Managing Office 365 Performance

The Microsoft Office 365™ for Business employee productivity suite bundles “online” versions of Microsoft Exchange email services, SharePoint, and Skype for Business, as well as the Yammer enterprise collaboration tool. Enterprises today can reduce information technology (IT) costs and improve application service reliability by adopting Office 365 for Business/Microsoft Cloud Services, also leveraging Microsoft IT resources for maintenance and installing upgrades. Office 365 provides the additional benefit of extending business application access to mobile users running virtually any device - Windows or Mac desktops and laptops, Android devices, iPhones and iPads, as well as other smartphones.

Nonetheless, there are challenges associated with these Office 365 migrations. Perhaps most importantly, IT teams are responsible for ensuring their employees continue to benefit from high-quality end-user experience before, during, and after Office 365 transition – otherwise, the business suffers. IT teams can find these transitions challenging, as they may have limited visibility into the cloud and can frequently experience issues like on-premises Active Directory (AD) integration difficulties with the cloud. Other service availability issues can surface, with users experiencing Outlook email authentication and connection issues. In addition, wide area network (WAN) bandwidth saturation can happen, involving bandwidth contention during Office 365 mailbox migration.

With hybrid on-premises and cloud-based solution environments, lack of visibility into all service delivery dependencies can also result in increased mean-time-to-repair (MTTR), negatively impacting enterprises through reduced productivity and increased user dissatisfaction. For the IT teams tasked with managing the move to Office 365, traditional silo-based performance management approaches often fail to provide the deep visibility needed to quickly resolve these multifaceted issues.

NETSCOUT Solution for Office 365

NETSCOUT smart visibility shines a light onto end-to-end services comprising Office 365 services-including cloud, on-premises, virtual, and wireless platforms. “Smart data” generated by NETSCOUT’s patented Adaptive Service Intelligence™ (ASI) technology is consumed by our nGenius® solutions for service assurance of Office 365 environments. Leveraging this smart data enables the NETSCOUT nGeniusONE Service Assurance platform’s smarter analytics help IT assure high-quality end-user experience with Office 365 services. Enterprises today use this NETSCOUT approach to reduce risks with their transitions to Office 365 services.

NETSCOUT’s approach factors smart visibility solutions (e.g., InfiniStreamNG™ software and hardware platforms, vSTREAM™ virtual appliances for hybrid cloud environments) to provide complete north-south & east-west visibility into Office 365 service quality. NETSCOUT visibility also illuminates the service enablers comprising Office 365 performance, including DNS, authentication servers, and the Dynamic Host Configuration Protocol (DHCP). In this manner, nGeniusONE measures true end-user experience for those employees relying on Office 365 services.

Office 365 Performance Problems Solved by the nGeniusONE Platform

When enterprise Office 365 application services underperform or “go down,” nGeniusONE delivers visibility into the performance of the entire service delivery environment, including desktops, authentication servers, service enablers, application and Web tiers, network, WAN, edge routers, servers, and firewalls.

With this end-to-end view showing the interrelationships between different service delivery elements, nGeniusONE provides information necessary to understand the full context of the sources of service anomalies.

By measuring Office 365 performance from an end-user perspective, IT teams can accurately determine whether the root cause is within the underlying enterprise infrastructure (e.g., network, routers, firewalls, or service enablers) or related to the cloud service provider’s domain.
IT teams today are efficiently identifying, triaging, and resolving many Office 365 performance issues, using nGeniusONE to provide visibility into:

**Network and service enablers infrastructure performance, including:**

- DNS and AD/LDAP, all of which are critical for Office 365 services to operate
- Network engineering and traffic prioritization, including assurance the network is engineered correctly for Office 365 traffic
- Quality of Service (QoS) prioritization within the enterprise network

**Office 365 services accessed and mobile devices used, including differentiating all:**

- Applications inside Microsoft Office 365–Exchange, SharePoint, Skype for Business, and Yammer
- Traffic by mobile devices–iPad vs other mobile devices, such as Android, Windows, etc.

**Fault isolation between enterprise and service provider network (reduce mean-time-to-innocence), factoring:**

- Network Performance–NAT/Firewall issues, round-trip latencies, QoS, and TCP buffering issues
- AD authentication, as well as AD synchronization between enterprise AD and cloud
- DNS performance
- Application errors for some applications (that are not encrypted)

**nGeniusONE Platform Offers Seamless Top-Down Workflows**

nGeniusONE’s smarter analytics rely on the power of NETSCOUT ASI-generated smart data to help IT teams quickly troubleshoot Office 365 performance-impacting issues. Through continuous monitoring of all Office 365 application services, smart data enables nGeniusONE to gain a holistic view into the performance of components that could potentially degrade an application’s performance. This highly structured data enables nGeniusONE to provide enterprise organizations with operational insights and visibility into the status of critical Office 365 application performance issues.

nGeniusONE provides IT teams with an efficient top-down approach to situational analysis, problem identification, service troubleshooting, and resolution. Using a consistent set of service-oriented workflows, nGeniusONE enables seamless, contextual transitioning across multiple layers of analysis. These workflows allow nGeniusONE to facilitate efficient and informed hand-off of incident response tasks across different enterprise IT groups, as well as Microsoft support.

The nGeniusONE platform streamlines Office 365 service delivery management by providing the following key analysis layers:

- **Service Dashboard:** Delivers real-time health status, metrics, alarms, and intelligent early warning of problems in the Office 365 service delivery landscape.
- **Service Dependency Map:** Provides visibility into all Office 365 dependencies among various components. This feature enables IT teams to analyze the service delivery environment and discover the client-server relationships and their performance.
- **Universal Monitor:** An overarching module that can be customized to monitor Office 365 applications accessed, Office 365 cloud servers responding to requests, affected user or server community–as well as number of requests, failures & network latencies experienced by users.
- **Service Monitors:** Business- and protocol-specific monitors, including Traffic Monitors and specialized Service Monitors, Threat Monitor, Network Management Monitors, and Service Enabler Monitors. These allow you to analyze relevant metrics to triage application, server, and network performance degradation affecting end-user experience.
- **Session Analysis:** Enables session-level analysis with hop-by-hop transaction details instead of subsequent analysis.
- **Packet Analysis:** Enables deep-dive, protocol-level analysis and forensic evidence collection.

**Benefits of nGeniusONE Solution**

- **Mitigates Office 365 transition risk:** NETSCOUT visibility provides the holistic view required to manage services deployed on-premises and in the cloud, reducing the number of IT tools.
- **Accelerates Office 365 deployment:** Enables digital transformation project success, supporting pre-migration assessments, transition programs, and sign-off validation support.
- **Provides business continuity during Office 365 transition:** Service Dashboard and Service Monitors provide IT with needed proof of migration success in the form of “before, during, and after” views of Microsoft application service performance.
- **Differentiates Office 365 application services:** Provides visibility applications inside Office 365 traffic (e.g., Exchange, SharePoint, Skype, Portal, etc.) and identifies application traffic by mobile devices used (e.g., iPad traffic vs. other mobile devices).
- **Drives Collaboration within IT Operations & external Cloud/Service Provider teams:** nGeniusONE’s vendor-neutral approach provides a common solution for IT teams working across different domains, including Desktop/Windows Administrators, Active Directory Administrators, Network Engineers and Administrators, and WAN and cloud service providers.

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