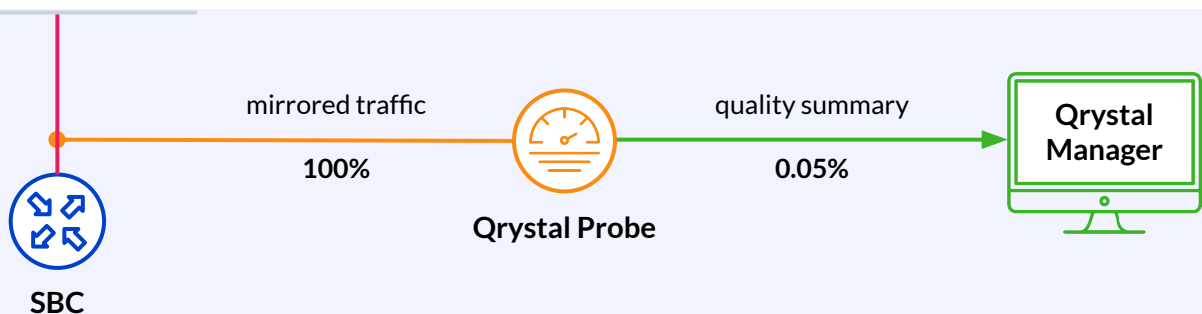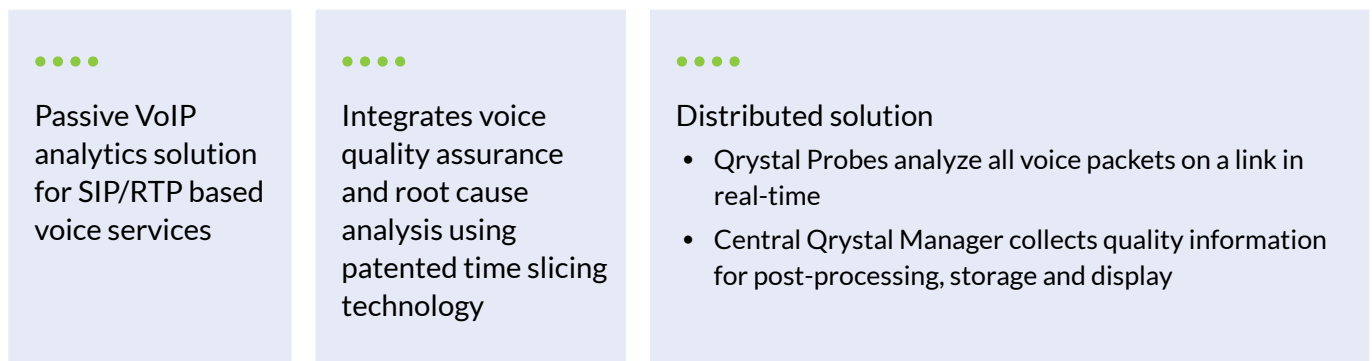# Qrystal in a Nutshell

Qrystal is a passive mid-point monitoring solution for real-time communication services. It combines powerful analytics and reporting capabilities with a highly scalable system architecture.

Voipfuture is the only monitoring vendor **fully focused** on voice service monitoring. Voipfuture's flagship product Qrystal covers all aspects of voice monitoring, including availability, call management, and in-call quality. It delivers accurate data on any standards-based voice service. This data enables efficient operations based on deep analysis of SIP and RTP traffic and even auto-detection of impairments such as dropped and silent calls. It supports performance optimization through data aggregation for routes, and destinations enabling trending, alarming, and benchmarking.

Qrystal consists of distributed Probes and a central Manager.

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Passive VoIP analytics solution for SIP/RTP based voice services

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Integrates voice quality assurance and root cause analysis using patented time slicing technology

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Distributed solution

- Qrystal Probes analyze all voice packets on a link in real-time
- Central Qrystal Manager collects quality information for post-processing, storage and display

mirrored traffic
100%

Qrystal Probe

quality summary
0.05%

Qrystal Manager

SBC

Qrystal is based on a Linux 64-bit OS and a PostgreSQL database and can be deployed on dedicated server appliances or on virtual machines in an NFV environment, such as AWS or the Google Cloud.

THE QRYSTAL PROBES

determine the signaling and media stream characteristics at multiple points in the network:

- They analyze all SIP, RTP, and RTCP packets on a link in real-time and generate unique metrics for further processing by the Qrystal Manager.

- Call-related SIP signaling at a monitoring point is analyzed and summarized as xDRs. Likewise, signaling related to SIP registrations is summarized in RDRs. All SIP messages are stored on the probe for display in call flow diagrams.

- Voipfuture's patented fixed time-slicing technology creates quality data records (QDR), containing highly condensed statistical information for every 5-second segment of an RTP stream. QDRs hold several hundred values, ratios, KPIs, and even automatic root cause indicators.

- Qrystal Probes also support smart packet recording to create traces of individual calls or trunks.

THE QRYSTAL MANAGER

is at the heart of the solution, featuring a carrier-grade data warehouse.

- It collects all metric data from the Qrystal Probes for post-processing and aggregation. KPIs, quality-enriched CDRs, and other data are stored in the data warehouse.

- The Qrystal Manager offers a multitude of analytics and troubleshooting capabilities that enable effective voice service monitoring and fault alarming, as well as numerous interfaces for integration with OSS/BSS applications.

The Qrystal Manager provides a single web-based user interface to the users. The clients, therefore, are standard PCs with browsers as provided by the customers. The users connect to the web interface of the Qrystal Manager using the clients' browsers.

voipfuture

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