NetScaler Management and Analytics for virtual apps and desktops

You can now get deep visibility into your XenApp and XenDesktop deployment.

**Gaining visibility to virtual apps, desktops, and users**

Virtual desktop infrastructure (VDI) frees IT departments and users from the limitations of traditional client-based desktop and application IT management.

Many thousands of organizations rely on Citrix XenDesktop and Citrix XenApp for application and desktop virtualization. The foundation of Citrix VDI solutions is the Independent Computing Architecture (ICA®) protocol, developed by Citrix to optimize the user experience.

In order to troubleshoot application performance issues across your VDI and maintain high levels of user experience, deep visibility into ICA traffic is required.

In addition, visibility into a user’s access details is essential for troubleshooting access failure issues. As the network administrator, you want to know when a user is not able to log on to a service, and you want to know the activity of that user and the reasons for logon failure.

**How NetScaler Management and Analytics can help**

If you use NetScaler to manage access to your Citrix XenApp and XenDesktop environment, you can now use NetScaler Management and Analytics System or the cloud service version NetScaler Management and Analytics Service (NetScaler MAS) to gain unprecedented end-to-end visibility to ICA traffic passing through the NetScaler instance. The HDX Insight functionality in NetScaler MAS collects, correlates, and displays highly informative network usage and performance data for XenDesktop and XenApp, both in aggregate and down to the level of individual user sessions. This data helps both network and application administrators to identify and triage network and application issues.

In addition, the Gateway Insight dashboards in NetScaler MAS provide visibility into the failures that users encounter when logging on, regardless of the access mode. You can view a list of users logged on at a given time, along with the number of active users and number of active sessions. You can view the end-point analysis (EPA), authentication, single sign-on (SSO), and application launch failures for a user. You can also view the details of active and terminated sessions.

To access these powerful insights, you don’t need any intrusive network taps or software agents. You just need to sign up for the NetScaler Management and Analytics Service or download the NetScaler Management and Analytics System software to be able to start collecting and analyzing data from your NetScaler instances.

Let’s look at more details of what NetScaler MAS can provide in terms of visibility into your Citrix VDI infrastructure.

**Proactive monitoring**

NetScaler MAS/HDX Insight allows administrators to dissect the network data from various angles including by desktop, application, user groups, and individual users. This results in a powerful tool that allows much faster root cause analysis. You can also see TCP-level jitter and latency information and get a detailed breakdown of ICA session latency by client, ICA round-trip time (RTT), and server. This information can be viewed in real time, or you can see historical information, all on simple-to-understand dashboards.
NetScaler MAS connects to any NetScaler and HAProxy instances whether they are deployed in your data center, AWS, or Azure. Then, from a single console you can:

• See the status of your applications on a single dashboard and then deep-dive into the details for faster troubleshooting, proactive performance management, and security-threat management.
• Collect data from your on-premises data centers, and from AWS and Azure.
• Map applications to infrastructure, so applications can always be managed end to end.
• Automate provisioning, configuration, SSL certificate management, and logging.
• Integrate with orchestration and management systems.
• Monitor and manage XenDesktop and XenApp VDI traffic, and manage user authentication and end-point issues.
• NetScaler MAS is available both as software to download or as a cloud service.

**Complete ICA visibility**

Once NetScaler MAS is connected to your inline NetScaler instances, you can detect and dissect ICA connections in order to provide complete visibility into the protocol.

High-level aggregate information with drill-downs to session-level data can be accessed from several different perspectives, including:

• **Users:** Administrators can view a snapshot of the average RTT (or screen lag time), WAN latency, data center latency, and bandwidth consumption across all users over select time periods (e.g., last 5 minutes, hour, day, week, or month). The same screen can also be used to view top users by a range of attributes (e.g., number of apps/desktops launched, bandwidth consumed, latency, and number of active apps/desktops) or search for individual users.
• **Applications:** In addition to the aggregate bandwidth being consumed by all hosted applications, this view provides an app-by-app breakdown that includes the number of active sessions and apps, total count of sessions and apps launched, and launch duration across select time periods.
• **Desktops:** In addition to total bandwidth being consumed by all hosted desktops, admins get a breakdown by user that includes the number of active sessions and desktops, session duration, bandwidth utilization, RTT, data center latency, and WAN latency.
• **Gateways:** The aggregate or summary data for this view is based on the traffic transiting each individual instance of NetScaler/NetScaler Gateway (or CloudBridge) and provides a way to compare performance across locations.

NetScaler MAS is also the only solution that reliably dissects the ICA protocol to provide granular details of what’s going on in each virtual channel level.

**Powerful reports**

HDX Insight provides the following reports both in historical and real-time views:

• Top Users by number of apps/desktop launched, bandwidth consumed, client device information, app launch count, active sessions, active desktops, and latency
• Top Desktops (per specific time frame such as daily, weekly, monthly, or a custom range) across all XenApp/XenDesktop users by total number of launches, established sessions, uptime, and session latency
• Top Apps (per specific time frame such as daily, weekly, monthly, or a custom range) across all XenApp users, by uptime and total number of launches

**Visibility to user access issues**

Gaining visibility into a user’s access details is essential for troubleshooting access failure issues. As the network administrator, you want to know when a user is not able to log on to their desktop or applications, and identify the reasons for logon failure, ideally before the user starts to complain. Gateway Insight in NetScaler MAS provides visibility into the failures that users encounter when logging on, regardless of the access mode. You can view a list of users logged on at a given time, along with the number of active users, number of active sessions, and bytes consumed and licenses used by all users at any given time. You can view the EPA, authentication, SSO, and application launch failures for a user. You can also view the details of active and terminated sessions for a user.

Even better, NetScaler MAS also provides visibility into the reasons for application launch failure for virtual applications. This enhances your ability to troubleshoot any kind of logon or application launch failure issue. You can view the number of applications launched, number of total and active sessions, and the number of total bytes and bandwidth consumed by the applications. You can view details of the users, sessions, bandwidth, and launch errors for an application.

**Simple cost-effective deployment**

Unlike other solutions that have multiple touch points and require a complex configuration of network taps or intrusive agent software, NetScaler MAS provides end-to-end visibility with little more than an organization’s existing footprint of NetScaler ADCs, NetScaler Gateways, or SD-WAN instances. The required instrumentation is already a part of those solutions; it only needs to be turned on and configured with NetScaler MAS. NetScaler MAS is available either as a cloud service or as software for download.
Getting started with NetScaler MAS

For more information, go to

To access a free trial of the service or download the software, go to