Voice Quality Check

The Voice Quality Check storage policy is implemented to check the quality of the voice recordings and detect noise, garbled voice and other problems.

It is available as part of the upload policy (similar to the encryption/signing) and as a stand-alone policy. It is recommended to configure quality checks with the upload policy (otherwise during the process the system will download the media file to the Verba server running the process and check the quality of the recording). For more information, see Voice Quality Check action.

Running the quality check puts an extra ~15% CPU load on the recording servers.

The Verba Application uses a wide range of checks (acoustic, network, packet and decoding) and proprietary algorithms to derive a Voice Quality Check Score. Because of the varying nature of the recorded environment (recorded user behavior, acoustic environment, and technology), there may be instances where the Quality Check functionality does not identify all calls with issues, or alternatively it may identify ‘good’ calls as having issues.

Scoring

A total score is determined based on multiple characteristics/features which may be extended in the future. The score of the call is the total of the feature scores. A feature score might become negative in case of several low scores to effectively reflect errors in the overall score. The system uses a proprietary algorithm to calculate the individual feature scores and the value of the total score. Scores are normalized to a 0-100 range where 100 is the maximum/best score. We recommend 75 for the overall score threshold. Scoring is done based on the following features:

Recording statistics

- RTP loss
- SRTP decryption errors
- Decoding errors
- Media mixing errors

Media features

- Volume
- Silence
- Noise
- Beeps and clicks
- Sharp amplitude changes
- Unnatural silence
- Waveform envelope variance

Recording statistics represents exact media capture and processing issues, which can indicate voice quality degradation of the recorded media. The additional media features are used to extend the quality check with additional properties, which can help to detect quality issues in the recordings. Please note, that a poor result of the quality check might not necessarily mean that the recording cannot be played back or it is unintelligible.

Accessing and using the results

- Both the overall score and the individual values of the features are automatically stored as custom metadata and accessible using standard search. In order to display the total score or the individual values of the features, users can configure the search list layout by adding the fields as columns to the search grid. For more information, see Conversation List Layout. These metadata fields can be used across the system as filtering options in search, data management policies, export, labeling rules, etc
- An alert is available which is sent by the service checking the quality of the audio. If the service detects that the overall or any of the features scores are below the configured threshold, an alert is sent with call metadata. The configuration is available in the corresponding data management policy. For more information, see Voice Quality Check action.
- A specific dashboard widget is also available to show the number of calls where the overall voice quality check score is below a configurable threshold. For more information, see Voice Quality Check Trend.
- Reports are available to create print-ready documents for calls where the voice quality is below a configurable threshold. For more information, see Voice Quality Check Details and Voice Quality Check Summary.