

Configuring voice activity detection and call splitting for trader voice recording

Trader voice recording has unique characteristics which require additional configuration when deploying a real time trader voice recording integration. These features allow a more efficient way of recording trader voice calls and potentially save on the cost of the infrastructure required for the deployment.

Voice Activity Detection (VAD) is an important feature of trader voice recording. VAD allows the recorder to detect voice activity and only record when a configured volume threshold (in decibels) is reached in the recorded audio. VAD is enabled by default for all trader voice recording integrations. It is not recommended to disable this feature, because certain call types, such as open lines, are continuously recorded while there is no continuous voice activity and the system would generate a lot of data (silence) unnecessarily.

Call Splitting is another important feature of trader voice recording. Certain call types, such as open lines, are very long calls that usually start automatically when the trader logs into the turret and only end when the trader logs out (there are use cases where the traders don't log in and out at all, and these calls are on for days). In order to allow a convenient search, playback, and export user experience for these calls, the system can automatically split the calls using a timer which will produce shorter calls (e.g. an hour-long call instead of a days-long call). The call segments will have identical metadata, except the start and end date and time values. The system provides 2 types of timers:

- **Absolute:** the absolute timer defines the time elapsed from the hour. For example, configuring a 15 minutes timer when the call has started at 03:18 will result in records that have a starting time at 03:30, 03:45, 04:00, 04:15, etc.
- **Relative:** the relative timer is from the start of the call. For example, configuring a 15 minutes timer when the call has started at 03:18 will result in records that have a starting time at 03:33, 03:48, 04:03, 04:18, etc.

2N recording considerations

If the trader voice recording is configured with active-active (2N) high availability, and [Deduplicate Recordings policy](#) is required, absolute splitting is recommended. The relative splitting is based on the recording start, and it may create recording pairs that are not possible to match.

VAD and call splitting also allow a useful feature called **Do Not Keep Openline CDRs Without VOX Activity** which means that the system will not create CDR-Only records for open lines when there was no media activity at all for a call segment. A call segment means a call that was split using the call splitting timer. Without this feature, the system creates CDR-Only records for open lines based on the call splitting timer configuration regardless if there was call activity or not. This can lead to creating a very large number of CDR-Only records in the system (because the open lines can be on for a very long time, see above) unnecessarily.

General settings

The following settings are applied to all integrations. You can find these settings under **Unified Call Recorder / Media Recorder / Media Processing / Voice Activity Detection (VAD)**.

Configuration Setting	Description	Default Value
Minimum Voice Length (milliseconds)	The minimum length for a media record to be recorded by the service.	80
Maximum Silence Length (milliseconds)	Length of silence in media records before closing the record with voice inactivity.	5000
Volume Threshold (dB)	Sets the volume difference at which recording starts.	40
CDR Trigger Adjustment (milliseconds)	Defines the window of CDR matching used in Do Not Keep Openline CDRs Without VOX Activity.	1500

Integration specific settings

The following settings can be configured separately for each trader voice recording integration. You can find these settings under **Unified Call Recorder / Media Recorder / Media Processing / <INTEGRATION>**.

Configuration Setting	Description	Default Value
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Voice Activity Detection (VAD) Enabled	When enabled, the system will close the media records if silence is detected.	Yes
Media Inactivity Timeout for VAD (seconds)	Length of the timeout after the last RTP packet before closing a media record with voice inactivity.	30
Call Splitting Timer Type	Select the call splitting type. The following valid values apply: <ul style="list-style-type: none"> • Absolute • Relative <p>The absolute timer defines the time elapsed from the hour, the relative timer is from the start of the call.</p>	Absolute
Absolute Call Splitting Timer (minutes)	The time period for closing the CDR-Only + Media-Only records and creating new ones. Closed records become available for playback. VAD closed media records are available for playback from the Conversations \ Ongoing menu.	15
Do Not Split Records Shorter Than (seconds)	Minimum call length for call splitting. Must be less than the call splitting times configured at Unified Call Recorder \ Media Recorder \ Media Processing \ <INTEGRATION> \	300
Relative Call Splitting Timer (seconds)	The time period for closing the CDR-Only + Media-Only records and creating new ones. Closed records become available for playback. VAD closed media records are available for playback from the Conversations \ Ongoing menu.	900
Automatic Gain Control (AGC) Enabled	When enabled, the system will equalize the average volume.	No
Do Not Keep Openline CDRs Without VOX Activity	Discard the created CDR-Only record if there was no media activity. <ul style="list-style-type: none"> • No - The recorder will not discard CDR-Only records • Yes - The recorder will always discard the CDR-Only record if there is no corresponding media • Only at call segmentation - The recorder will only discard the CDR-Only record if the recording is split. If the record ends for other reasons (such as the agent logging off) the CDR-Only record will be kept even with no media. 	Only at call segmentation