



2024 REPORT

Twilio Video is Sunsetting. What does it mean for you?

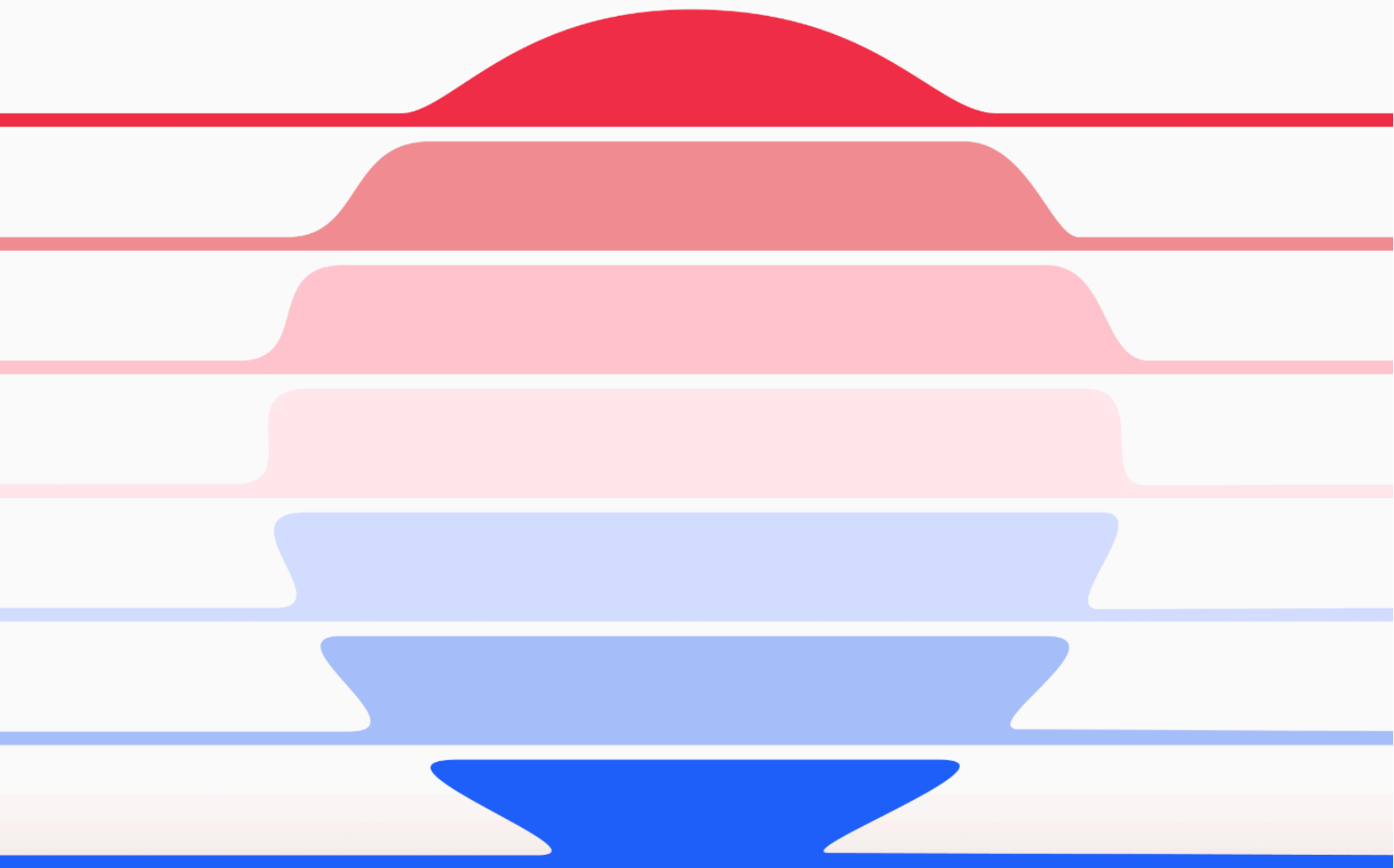


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Introduction

The news of Twilio sunsetting its Programmable Video comes as a shock to thousands of companies worldwide.

Twilio video is scheduled to go offline on December 5, 2024, as per the [official notice from Twilio](#). This decision has caused quite a stir among developers relying on their services for a long time.

This isn't the first time Twilio has decided to sunset one of its products. Prior to this, the company ended its Twilio Live API, effective from November 30, 2023, which was also a significant part of many businesses' operations.

The decision to shut down the Programmable Video service appears to be part of a larger strategic shift within the company, focusing more on voice, SMS, and other areas. However, this move leaves many existing customers to start searching for alternatives, redoing, and transitioning before the end-of-life date.

Companies relying on Twilio Video face the daunting task of navigating through this migration, adjusting their roadmaps, making significant changes to their applications and platforms, and allocating resources and development cycles to facilitate this critical migration.

This is also a chance to upgrade the existing stack with advanced features, interactive in-built plugins, and a secure, reliable, and lightweight SDK.

Twilio Video Migration

For many companies, migrating away from Twilio Programmable Video represents a significant technical challenge. Companies must identify suitable replacement options and develop migration strategies that might involve substantial changes to existing applications and services.

The complexity of the existing implementation, the scope of the video services utilized, resources available, etc., will dictate how long it takes to migrate from Twilio Video to a new service provider.

While you are researching Twilio Video replacements, let's quickly walk through some of the parameters to look out for.

What to look for in a Twilio Video Replacement?

When evaluating Twilio Video replacements, it is crucial to consider several criteria that will help you choose the most suitable and reliable platform for your application.

- **Feature Set:** Along with [feature parity](#), it is essential to assess whether the platforms meet your current and future needs with factors such as advanced features, robust security, and user privacy.
- **Compatibility and Integration:** Evaluate the integration with your existing tech stack and supported platforms. Some solutions might require minimal adjustments, which can be a major advantage.
- **Compliance and Security:** Ensure the alternative complies with relevant regulations and standards such as HIPAA, GDPR, SOC-2, and others that may apply to your industry or location.
- **Global Scalability:** This is crucial if you aim to provide reliable video services to users worldwide, especially if you have or expect to have a user base spread across different regions.

- **Reliability and Uptime:** Look for a service with a proven track record of reliability and high uptime. Outages and poor performance can severely impact user satisfaction and retention.
- **Documentation and Support:** Comprehensive documentation and responsive support are imperative for a developer tool. It can reduce the time and effort needed for migration and troubleshooting.

By carefully considering each of these factors, you can make an informed decision when selecting a replacement for Twilio Video that aligns with your specific business needs and technical requirements.

Let's evaluate all the major options available as a [replacement for Twilio Video](#) and how they stack. Our reviews are based on our research, testing, and feedback from real users so you can make an informed decision.

Overview of Platforms

Dyte

Dyte is a real-time live video SDK that is being used to power the communication needs of enterprises across the world. It's backed by top funds like Y Combinator, Sequoia, Nexus Venture Partners and Unbound. It's designed to cater to the diverse needs of its users. It's not just about matching features with Twilio video and other platforms but also offers additional modern features like in-built adaptive bitrate, plugins, UI-kit, and advanced analytics. It has the lowest SDK footprint in the industry to support optimal performance and efficiency. Its industry-leading documentation is featured on Docusaurus' favorites list.

Dyte is built with compliance at its core and holds HIPAA, GDPR, and SOC 2 certifications. With an emphasis on data security, privacy, and dedicated customer support, Dyte confidently positions itself as an enterprise-ready solution.

For teams contemplating [migrating from Twilio Video](#), Dyte makes the transition effortless, promising completion in under a week and **saving time**. Dyte leaves the **lowest SDK footprint** with a lightweight SDK and **saves up to 40% in costs**. To sweeten the deal, Dyte offers **exclusive credits of up to \$30,000** for Twilio Video users, making the switch beneficial and cost-effective.

Zoom SDK

Twilio is directing its users to Migrate to Zoom SDK. If you are reading this, we are sure you must have used Zoom at least once. It's an excellent tool for video conferencing, but it barely transfers to the Zoom SDK experience.

Surprisingly, Zoom SDK lacks the feature parity of a Twilio Video Replacement.

Zoom SDK does not use WebRTC, which means - it can lead to potential compatibility and performance issues. It can affect real-time communication quality, complicate WebRTC connections, impact camera input on custom browsers, and potentially hinder features like acoustic echo cancellation.

Zoom SDK also leaves a heavy footprint of 75MB, compared to about ~1MB for Twilio Video and ~200KB GZIP for Dyte.

Check out this [comparison between Dyte and Zoom SDK](#)

Vonage

Vonage, previously known as TokBox/OpenTok, is a platform that allows developers to add video and voice features to their applications. It offers the standard features for video conferencing, real-time messaging, and screen sharing; however, it lacks some modern and advanced capabilities that could get it at par with some of its new-age competitors.

Without a doubt, Vonage is one of the earliest WebRTC vendors, and that is reflected in the complex configuration, limited participant roles & permissions, absence of new-age functions like AI/ML middleware, limited in-built features, self-troubleshooter, etc.

Check out this [comparison between Dyte and Vonage](#)

Feature Comparision

Developer Experience

Developer experience (DX) is the overall experience and ease of development that teams can expect when integrating an SDK.

Having exceptional developer experience is crucial as it can greatly streamline the development process, minimize costs, facilitate rapid prototyping, foster the creation of robust end products, and create productive developers.

	Twilio	Zoom	Vonage	Dyte
Web	Vanilla JS	Vanilla JS	Vanilla JS	Vanilla JS, ReactJS
Mobile	Android, iOS	Android, iOS	iOS Native, Android Native, React Native	iOS Native, Android Native, React Native, Flutter
UI Support	No	Pre-built only (Zoom Meeting UI)	No	Pre-built + UI Component Library (Dyte UI Kit)
UI Libraries	No	Vanilla JS, Angular, React	No	React, Angular, Web Components, React Native, Flutter, Android iOS
SDK Overhead	~750KB	~75MB	~540KB	~200 KB
Roles and Permissions	Limited	Limited	Limited	Fully Customizable

	Twilio	Zoom	Vonage	Dyte
Webhooks	Limited event updates	Limited event updates	Limited event updates	For all major event updates
No-code UI Editor	No	No	Yes	Yes

1. **Platforms supported:** It refers to the compatibility of the SDK with different operating systems, meaning the SDK can be used to build applications that function seamlessly across these platforms, enabling developers to reach a wider audience and provide a consistent user experience across all devices.
2. **UI Support:** The UI kit on Dyte comprises a collection of pre-built UI components that can be readily used or customized to match the aesthetics of your app and go live faster.
Similarly, the Zoom SDK provides prebuilt toolkits and web client customization options. However, Vonage does not offer pre-built UI components, necessitating developers to write tailor-made code from scratch to achieve the desired UI.
3. **SDK Overhead:** It significantly impacts the performance and efficiency of an application. A high overhead can result in increased latency, lower video quality, and an unresponsive user interface.
4. **Roles and Permissions:** Effective access control is essential for a secure and customizable video conferencing environment. Dyte offers a flexible solution to define roles and permissions through presets.
You can control participant look & feel, polls, chats, plugin access, and more. However, both Vonage and Zoom SDK have limitations in terms of nuanced access control options. Vonage offers roles like moderator, publisher, or subscriber, while the Zoom SDK restricts roles to meeting owners and participants.
5. **Webhooks:** Webhooks offer a powerful method for real-time, event-driven communication and workflows between the VideoSDK

platform and your application.

Vonage and Zoom SDK platforms enable basic notifications such as participants joining or leaving events, recording start or stop, etc. Along with these, Dyte's Video SDK also provides webhooks for meeting chat sync, transcriptions, recording status updates, and more.

6. **No-code UI editor:** It allows quick prototyping and deployment using a drag-and-drop interface or easy configuration options, reducing the time and resources needed to create and maintain video components.

With Dyte's no-code UI builder, teams can customize participant tiles, screen share views, colors, fonts, and spacing to match their brand identity and product experience. Similarly, Vonage Express enables developers to manage streams, layouts, and bandwidth with minimal coding. This feature is not available in the Zoom SDK.

AI Capabilities

AI capabilities raise the bar for features, data processing, engagement, and more. Businesses can leverage these to innovate and deliver cutting-edge interactive video experiences.

	Twilio	Zoom	Vonage	Dyte
Live Transcription	Yes	No	Yes	Yes
Live Translation	No	No	Yes	Yes
Summarization	No	No	Yes	Yes
Minutes of Meetings	No	No	No	Yes
AI-based Virtual Background	No	No	Yes	Yes
Noise Cancellation	Yes	No	Yes	Yes

1. **Live transcription:** It enhances communication and engagement by providing real-time text versions of spoken content during video streams or conferences. Dyte offers two types of transcriptions: live transcriptions that can be consumed on the client side using the Dyte SDK, and the second one is post-meeting transcriptions through webhooks. Vonage also offers transcription functionality through platforms like AWS Transcribe. However, the Zoom SDK does not include this feature. [Learn more](#)
2. **Live translation:** It enables global user connectivity and real-time language translation for various purposes such as international collaboration, education, customer support, events, and dating. Dyte

offers a native add-on for live translation and integration with platforms like AWS transcribe and Google STT. Vonage also supports live translation but only with AWS transcribe. However, Zoom SDK does not support live translation.

3. **Summarisation:** Dyte and Vonage Video SDK offer a summarization feature that summarizes the video call. Dyte uses AI to analyze speech in video calls and generate concise summaries. Vonage Video SDK utilizes third-party APIs to transcribe and summarize real-time audio streams. Zoom SDK does not support summarization.
4. **Minutes of Meeting:** It is a formal record of decisions and action items. MoMs are usually considered essential for accountability and clarity in collaborative environments. Dyte uses AI to transcribe and automatically create actionable minutes from video meetings. Dyte captures dialogues, identifies key decisions and tasks, and formats them into a clear and concise document. Neither Vonage nor Zoom SDK supports this capability.
5. **AI-based Virtual Background:** It enables users to input prompts, generate AI-generated images, and set them as background during video calls. This is especially useful to replace or blur backgrounds, which is essential for maintaining privacy when working remotely or from public places.
6. **Noise Cancellation:** It is a vital feature to ensure clear audio communication and filter background disturbances. Twilio powered this via Krisp.ai. Dyte also offers this in-built functionality via Krisp.ai, adapting to different noise profiles for consistent audio quality. Vonage offers acoustic echo cancellation, noise suppression, and automatic gain control. However, Zoom SDK does not support noise cancellation.

AI/ML Middleware

AI/ML middleware is a bridge for executing AI/ML algorithms in the Video SDK environment. It allows developers to directly add features like object detection, facial recognition, and video analytics into their applications. It includes video encoding and decoding, editing, enhancement, streaming, content delivery, playback, analytics, and quality control.

For example, AI can be used for real-time video analysis, enabling automated scene detection, content moderation, and sentiment analysis. ML can learn from data to improve video quality based on network conditions.

AI/ML middleware also helps with media processing tasks like noise reduction, resolution enhancement, color correction, analytics, and video encoding and decoding. Automating these tasks improves video production efficiency and enhances overall quality for a better end-user experience.

	Twilio	Zoom	Vonage	Dyte
AI/ML Middleware	Yes	No	No	Yes

Dyte's SDK supports AI/ML middleware through its pluggable functions and media add-ons. These features allow developers to add advanced capabilities like custom filters, transcription services, background changes, quality enhancement, and more to their video applications.

Dyte also enables a single-line integration of AI/ML middleware, making it easier for developers to incorporate these advanced features into their applications. These aren't supported by Vonage or Zoom SDK.

Streaming

Streaming enables real-time transmission of video and audio content over the internet. This allows for immediate playback without requiring users to download the entire file before viewing it, significantly enhancing user experience.

	Twilio	Zoom	Vonage	Dyte
HLS	No	No	Yes	Yes
RTMP	No	Yes	Yes	Yes

1. **HLS:** HTTP Live Streaming or HLS enables seamless streaming of audio and video content over the internet. It is crucial for live broadcasts, on-demand video services, and video conferencing as it dynamically adjusts video playback quality based on the viewer's network speeds, reducing buffering and latency.
2. **RTMP:** RTMP (Real-Time Messaging Protocol) is designed for high-performance transmission of audio, video, and data between a server and a Flash player. It is instrumental in live streaming applications, offering low-latency communication is vital for real-time interactions. Dyte, Vonage, and Zoom SDK allow broadcasting a video session to a large audience using RTMP.

UX

UX features are important to drive an engaging and collaborative session with an intuitive UI, video quality control, screen sharing, real-time interactions, and more.

	Twilio	Zoom	Vonage	Dyte
Whiteboard	Not In-Built	Not In-Built	Not In-Built	In-Built
Media Player	No	No	No	Yes
Code Editor	No	No	No	Yes
DocShare	No	No	No	Yes
Build Your Own Plugin	No	No	No	Yes
In-Built Chat	No	Only Supports Text	No	Supports Text, Images and Files
Polls	No	In-Built	Not In-Built	In-Built
Virtual BG	Yes	Yes	Yes	Yes
Hand Raise	In-Built	No	Not In-Built	In-Built
Breakout Rooms	No	Not In-Built	Not In-Built	In-Built
PiP	Yes	Yes	Yes	Yes
Multiscreen Sharing	No	No	Only Custom Built	No code + Custom Built
Private Chat	No	Yes	Yes	Yes
Reaction	Not In-Built	In-Built	In-Built	In-Built
Self-Troubleshooter	No	No	No	Yes

1. **Whiteboard:** It allows collaborative drawing or writing, enhancing real-time engagement. It is essential for visually brainstorming ideas, explaining concepts, and making remote communication and learning more effective and interactive.
2. **Media Player:** This enables seamless streaming and sharing of media content and supports different media content during calls. Allowing participants to watch videos together without screen sharing. Participants can play and pause YouTube, Vimeo, and MP4 URLs with appropriate user permissions. This feature is natively supported by Dyte SDK. Vonage and Zoom SDK do not have this capability.
3. **Code Editor:** Allows participants to write and edit code collaboratively in real-time, without them having to share their screen. Dyte natively supports this with their in-built plugins. However, this functionality isn't available with Vonage or Zoom SDK.
4. **Docshare:** Enables participants to import documents (PDF, DOC, PPT, etc.) in the meeting for a collaborative working experience. With Dyte SDK, you can natively leverage annotations, highlighters, and pens to have a complete editing experience within the plugin. This feature is neither supported by Vonage nor Zoom SDK.
5. **Ability to Build your own Plugin:** Plugins help build collaborative and immersive experiences right within the meetings without ever having to leave them. [Learn more](#)
6. **Built-in Chat:** It's an alternative medium for users to interact and ask questions without interrupting the ongoing session. With Dyte, participants can send and receive text messages, images, and files via chat during the meeting; it also allows them to edit, pin, and delete messages based on their roles and permissions. Zoom SDK only allows text messages via chat. Vonage does not natively support any form of chat, you will need to build the entire functionality over their basic socket service.
7. **Polls:** Polls enable real-time feedback and increase user engagement. Dyte's SDK natively supports creating and running polls via either UI Kit

or Core SDK with custom components. Zoom SDK also supports Polls natively. While Vonage does not have a built-in poll, it offers a platform that allows developers to build custom interactive features such as polls and hand raises.

8. **Virtual Background:** These help enhance user experiences and foster professional interactions. These backgrounds provide a polished and distraction-free backdrop and empower users to tailor their virtual environment according to their preferences. [Learn more](#)
9. **Hand-raise:** It is crucial for maintaining order and facilitating effective communication in virtual meetings, allowing participants to voice their thoughts without interrupting each other. Dyte offers a hand raise feature, which is part of their UI kit add-ons. Vonage does not natively support the hand-raise feature. However, it allows developers to build custom features like hand-raise. On the other hand, this feature is not available with Zoom SDK.
10. **Breakout Rooms:** It is essential for facilitating focused discussions and group activities in a larger meeting. Breakout rooms are widely used in online education, corporate meetings, webinars, and virtual events. Dyte natively supports breakout rooms and their functions like creating rooms, assigning participants, switching between rooms, recording, and interactions within breakout rooms. Both Vonage and Zoom SDK do not provide a built-in breakout room feature. Instead, developers can create a large session and control which streams each user subscribes to, effectively simulating breakout rooms. [Learn more](#)
11. **PiP:** It allows users to watch a video in a small window while simultaneously navigating other apps or browsing different parts of the same app. [Learn more](#)
12. **Multiscreen Sharing:** It allows users to share multiple screens or displays simultaneously. Dyte supports this in two ways: using a no-code method from the developer portal and building on top of Core SDK. Vonage does not support a no-code way to configure multiscreen sharing. However, a developer can build this on top of their SDK.

13. **Private Chat:** It enhances communication dynamics by allowing participants to have side conversations without interrupting the main discussion.
14. **Reactions:** They add a new layer of interactivity, making digital communication more engaging and expressive. These reactions appear over the video and fade away after a few seconds, giving a sense of live interaction.
15. **Self-Troubleshooter:** It is an in-app diagnostic tool designed to resolve common user issues on the fly. This feature adapts in real-time to solve problems that users may encounter during a video session.

Recording

Recording capabilities in a Video SDK platform are not just an add-on but a necessity. They provide immense value to users across various use cases by ensuring that important discussions, presentations, and interactions are not lost once the session ends.

	Twilio	Zoom	Vonage	Dyte
Composite Recording	In-Built	Not In-Built	In-Built	In-Built
Transcript from Recording	No	Yes	No	Yes
Customise Recording UI	No	No	No	Yes
Store Recording on Cloud	Yes	Yes	Yes	Yes
Breakout Room Recording	No	No	No	No
Timed Meta Data	No	No	No	Yes
Pause-able Recording	Yes	Yes	Yes	Yes
Track-based Recording	Yes	No	Yes	Yes

1. **Composite Recording:** With composite recording, all video streams in a session are recorded as a single, mixed video file, offering a seamless viewing experience. Both Dyte and Vonage natively support composite recording just like Twilio Video used to. However, Zoom SDK required additional configurations.

2. **Transcript from Recording:** They allow users to quickly scan through content, search for specific information, and support accessibility for those with hearing impairments.
3. **Customise Recording UI:** This allows you to get composed custom recordings directly without needing to manage individual stream recordings and perform composition later. With Dyte Recording SDK, you can create a complete custom front-end and record that creation. Leverage this to record calls in a custom UI, add watermarks to the recording, show a live timer, and many more such experiences.
4. **Store Recordings on Cloud:** Allows users to save, retrieve, and manage video content effortlessly.
5. **Breakout Room Recording:** Users can capture, store, and retrieve valuable content from their smaller group discussions.
6. **Timed Metadata:** Also known as timed text or time-based data, refers to additional information that is synchronized with a specific point or period in a video or audio file.
7. **Pause-able Recording:** It allows the meeting host or designated participants to pause the recording at any point during the meeting. When the recording is paused, the system stops capturing audio and video data. [Learn more](#)
8. **Track-based Recording:** It is the ability to record and manage individual audio, video, or data streams, known as “tracks” within a multimedia project. This allows developers to handle each track separately, providing a high level of control over different video elements.

Technical Comparison

Video Quality

Video quality is a key factor in comparing Video SDKs because it directly impacts user experience and engagement, and is especially critical in use cases like telehealth, ed-tech, HR tech, etc. High-quality video and its auxiliary features ensure smooth and effective communication.

	Twilio	Zoom	Vonage	Dyte
Resolution Supported	HD	HD	Full HD	Full HD
Auto Reconnect	No	Yes	Yes	Yes
Max. Frame Rate	30 FPS	30 FPS	30 FPS	60 FPS
Adaptive Bitrate Streaming	Yes	Yes	Yes	Yes
Low Bandwidth	~1.4MBPS	~4MBPS	~2MBPS	~1MBPS

- Resolution Supported:** HD (High Definition) has a resolution of 1280 x 720 pixels, providing decent image quality. Meanwhile, Full HD offers a higher resolution of 1920 x 1080 pixels, resulting in sharper and more detailed images due to its greater pixel density.
- Auto-Reconnect:** It enables seamless communication by automatically re-establishing a connection if it gets disrupted.
Dyte, Vonage, and Zoom SDK handle auto-reconnection differently. Dyte detects and reconnects a participant to the call if the connection is lost to both a meeting and the breakout room. This feature, along with bandwidth optimization, ensures users don't miss any part of the calls.

Vonage SDK also offers an auto-reconnect ability. Zoom SDK authorizes sessions to start and join automatically when connectivity issues arise.

3. **Max. Frame Rate Supported:** It is the number of individual images (frames) displayed per second in a video. A higher frame rate results in smoother motion in the video.
4. **Adaptive Bitrate Streaming:** It is used in video streaming to adjust the quality of a video in real-time according to various factors such as network conditions, CPU usage, and available bandwidth.
5. **Low Bandwidth:** It's the ability of the software to optimize video and audio quality under conditions of limited network connectivity. The lower the bandwidth an SDK handles, the more robust it is.

Audio Quality

Audio Quality impacts user experience, communication clarity, and content perception. It is also important for accessibility and can be enhanced with features like background noise suppression in some SDKs.

	Twilio	Zoom	Vonage	Dyte
High Fidelity Audio	No	Yes	No	No
Noise Cancellation	Yes	No	Yes	Yes
Echo Cancellation	No	Yes	Yes	Yes
Multiple Audio Input	Not In-Built	No	No	No

1. **High-Fidelity Audio:** This is the reproduction of sound that is nearly identical to the original source. It is about delivering crystal clear, rich, and well-balanced audio that enhances the overall video experience.
2. **Noise Cancellation:** It is significant as it filters out background noise, enhancing audio clarity and improving user experience. Twilio powered this via Krisp.ai. Similarly, Dyte offers this in-built functionality via Krisp.ai to enhance noise cancellation for clear and consistent audio quality. Vonage, too, offers noise suppression. However, Zoom SDK does not support noise cancellation.
3. **Echo Cancellation:** It removes the echo effect during video calls or live streams, improving audio quality and communication. It is vital in scenarios where speakers and microphones are nearby, causing the sound to be picked up and transmitted again, creating an echo. Like Twilio Video, Dyte offers an in-built noise cancellation powered by Krisp, which includes echo cancellation as part of its noise management features. Vonage and Zoom SDK also support Echo cancellation.

4. **Multiple Audio Input:** It allows users to switch between different audio sources during video calls or live streams. This was not natively available with Twilio Video. However, users had the ability to build it.

Scalability

Scalability determines an application's ability to handle increased user traffic and transactions over time. A scalable Video SDK can accommodate growing numbers of users and maintain high-quality video communication even on older devices and low network conditions. It also leads to lower maintenance costs and provides flexibility for adding new features and functionalities.

	Twilio	Zoom	Vonage	Dyte
Active Speakers/ Concurrent Streams	17	34	25	25
No. of Participants in a Real-time Video Call	15,000	300	15,000	15,000
Load Balancing Capability	Yes	Yes	Yes	Yes

1. **Active Speakers/Concurrent Streams:** As user numbers increase, the ability to handle multiple active speakers and concurrent streams becomes critical to maintaining smooth, real-time communication. It ensures that all participants can engage and contribute, regardless of the size of the conference.
2. **No. of participants in a Real-time Video Call:** This represents the maximum number of users supported in a meeting.
3. **Load Balancing Capabilities:** They help distribute the processing and communication load evenly across servers, preventing any single server from becoming overloaded. This ensures efficient use of resources, maintains high-quality video streams, minimizes latency, and provides a seamless user experience, even as the number of participants grows.

Security

Security is a key factor when comparing Video SDKs because it directly impacts user trust and compliance with data protection regulations. A secure Video SDK should provide features like end-to-end encryption to protect sensitive data and conversations from unauthorized access or interception. It should also offer measures to prevent unauthorized usage, like authentication and access controls.

	Twilio	Zoom	Vonage	Dyte
End-to-End Encryption	Yes	No	Yes	Yes
HIPAA	Yes	Yes	Yes	Yes
GDPR	Yes	Yes	Yes	Yes
SOC 2	Yes	Yes	Yes	Yes
Media Encryption (dLTS)	Yes	No	Yes	Yes

1. **End-To-End Encryption:** It ensures that all video, audio, and data communication between users is encrypted from the source and can only be decrypted by the intended recipient. This prevents potential interception or unauthorized access during transmission, even if the data traffic is routed through servers.
2. **HIPAA:** HIPAA compliance in Video SDK security is critical when handling health information. It ensures that any identifiable health-related data is protected, encrypted, and securely transmitted. A HIPAA-compliant Video SDK adheres to strict privacy and security rules, safeguarding sensitive patient data during video consultations or telehealth services.

3. **GDPR:** It mandates that all personal data, including video and audio communication, be processed transparently, securely, and for specified purposes only.
4. **SOC 2:** It underscores the commitment to managing customer data based on five trust service principles: security, availability, processing integrity, confidentiality, and privacy. This is an industry-standard auditing procedure set by AICPA that ensures service providers securely manage data to protect the interests and confidentiality of their clients.
5. **Media Encryption (dTLS):** It protects data transfers between peers, ensuring information remains confidential and secure. It uses robust encryption algorithms and industry-standard AES ciphers, offering end-to-end data encryption. In the context of WebRTC, DTLS is mandatory and works alongside SRTP for key negotiation, securely encrypting audio, video, and data communication channels.

Network Performance

Network performance is a critical factor in comparing Video SDKs as it affects the video and audio quality. Factors like latency, jitter, and packet loss can impact user experience. Low latency enables real-time interaction, while minimal jitter and packet loss ensure smooth video streaming. A Video SDK with strong network performance can adapt to different network conditions, manage bandwidth efficiently, and deliver a consistent user experience across various network environments.

	Twilio	Zoom	Vonage	Dyte
Bandwidth Required	~1.4MBPS	~4MBPS	~2MBPS	~1MBPS
Global Server Distribution	Yes	Yes	Yes	Yes
Device Compatibility	All	All	All	All
Cross-Platform Support	Yes	Yes	Yes	Yes
Browser Compatibility	Only the latest versions for Google Chrome Firefox Safari Microsoft Edge WebView (source)	Limited to the latest two versions (source)	Only latest versions for Google Chrome Firefox Opera Electron Safari Microsoft Edge (source)	Chrome (or Chromium based) 74+, Firefox 78+, Opera 64+, Safari 12+, Edge 79+, iOS 12.1+ (Safari) , iOS (Non-Safari) 15+
Error Handling	Basic	Basic	Basic	Managed by SDK

1. **Bandwidth Requirements:** Indicates the bandwidth required to enable a video session. A lower bandwidth requirement indicates that the SDK can deliver high-quality streams even in less-than-ideal network conditions, making it more versatile, reliable, and robust.
2. **Global Server Distribution:** It reduces latency and improves the reliability of video and audio streams. A globally distributed server network allows data to travel via the shortest possible route, minimizing delays. It also ensures high availability and redundancy, reducing the impact of any single server failure.
3. **Device Compatibility:** A video SDK that supports a wide range of devices and operating systems ensures more users can access and use the video or audio streams without issues. This includes compatibility with different mobile devices, desktops, and browsers. All the platforms have parity in this regard.
4. **Cross-Platform Support:** This evaluates how the Video SDK operates seamlessly on different platforms like iOS, Android, and the web and can cater to a broader audience, enabling high-quality video and audio streams across various devices and operating systems.
5. **Browser Compatibility:** This compatibility ensures that users can access video or audio streams, regardless of their browser choice, without experiencing any lag or reduced quality. The Zoom SDK supports the two latest browser versions, while Vonage restricts it further to only the latest browser versions. This may cause problems for participants who do not proactively update their browsers. However, Dyte has the most extensive backward compatibility, supporting browser versions as far back as 2018 up to the latest versions.
6. **Error handling:** It ensures smooth communication by addressing network fluctuations, bandwidth limitations, or server errors. Dyte's SDK handles errors natively, while Vonage and Zoom SDK only support basic error handling.

Enterprise-Level Considerations

When selecting a video SDK for enterprise use, consider scalability, security, customization, high-quality service, support, analytics, and cost-effectiveness. These factors ensure the SDK meets present and future requirements, supporting your organization's growth.

Compliance and Regulations

Adhering to standards such as GDPR and HIPAA protects data privacy and security, preventing legal risks. Compliance also shows a provider's commitment to ethical standards and trustworthiness. Non-compliance can result in legal penalties, damage to reputation, and loss of customer trust, affecting a business's sustainability and growth.

	Twilio	Zoom	Vonage	Dyte
GDPR, HIPAA, etc.	Yes	Yes	Yes	Yes
Data Residency Requirements	Yes	Yes	Yes	Yes
On Premise Storage	No	No	No	No

1. **GDPR, HIPAA, etc.:** This refers to whether the platform complies with key data privacy and security regulations. GDPR is a European regulation for data protection and privacy, while HIPAA is an American act that dictates data privacy and security provisions for safeguarding medical information.
2. **Data Residency Requirements:** This indicates whether the platform can meet specific data residency requirements, stipulating certain types of

data must be stored in the same country where it was collected or processed.

3. **On-Premises Storage:** This refers to whether the platform allows data to be stored on the user's servers rather than on the cloud.

Customization and Branding

The ability to tailor a video SDK to fit unique business requirements and reflect a brand identity is crucial for enterprises. Customization ensures seamless integration with existing workflows, enhancing efficiency while maintaining branding consistency across touchpoints.

A customizable and non-branded video SDK enriches the user experience and reinforces the enterprise's market presence and competitive edge.

	Twilio	Zoom	Vonage	Dyte
White-Labeling Options	Yes	Yes	Yes	Yes
Customization Capabilities	Yes	Yes	Yes	Yes
No Code UI Builder	No	No	Yes	Yes

1. **White-labeling options:** This feature allows enterprises to apply their own branding and identity to the product, enhancing brand visibility and consistency.
2. **Customization capabilities:** This refers to modifying the product to fit specific business needs or workflows. With Dyte, businesses can control the entire user journey, from joining a meeting to the layout of the video call. Its pre-built UI components and comprehensive documentation make building and customizing the video experience easier. Vonage also offers a range of customization options; however, the customization may require more technical expertise. While Zoom provides customization options, these are less extensive than Dyte or Vonage.
3. **No Code UI Builder:** This user-friendly feature allows users to build and customize their interface without needing to write code.

Customer Support

It ensures quick resolution of technical issues, minimizing downtime and maintaining productivity. Quality customer support is critical to ensure that users need to spend minimum time managing and maintaining the SDK.

	Twilio	Zoom	Vonage	Dyte
Availability	Based on Plans	Based on Plans	Based on Plans	24*7
Response Time	Based on Plans	Based on Plans	Based on Plans	Based on Plans
Dedicated Account Management	Based on Plans	Based on Plans	Based on Plans	Yes
SLA	Yes	Yes	Yes	Yes
Support Plans	Starts at \$5000/month	Starts at \$4900/month	Starts at \$3000/month	Flat \$4900/month

1. **Availability:** This refers to the hours during which customer support is available to assist users with their queries or issues. It also includes the availability of support on weekends and holidays.
2. **Response Time:** This assesses the speed and efficiency of customer support in addressing and resolving user issues with the right technical context.
3. **Dedicated Account Management:** This involves having a dedicated account manager who provides personalized assistance and guidance for your account. Dyte offers dedicated account management regardless of the plan. This service depends on the plan for Vonage and Zoom SDK.
4. **SLAs (Service Level Agreements):** SLAs are contracts that define the level of service expected from the provider, including aspects like uptime, response time, and resolution time.

5. **Support Plans:** The pricing structures for customer support are diverse and can fluctuate depending on the usage, features, geography, expected response time, etc.

User Training and Onboarding

It ensures a speedy and seamless integration. The resources and integration support provided by a Video SDK can be generic or personalized based on the use case.

	Twilio	Zoom	Vonage	Dyte
Training Resource Availability	Docs	Docs	Docs	Docs, Videos and Community
Mode of Onboarding	Based on Ticket Size	Based on Ticket Size	Based on Ticket Size	Personalized

1. **Training Resources Availability:** This refers to the types of resources the company provides to help users learn how to use the platform effectively.
2. **Mode of Onboarding:** This is crucial for introducing and training the team on the platform. It can be personalized or based on ticket size.

Collaboration

Collaborative features in an enterprise-level Video SDK are crucial for enhanced productivity and communication. They enable real-time interaction and problem-solving. Ultimately, these features drive business growth by ensuring efficient collaboration for products internally and for end-users.

	Twilio	Zoom	Vonage	Dyte
External Tool Integration	No	No	No	Yes, via Plugins

External Tools Integration allows a platform to work with other software tools, enhancing its functionality and streamlining workflows. Dyte supports this via plugins, facilitating connection with various productivity tools for a comprehensive collaboration environment. However, Vonage and Zoom do not support such integration.

Advanced Analytics and Reporting

Advanced Analytics and Reporting in a Video SDK are important for enterprise-level considerations as they provide data on user engagement, performance metrics, and usage patterns. This data-driven approach facilitates informed decision-making, helps identify improvement areas, and measures communication strategies' effectiveness. It also aids compliance with regulatory requirements by tracking and documenting interactions. Thus, it optimizes video collaboration and other live experiences.

	Twilio	Zoom	Vonage	Dyte
Analytics Dashboard Features	Yes	Yes	Yes	Yes
Reporting Capabilities	Basic	Basic	Basic	Advanced Reporting via Call Analytics

1. **Analytics Dashboard Features:** This feature refers to the ability of a platform to provide a visual representation of data and metrics. This allows for easier understanding and tracking of performance and usage.
2. **Reporting Capabilities for Usage and Performance:** This feature refers to a platform's ability to generate reports on usage and performance, supporting data-driven decision-making.
3. **Chat Export:** Get a dump of the entire meeting chat via an API. Dyte is the only platform that supports this. Neither Vonage nor Zoom SDK supports this.

Miscellaneous

Here are some features that enterprises may consider while selecting a Video SDK

	Twilio	Zoom	Vonage	Dyte
Team Management	No	No	No	No
Role Based Access	No	Yes	Yes	No
Audit Logging	Yes	Yes	No	No
Single Sign-On	Yes	No	Yes	Yes
Assortment	No	No	No	Yes
Change Management	No	No	No	No

1. **Team Management:** This feature allows the organization's administrators to manage and organize team members within the platform. None of the platforms offer this capability.
2. **Role-Based Access:** This feature ensures that certain data, functions, and areas of the platform are only accessible to users with specific roles.
3. **Audit Logging:** This feature records system activities for problem detection and security enforcement
4. **Single Sign-On:** This feature allows users to use one set of login credentials to access multiple applications. Dyte supports SSO for Google workspaces, and Vonage also supports SSO. However, Zoom SDK does not offer Single Sign-On.
5. **Product Assortment:** It refers to capabilities and tailored features specifically curated in a plan for a company. Based on specific feature requests and use cases, Dyte extends these capabilities to different

workspaces. This kind of feature request handling is unavailable with Vonage or Zoom SDK.

6. **Change Management:** It refers to the approval processes companies use to prevent potential damage from unauthorized individuals acting alone. Administrators activate approval processes for changes to application settings.

Pricing

Let's compare how the platforms charge for their features and additional features.

	Twilio	Zoom	Vonage	Dyte
Free Trial	No	No	No	Yes
Video	\$0.004/participant minute	\$0.0035/participant minute	\$0.00395/participant minute	\$0.004/participant minute
Audio	\$0.001/participant minute	\$0.0035/participant minute	\$0.00395/participant minute	\$0.001/participant minute
Recording	\$0.004/participant minute + \$0.01/minute composite charge	\$0.004/participant minute	\$0.055/participant minute	\$0.001/participant minute
Storage	10 GB free + \$0.05/GB	Flat \$500/month	No Storage	7 days free, \$0.23/GB
Plugins	Free	NA	NA	Free
Analytics	Free	Free	\$500/month	Free
RTMP out	\$0.015/minute.	Up to \$5000	\$0.00395/participant minute	\$0.015/minute
HIPAA	Additional charges for BAA	Additional and Variable Charges	Additional and Variable Charges	Free *BAA charges flat \$500/mo.
Support	Starts from \$5000/mo.	Starts from \$4900/mo.	Starts from \$3000/mo.	Flat \$4900/mo.
One Time Credit	NA	No	No	Yes, \$30,000

Why is Dyte More than just a Twilio Replacement?

With Dyte, you get more than just feature parity to Twilio Video with interactive plugins, UI Kit, advanced analytics, and much more for your use-case.

1. **Comprehensive documentation** that simplifies the understanding and use of the platform, making it easier for developers to integrate and use their Video SDK.
2. **Priority Support** for Twilio migration to ensure a smooth and hassle-free transition.
3. **Get UI components and completely pre-built experiences** with the Dyte SDK. With other SDKs, you build and maintain the entire UI - taking up a few weeks of developer cycles.
4. **Enterprise-ready with HIPAA, GDPR, and SOC 2 compliance**, we can handle all your compliance requirements.
5. **Dyte has the Lowest SDK footprint (~200 KB GZIP)** as compared to **~1MB (Twilio)** and **~75MB (Zoom)**. Yup, you read that right, Zoom is 75MBs!
6. **Create and customize roles for different permissions and user experiences** with Dyte. Unlike other SDKs, we don't limit you to a traditional host and participant role.

Additionally, Enterprise Twilio Video users are eligible to receive up to **\$30,000 in credits**.

iMocha hosts 30K+ calls monthly on Dyte after migrating from Twilio Video

iMocha is a leading online pre-employment skill assessment platform that helps companies build winning teams. From technical proficiency to soft skills evaluation, iMocha enables employers to make informed hiring decisions across industries like IT/ITeS, Financial Services, Engineering, Insurance, etc. Being in the skill assessment platform, iMocha relies heavily on video proctoring.

Here is what iMocha's success with Dyte looks like:

1. **Simplified integration:** Dyte's UI Kits and Core SDKs simplified and streamlined integrating live video, cutting development timelines and speeding up their go-to-market strategy.
2. **Enhanced customization and user experience:** With Dyte, adding interactive features like in-app recording and code editor was seamless, simplifying skills assessment and interviews.
3. **Scalable video proctoring solution:** Dyte's web-core SDK enabled iMocha to create a Smart Video Proctoring Solution for handling thousands of concurrent sessions.

iMocha <> Dyte Macros:

- iMocha migrated from Twilio video to Dyte and **went live in less than 2 weeks.**
- iMocha **reduced the overall development time** by almost **12 months.**
- iMocha now hosting **30K+ monthly calls** powered by Dyte.

[Read about iMocha's experience with Dyte](#)

How can you Migrate from Twilio Video to Dyte?

Seamlessly [Migrate from Twilio Video to Dyte](#) in under a week with [Dyte's migration guide](#).

With [Dyte's Twilio Shim](#), you can start with the same classes, methods, and other APIs that you already use with Twilio Video. The shim serves as an intermediary step to migrate your real-time voice and video applications from Twilio to Dyte infrastructure.

[Checkout the documentation](#) →

Let's connect over a Dyte meeting, and you can experience it yourself :D

Talk to the team >