

Time2Market Ensures High Quality SaaS VoIP for their Customers





The Challenge of Delivering High Performance VoIP in the Cloud

Established in 2001, T2M is a privately held company delivering services via regional office locations across the U.S., with its headquarters in Denver, Colorado. T2M's cloud-hosted VoIP platform, Cloud Complete©, delivers the highest quality voice experience possible by using accurate end-to-end network monitoring. It is ideally suited for mid-market customers with enterprise-level requirements and exacting expectations. The Cloud Complete platform scales to:

- Support tens of thousands of users each day
- Process millions of minutes of call traffic every month
- Deliver availability and a quality of experience (QoE) that consistently meets the “5 Nines” standard of business-class voice

Delivering a high-quality service at this scale required that T2M focus on monitoring third-party VoIP services in the cloud, but they soon realized it was challenging to get a handle on this with all of the software component integration across their private network and the cloud. There were many elements in their solution including T2M's own hosted solution, Amazon Web Services, and Skype for Business deployments.

T2M first started to address this challenge when it became evident that they could not often pinpoint what was happening because performance data was not readily available for cloud application resources. T2M was looking for a holistic view of not only what's going on within their customer's walls, but into any external performance issues up to their carrier demarcation or Internet connection points. T2M chose to initially solve for this with its own internal effort. The T2M team attempted to address these issues by building customization around System Center Operations Manager (SCOM), a cross-platform data center monitoring system for operating systems and hypervisors. But the internal development effort still left many external network visibility gaps that impacted their ability to deal effectively with customer issues and trouble tickets. This network visibility gap led the team to conduct a detailed requirements analysis of third-party network monitoring tools, in turn leading them to ThousandEyes.



Time2Market LLC, more commonly referred to as T2M, delivers world-class UC and collaboration solutions to its business customers. T2M is a leading unified communications integrator offering Skype for Business, VoIP, hosted voice, cloud computing and Unified Communications. T2M provides a portfolio of support services to businesses migrating from legacy, on-premise infrastructure to a cloud-based solution through network consulting, SD-WAN solutions, cloud services, systems integration, and a managed services practice.

Industry: UC Service Provider

Headquarters: Denver, Colorado

Use Case: Digital Experience Management, VoIP Monitoring



T2M's ThousandEyes Use Cases

T2M has improved their customer's experience with several key ThousandEyes use cases, starting with onboarding new customers. This activity involves assessing the new customer's network topology—such as those with sizeable hub-and-spoke network—to get a good understanding of what's going on before T2M turns up their service. T2M uses ThousandEyes to conduct testing across the private and cloud network segments to proactively look for and remediate performance concerns and avoid misperceptions and issues on first service turn up. T2M also uses the ThousandEyes solution to show the customer what has been remediated. T2M refers to this process as their Cloud Readiness Assessment, a critical component to ensuring VoIP quality from an end customer's perspective on day one.

ThousandEyes also plays a critical role in ongoing customer support. T2M's customer support team often has to address VoIP quality issues as they arise due to changes in network connectivity and responsiveness of associated third-party application resources. T2M customers can either be hosted on the T2M platform or on the customer premise. T2M addresses either deployment scenario in the customer support use case by allowing them to deploy ThousandEyes Cloud and Enterprise Agents quickly. This helps T2M's support team to monitor the customer's VoIP path so that T2M can collaboratively work through the network issues identified with the customer. Continual agent monitoring is the key to ensuring a high-quality service for T2M customers.

A third ThousandEyes use case is in-depth performance troubleshooting on recurring issues. T2M utilizes share links from ThousandEyes to socialize details on the problem. For T2M, this is especially helpful when there is a need for iterative troubleshooting steps with the customer over time. ThousandEyes helps T2M and the customer to mutually agree on performance measurements before and after network configurations are made in response to a particular problem escalation.

T2M has also leveraged ThousandEyes's support team in depth expertise to tackle many other use cases. David Hughey, Technical Account Manager at T2M added "What we've found in working with ThousandEyes is when we get to difficult spots, it's not just that their solution is a superior product, it's that the people behind it are willing to engage with us, and continue to drive value all the way through and solve our specific problems."

"Just as important as the ThousandEyes solution itself is the relationship we have with them. A lot of organizations say they have a close working relationship with their vendors, but that is the reality for us with ThousandEyes. Based on our experience they jump into what we have uncovered to help isolate specific customer issues."

David Hughey
Technical Account Manager
Time2Market





T2M Leverages Key ThousandEyes Capabilities

T2M makes extensive use of ThousandEyes Enterprise Agents. The vast majority are deployed to specifically run voice simulations across wired and wireless networks wherever Skype for Business endpoints are deployed as well as out to T2M’s network. These agents help with Microsoft O365 and Azure readiness assessments for their customers, allowing T2M to simulate a customer’s “nearest” datacenter they are likely to connect into for Skype for Business services. This kind of versatility makes it easier for T2M’s support to zero in on network issues no matter where the customer is. T2M’s legacy server-side monitoring technology could not be deployed on a Skype for Business online server hosted in Microsoft’s datacenter, making it impossible for T2M to assess voice quality inside of Microsoft’s cloud infrastructure.

Another key ThousandEyes feature utilized by T2M is the calculation of packet-delay variation, and jitter for VoIP calls. This feature helps T2M to establish internal voice quality KPIs for measurement of VoIP performance metrics that help T2M operations staff to create a Service Level Agreement (SLA) that exceeds industry guidelines for these metrics. Hughey said, “An overachieving SLA goal ensures that T2M customers can count on a high-quality VoIP phone call without distortion that sounds like a “robot voice.” This approach enables T2M

to set precise voice quality metrics that can exceed typical MOS scoring and is one key reason why T2M so heavily relies on ThousandEyes voice simulation. Hughey added, “ThousandEyes calculation of packet-delay variation and jitter is incredibly helpful to establish guidelines that we know we can count on to ensure the highest possible voice quality for our customers.”

ThousandEyes Path Visualization is another essential feature for T2M. According to Hughey, “One of our favorite features has to be Path Visualization. Being able to walk our customers through potential carrier-related issues inside of their network puts it at the top of our favorite ThousandEyes feature list.” The T2M team uses Path Visualization to validate what an SD-WAN provider is telling them is going on inside of their network. Using Path Visualization, T2M extracts stats on the SD-WAN that prove invaluable when isolating VoIP path problems. The simplicity that path visualization gives is powerful in its ability to isolate VoIP-related network issues.

ThousandEyes bandwidth calculator helps to determine the percentage of available bandwidth on a given agent-to-server test. Hughey said, “this feature helps with T2M customers who ask the question—you’re telling me you have a gig of bandwidth, and I’m telling you, you are stretching that limit.” T2M can use the bandwidth calculator to assess network bottlenecks in conjunction with call capacity planning, especially on smaller connections, providing another data point to determine a customer’s overall call quality.

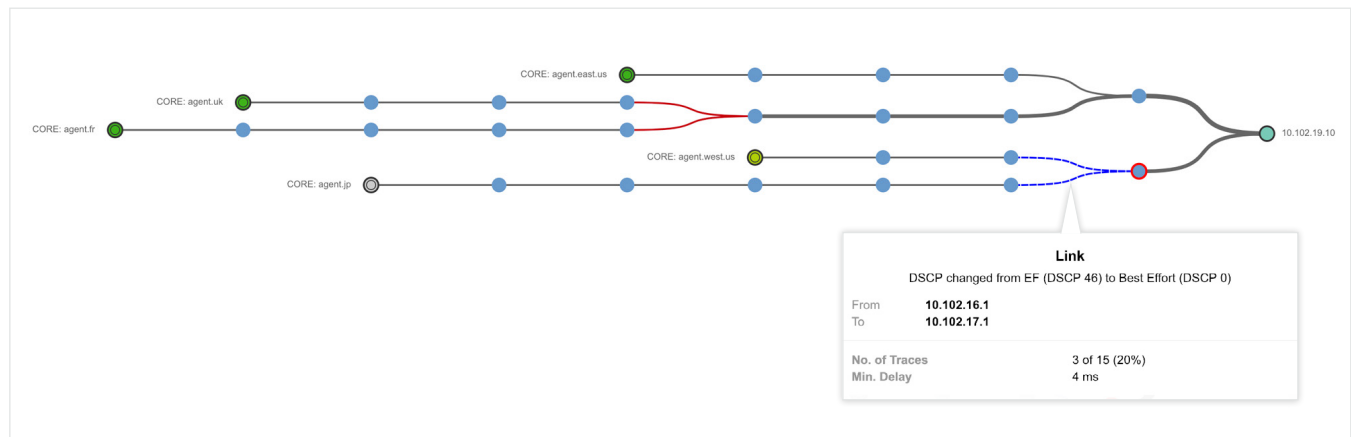


Figure 1: ThousandEyes Path Visualization helps pinpoint the root cause of network quality issues



Looking to the Future with ThousandEyes— Proactive versus Reactive VoIP Management

T2M sees a future for more integration with the ThousandEyes VoIP monitoring solution as they evolve their customer support practices forward to be more proactive. This involves partitioning data received from agents to report on monitoring from a particular customer. A proactive monitoring approach gives the end customer access to a self-service portal so that the customer is always engaged with their UC environment and not just when problems pop up. T2M sees a customer’s proactive management of their UC environment to be the next level in their support services. Leveraging ThousandEyes capabilities has been incredibly valuable for T2M to grow their business by attracting and keeping customers.

“ThousandEyes is the eyes and ears network monitoring environment that we utilize to see what’s going on in a network.”

Todd Whisler
 Director of Marketing
 Time2Market



Figure 2: Voice quality scores such as MOS reflect the health of VoIP services across the globe

We Help Leading Companies Thrive in a Connected World



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About ThousandEyes

ThousandEyes delivers performance visibility from every user to every application over any network, enabling you to successfully migrate to the cloud, modernize your WAN and deliver exceptional digital experiences.