

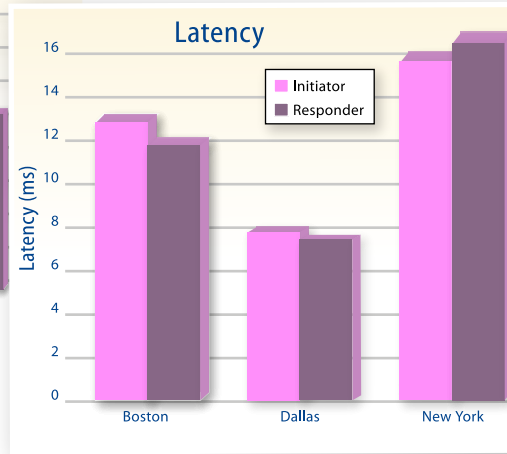
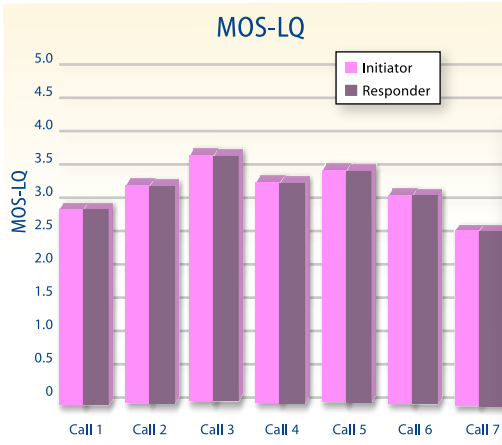
## VoIP Planner™

### Determine VoIP readiness and manage ongoing deployments with active call testing

For enterprises that are contemplating Voice over IP (VoIP) deployments, a major challenge is baselining and assessing network readiness. For organizations that are deploying VoIP, the challenge soon becomes managing call performance. While VoIP is an IP application, unlike traditional data applications, it has unique requirements. Enterprises must understand VoIP's impact on the network before deploying it on a converged infrastructure. VoIP Planner enables enterprises to meet this challenge via active call testing where actual VoIP calls are generated to test network readiness and baseline call quality both before and after deployment.

#### Manage Individual Test Call Quality Across the Network

VoIP Planner Results								
Completed Calls								
ID	Status	MOS-LQ	MOS-CQ	R-Factor-LQ	R-Factor-CQ	Avg Jitter	Max Jitter	Latency
TestCall 1	SUCCESS	4.21	4.31	86	90	11	34	36
		4.33	4.34	91	91	13	33	34
TestCall 2	SUCCESS	3.95	3.99	78	79	12	34	33
		3.74	4.01	74	80	14	34	33
TestCall 3	SUCCESS	4.44	4.33	92	90	12	34	33
		4.23	4.22	87	86	12	34	33
		82	86	14				
		78	79	14				
		55	57	19				



VoIP Planner drills down into VoIP per-call metrics, including MOS, R-factor, latency and jitter, allowing you to successfully deploy and troubleshoot VoIP.

#### Benefits

- Assess network readiness for VoIP through active testing
- Baseline call quality with MOS and R-factor figures
- Measure jitter, packet loss and latency on a per-call basis
- Compare call quality pre- and post-VoIP deployment
- Gauge impact of VoIP on the network at all sites
- Isolate performance-impacting issues in the LAN and across the WAN
- Optimize VoIP and other data applications enterprise-wide

## Features

### Active Testing Via Synthetic Call Generation

By generating actual VoIP calls, VoIP Planner actively evaluates network readiness for VoIP. With test calls traversing the network, users can see how VoIP traffic would interact with existing data applications. While the test calls do not go through a live VoIP gateway, the testing environment provides an objective analysis of performance. VoIP Planner works independently of your VoIP system, letting users assess network readiness without having to purchase and deploy VoIP equipment in advance or having to troubleshoot performance for an existing deployment.

### Calculate Quantifiable Call Quality Performance

By measuring performance on a per-call basis, VoIP managers can now baseline and compare voice call quality pre- and post-deployment. The synthetic calls behave like real VoIP calls and VoIP Planner provides Mean Opinion Score (MOS) as well as R-factor measurements. Armed with this information, enterprises can use VoIP Planner to estimate the quality of VoIP calls before the PBX and service are turned up. And once the service is operational, you can run additional tests on a per-site basis to verify that performance quality is what was anticipated during the assessment.

### Measure Service Level Parameters Including Jitter, Packet Loss and Latency

VoIP Planner, an Ethernet-based appliance, analyzes the performance of simulated calls at each site and delivers detailed measurements such as jitter, packet loss and latency on a per-call basis. On a converged network, it is critical to understand what service level is being delivered. For example, VoIP is highly sensitive to jitter and latency but can handle a reasonable amount of packet loss. Conversely, traditional data applications have the exact opposite characteristics. Now VoIP managers can measure the impact of jitter, latency and packet loss when troubleshooting poor voice quality on a converged network.

### Troubleshoot and Isolate Performance Impacts Across the Network

VoIP Planner is a component of the Visual UpTime *Select* solution family, which allows enterprises to monitor, isolate and troubleshoot performance issues across the LAN and the WAN. For most enterprises that have deployed VoIP, it is not sufficient to just know a voice call is poor, but rather it is critical to isolate what is causing the problem and resolve it quickly. Application performance can be negatively impacted by criteria such as latency, the local loop, port usage, misconfigured Class of Service settings or the application server itself. Visual UpTime *Select* monitors all traffic flow and measures performance across Layers 1-7. Once you pinpoint the issue that is impacting VoIP or data application performance, you can drill down and solve the matter, thereby reducing mean time to repair and enhancing end-user quality of experience.

## About Visual Networks

Visual Networks, Inc. (Nasdaq: VNWK) is a leading provider of network and application performance management solutions. By offering in-depth, real-time and historical intelligence, the company's flagship Visual UpTime *Select* product enables enterprises to reliably and securely manage the delivery and performance of key applications such as Voice over IP (VoIP) across their infrastructures. A modular solution, Visual UpTime *Select* increases application and network availability, optimizes the use of bandwidth across the network, and reduces operating costs across traditional and IP-based infrastructures.

For more information, visit <http://www.visualnetworks.com>.