Mobile Live Video Broadcasting

SDK Download

Product Documentation

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Last updated：2024-01-13 15:49:41

Release Notes (App)

Last updated：2024-06-13 17:36:41

This page only updates the version history of the live broadcast SDK.

Version 11.9 @ 2024.05.31

New features

All platforms: Supports the APE BGM file.

All platforms: Improved the accuracy of existing operational events, enhancing troubleshooting efficiency for silent or low-volume abnormal scenarios.

iOS & Android: Support for high-definition screenshot.

Bug fixes

All platforms: Fixed stability issues caused by specific BGM formats and illegal data.

Android: Resolved the occasional electronic noise issue during microphone capture.

Android: Resolved the occasional low volume issue in speaker mode.

Version 11.8 @ 2024.04.28

Function optimization

All platforms: Optimized BGM error message prompts.

Android: Optimized audio compatibility issues and added support for more comprehensive device selection routes.

Bug fixes

Android: Optimized the issue of low speaker volume.

Android: Screen sharing adapted for high TargetVersion.

Version 11.7 @ 2023.03.04

Function optimization

Android: Optimize the parameters and calling order of the system capture audio API to reduce the probability of capturing only noise and improve the sound capture effect.

iOS: Optimize the capture restart logic after system interruption to reduce the probability of capturing silence.

iOS: Improve the focusing effect of rear triple and dual camera capture, increasing the focusing speed.

Bug fixes

Android: Fix some echo leakage cases.

Android: Fix some Bluetooth interruptions causing external playback issues.

Version 11.6 @ 2023.01.10

New features

iOS：Added Picture-in-Picture support for `TXLivePlayer`.

Function optimization

Android&iOS：Optimized the success rate of playing BGM with URL.

All platforms：Optimized SDK overall stability.

Version 11.4 @ 2023.08.30

New features

Android&iOS: V2TXLivePusher pushes local preview and adds rendering mode setting interface [setRenderFillMode].

Function optimization

Full platform: Optimize and improve the overall performance in IPv6 network environment.

All platforms: Optimize the AI noise reduction algorithm to further improve the noise reduction effect.

Optimize and improve the live playback second opening rate.

Android&iOS: Optimize the audio collection and processing strategy to reduce the probability of silent problems caused by abnormal collection devices.

Android: Optimize the callback notification after the microphone is silenced by the system.

Android: Optimize the gravity sensing adaptation logic of specific Android customized devices to avoid incorrect screen rotation angles when the gravity sensing direction returned by the device is wrong.

Android: Optimize the rendering processing method, support real-time tracking of the screen during View pinch zoom, and improve the user experience during floating window playback.

iOS: Optimize the audio collection strategy in the background to reduce the probability of silent problems caused by system interruption.

iOS: Optimize and improve audio device restart speed.

Version 11.3 @ 2023.07.07

New features

All platforms: Added reverberation effect "Studio 2", see [TXVoiceReverbType] for details.

iOS&Android: Added startPlayMusic support for .ogg format music files.

Function optimization

All platforms: Optimize the adaptive digital gain algorithm to improve the sound listening experience, enhance volume stability, and avoid the volume being too loud or too low.

Android: Optimize audio collection and playback logic to avoid abnormal sound problems on some Android devices.

Android: Optimize the performance of hard-coded video auxiliary streams and improve the picture quality of shared screens.

iOS: Optimize audio device restart logic to reduce the number of sound interruptions.

iOS&Android: TXLivePlayer deletes on-demand related interfaces. Please use TXVodPlayer to play on-demand videos.

Bug fixes

Android: Fixed an issue where some locally recorded videos on Android 12 and above systems could not be played on the Apple Safari browser.

Version 11.2 @ 2023.06.05

New features

All platforms: Supports seamless switching between BGM accompaniment and original singer in chorus scenes, see [setMusicTrack] for details.

iOS: Support running the SDK through the Xcode simulator on Apple chip devices.

Function optimization

All platforms: Optimize the overall sound quality of the chorus scene, improve the chorus effect, and reduce chorus delay.

All platforms: Optimize the audio effect when putting on and off the mic, making the experience of putting on and off the mic smoother.

All platforms: Optimize the audio experience under extremely weak networks.

All platforms: Optimize the weak network experience when a single live broadcast anchor pushes streams.

All platforms: Optimize the smoothness of the switching process between high-definition large screen and low-definition small screen of remote video.

Android&iOS: Optimize the sound quality performance in music scenes and improve the chorus experience.

Android&iOS: Optimize the experience of using Bluetooth headsets under different volume types.

Android: Optimize hardware decoding delay and improve the loading experience of the first frame of the video.

Android: Optimize the earphone function and improve the experience when switching the earphone on and off.

Android: Optimize the collection compatibility of Android audio devices and reduce audio anomalies.

iOS: Optimize image quality performance and improve video image clarity.

Bug fixes

Mac: Fixed the issue of hard-coded screen breathing effect that occasionally occurs when using camera capture on Intel chip devices.

Version 11.1 @ 2023.04.17

Function optimization

All platforms: Optimize the automatic cleaning logic of log files to prevent the log folder size from exceeding the standard.

iOS & Android: Optimize color matrix compatibility during decoding and rendering to avoid introducing color deviations.

Android: Optimize the issue where hard programming occasionally fails to start on low-end machines in high-resolution scenarios, resulting in increased performance overhead.

Android: Optimize the problem of uncontrolled hardcoding rate occasionally occurring in Android 12 and above systems.

Bug fixes

Android: Fixed leaking echo when Bluetooth headset is connected but not enabled.

Version 11.0 @ 2023.03.09

New features

Android: Interface changed, the return type of TXLiveBase.setLibraryPath is adjusted to bool, indicating whether loading the SDK dynamic library is successful.

Function optimization

All platforms: Improve the success rate of online BGM playback under weak network conditions.

Android: Optimize audio compatibility and reduce current noise and silent problems.

Bug fixes

All platforms: Fixed the issue where noise may be heard when the remote anchor is muted.

Version 10.9 @ 2023.01.09

New features

Android: Live broadcast adds audio capture support for external microphone devices (such as lavalier microphones).

Function optimization

All platforms: Optimize audio and video synchronization issues and improve video playback smoothness.

Android: Optimize the problem of popping sound after setting the music sound quality in certain scenarios.

iOS: Optimize the external recording screen to automatically rotate to the right direction when the system switches between horizontal and vertical screens, improving the viewing experience.

Android: Optimize the sound outgoing problem that still exists on a small number of models after plugging in headphones at media volume.

Version 10.8 @ 2022.11.01

New features

Android: V2TXLivePusher supports sharing system sounds when pushing streams.

Function optimization

All platforms: Optimize the success rate of fast streaming.

Android: Optimize the time it takes to start streaming within seconds.

Bug fixes

All platforms: Fixed the issue where V2TXLivePusher did not call back the 1101 warning in a weak network environment when pushing streams.

All platforms: Fixed the problem that manual focus of TXLivePusher\\V2TXLivePusher is invalid.

Version 10.7 @ 2022.10.08

New features

iOS&Android: The startPlay method name of TXLivePlayer\\V2TXLivePlayer is changed to startLivePlay to force the license verification to be turned on.

Function optimization

All platforms: Optimize AudioJitterBuffer caching strategy.

Bug fixes

All platforms: Fixed the issue of abnormal sound when V2TXLivePlayer plays hev2 audio format when pulling streams from Fast Live.

All platforms: Fixed the issue where TXLivePusher\\V2TXLivePusher uses IP to push abnormally when pushing rtmp streams.

Windows: Fixed an issue where C# could not find the V2TXLivePlayerStatistics constructor, causing compilation to fail.

iOS: Fixed the problem of low collection volume on some iPad devices.

Android: Fixed the issue where Bluetooth headsets are occasionally connected but the sound is played out.

Version 10.6 @ 2022.08.31

New features

iOS&Android&Mac: Professional version TXLivePlayer\\V2TXLivePlayer supports HLS playback, adaptive playback and seamless streaming at multiple bitrates.

Function optimization

All platforms: Optimize the problem of low volume in Music sound quality.

Android&iOS: Optimize word leakage problem when calling volume.

Android: Optimize the issue of occasional echo leakage.

Bug fixes

All platforms: Fixed the issue where V2TXLivePlayer would not reconnect immediately when recovering from a disconnected state when pulling streams from Quick Live.

All platforms: Fixed the issue where V2TXLivePlayer's UDP request was blocked and could not be successfully downgraded to the TCP channel when pulling streams from Kuaishou.

Mac: Fixed the issue where echo cancellation occasionally failed when switching microphones.

Version 10.5 @ 2022.08.16

Function optimization

Android: Optimize the memory management of video decoding to prevent memory accumulation.

Windows: Optimize the noise reduction effect of the built-in microphone, especially in music mode, the performance is better.

Mac: Optimize the noise problem that is likely to occur when microphone collection is turned on.

Bug fixes

All platforms: Fixed the issue where V2TXLivePlayer occasionally failed to receive SEI when pulling streams from Quick Live.

All platforms: Fixed the issue where V2TXLivePlayer's timestamp rollback caused silence when pulling streams from Kuaishou.

Version 10.4 @ 2022.07.21

New features

iOS&Android: V2TXLivePlayer allows to retain the last frame when ending playback.

Function optimization

All platforms: Optimize the memory usage problem of TXLivePlayer\\V2TXLivePlayer when pulling FLV streams.

Android: Fixed the issue of occasional freezes when streaming in TXLivePlayer\\V2TXLivePlayer.

Android: Optimize the compatibility of low-latency earphones and two-channel capture.

Android: Optimize the strategy of switching from hard decoding to soft decoding to improve decoding performance.

iOS: Optimize the problem of collecting low volume on iPad.

Bug fixes

Android: Fixed the issue where TXLivePlayer\\V2TXLivePlayer occasionally switches to soft solution when pulling streams.

Version 10.3 @ 2022.07.05

New features

All platforms: TXLivePlayer\\V2TXLivePlayer supports HLS playback.

Function optimization

All platforms: Optimize the sound effects in Music quality.

All platforms: Optimize the SEI parsing logic of TXLivePlayer\\V2TXLivePlayer and be compatible with some non-standard SEI.

All platforms: Optimize the audio and video desynchronization problem caused by timestamp rollback when TXLivePlayer\\V2TXLivePlayer pulls FLV and RTMP streams.

Bug fixes

All platforms: Fixed the issue of abnormal sound when playing some fast live AAC-HEv2 streams in TXLivePlayer\\V2TXLivePlayer.

All platforms: Fixed the issue of incorrect TXLivePlayer video cache calculation.

Version 10.2 @ 2022.06.22

New features

All platforms: TXLivePlayer\\V2TXLivePlayer adds License verification when pulling streams.

All platforms: V2TXLivePlayer supports setting HTTP headers when pulling FLV streams.

All platforms: TXLivePusher\\V2TXLivePusher allows audio encoding parameters to be changed midway during RTMP streaming.

Function optimization

All platforms: Optimize the interface of V2TXLivePlayer to adapt to the bit rate when pulling fast live streams.

All platforms: Optimize the problem that V2TXLivePlayer takes too long to reconnect when pulling streams.

All platforms: Optimize the problem of low local cache when TXLivePlayer\\V2TXLivePlayer pulls FLV and RTMP streams.

Android: Optimize the speed of opening the first frame in seconds when TXLivePlayer\\V2TXLivePlayer pulls streams.

iOS: Optimize the size of iOS SDK.

iOS: LiteaVSDK Live version packages TXLiveBase.h.

Bug fixes

All platforms: Fixed the issue where the lag threshold set by TXLivePlayer does not take effect.

All platforms: Fixed the problem of abnormal callback timing of the first frame of audio and video when V2TXLivePusher is pushing in RTC.

Android: Fixed the issue where TXLivePlayer\\V2TXLivePlayer occasionally displayed a black screen during quick stop and start when streaming.

Version 10.1 @ 2022.05.29

New features

All platforms: Support V2TXLivePlayer's seamless streaming capability. Supported stream types: FLV, LEB.

Function optimization

All platforms: Optimize TXLivePlayer\\V2TXLivePlayer playback RTMP stream timeout logic.

iOS: Optimize V2TXLivePusher horizontal and vertical screen push logic.

Bug fixes

iOS: Fixed V2TXLivePremier log enumeration exception issue.

Android: Fixed the issue where the callback data is empty when switching the TXLivePlayer custom rendering format.

Android: Fixed the occasional issue of Bluetooth headsets constantly reconnecting.

Android: Fixed the occasional silent problem on some phones.

Android: Fixed the crash issue caused by repeated plugging and unplugging of headphones on some models such as Redmi.

Version 10.0 @ 2022.05.17

Bug fixes

iOS&Mac: Fixed the problem of occasional onComplete callback error when starting to play BGM;

All platforms: Fixed an issue where V2TXLivePlayer would crash if the View was not set when playing RTC streams.

All platforms: Fixed the issue where V2TXLivePlayer occasionally has no sound when playing fast live streams.

All platforms: Fixed the issue where the number of reconnections set is invalid when V2TXLivePlayer plays a fast live stream.

Version 9.9 @ 2022.05.06

New features

All platforms: TXLivePlayer\\V2TXLivePlayer supports playing live streams with opposite audio phases.

Android: TXLivePusher\\V2TXLivePusher adds a new release method to support the ability to quickly release resources.

Function optimization

Android: Optimize the acquisition delay and improve the headphone experience.

Bug fixes

iOS: Fixed the problem of black screen when using external recording screen when V2TXLivePusher pushes RTC stream.

Version 9.5 @ 2022.01.24

iOS: Fixed the issue where V2TXLivePusher used illegal push address to cause exception.

iOS: Fixed the problem of black screen in the first frame of calling setupVideoWidget in TXLivePlayer in some scenarios.

Android: Fixed the memory leak problem of fast live broadcast playback.

Android: Fixed the issue where the V2TXLivePusher push stream frequently switches between horizontal and vertical screens and occasionally displays horizontal screens.

Version 9.5 @ 2022.01.11

iOS: New screen recording start and screen recording end callbacks for live screen recording.

iOS: Fixed the issue where V2TXLivePusher did not take effect when opening the rear camera.

iOS: Fixed the problem that when V2TXLivePusher is pushing the stream, the delay will become higher and higher when the camera is turned off and then the streaming end is turned on.

Android: Fixed the issue where the streaming side cannot see the pushing side screen when the microphone is turned off during RTC pushing.

Android&iOS: Kuaibo domain name supports external settings.

Version 9.4 @ 2021.12.09

iOS: Fixed the problem that when V2TXLivePusher sets a horizontal screen preview before pushing the stream, the preview screen direction is wrong.

Android: Fixed the issue of V2TXLivePlayer occasionally crashing.

Android&iOS: Optimize the playback delay of fast live broadcast.

Android&iOS: V2TXLivePlayer adds a new resolution change notification interface.

Android&iOS: V2 lag callback adds lag duration information.

Version 9.3 @ 2021.11.04

Android&iOS: Kuaishou supports receiving SEI messages.

Android: Fixed the issue of TXLivePlayer crashing occasionally.

Android: Fixed the problem of the screen not rendering after playing multiple video addresses in V2.

Version 9.2 @ 2021.09.26

iOS: Fixed the issue where V2 Player onWarning method does not return.

iOS: Fixed the problem of the audio and video being out of sync when the streaming end of Quick Live Broadcast stops streaming and then re-streaming to watch the audio and video.

Android: Fixed a crash issue under certain circumstances.

Android: Fixed memory leak problem in V2 RTMP push streaming.

Version 9.1 @ 2021.09.02

iOS&Android: V2 adds support for setting frame rate and bit rate.

iOS&Android: V2 adds a new failure status callback when pulling invalid streams.

Mac&Windows: V2 adds hot-swapping callbacks for audio and video peripherals.

Android: Optimize the overexposure problem of video images under certain conditions.

iOS: Fixed the issue of audio settings affecting each other when playing multiple instances of Quick Live.

All platforms: Fixed the memory leak problem in Kuai Live.

Version 9.0 @ 2021.08.06

Android: Fixed the abnormal problem caused by switching image quality in quick live broadcast.

Android: Added exception events thrown when mobile live broadcast screen recording, microphone, and earpiece are occupied.

iOS: Added Kuai Live onStatisticsUpdate callback.

Android&iOS: V2 adds SEI message sending and receiving functions.

Windows: Added V2 related functions and interfaces.

Version 8.9 @ 2021.07.15

iOS: Fixed the issue where the background image cannot be seen at the remote end after turning off the video upstream in Mobile Live V2 and then turning on the pad push stream.

Android: Fixed the problem of audio and video being out of sync with mobile live broadcast custom audio and video.

Version 8.8 @ 2021.06.18

Android: Fixed the issue of occasional crashes when playing fast live streams under certain circumstances.

Android: Fixed the issue of error when playing HLS files on Android 11.

iOS&Android: Fixed the issue where VodPlayer plays a specific video seek slowly.

Version 8.7 @ 2021.05.24

Android: Fixed the issue where FPS settings did not take effect during mobile live streaming.

Android: Optimize the playback experience of mobile live broadcast, with hard decoding by default.

iOS&Android: Added quick live broadcast playback capability.

Version 8.6 @ 2021.05.06

iOS&Android: Mobile Live V2 adds a new RTC protocol mixed streaming interface.

iOS&Android: Mobile Live Broadcast V2 adds a new preprocessing interface.

iOS&Android: Mobile Live V2 fixes the problem of occasional stream failure on the viewer side.

iOS&Tendroid: Mobile Live V2 fixes the problem of streaming failure caused by turning on custom collection and then turning it off.

iOS&Android: Mobile Live V2 optimizes several experience issues.

iOS&Android: Fixed several stability issues in mobile live broadcast.

iOS: Optimize Swift compilation warning issue.

Version 8.5 @ 2021.03.18

iOS&Android: Mobile Live Broadcast V2 continues to be optimized, including new features, ease of use, stability, etc.

iOS&Android: Advanced beauty effect optimization, optimizing face slimming, big eyes, V-face and other related effects.

iOS&Android: Added narrow face interface for advanced beauty.

iOS&Android: Advanced beauty facial feature extraction optimization.

iOS&Android: Added narrow face interface for advanced beauty.

iOS&Android: Live broadcast supports 0x5 SEI message type.

iOS&Android: Optimize the slow seek problem of some network streams in Super Player.

iOS&Android: Fixed the abnormal problem of mobile live broadcast encoding dts.

Android: Fixed the problem of error reporting in Super Player when playing through fileid method.

Version 8.4 @ 2021.02.07

iOS&Android: A new V2 interface is added to the live push-pull stream, providing a new Lianmai interaction solution and ultra-low-latency live broadcast capabilities.

iOS&Android: Live playback buffering strategy optimization, configurable mandatory and non-mandatory buffering.

iOS: Optimize preprocessing performance and improve stability.

iOS: fix the facial coordinate issue in beauty callback.

Version 8.3 @ 2021.01.15

iOS: Fixed the issue of camera switching being invalid during live streaming.

iOS: Fixed the issue of abnormal sound playback of low-quality files in low-latency streaming scenarios.

Version 8.2 @ 2020.12.24

Android: Optimize the quality of mobile live streaming.

iOS: Fixed the issue where the player rotates upside down and the playback screen ratio is abnormal.

Version 8.1 @ 2020.12.03

Android: Modify the parameter type of the beauty-related interface from int to float.

iOS: Improve the sound quality of the in-ear reverberation effect in mobile live broadcasts.

iOS: Fixed the issue of abnormal screen display when mobile live broadcast disconnected and reconnected in iOS 14.2 version.

Version 8.0 @ 2020.11.13

Android: Optimize MLVB anchor PK and audience onboarding process.

Android: Optimize MLVB interface prompts.

Android: The live push-pull stream Demo project is optimized and the logic is simpler.

Version 7.9 @ 2020.10.23

iOS&Android: The live broadcast player optimizes the delay control algorithm to avoid frequent acceleration and deceleration.

Version 7.8 @ 2020.09.27

iOS: Basic beauty optimization for push streaming, adding white and natural filters.

iOS: Super Player fixes iOS 14 compatibility issues.

Android: Fixed the crash issue of Advanced Beauty Android 4.4 system.

Version 7.7 @ 2020.09.08

Android: Basic beauty optimization for push streaming, adding white and natural filters.

Android: On-demand support for playing audio-only streams when View is not set.

Android: On-demand video playback supports retaining the last frame.

Version 7.6 @ 2020.08.24

iOS & Android: AI beauty optimization, repairs lip gloss occlusion problem, improves recognition accuracy, and optimizes side face makeup effects.

iOS&Android: SDK event and error callback information internationalization.

Version 7.5 @ 2020.07.31

Android: The on-demand player adds a new automatic audio focus control interface.

Android: Fixed the problem of no sound in local recording files of live streaming.

Android: Demo UI optimization for live streaming and live playback.

iOS: Solve the problem of flickering watermark at the end of short video viewing.

Version 7.4 @ 2020.07.03

iOS&Android: Optimize preprocessing clarity and improve image quality.

iOS&Android: Supports full-link 128kbps high-quality stereo sound.

iOS&Android: Supports multi-channel background music playback, used to support karaoke scenes where the original sound and accompaniment are separated, and supports two-channel background music and loop playback.

iOS&Android: While compatible with the old background sound playback interface, a new sound effect management interface TXAudioEffectManager has been added to support more flexible and diverse sound effect capabilities.

iOS: In-ear monitors support superimposed reverberation and other sound effects.

iOS: Fixed the audio lagging issue in live broadcast screen recording.

iOS: Fixed the issue where the front and rear cameras occasionally failed to switch.

Android: Sound effect files support asset-packaged sound effect files.

Version 7.2 @ 2020.04.17

iOS&Android: Added TXLivePlayer support for callback HTTP Response header fields, which can be used to parse CDN-customized HTTP response header fields.

iOS&Android: Added TXLivePusher support for local volume callback.

iOS&Android: Optimize filters, green screen and other visual effects interfaces and merge them into the TXBeautyManager class to achieve a unified calling method.

Version 7.1 @ 2020.03.30

iOS&Android: Super Player is better integrated with the on-demand backend, adding v4 protocol support, which can be played directly using fileid, and adding SimpleAES support, which can directly play standard HLS AES encrypted videos.

Andorid: Short video editing adds support for HE-AAC audio format, making it better compatible with third-party video editors.

Android: Short video UGCKit fixes related issues such as abnormal cropping page display and occasional recording errors.

Android: C++ STL libraries are unified and statically linked, completely solving the problem of STL library conflicts.

Version 7.0 @ 2020.03.09

iOS&Android: Live broadcast mode bit rate optimization.

iOS&Android: Added VOIP mode support in live broadcast mode.

Android: Solve the problem of occasional CRASH in facial animation effects.

Android: Solve the occasional CRASH problem caused by frequently switching cameras and stopping recording in short videos.

Version 6.9 @ 2020.01.15

iOS&Android: UGC TUIKit implementation, UI componentization, supports custom themes, and facilitates integration and modification.

iOS&Android: UGC supports three-screen co-production and volume adjustment capabilities.

iOS&Android: Live streaming supports 1080p Blu-ray streaming.

Android: Android 10 compatible support.

Android: Live streaming supports ear-return capability.

Android: UGC preprocessing is hard-coded to improve preprocessing speed.

iOS: The UGC chorus module is optimized to solve related problems such as out-of-synchronization of audio and video.

Version 6.8 @ 2019.11.15

Android: Optimize the speed of short video generation and improve the efficiency of short video editing and generation.

Android: Fixed the problem of occasional no video data in custom collection.

Android: Fixed the issue where the lower right border of focus is thicker than the upper left border.

Android: Enterprise version fixes the problems of big eyes, face slimming, and invalid motion effects on some models.

iOS: Short video preview solves the problem of occasional black screen.

iOS&Android: Player supports new time-shift playback rules.

iOS&Android: Short video recording supports 4:3 and 1:1 resolutions.

iOS&Android: Optimize QoS flow control and improve code rate adaptive recovery efficiency.

iOS & Android: The enterprise version adds new P-picture features, including skin beautification, eye brightening, teeth whitening, wrinkle removal, eye bag removal and other new features.

Version 6.7 @ 2019.09.29

iOS: iOS13 screen recording compatibility issue solved.

iOS: Fixed Arabic compatibility issue.

iOS: Solve the problem of occasional failure to save high-quality videos when editing.

Android: Fixed the issue of occasional noise in short video synthesis.

Android: The STL library uses the system library directly to solve the occasional CRASH problem caused by STL library conflicts.

iOS&Android: Fix the problem of screen and no sound when streaming in the streamlined version of extreme speed mode.

iOS&Android: Added 16:9 resolution support for recording.

iOS&Android: Focus on solving reported occasional CRASH problems.

Version 6.6 Patch @ 2019.09.10

iOS: iOS13 compatibility support.

Android: Enterprise version fixes memory usage and library conflict issues.

iOS&Android: Fixed several bugs.

Version 6.6 @ 2019-08-06

iOS: Fixed the issue of inaccurate NET_SPEED in onNetStatus callback.

iOS: Fixed the issue where TXVideoEditer sometimes returns incorrect data when obtaining thumbnails by time points.

iOS: Fixed the issue where setting dynamic effects would be invalid after switching to the background.

Android: Enterprise version adds 64-bit support, and P gallery supports dynamic downloading.

Android: Short video repair and editing video page CRASH.

Version 6.5 @ 2019-06-12

iOS&Android: The streaming SDK supports writing custom data to metadata.

iOS&Android: Fixed the problem of TXLivePush push recording function.

iOS&Android: Added image upload support.

iOS&Android: BGM supports playback progress adjustment.

iOS: Fixed the issue that sliding on iOS does not support push streaming.

Android: Fixed issues such as occasional OpenGL exceptions in short video generation.

Android: Fixed the issue where the rotation direction would not be refreshed after pausing during video editing.

Version 6.4 @ 2019-05-15

Full platform optimization

The live streaming push component TXLivePusher adds a license verification function.

The live streaming component TXLivePlayer will no longer automatically switch to CDN streaming after throwing error

code -2302 if it cannot obtain the acceleration address in real-time streaming mode.

Fixed recently reported bugs to further improve stability.

Version 6.3 @ 2019-03-29

SDK Kernel

Android: Android adds ARM64 support to better support 64-bit mobile phone systems.

Bugfix

iOS&Android: Fixed the issue of frequent buffering occasionally.

iOS: Fixed the issue of reverb not taking effect after first installation.

iOS: Fixed the issue where the camera would occasionally restart when streaming for the first time.

Version 5.4 @ 2019-01-04

SDK Kernel

iOS&Android: Optimize the network protocol algorithm, and the live streaming can resist 30% packet loss without any

pressure.

iOS&Android: Optimize the network QoS flow control algorithm, resulting in lower video call lag rate and higher

smoothness.

iOS&Android: Optimize the decoding algorithm in RTC mode to reduce the problem of high microphone connection

delay on some Android phones.

iOS&Android: Optimized the success rate of short video upload.

Bugfix

iOS: Screen recording and streaming extension, CRASH issue in some cases (thanks to Bilibili for the feedback).

iOS: Some compatibility issues with screen recording and streaming on iOS 12.0 system (thanks to Bilibili for the

feedback).

iOS: Some CRASH issues with the image conversion function.

iOS: The problem of B frames still being encoded after enableBFrame() is set to NO.

iOS: There is a loop playback issue when the background music file is relatively short (thanks to Yifang Technology

for the feedback).

Android: Background playback issue on 4.4 system (Thanks to Henan Super League for your feedback).

Android: CRASH issue with Bluetooth headsets on some Huawei Honor models (Thanks to Shanghai Yimi for the feedback).

iOS&Android: CRASH, a low-level library that will appear when killing apps (thanks to Zhihu and Penguin Esports for their feedback).

Version 5.3 @ 2018-10-25

player

iOS&Android: HLS download supports key external verification.

iOS&Android: TXVodPlayer adds setting start time.

iOS&Android: Solve the problem of audio and video out of sync that occasionally occurs during accelerated playback.

iOS: Super player code refactoring; supports selecting resolution according to network.

iOS: Resolve compatibility issues between players and music apps.

Short video

iOS&Android: Editing BGM supports fade-in and fade-out.

iOS&Android: Support 1080P video recording.

iOS&Android: Support video splicing without audio.

iOS: Recording BGM supports setting whether to loop.

iOS: Short video upload optimization.

iOS: Demo adds the function of generating GIF from the original video.

Android: Fixed the issue of untimely recording progress callback.

Android: Solve the problem of incorrect orientation of some video thumbnails.

Android: Solve the problem of preprocessing lag.

other

iOS & Android: Streaming & Playback solves problems related to sound collection and playback of wired headsets and Bluetooth headsets.

Android: Push & playback supports surface rendering (used to support <live-pusher> and <live-player> in WeChat mini-programs that can be mixed and superimposed with other elements).

Version 5.2 @ 2018-09-14

player

iOS&Android: Super Player supports thumbnail viewing capabilities to improve the viewing experience of movies and TV series.

iOS&Android: Super Player supports the progress bar management function.

iOS&Tendroid: Super Player UI is modular to facilitate customer integration.

Short video

iOS&Android: Supports 4K large video editing, and thumbnail extraction supports specified resolutions.

iOS&Android: Added examples of how to use the draft box function.

iOS&Android: Editing supports dynamically rotating the screen angle.

iOS: Fixed thread safety issues caused by fast and frequent BGM switching.

iOS: Solve the problem of inconsistent BGM sound size in video recording and preview.

iOS: Fixed the issue where adding repeated special effects in video editing causes the end watermark PTS to be abnormal.

Android: New thumbnail quick acquisition interface for video editing.

Android: Fixed the problem that the dynamic sticker angle setting does not take effect.

Android: Solve the problem of occasional out-of-synchronization of audio and video in multi-video synthesis and improve the quality of video synthesis.

other

iOS&Android: Enterprise version supports License setting interface and online download and update License.

iOS&Android: Live push effect supports mute setting interface.

Version 5.1 @ 2018-08-18

player

iOS&Android: Live playback supports time-shift playback

iOS&Android: FLV live broadcast supports seamless switching capabilities.

iOS&Android: Super Player revamped, adding live on-demand playlist.

iOS & Android: Optimized multi-definition playback of live on-demand in Super Player, prompts to switch to different definitions according to network conditions.

Short video

iOS & Android: Multiple versions of short videos have been added: Lite, Basic, Enterprise, and Enterprise Pro to meet the needs of different customers. Different versions require corresponding licenses.

iOS&Android: Optimize the beauty filter, redesign it and add a variety of filter effects.

iOS&Android: Recording and editing filters add gesture sliding switching effects.

iOS&Android: Optimize the duet chorus function.

iOS & Android: The mini video app adds functions such as long-press recording, single-click recording, and single-click photo taking. The chorus adds a countdown function, and the recording interface adds reverberation and voice changing options.

iOS&Android: The short video app supports internationalization and supports Chinese and English languages.

iOS: Video editing supports Two-pass encoding, producing better quality.

iOS: Solve the problem of high CPU caused by abnormal exit from recording and entering editing.

Android: Added fast import capability, suitable for fast import of large videos.

Android: Edit and add a filter level setting interface.

other

iOS&Android: Demo main interface has been redesigned to make it clearer and easier to use.

iOS: Solve the problem of blurry screen during push playback and short video recording on iOS12 system.

Version 5.0 @ 2018-07-18

player

iOS&Android: Super Player is reconstructed to support small window mode.

iOS&Android: The on-demand progress callback time interval supports customization.

iOS: iOS Super Player supports live on-demand playback and live time-shift playback.

Android: The Android version of the on-demand player supports variable speed without changing the tune.

Short video

iOS&Android: Video left and right image synthesis supports double chorus.

iOS&Android: The edited and generated video supports two channels.

iOS&Android: Recording supports setting audio sampling rate and rendering mode.

iOS: Optimize the loading speed of edited videos.

iOS: Solve the problem of occasional screen tearing in edited videos.

iOS: Solve the problem of occasional black frames at the end of edited videos.

iOS: Fixed the issue where the audio playback would end early when editing the preview video setting to slow playback.

Android: Optimize recording and editing to generate image quality and generate smaller files.

Android: Optimize editing preprocessing speed and video generation speed.

Android: Solve the problem of black screen when switching between horizontal and vertical recording.

Android: Fixed the problem of error reporting when recording quickly clicked to start and end.

other

iOS: The iOS Demo interface is adapted to iPhoneX.

iOS: iOS fixes memory leaks, improves stability, and adds module definitions to better support swift integration.

Android: The software editor improves the accuracy of RGBA-generated YUV conversion and improves the streaming image quality.

Version 4.9 @ 2018-06-14

iOS&Android: Added BGM pitch change support for live broadcast.

iOS&Android: Added loop playback setting interface for on-demand playback.

iOS: On-demand video has added the ability to automatically switch to soft decryption if hard decryption fails.

Android&iOS: Optimize the short video license integration method and support automatic renewal.

Android: Short videos have added the ability to convert pictures to videos. Switching between pictures supports a variety of transition animations, including sliding up, down, left and right, zooming in, zooming out, rotating and zooming, fading in and out, etc.

Android: Optimize the speed of short video editing and generation, and solve problems such as memory leaks.

iOS: Optimize short video local BGM, thumbnail loading speed and videoInfo acquisition speed.

iOS: Optimize short video editing to generate video quality.

iOS: Solve problems such as occasional freezes and black frames in short video recording, occasional flashing of end watermarks, and memory leaks.

iOS: The AEC setting interface is opened for short video recording. After turning off AEC, in the tracking logic (while playing the video and imitating the recording of the video), the sound of the played video can be combined into the recorded video.

Version 4.7 @ 2018-05-25

iOS&Android: Live broadcast supports stereo playback.

iOS&Android: The lag threshold is configurable by customers to solve the problem of customer-defined lag duration.

iOS: On-demand video playback supports retaining the last frame and supports resolution change notification events.

iOS: Solve the problem that the local rendering rotation angle setting of horizontal screen push streaming is invalid.

Android: Added texture support for custom data.

iOS & Android: New filter effects are added to short videos, including blinds, phantom, lightning, mirroring, illusion, etc.

iOS: Short videos have added the ability to convert images to videos. Switching between images supports a variety of transition animations, including sliding up, down, left and right, zooming in, zooming out, rotating and zooming, fading in and out, etc.

iOS: Short Video solves the problem that short video BGM needs to be played back before it can be called back.

Android: Optimize the memory usage of short video editing and synthesis, and reduce the peak memory usage during editing and generation.

Version 4.6 @ 2018-05-04

iOS&Android: Added original audio data callback on the streaming side.

iOS&Android: Demo adds anchor PK function.

Android: Optimize small file upload and improve success rate.

Android: Solve the CRASH problem caused by incorrect motion path.

iOS&Android: Added reverberation and voice changing interfaces for short video recording.

iOS&Android: New sharded storage directory external setting interface for short video recording.

iOS&Android: Short video editing adds BGM to support pure video streaming.

iOS&Android: Added split-screen synthesis interface for short video synthesis.

iOS&Android: Cancel the upper code rate limit for short video recording.

iOS: Short videos support Bitcode.

Version 4.5 @ 2018-04-13

Audio special effects: Added voice changing function, supporting various voice changing effects such as lolita, uncle, heavy metal, etc. The interface is: setVoiceChangerType.

Player: On-demand playback supports mirroring.

Player: On-demand video supports HLS file download and offline playback, which is convenient for educating customers to do local cache playback.

Player: On-demand HLS multi-bitrate switching speed is optimized to quickly complete bitrate switching.

Player: Player Jitter strategy optimization, adaptive and buffer mode integration.

DEMO: Demo code with new upload function is integrated with the on-demand service to provide an integrated solution from shooting to special effects production, uploading, transcoding, pornography identification, distribution and playback.

Cover: GIF format is supported for uploading covers, and a new clip synthesis function is added.

Short video special effects: Two new special functions have been added, supporting the removal of dynamic background sounds and the support for canceling all filter effects with one click.

iOS: iOS screen recording optimization, a better screen recording solution on iOS 11 system than cracking airplay.

Android: Optimize the short video production process to solve problems such as the inability to play large files after uploading, occasional black frames when obtaining thumbnails, and the out-of-sync audio and video of some videos.

Android: Allows customizing the bit rate when editing short videos.

Android: Supports editing of video files without audio tracks.

Version 4.4

iOS: Added audio data callback interface on the streaming side.

iOS&Android: Demo adds the Lianmai solution, which encapsulates the liveroom interface based on the RoomService service. For details, please refer to the live broadcast experience source code.

iOS&Android: Demo adds a new multi-person video session solution, which encapsulates the rtcroom interface based on the RoomService service. For details, please refer to the multi-person audio and video source code.

Version 4.3

iOS&Android: The live broadcast player supports custom HTTP Header and can specify Refer to prevent hotlinking.

iOS&Android: On-demand player FieldID playback, new video title acquisition.

iOS&Android: The live broadcast player exposes the audio data acquisition interface.

iOS&Android: Fixed issues reported by customers in the past period.

Version 4.2

iOS&Android: Improve the performance of the enterprise version SDK, enable P-picture animation, significantly increase the frame rate of iOS, and reduce the consumption of Android GPU.

iOS&Android: Optimize the audio and video synchronization effect of the live broadcast player, and the new audio and video synchronization solution is better adapted to OBS push streaming.

iOS&Android: The on-demand player supports FieldID, improving the ease of use in multi-resolution switching scenarios.

Version 4.1

iOS&Android: Live streaming and playback support carrying messages in audio and video streams.

iOS&Android: New resolution and bitrate switching interface for short video recording.

iOS&Android: New camera interface for short video recording.

iOS&Android: Added screenshot and recording capabilities for live streaming.

iOS&Android: Short video editing BGM supports setting the playback start time and loop playback capabilities.

iOS&Android: On-demand MP4 supports auto-rotation.

iOS: Demo adds a full-featured on-demand player, and you can have a Youku player with just a few lines of code.

Version 3.9

iOS&Android: The Demo function has been completely revised, adding dual and multi-player real-time audio and video capabilities.

iOS&Android: The animated stickers have been greatly upgraded, with new HDR and high-resolution sticker effects, making the stickers more beautiful.

iOS&Android: Added AI intelligent background cutout capability, so anchors no longer need a green screen.

iOS&Android: Supports seamless switching of video resolution during on-demand playback.

iOS&Android: Fixed several bugs.

iOS&Android: Launched three time special effects: slow motion, repeat playback, and time rewind.

iOS&Android: A variety of new filters have been added, with more effects for you to choose from.

iOS&Android: Added a variety of dynamic and static stickers, supporting customization of more stickers.

iOS&Android: You can add bubble subtitles to videos.

iOS&Android: Supports silent shooting to facilitate post-production.

iOS&Android: Supports switching between horizontal and vertical screens while shooting.

Android: UGCPublish integrates the new cos architecture and optimizes the short video upload processing process.

Version 3.7

iOS&Android: Demo optimization, new low-latency playback, push live broadcast playback can be experienced directly.

iOS&Android: Demo adds multi-terminal audio and video interoperability capabilities, allowing multi-person conversations with mini programs, Windows and other terminals.

Android: Fixed the problem of invalid background camera data collection.

Android: Fixed the issue of invalid SetMirror interface settings.

Android: Fixed multiple TXCloudView rendering display issues.

Version 3.5

iOS&Android: The continuous mic sending strategy is optimized, and the sound under weak network is smoother.

iOS&Android: The sound resampling algorithm has been updated to provide better compatibility with background sounds of different sampling rates.

iOS & Android: A new independent on-demand interface (TXVodPlayer) is added. This interface can be used for on-demand needs. It is simpler and more pure. The original live on-demand interface (TXLivePlayer) remains unchanged and can continue to be used.

Android: Lianmai supports system AEC for some mobile phones, with better performance.

Android: The custom sending interface (sendCustomVideoData) supports sending custom data such as I420 and NV21.

Android: The player supports YUV video data callback interface.

Version 3.4

iOS&Android: New functions such as deletion, multi-ratio switching, and focus adjustment are added to short video recording.

iOS&Android: Added end watermark function to short video editing.

iOS&Android: Fixed the compatibility issue of third-party push FLV live streaming.

iOS: Fix iOS11 compatibility issues.

Android: Solve the problem of inaccurate on-demand callback.

Version 3.3

iOS&Android: On-demand HLS supports EXT-X-DISCONTINUITY tag.

Android: Supports background collection and push streaming.

Solve the problem of green screen recording and black screen playback on some Android models.

Solved the problem of abnormal playback and inaccurate progress callback on some Android BGM models.

Fixed some bugs reported by customers in the past week.

Version 3.2

iOS&Android on-demand supports local cache playback of MP4 videos.

Solve the problem of blurred screen in background recording under abnormal circumstances.

Solve the problem of BGM low sampling rate not being supported.

Fixed some bugs reported by customers in the past week.

Version 3.1

iOS&Android: The beauty algorithm is optimized, adding a rosy effect and multiple sets of beauty styles.

iOS: Two new beauty styles, smooth and natural, are added.

Android: Added three new beauty styles: smooth, natural, and hazy.

Android: Short video editing adds speed change, background sound, and subtitle functions.

The enterprise version adds features such as V-face, thin nose, and thin chin.

Version 3.0

iOS&Android: Reconstruct the beauty module to improve the beauty effect while reducing GPU usage.

iOS&Android: The on-demand player has been internally reconstructed to support multi-speed playback such as ×2 and ×4.

iOS&Android: Optimized the anti-jitter capability of Lianmai's underlying network components, and made better model adaptation of the AEC echo cancellation components.

iOS&Android: TXUGCRecord adds pauseRecord and resumeRecord interfaces to support multi-segment recording.

iOS: Provides a quick cropping and editing interface.

Version 2.0.5

Android: Add watermark function to short video editing.

Android: Added multi-segment recording function to short video recording.

iOS&Android: Fixed several bugs.

Version 2.0.4

iOS: Short video editing adds filters, watermarks, background sounds, subtitles, speed changes and other functions.

Android: Optimize short video cropping and splicing functions, and add editing filter functions.

iOS&Android: Add beauty callback preprocessing interface for UGC recording.

iOS&Android: Added the ability to resume uploading short videos.

Version 2.0.3

Android: Added UGC cropping and splicing functions.

Android: Optimize the player and rendering view, support animation, floating box, large and small screen switching, etc.

Android: A new Auto option is added for soft and hard programming. The SDK automatically enables hard programming or soft programming according to the performance of the phone.

iOS: Optimize the overexposure problem on iOS and make the exposure more natural.

iOS&Android: Optimize adaptive bit rate control for weak network environments, and add two new low resolutions (180 × 320, 270 × 480) push streaming support.

iOS&Android: Optimize the Demo directory and code structure, reduce access costs, and add short video recording, cropping, splicing, and mic connection demos, which are simple and easy to use.

Version 2.0.2

iOS: Added UGC cropping and splicing functions.

iOS: Lite version supports Bitcode.

Android: The privileged version adds a new feature of big eyes and face slimming.

Android: Optimize the hard coding effect and improve the coding quality.

Android: Develop the player data interface. Hard decoding data is provided in the form of Surface, and soft decoding data is provided in the form of buffer.

iOS&Android: Optimize the mirroring performance of the front camera when turning on P pictures and green screens.

iOS&Android: Optimize UGC upload protocol.

Version 2.0.1

iOS&Android: Optimize the continuous wheat connection and increase the ability of multiple people to connect the wheat.

iOS&Android: Add the function of adding background music to UGC short videos.

iOS&Android: Added audio-only streaming function.

iOS&Android: Added player screenshot function.

iOS&Android: FFMPEG library updated to safe version.

iOS&Android: Optimize FLV and RTMP packet header parsing.

Android: Added reverb function and preset multiple reverb effects.

Android: The privileged version adds a green screen function.

iOS: Optimize software decoding performance, open the playback end data callback interface, and customers can customize playback rendering.

Version 2.0.0

iOS&Android: Add the collection and publishing function of UGC short videos.

iOS&Android: Added stream interception and recording function, viewers can intercept a short UGC video while watching the live broadcast, and then share it.

iOS: Added a new "whitening" filter, suitable for customers who prefer Inke's beauty effects.

Version 1.9.2

iOS&Android: Added support for local file playback (set PLAY_TYPE_LOCAL_VIDEO in startPlay).

iOS&Android: Redesigned the buffer scheme in the player, optimizing the sound fluency of low-latency links.

iOS: Added setReverbType interface, which can set various sound reverberation effects.

iOS: Optimized the performance of adding watermarks during live broadcast.

Version 1.9.1

iOS&Android: Optimized the beauty effect and clarity experience in camera live broadcast.

iOS&Android: Beauty has added a filter function, and a variety of mainstream filter effects are available for your anchor to choose from.

iOS&Android: Added setVideoQuality interface to make image quality selection easier and sound better.

iOS: Solved the iOS overexposure problem reported by some customers. There will be a significant difference in scenes with strong artificial light sources.

iOS: Further optimized the delay of the ear return (the reverb function has not been resolved due to bugs, so the Delay will be released in one week).

For the historical version function, please refer to **Change History**.

Version 1.9.0

iOS: Supports turning on Bitcode to reduce the size of the App Store installation package.

iOS: Software and hardware beautification are unified, and the GPU acceleration solution is used uniformly.

iOS&Android: The audio module is optimized, and Lianmai supports background sound playback.

iOS&Android: On-demand multi-thread optimization (live broadcast already supports multiple capabilities in the previous version).

iOS&Android: Solve the problem that when the network is stuck, the playback stop (stopPlay) blocks the UI thread for a long time.

iOS: A new ear-back function is added, that is, when the anchor plugs in the headphones and sings, he can hear the effect of his own pronunciation in real time.

Android: Due to the delay problem of the system API, it is not supported yet. We will continue to work hard.

Version 1.8.2

Based on the Tencent Cloud accelerated link, the continuous mic function is realized, and 1v1 server-side mixing is supported (mixing is not supported in the continuous mic mode for the time being, and will be solved in 1.8.3).

Live broadcast supports multi-instance playback capability, while on-demand video streaming does not currently support multi-instance playback.

Version 1.8.1

iOS resolves naming conflict issue.

iOS&Android live broadcast supports multi-instance playback capability, while on-demand video streaming does not currently support multi-instance playback.

Optimize the playback experience in weak network environments.

Optimized mixing function.

Version 1.8.0

A new streamlined version is added to iOS, including live streaming and playback functions.

Android hardware decoding optimization to solve CRASH and ANR problems caused by multi-threading.

Dynamic bitrate adjustment optimization to improve bitrate adjustment accuracy.

Added new mirror interface for push streaming.

iOS upper layer collection optimization.

Android's new beauty optimization, FPS control is more accurate.

A new progress callback interface has been added to the mixing function.

SDK adds support for HTTPS.

Version 1.7.2

Android acquisition coding reconstruction.

Android software editor supports new beauty effects.

Android hard-coded new cloud blacklist control.

Solve the multi-threading problem caused by frequent opening and closing of Android camera.

Android screen recording privacy mode adds the ability to push the anchor's audio.

Solved the problem of screen blur when switching between front and backend of Android HLS and MP4 on-demand.

Solve the problem of blurry screen playback in iOS simulator.

Version 1.7.1

Fixed the issue of occasional black screen during iOS live broadcast.

Fixed the issue of iOS simulator compilation failure.

Fixed iOS CRASH problems such as physical key lock screen and background switching.

Fixed the issue of the preview camera being inverted on some Android models.

Fixed the problem of too high hardcoding rate on some Android models.

Optimize the Android mixing interface to make it easier to use.

Version 1.7.0

Added ZoomIn and ZoomOut interfaces for iOS and Android.

Added on-demand MPEG4 v3 decoding support.

A new intelligent speed control mode is added to adaptively adjust the bit rate and resolution according to the network speed.

Fixed HLS and MP4 recording fast-forward issues, as well as HLS and MP4 playback issues recorded in various abnormal modes.

iOS acquisition optimization, completely fixing splash screen and other related issues.

Android JNI optimization, fixes the issue of occasional callback failure.

Version 1.6.2

iOS has updated a new beautification algorithm, and its performance and effects have been greatly improved. (Effective only after hardware acceleration is turned on).

Android has updated a new beautification algorithm to solve the problem of the old beautification algorithm not taking effect on some models. At the same time, the performance and effect have been significantly improved. (It is only valid for API 18 or above and hardware acceleration is turned on).

iOS SDK adds support for replaykit screen recording capability.

A new Pause/Resume interface is added to live broadcast to support pause and resume.

Solve the problem of no data caused by hard-programmed Android streaming for a long time.

Solve the problem of abnormal streaming such as audio and video being out of sync caused by long-term streaming timestamp jumps.

Solve the CRASH problem caused by AAC decoding in some scenarios.

Version 1.6.1

Android SDK adds a mobile phone screen recording function, allowing mobile games to be broadcast live (supports privacy mode).

Added background mixing capability, anchors can choose their favorite songs for accompaniment.

Optimize the push logic of the app when it switches to the background, and use patches to solve the problem of the audience continuing to reconnect and eventually disconnecting after the host's app switches to the background.

Strengthen customer-defined collection interface capabilities. Customers can collect video data in different formats and provide them to the SDK for sending.

Add mute capability to iOS on-demand (Thanks to the Mogujie team for the suggestion).

Fixed the splash screen problem caused by incorrect release of push playback.

Version 1.6.0

Increase audio data acceleration processing capabilities, improve the speed playback experience, and reduce playback delays without users noticing.

Added PUSH_WARNING_SERVER_DISCONNECT notification in case of active rejection by the streaming background.

Optimize the black screen issue when opening for the first time, and the OpenGL rendering layer is not displayed before the first frame is displayed.

iOS adds horizontal screen push streaming and local playback support. For details, please see the interface changes.

Supports maintaining RTMP streaming connection after switching to the background for a short period of time.

Introducing an OpenGL conflict checking mechanism to avoid iOS splash screens caused by player release issues.

Optimize log performance and add external log callback interface (setLogLevel interface does not affect the behavior of LOG callback function).

Version 1.5.2

Added audio decoding support for HE-AAC V2.

Pushing and playing VideoView supports resizing and retaining the last frame rendering.

Optimize nearby access and intelligently select the optimal line.

Completely solve the problem of symbol conflict with Libyuv.

Added Android hardware supported models to top100.

Solved the bug of automatic reconnection when the hard-coded screen is still.

Solve the problem of StopPlay being stuck for 2 seconds in the on-demand scene.

Solve the bug that the player always reconnects automatically after the streaming terminal switches to the background or disconnects from the network and fails to push the stream.

Version 1.5.1

Android streaming supports hardware acceleration (the whitelist is being added continuously).

MP4 and HLS on-demand support hardware decoding.

Resolved library conflict with Interactive Live.

Add a reconnection mechanism for on-demand playback.

Version 1.5.0

Reconstruct the push and player SDK to improve the stability of the SDK.

Added GOP setting parameters, 3 seconds is recommended in show scenes (default value).

Solve the symbol conflict problem with AVGSDK.

Fixed crash issue in horizontal screen push streaming.

Version 1.4.2

Support MP4 and HLS online on-demand.

No longer use aar as the packaging method of Android SDK, and change to the traditional jar + lib mode.

Android SDK adds arm64 mode.

Version 1.4.1

Improve streaming performance and sound encoding and decoding performance.

Added FLV on-demand support.

Version 1.3.1

Improve playback performance.

Optimize caching strategy and provide multiple parameter configurations.

Added watermark support on the streaming side.

Version 1.2.1

Optimize the beauty/whitening effect.

iOS and Android add hardware decoding support, and iOS adds hardware encoding support.

Version 1.1.1

The streaming SDK supports RTMP protocol, and supports beautification/whitening, resolution setting and other functions.

The playback SDK supports FLV/RTMP protocol, supports screen cropping, and supports horizontal and vertical screen switching.