



- Assure the high performance of your inter-working network deployments
- Minimise customer migration to your competitor networks
- Optimally apply your Operations and Technical staff
- Service Level Agreement policing between Network Providers
- Distributed Network elements to fully instrument your infrastructure for Voice Service Assurance

“Beethoven delivers control in your network operations, and assures the network reliability and performance expected by your customers”

Beethoven Hybrid

Assuring Voice Service Quality in your Hybrid Network Topology

Your network is a series of interconnected sub-networks, with varying operational requirements. Voice services carried on Wireless, PSTN, VoIP, and Satellite topologies are expected to ‘just work’.

The need for the various network topologies to work together seamlessly, places high demands on the teams maintaining and operating your network. The time to market for new services must be optimized, without compromising the existing service, or the current customer base, who do not understand, or accept the technical challenges in the interoperation of these infrastructures.

The Beethoven Voice Service Assurance solution gives you a scalable, configurable set of hardware and software components that fully instrument your network to assure the quality of the voice service. Beethoven offers a customisable suite of voice monitoring and analysis capabilities that enables you to optimally manage and control your network from a customer experience perspective.

You save money by quickly identifying and resolving issues resulting in increased network reliability, and a reduction in the cost of maintaining the high level of service demanded by end customers .

Hybrid Network Performance Assurance

With the increasingly deregulated Telecommunications Market environment, a customer's voice call may have traversed several other vendor networks. The faults being reported, may not have originated in your network. This is poor consolation, when your customers are calling you for answers, and expecting fast resolution.

You cannot afford to earn the reputation for poor reliability, and poor network performance. Customer churn will lead to devastating revenue loss. Operational issues must be resolved quickly, efficiently and with minimum cost.

To manage and maintain your infrastructure, you need tools that give you end-to-end visibility for calls on your network. You need to understand the actual customer experience, you need to be able to reach the very edge of the network.

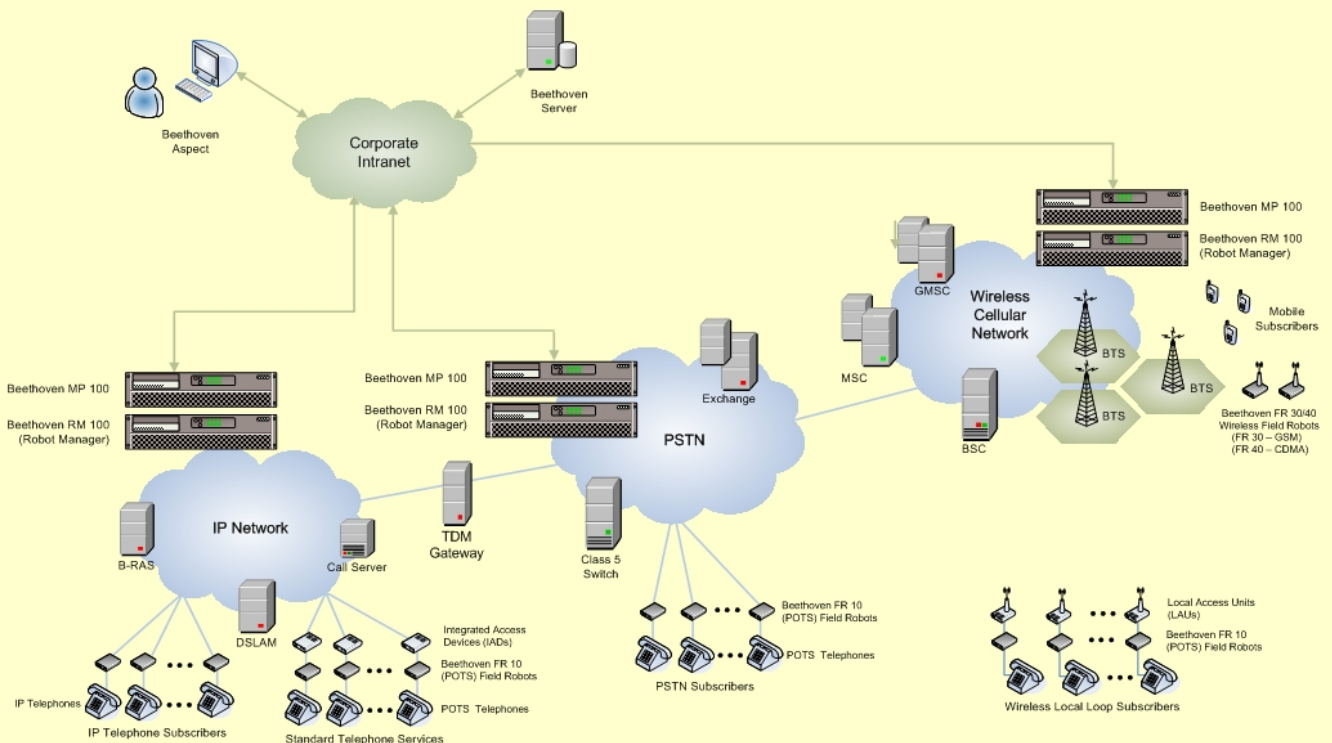
You need a system that polices the Service Level Agreements (SLA) at the network boundaries. Your calls are being carried by several networks, to allow you to deliver a service at a price point that meets your revenue targets, while delivering on your customer expectations.

Beethoven Voice Quality Assurance Solution

The Beethoven Solution offers you the capability to address all of your voice quality concerns. Beethoven offers you as much visibility as you need, to understand how your network is operating from your customer's perspective. The Beethoven solution is a complementary set of hardware and software elements that can be tailored to your exacting needs. Calyptech understands that not all networks are the same, and that networks are constantly changing. Beethoven is built to give you one fundamental constant, the highest quality of service that can be delivered to your customers.

Beethoven Solution Components

MP 100	Network integrated voice quality monitoring element for Network Operators, for intrusive and non-intrusive voice quality monitoring
MP 100e	Enterprise level voice quality monitoring element
CG 100	Voice call stimulus generation element, integrated in the Network Operator's network
CG 100p	A portable voice call stimulus generator, ideal for used during deployment and field trial, and general network troubleshooting
FR 10/FR 20/FR 30/FR 40	POTS/VoIP/GSM/CDMA interface field 'robot' element. These elements are distributed to strategic locations, or used in drive test applications
RM 100	Distributed Robot Management and control unit. This element co-ordinates and manages the distributed Beethoven Robots
Beethoven Server	Sophisticated central database management system, data mining and trend analysis. The Beethoven Server is the core of the solution, and co-ordinates the Beethoven solution elements, with intuitive setup
Beethoven Aspect	Client application enabling unified element management for all the Beethoven elements, real time reports, alarm configuration, trend analysis historical reports, structured testing. Beethoven Aspect can be operated from anywhere, with appropriate access permission settings.



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