



# Tell Your Story With Live Video

Simplify creating cross-platform live streaming apps

nanoStream is the perfect choice for creating live streaming applications with your own brand! You can go **live** with your own **video streaming app** within 5 minutes!

The nanoStream software, available as a customizable app or SDK for development, simplifies creating end-to-end applications for user-generated live video streaming.

Whether it is for business, entertainment, sports, politics, or user-generated content, the uses of live video streaming applications are endless. Apps like Periscope are creating new use cases for user-generated live content, including vertical live video and interactive sharing in social media channels.

Musicians and entertainers can promote their work directly with their fans through apps running on nanoStream with an integrated live video player. Other businesses use nanoStream software to connect people with celebrities worldwide. They enable live video streaming to friends and followers, or to help aspiring entrepreneurs interact with their customers.

nanoStream can also be used to instantly share live sports or political events on social networks, and live streams of e-sports are widely deployed



by our customers. Our encoder and player software can achieve low latency, so your viewers are not disturbed by a lagging transmission, but will enjoy a great game. You can add screen sharing for remote presentations, on Windows, MacOS or even Android. Additional features like networking statistics, live metadata, and overlays, external cameras, GoPro and Drones, can be used for seamless integration into professional broadcast environments.

Journalists use nanoStream to directly stream live videos of current events from their own apps. Our software guarantees media companies full control over the content, for fast and safe broadcasting of breaking news.

The world is moving quickly towards a single melting pot of creating and consuming live video. Despite many

different standards, formats, operating systems and browsers, we enable any event to be live encoded, streamed, and played back with low latency on any device, anywhere!

But video is hard. How can you roll out live video services successfully, across multiple platforms—desktop, mobile, and browser? Here are different key challenges you might face:

- Live encoding: how to obtain a perfect camera signal and send it to the internet, even in unstable networks?
- Live streaming and delivery: how avoid complicated server setup, installation and maintenance processes?
- Playback: how to achieve the best possible user experience for your communication partner or live audience?

- Instant streaming: avoid encoding and streaming startup delays for immediate results for breaking news, music, sports, celebrities, etc.
- End-to-end low latency to enable live video communication applications.
- Be flexible to use cloud or on-premise services.
- Allow live video broadcast and playback on any device, independent of vendor and OS.

## ENCODING - STREAMING - PLAYBACK

Building your own app to promote your event or user-generated content and streaming it live is easy with nanoStream's high-quality products. Our services, products, and support are recognized by both product developers and businesses as a great foundation for cross platform live video streaming apps.

We invite you to test our nanoStream Live encoding and Player software in combination with our bintu.live streaming service today. Visit the nanoStream download area <http://www.nanocosmos.de/demo> for all apps and SDKs

## HOW TO CREATE YOUR OWN LOW-LATENCY LIVE STREAMING APP WITH THE NANOSTREAM SDK IN 5 MINUTES

This is a short overview showing how you can get a headstart on your competition for your end-to-end streaming platform by leveraging proven nanoStream technology.

See how easy it is to create your own high quality end-to-end live encoding, streaming and player application!

With this guide, you will be able to create a live video broadcaster and player app with the nanoStream SDK, connected to our bintu.live streaming platform. You do not need to install your own server, just stream instantly to the URL you get from bintu.live!

You will still be able to use your own server on your own premises if required.

### Requirements

- nanoStream SDK 4.6 or later
- bintu.live connector
- a valid bintu.live API key and a nanoStream SDK license
- Development Environment: you can be completely cross-platform!
- iOS and MacOS: XCode on Mac OS X
- Android: Android Studio or Eclipse
- Windows: VisualStudio 2013 on Windows 7 or later
- Browser Platforms: HTML/JS for your own web page based on either our nanoStream Plugin or WebRTC Client

### Build your Live Encoder App (Broadcast)

How to build the broadcaster (this is for iOS but similar projects are available on all platforms)

- Open the project StreamingExample from the SDK samples/SimpleEncoder folder in Xcode.
- Add the license and API keys in nanoLicenseConfig.h (folder include)
- Build and run the application.

### How to use the broadcaster

- Enter your API key
- The app is checking the bandwidth, either wait or skip to use default
- Tap the "start" button to start broadcast
- You should see the result logged to the console: "You are live!"

The streamer automatically gets a stream URL from bintu.live and instantly starts live streaming.

### Player App

- Open the project PlayingExample from the SDK samples folder in Xcode.
- Build and run the application. (your license and API keys should be used from the same file as the broadcaster app)

If you tap the play button, you should instantly see your live video sent from the broadcaster device!

**You can do this easily on any platform with your own preferred system environment!**



## SUMMARY

Congratulations! You now have everything you need for your own streaming platform.

You can now run the broadcaster app on one device and the player app on another. You can start a stream in the broadcaster app (via Start button) and can play it directly in the player app (via Play button). The player app assumes that you want to play the latest stream on your account that is live.

## NEXT STEPS

From here on you can integrate the live streaming function into your own application backend. If you want to know more how these sample apps were created and how you can set up your own ones, contact us or read our step-by-step tutorial.

For a more complete sample apps on how to use nanoStream and bintu.live, see the samples BintuEncoder and BintuPlayer in the SDK samples folder. They show a complete workflow including bandwidth check, user notification, sharing, vertical and landscape streaming, and more! You find similar samples for Android, Windows, MacOS, and browser platforms. Get in touch with us for additional plugin-free live encoding with WebRTC!

## GETTING HELP

Contact us for additional help, or additional functions, full-feature apps and consulting services!

[www.nanocosmos.de](http://www.nanocosmos.de) downloads for SDKs and Apps, documentation and blog

[www.nanocosmos.de/apps](http://www.nanocosmos.de/apps) download the live streaming apps

**Apple** AppStore/iTunes  
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