



2019 SURVEY REPORT

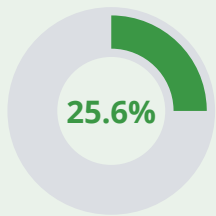
# AppNeta's State of Enterprise IT



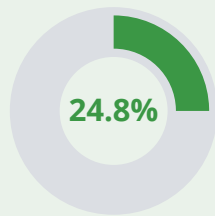
## AppNeta's State of Enterprise IT

In this report, we polled roughly 400 IT professionals working at large organizations to see how the evolution of the enterprise network is impacting their ability to perform. What we found was that across the board, enterprise IT is getting stretched thin as their networks grow more distributed and their workflows move to the cloud. This is impacting IT's ability to support programs that are critical to business success, as well as their ability to assure end-user satisfaction. Where appropriate, we've included statistics and top applications to look out for that we can obtain as anonymized data from across our customer base.

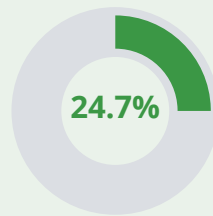
### THE BIGGEST HINDRANCES TO NETWORK VISIBILITY ARE



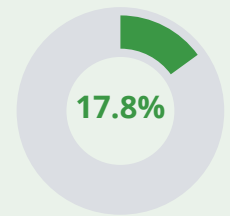
LACK OF IT STAFF AVAILABILITY



POOR NETWORK MANAGEMENT TOOLS



LACK OF VISIBILITY INTO APP DELIVERY PATH



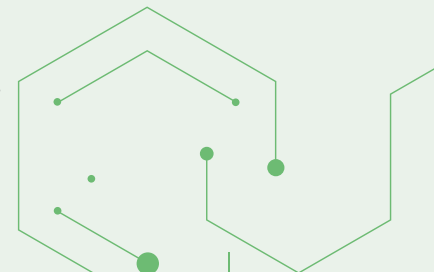
LACK OF IT AT THE REMOTE OFFICE

#### IN ADDITION

- Only 53.5% of IT are sure they leverage an NPM solution
- 43.4% of end-user complaints are directed at the network
- 16.5% of IT receive network/application complaints daily

Survey options not pictured:

- NA 1.9%
- NONE 0.8%
- OTHER 4.4%



Enterprise networks are in the midst of an unprecedented evolution as cloud services and SaaS apps have become business-standard across industries. While connectivity has been central to enterprise success for decades, the rate of technological advancement in the recent past has put in motion major operational changes that require an entirely new approach to networking.

Put simply, legacy network setups can't efficiently support all of the cloud-delivered solutions organizations rely on today (and will inevitably adopt in the future). *And all of this change is putting a greater strain on enterprise IT than they may be prepared to handle.*

A (mostly) positive side-effect of the increased availability of cloud and SaaS solutions is the ability of enterprises

to start retiring the legacy network architecture. This is impactful on several fronts.

- For starters, when companies start relying on SaaS solutions and cloud workflows, IT no longer has to manage data center hardware that supported their legacy business tools (which were traditionally owned and operated in-house).
- As organizations start unloading their data center hardware, they can also start retiring their "hub-and-spoke" network architecture, which historically relied on an MPLS-heavy web of backhaul connections between remote users and the main office.

When teams don't have to rely on costly MPLS-only setups, they're less geographically constricted (or pigeonholed by budgets). IT can adopt Direct Internet Access (DIA) and SD-WAN configurations to help manage latency, jitter and (to a lesser extent) traffic loss without requiring traffic backhaul via MPLS.

As a result, workers can access company data and collaborate from any branch office without forcing IT to heavily modify their infrastructure.

Of course, all of this positive change has to come at a cost.

By unloading all of the "owned" enterprise hardware that lived in the centralized corporate data center, IT passes off control and management of many network environments to third-parties and service providers. This robs them of the visibility they used to have to pinpoint in a flash where issues occur over the network as they impact end-users.

The stress is even greater for enterprise IT in the context of enterprise decentralization.

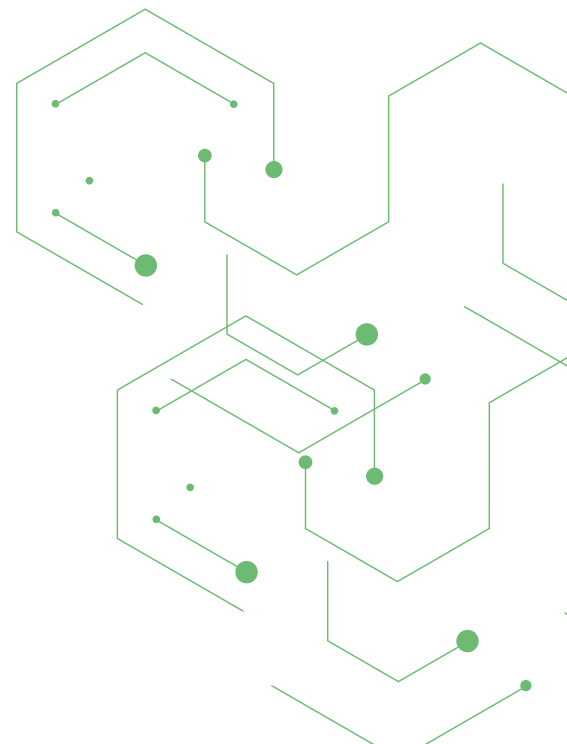
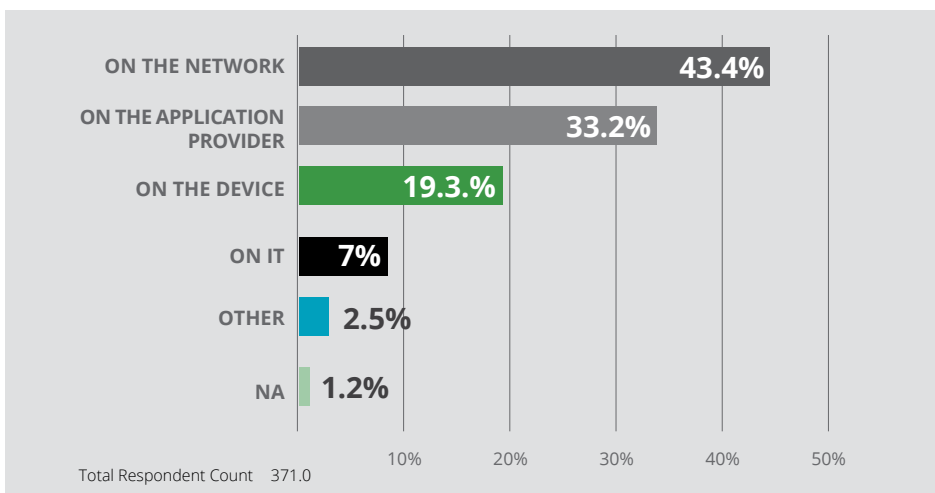
When IT doesn't have a local presence at each office (which is increasingly the case as decentralization gains steam), centralized IT teams only have a limited view into end-user experience. These limitations run the gamut, from having limited visibility beyond the local firewall (17.8%), to an inability to see the hop-by-hop delivery details that could illustrate hiccups along network paths (24.7% of IT).

While network performance monitoring (NPM) solutions could help bridge these gaps in visibility, only 53.5 percent of IT teams at large organizations claim to use a network performance monitoring solution in the first place. While these stats indicate that enterprise IT in general is largely blind to the benefits of NPM (especially as they adopt new network configurations), it appears awareness is only the beginning.



Only about half of enterprise IT are using a Network Performance Monitoring solution to solve all of these issues

**WHEN END-USER COMPLAINTS COME THROUGH, WHERE DOES BLAME USUALLY LAND?**



Here are some of the major takeaways

**1 As large office networks expand, IT gets stretched thin**

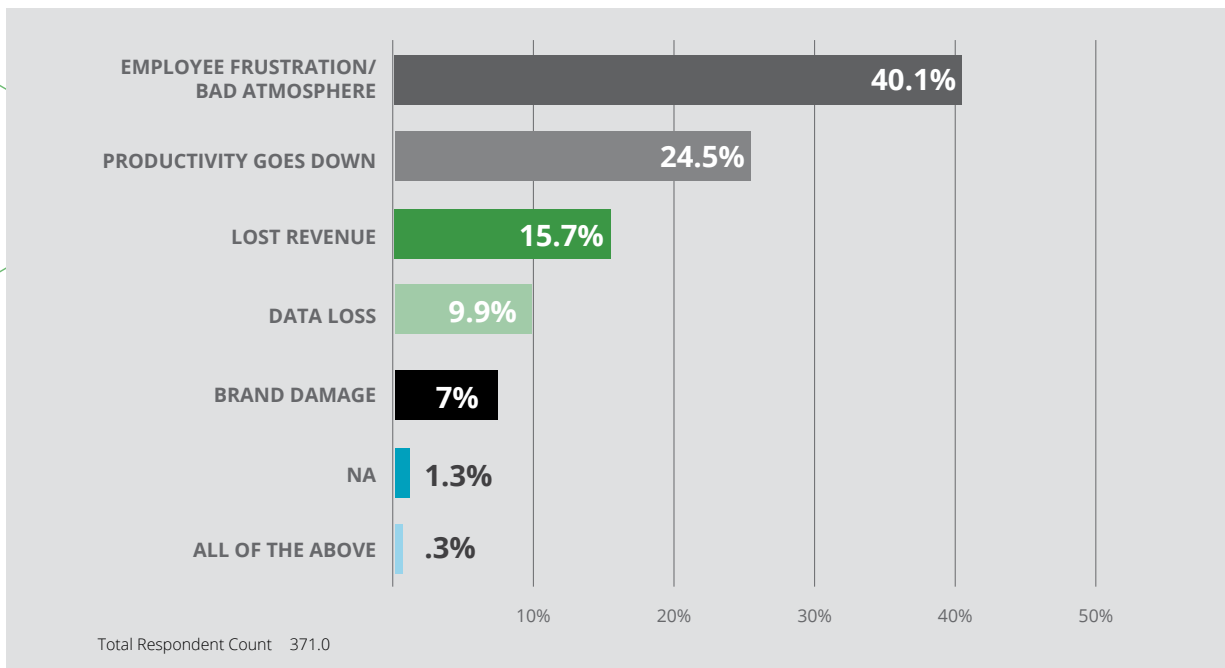
A lack of IT staff availability was the top hindrance to issue resolution (25.6 percent), and the effects are trickling down across the enterprise. Complaints are still streaming in on a steady daily, weekly and monthly basis (16.5%, 16.6% and 21.6%, respectively) resulting in widespread employee frustration (40.1%), big hits to productivity (24.5%), and revenue loss (15.7%). With companies so reliant on the network to keep teams connected in an increasingly distributed network environment, (56.4% of respondents rely on messaging apps daily and 30.2% of respondents considering these apps critical to business), IT desperately needs to gain a "local perspective" into end user experience not just to do their job effectively, but to keep business running.

That perspective is even more important when we take into account the number of locations in the typical enterprise today. Across our top two account tiers AppNeta sees an average of 232 locations and 87 locations respectively.

**THE TAKEAWAY**

Without granular visibility into end-user experience that an effective NPM can deliver, centralized IT is essentially "set up to fail" as the enterprise decentralizes.

**WHAT IS THE BIGGEST IMPACT OF POOR END-USER EXPERIENCE?**



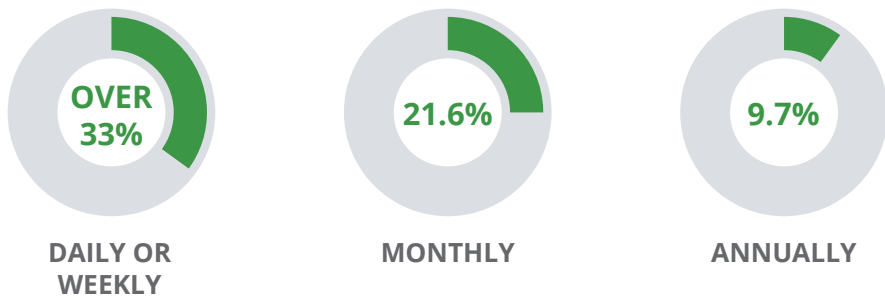
## 2 IT teams are missing the context they need to speed up MTTI (Mean-time-to-innocence)

When performance issues occur, savvy end users may assume one element is the culprit (the network, the app provider, their device, etc.). Blame will inevitably fall on IT, but teams can't speed up resolution without insight into what's at the root of the issue -- let alone give answers to end users that can redirect blame/install confidence in IT's ability to execute. With only 53.5% of IT pros polled knowingly employing an NPM solution, there's likely a huge lack of visibility into network performance across the enterprise space, which is causing end users to jump to conclusions without context. It's also hindering IT's ability to address issues proactively, since 16.5% of those polled still field complaints on a daily basis (16.6% for weekly, 21.5% for monthly).

**THE TAKEAWAY**

There's a huge lack of visibility into network performance across the enterprise space that might be remedied by wider adoption of NPM (and a better understanding of how to be proactive).

### FREQUENCY OF COMPLAINTS TO IT



Survey options not pictured: NEVER 35.7%

### RECREATIONAL APPS EATING INTO NETWORK CAPACITY

Within AppNeta Performance Manager, apps are identified in real-time allowing for additional visibility into traffic that may not be deemed business-critical by most departments, but has a large impact on network performance. Chief among these are web services (e.g., third-party APIs), file transfer apps (e.g., Crashplan, Google File Stream) and security services (e.g., authentication, updates). While active monitoring may not be necessary or feasible for all of these services, their weight on the network is often ignored, leading to longer troubleshooting times.

#### Top Apps To Watch Out For:

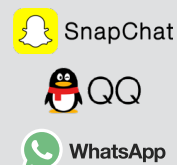
##### SOCIAL MEDIA



##### STREAMING MEDIA



##### COLLABORATION/MESSAGING



Ranked by number of unique users (not by throughput) of apps across our anonymized customer data. All are categorized as "recreational" by default, but appear in the top 10 of each classification.

### 3 Messaging apps and UCaaS taking up a larger share of total network capacity as they graduate to "business-critical" status"

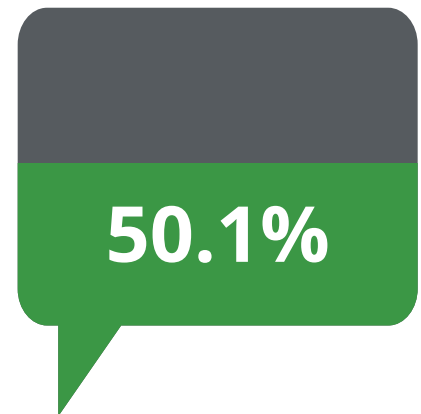
The majority of enterprise teams today use messaging apps on a daily basis (56.4%), with 19.9% of respondents calling these tools Very Critical and 30.2 percent deeming them Critical. Collaboration apps make up a large category by number of apps in our own anonymized customer data, but don't always account for a large amount of traffic. Simple messaging apps can be relatively lightweight, but spikes are common when factoring in apps that combine text-based chat with video conferencing. Skype is the leader across our data with a surprise second-place finish by the Apple Push Notification Service (APNs). By the GB, Google Hangouts joins the top pair at almost two times the next solution – Sharepoint Online. The usual suspects across our customer base appear as well (Citrix, WebEx, and Slack), but at far lower throughputs.

At the same time, 22.6% of users also leverage social media on a daily basis on the job, with 11.7% admitting to using social media multiple times a day, and 9.6% checking their personal apps hourly. Across our customers, Facebook tops this list with Twitter and LinkedIn filling out the top three. Interestingly these can all, in some respects and for some departments, be deemed business-critical. Rounding out the top five, however, we find Pinterest and Instagram that are image-heavy and less-often used for business purposes.

With messaging and communication apps playing such a critical role to business, how can IT be sure these two latency/jitter prone technologies aren't competing for network capacity at the expense of productivity?

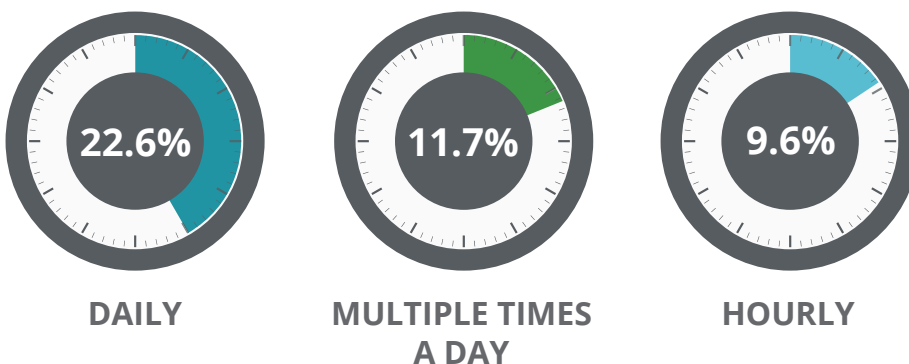
**THE TAKEAWAY**

There's room for messaging/ UCaaS and social media on the enterprise network, but teams need tools to balance the latter's impact on the former.

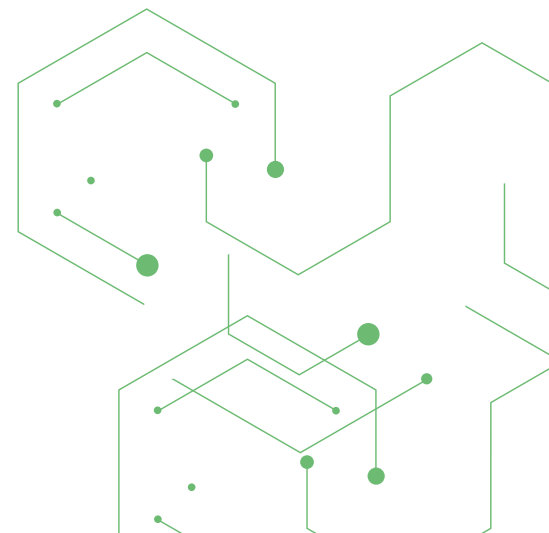


Of respondents said that messaging apps were critical or very critical to their organization.

#### PERCENTAGE OF WORKERS USING SOCIAL MEDIA ON THE JOB



Survey options not pictured: WEEKLY 11.1%, NONE OF THESE - I DON'T USE SOCIAL MEDIA 31.2%

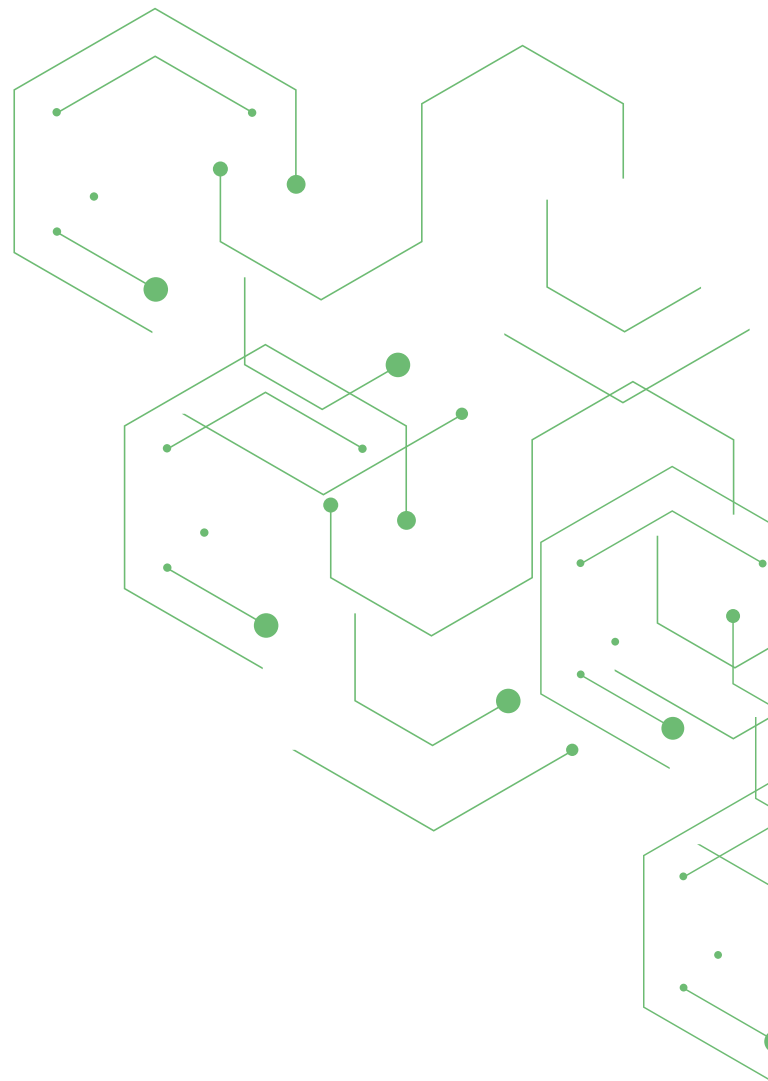


## Conclusion

Without a network performance monitoring solution that can bridge the visibility gaps that come as a side effect of enterprise decentralization, it's no surprise that IT teams might feel like they're doing their jobs in the dark. While teams may employ a wealth of technologies to help improve the management of increasingly distributed network environments (ie. SD-WAN and SDN), it's unwise for IT to consider these all-encompassing solutions to their management and monitoring requirements.

AppNeta gives IT the actionable context they need to keep users happy, and ultimately firm-up the foundation of the modern enterprise. By taking a 4-Dimensional approach to network performance monitoring that tracks network paths, packet data, web synthetics and network flows, AppNeta gives teams the context they need to take action when issues arise and proactively prevent issues before they impact end users.

To learn more about how AppNeta empowers enterprise IT teams with the visibility they need end-to-end across their entire network, download our whitepaper, **Why "Good Enough" Doesn't Cut It with Performance Monitoring: The Four Dimensions of Network Monitoring.**





## ABOUT APPNETA

AppNeta is the only network performance monitoring solution that analyzes network data through a 4-Dimensional lens, delivering actionable, end-to-end insights from the end-user perspective. With AppNeta's SaaS-based solution, IT and Network Ops teams at large, distributed enterprises can quickly pinpoint issues that affect network and business-critical cloud application performance, regardless of where they occur. AppNeta is trusted by some of the biggest Fortune 1000 companies, including 3 out of the 5 largest corporations in the world, as well as 4 out of the 5 largest cloud providers. For more information, visit [www.appneta.com](http://www.appneta.com).

