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Call Center Testing Solutions

OVERVIEW

The Hammer™ Product Family provides a comprehensive, automated solution for testing call center telecommunications systems and CTI applications. With Hammer testing, call centers can find system, network, and application failures before they impact customers. Hammer automated test systems, with patented prompt recognition capabilities, can uniquely duplicate the actions of real callers. Unlike manual testing, automated Hammer testing allows call centers to generate hundreds or thousands of simultaneous calls and thoroughly test new or modified systems prior to deployment.

FEATURES

- ◆ *Unprecedented ease of use.*
 - ◆ *Unmatched flexibility.*
 - ◆ *Complete duplication of user and network actions for voice and data.*
 - ◆ *Patented prompt recognition validates call flows and VRU prompts.*
 - ◆ *Simplified test creation using drag and drop graphics or "live" test creation by example.*
 - ◆ *Visual Basic-compatible language for more advanced requirements.*
 - ◆ *Flexible test scheduling with resource conflict resolution and auto cleanup.*
 - ◆ *Real-time display of test results.*
 - ◆ *Custom View™ provides user-defined, graphical analysis of test results.*
 - ◆ *Audio monitoring of tests.*
 - ◆ *Open, expandable Windows NT architecture.*
 - ◆ *Client/Server architecture allows large scale stress tests.*
- ◆ **Development and Integration Testing** - During your development and integration phases, the Hammer excels at automating complex voice and data load and feature testing. Many system and network problems only show up under load and stress conditions. Manual testing simply cannot find these problems. Automated Hammer testing helps you find the hidden bugs before new systems go "live." The result is faster deployments with higher quality and greater reliability.
 - ◆ **In-service monitoring and surveillance** - Duplicating the actions of real customers, Hammer test systems can place regularly scheduled phone calls to test target systems, including VRUs. Hammer's patented prompt recognition capability checks to ensure that every VRU port is working properly and that the right prompts are playing. If problems are found, the Hammer can immediately alert staff to take corrective actions.
 - ◆ **Regression Testing** - Once Hammer tests have been developed for your call center systems, new releases of application software can be quickly and thoroughly tested prior to actual deployment. Regression testing with Hammer can ensure that software updates in your call center are problem-free.
 - ◆ **VRU script testing** - Hammer's patented prompt recognition capability makes it possible to quickly and completely test your VRU under load to ensure that call paths are working properly and that the correct prompts are playing.

Functional Emulation

- ◆ Generate real-world inbound calls to load and feature test the call center
- ◆ Emulate voice and data users along with network actions
- ◆ Inbound/outbound call blending
- ◆ Agents (one or more)
- ◆ End-to-End testing

Verify

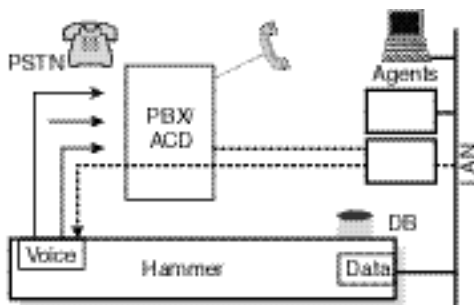
- ◆ Call queues
- ◆ Call routing (skills-based, time-of-day)
- ◆ Overflow schemes
- ◆ Cut-over success
- ◆ Distributed call center flow
- ◆ Knowledge database response
- ◆ Integrity of reporting programs
- ◆ Supervisor features at various busy-and-mix scenarios

Validate

- ◆ Multivendor component integration
- ◆ Customized CTI applications
- ◆ Hardware or software upgrades

Benchmark & Predictive Measurements

- ◆ Call volume and mix for revenue optimization
- ◆ Optimal staffing
- ◆ Simulate seasonal or promotional factors



Typical Call-Center Scenario

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Training

- ◆ Simulator for training new agents
- ◆ Train existing agents on new features

Product Family Capacities

Refer to the Hammer IT™ and Hammer ISGII™ datasheets for more detailed configuration information.

- ◆ Simultaneous ports active/unit up to:
 - 96 analog or 144 T1 ports (180 E1)
 - 96 ISDN (PRI)
- ◆ SS7 support (optional)
- ◆ Busy-hour call rate/unit is more than 90,000/hr for a T1 system (application and call dependent)
- ◆ Virtually unlimited data, script, suite, or other storage

Feature Testing

- ◆ Inbound and outbound calls
- ◆ Patented prompt recognition option which allows the Hammer IT system to listen to and understand all system voice prompts
- ◆ Interactions between PBX/ACD, CTI server, IVR, and databases

Load and Stress Testing

- ◆ Simulate busy-hour load and mix
- ◆ Analyze responses under load

Regression Testing

- ◆ Ensures that additions or changes to your solution environment have not adversely affected the call center
- ◆ Saves manual testing time
- ◆ Consistent set of test scripts for repeatability

In-Service Testing

- ◆ Maintains high customer service levels
- ◆ Highlights bottlenecks
- ◆ Provides early problem detection

Call Center Testing Solutions

The Hammer™ is the only system that provides a complete solution for load, feature, regression, and in-service testing of integrated telecommunications systems and services. Hammer systems are now recognized as the STANDARD for testing Computer Telephony applications and systems. Hammer is in wide use today by developers of computer telephony, advanced switching, and enhanced services systems.

The Standard for Computer Telephony Testing



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