



Hammer Audio Diagnostics

Improve Call Center Diagnostics with Automatic Call Recording Capability

- ### FEATURES
- Adds the ability within the Hammer Test System and OneSight Voice Engine to record both sides of a complete call
 - Provides conditional call recording options from within a Hammer CallMaster script
 - Allows recording of up to 96 calls for testing
 - Supports recording of calls for Voice Engine monitoring
 - Utilizes simple, straight forward User Interface for administration and call storage management

- ### BENEFITS
- Faster testing and debugging of call center applications
 - Easier development of test call scripts when the generated calls can be heard
 - Improved Diagnostics through playback of actual calls - hear where and why a call fails
 - Enhanced credibility during the testing and monitoring process
 - Increased ability to determine where in the carrier network a call fails - hear the tones, ring-backs, and error messages provided by the carrier

Hammer Audio Diagnostics is a diagnostic add-on to the Hammer CallMaster and OneSight Voice Engine that makes test call development, call routing diagnostics, and contact center call monitoring simpler, faster, and more thorough. Call recording capabilities can be included in Hammer CallMaster test scripts directly from a call flow diagram. Leveraging patented path generation technology that can be used to find all paths through a call flow diagram, call recording and playback of the call makes finding problems with test development and with contact center routing much simpler.

When calls fail in unanticipated ways, the best way to get to the bottom of the problem is often for someone to listen to both sides of the call. However, reproducing a sporadic failure so that someone can listen to the call and determine what happened can be difficult and time consuming. Hammer Audio Diagnostics enables users to access the recordings of failed calls with the click of a mouse, and can easily make recordings available to share with others for assistance in diagnostics.

Scripts developed in Hammer CallMaster for feature and load testing can also be used directly for management on the OneSight for Contact Centers Voice Management System. The scripts automatically store, write, and with Hammer Audio Diagnostics, record the test results such that performance and failure data can be accessed anywhere, anytime via the OneSight web interface. The easy “Click the Icon” interface from a OneSight web page makes it quick and simple to listen to failed calls and determine what went wrong.

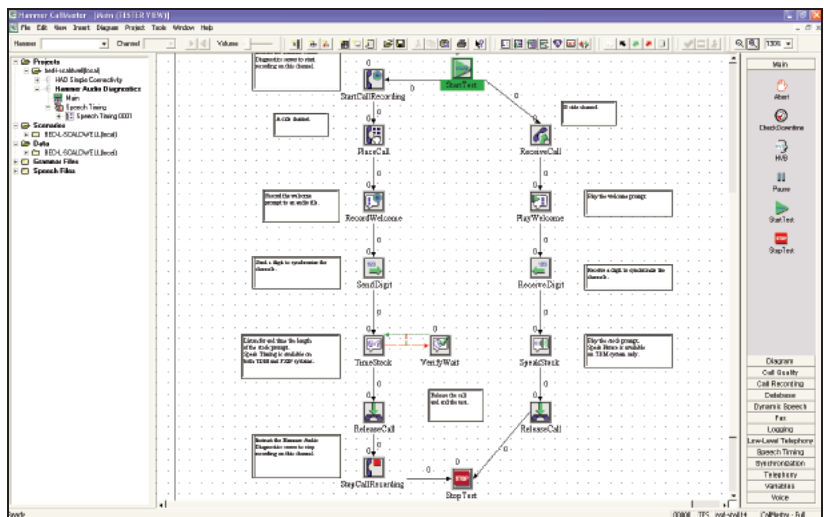


Figure 1. Hammer Audio Diagnostics records calls right from the Hammer call flow diagram. Icons are picked and placed from a palette of standard or custom icons.



Improved Diagnostic Efficiency

During the development of IVR routing plans and the deployment of new applications, fully automated testing reduces the time required for testing, debugging, and QA. However, considerable time may still be spent determining the cause of a failed call during the testing. The Hammer Audio Diagnostics ability to record and save failed calls allows the tester to determine where and how the call failed and pinpoint where in the call routing the failure occurred. This ability can save considerable time and increase development efficiency.

Constantly Changing Environments

Empirix understands that contact centers must satisfy constantly changing demands. New services must be added and old ones are often replaced. This requires continuous development of new applications and new call routing plans. Hammer Audio Diagnostics in conjunction with Hammer CallMaster and OneSight Contact Center monitoring ensures that new applications and routing are tested thoroughly and with increased diagnostic efficiency, performance bottlenecks and configuration errors are found quickly and corrected rapidly.

Setup Name	Result	Audio Diagnostic CT(s)
HAD TEST_0001_1_VS	Success	
HAD TEST_0002_1_VS	Failed	[Play]
HAD TEST_0003_1_VS	Success	
HAD TEST_0004_1_VS	Success	
HAD TEST_0005_1_VS	Failed	[Play]
HAD TEST_0006_1_VS	Success	
HAD TEST_0007_1_VS	Success	
HAD TEST_0008_1_VS	Success	
HAD TEST_0009_1_VS	Success	
HAD TEST_0010_1_VS	Success	
HAD TEST_0011_1_VS	Success	
HAD TEST_0012_1_VS	Success	
HAD TEST_0013_1_VS	Success	
HAD TEST_0014_1_VS	Success	
HAD TEST_0015_1_VS	Success	
HAD TEST_0016_1_VS	Success	
HAD TEST_0017_1_VS	Success	
HAD TEST_0018_1_VS	Success	
HAD TEST_0019_1_VS	Success	
HAD TEST_0020_1_VS	Success	
HAD TEST_0021_1_VS	Success	
HAD TEST_0022_1_VS	Success	
HAD TEST_0023_1_VS	Success	
HAD TEST_0024_1_VS	Failed	[Play]
HAD TEST_0025_1_VS	Success	
HAD TEST_0026_1_VS	Success	
HAD TEST_0027_1_VS	Success	
HAD TEST_0028_1_VS	Success	
HAD TEST_0029_1_VS	Success	
HAD TEST_0030_1_VS	Failed	[Play]
HAD TEST_0031_1_VS	Success	
HAD TEST_0032_1_VS	Success	
HAD TEST_0033_1_VS	Failed	[Play]
HAD TEST_0034_1_VS	Success	
HAD TEST_0035_1_VS	Success	
HAD TEST_0036_1_VS	Success	
HAD TEST_0037_1_VS	Success	
HAD TEST_0038_1_VS	Success	
HAD TEST_0039_1_VS	Success	
HAD TEST_0040_1_VS	Success	

Figure 2. Recorded calls can be played back by simply clicking on an icon in a OneSight web based report.

For Hammer Test Systems

Hammer Audio Diagnostics is available in two versions for testing. A basic version with 48 ports of call recording available and a larger version supports 96 ports of call recording.

For OneSight Call Monitoring

For OneSight monitoring applications, an upgrade for the OneSight Voice Engine Management system supports eight simultaneous call recordings. Additional monitoring ports are available for up to 48 ports of simultaneous call recording.

Specifications:

Hammer Audio Diagnostics Features

- 48 and 96 port versions in a single server
- Upgrade available for OneSight Voice Engine with up to 48 ports of call monitoring
- Expandability beyond 96 ports through support of multiple servers
- Web-based administrative User Interface
- Empirix Hammer Test Processing Unit (TPU)

Hammer Audio Diagnostics Product Specifications

- Audio Diagnostics 2U Rackmount Server with Dual-Core Xeon processor, 4 GB RAM, 1GB Ethernet LAN interface, and two 250 GB SATA Disks
- Operating System: Windows Server 2003 Standard Edition SP2
- Audio Diagnostics client that extends the capability of the Hammer FX
- Audio Diagnostics Icon Palette for Hammer CallMaster scripting
- Audio Diagnostics web based User Interface to reference calls and their recorded clips is included
- Audio Diagnostics Administrator included
- Passive tap to split the T1/E1 audio streams