portal and identifying the device or client that caused a DNS anomaly.
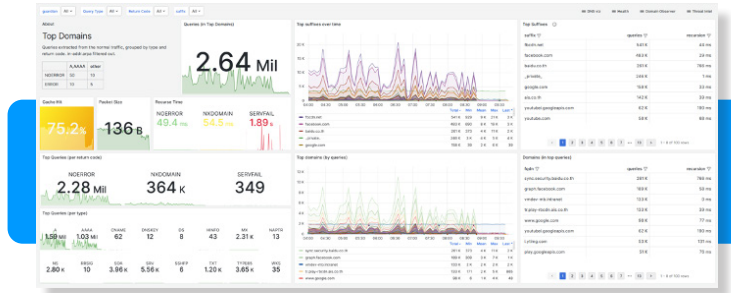
Slice data by server, query type, return code, or suffix to troubleshoot quickly

As a result of this more effective troubleshooting by enabling root cause analysis down to the source IP address, network and security teams are able to quickly respond to the incident, providing resolution, restoring service, and improving user experience.

Simple deployment

As a cloud-based service, DDI OC is easy to set up, deploy, activate, and access once subscribed to. It can scale quickly by adding new DNS and DDI servers according to business needs and across any on-premise, hybrid, IoT, or multi-cloud environments. Related DNS and DDI metrics are instantly analyzed, aggregated, and displayed in dashboards.

Enterprise-grade platform

By harnessing a highly scalable enterprise-grade platform built on cutting-edge cloud technologies, DDI OC guarantees long-term reliability and sustainability. Its microservice architecture is designed to accommodate any volume of DDI metrics, regardless of customer's profile and distributed architecture. In addition, optimized data flow and storage make it a flexible and cost-effective alternative to dedicated hardware-based analytics solutions.

Real-time DNS traffic monitoring with DDI OC

With DDI OC, organizations gain visibility into their DDI infrastructure, optimize network operations and performance, simplify capacity management, and ensure service continuity for a better user experience.

Key Benefits

Improved Visibility

Gain deep DDI visibility with insightful, actionable, and reliable DDI telemetry and analytics

Effortless Monitoring

Identify early any anomaly, across the entire DDI infrastructure, by tracking metrics through interactive dashboards

Effective Troubleshooting

Accelerate investigation and root cause analysis to quickly resolve the incident before it has significant impact

Network Performance Optimization

Ensure DDI service performance over time by overcoming latency, capacity issues, misconfiguration or security threats