Cloud Video Conferencing

A comprehensive guide

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lifesize®

Now more than ever, remote workers want (and expect) face-to-face interaction—and they want a seat at the meeting.

How we communicate in the business world is changing. Businesses increasingly have more remote workers. Whether working remote full-time, part-time or just traveling for business, these workers rely heavily on their own mobile devices to stay connected to their teams, as well as to participate in meetings. Now more than ever, remote workers want (and expect) face-to-face interaction—and they want a seat at the meeting. There's a strong demand for a video conferencing solution that can provide a simple and instant connected experience from the office to the home and on the go.

For companies that prefer not to invest in infrastructure, cloud-based video conferencing solutions make cost-effective and scalable meetings possible. There are tremendous benefits to companies (see Table 1) when deploying video conferencing in conjunction with a cloud-based service. Starting or moving your company's video conferencing solution to the cloud is quick and easy, with minimal investments in time and money.

Table 1: Cloud-based video conferencing benefits

Reduced costs	Typically, a cloud-based video conferencing implementation is more affordable as there is no expensive infrastructure to deploy.
Efficiency	Cloud-based video conferencing is faster to deploy, manage and use. It has very little impact on the IT team because anyone can set it up.
Management and usability	Never worry about keeping the video network up and running. Let the service provider manage the solution. Administrators can simplify their tasks and access critical information through an intuitive web console to control users and settings quickly and easily.
Flexible subscriptions	Pay for only what you need with the flexibility to scale up as your company grows.
Automated cloud-based software updates	Users will never have to worry about having out-of-date software. With cloud-based video conferencing, fast and frequent feature updates are automatically pushed to ensure that your team is running on the latest software version.
Quality	Bring high quality video and audio to the meeting room and mobile devices.
Security	Support for secure firewall traversal allows users to conduct their meetings with coworkers and partners, suppliers and anyone else outside their organization. Support for encryption lets users conduct their meetings with confidence. (For more information, see our Lifesize Cloud Security paper.)
Interoperability	Remove the burden of providing interoperability among multiple users irrespective of their preferred devices, including standards-based video conferencing systems, laptops, tablets and smartphones.

Many cloud-based video services are available in the market. They cover a wide range of features and meet different business requirements. There are free Internet-based solutions that started as consumer products, web-based meeting rooms originally designed for audio and presentations, and now, video infrastructure as a service (VaaS) offerings designed to relieve businesses of the need to purchase expensive infrastructure.

How do you choose the cloud-based video conferencing solution that meets your needs?

The purpose of this brief is to help decision makers understand which communication features are essential to their businesses and how to map these to the best cloud-based video conferencing solution on the market.

Let's start by breaking these features down. A great cloud-based video conferencing solution must:

1. Support all the ways your company **communicates**.
2. **Connect** all of your communication devices from the meeting room to mobile devices, including laptops, tablets and smartphones.
3. Be **affordable and easy to purchase, manage and support**.
4. Be **interoperable**, regardless of manufacturers or operating systems.
5. Provide complete **security** so users can conduct their meetings with confidence.
6. Provide the highest video, audio and presentation **quality**.

Succinctly put, the solution must connect people the way they prefer to communicate.

Communication can be between two people in a conversation via voice, instant messaging (aka chat) or e-mail, or it can be a group discussion in a more organized manner such as a scheduled meeting. Chances are that people in your organization use a few different models to communicate depending on what task they are trying to complete.

So how should a cloud-based video conferencing solution address these various needs? Let's start with simply trying to connect with someone. Does the service let users contact one another? This may seem simple, but "meet-me" and web conferencing services do not allow person-to-person communication. With them every communication must happen in a meeting.

Does the service provide a centralized directory where all contacts can be found easily?

The key benefit of a centralized directory is that it is common and up to date for all users. The use of directories lets a service personalize the experience. You dial a contact by name. This experience mirrors what users have come to expect with their mobile devices. However, with many services, directories are either nonexistent or not centralized. Cloud-based video conferencing services that offer a meet-me model do not provide a common directory. When dialing into meet-me video conferencing services, users are required to dial long numeric strings and PIN codes. And, with free services, each user is responsible for creating and maintaining his or her own directory.

Centralized Directory

The key benefit of a centralized directory is that it is common and up to date for all users.

Another feature you should look for in directories is presence. Is the person online? Is the person available or busy? Presence is standard for applications on laptops and mobile devices. There is no reason it should not be supported in a cloud-based video conferencing service in both laptop and mobile apps and in room video systems as well.
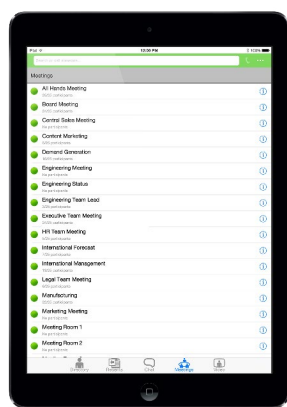
Now let's think about what happens next. Once you've determined a person's availability based on their presence, you may start an instant messaging session. A natural progression from here is to escalate into a voice or video call with that person. This step should be as simple as the click of a button.

At this point there is a big disconnect in the video conferencing industry regarding how a point-to-point call should escalate into a multiparty meeting. If you subscribe to a cloud-based meet-me model or web conferencing service, you must hang up your point-to-point call and dial into a meeting service. This is very disruptive. It requires an organizer to push a communication to all invitees with the call-in information for the group meeting. A cloud-based video conferencing service should let you add more people to the call as you need them. You should be able to invite guests and anyone in the company directory. You should also be able to immediately and seamlessly add someone calling you to your discussion with the click of a button. A cloud video service should provide a way to communicate naturally; it should work the way you work.

Scheduled meetings are also important and should be supported by your cloud video conferencing service. Some features to consider are:

- How easy is it to create or schedule a meeting?
- Does the cloud video service support virtual meeting rooms?
- Do virtual meeting rooms allow immediate access? (Or do you have to wait for the host who created the meeting to join the call before it can begin?)
- Are reservations required?
- Is placing a video call as simple as dialing a person?
- Can you search for a meeting by name and just click to join without the need to dial long strings of numbers and access codes?
- Can you simply schedule the call via email or calendar invite?

With a cloud video conferencing service, there is no need to reserve video resources. The service provider guarantees them. All you have to do is schedule the people and rooms, which is something you're probably used to doing every day.

Scheduling a meeting through your cloud video conferencing service should tightly integrate to your own calendaring system, too. Set the date and time, book the people plus any meeting rooms already identified in your calendaring system and you're done. All invitees are automatically notified.

A Connected Experience

Even if you don't bring your own device to work, most people's primary communication tools are their laptops, tablets and smartphones. It is essential that a cloud-based video conferencing service support the latest laptops—both Mac® and Windows® operating systems—and the latest mobile devices, on both iOS and Android™ platforms, in order to provide a common solution and user experience.

How do you manage users who have more than one mobile device? Here is where the benefit of the name-based directory is more apparent. In such a directory, multiple devices can be associated with a single user; therefore, when receiving an incoming call, the user can select the preferred device to answer the call. In some cases it may be the only device they have available—for example, their smartphone while they are sitting in the airport. Another benefit is that all of your devices will ring at the same time, letting you choose which one you want to use to answer the call.

Universal Meetings Directory

Now let's look at the two most traditional modes of communication. It is important that the cloud-based video conferencing service provider support the physical meeting room. Many times, these rooms are equipped with standards-based video conferencing systems. In most cases, web conferencing, free conferencing and some cloud-based video services don't support these participants. Yet these video systems are purposefully designed to deliver the highest quality solution in the meeting room space. The alternative of placing a laptop in the room fails to deliver on this same experience.

Finally, a cloud-based video conferencing service cannot ignore voice calls. There are many users without temporary or permanent access to a connected device who will require access using this traditional method.

Affordable and easy to deploy, manage and support

The primary reasons companies adopt cloud applications are to reduce cost and complexity. Cloud-based video conferencing services remove the expense of purchasing or upgrading video conferencing infrastructure, maintaining expensive support contracts, plus increasing and training IT staff.

The video conferencing service must support flexible subscriptions. This lets a company grow video conferencing at a predictable pace by adding users as needed. There are two features you should look for that help nurture and grow video conferencing in your organization. First, does the cloud video conferencing service offer a free trial? This is important to help your organization test features and gain acceptance before purchasing. Second, does the provider permit temporary overusage without penalty? Again, this is helpful in growing new users within your organization without having to invest up front. This gives you the flexibility to bring new users into your account to meet your needs without having to project your growth and prebuy licenses.

For the user, managing the cloud video conferencing service should not require administrative-level knowledge of video conferencing. Inviting new users to the service must be so easy that anyone can do it. It's as easy as an email invitation with a link to download the app, register and sign in. A simple web-based console should be available to provide real-time analytics to the account manager on users and usage of the service. This is where the account manager can manage users and virtual meeting rooms as well.

In order to make the meeting room seamless as well, you may want to consider whether the cloud video conferencing service provides pairing of the video system with the service. Look for video systems that support the video service and automatically prompt users to pair themselves with the service. These video systems can be deployed as an independent meeting room, or in some instances, they can be added to the list of supported devices of an individual user. Therefore, when called, the video system would behave just like their mobile devices and ring.

The primary reasons companies adopt cloud applications are to reduce cost and complexity.

Last, a very important feature of any cloud video conferencing service provider is automatic software updates. This is expected with any mobile device, from laptops to smartphones, but it must also apply to room-based video systems. A provider who integrates video systems and provides automatic software updates can have a huge impact on the efficiency of your team by eliminating the maintenance burden of these devices. This will lead to greater service reliability as video systems, like software clients on Macs/PCs and mobile devices, will always have the latest software version needed for optimal performance.

Lifesize Cloud is affordable and easy to deploy, manage and support

Interoperability

The cloud-based video conferencing service must connect multiple types of devices into a cohesive solution. This removes a tremendous burden from customers that are trying to standardize devices across their organizations. Furthermore, it allows greater flexibility for users choosing their preferred devices. Therefore, it is critical that the service provider support the latest laptop and mobile devices—Mac- and Windows-based laptops as well as tablets and smartphones, including Android-based, such as Samsung™, HTC®, Google®, Dell™, Motorola™, Acer® and Amazon®; and iOS-based, such as iPad® and iPhone®.

For traditional video conferencing systems, interoperability with other manufacturers' products is critical as well. Can existing room systems be integrated into the solution? What features are supported? Will they be able to use a common directory? Can they be escalated into a multiparty meeting? These are important questions to consider when evaluating a cloud-based video conferencing service.

Finally, do you need connection to a public switched telephone network (PSTN)? The answer is yes if your users work from home or are constantly on the go using their mobile phones. Make sure the service provides easy dial-in access so these users can quickly connect to others or dial into meetings.

Security

Many companies have questions about using cloud-based services for their business applications. The cloud-based video conferencing service provider must provide a secure, encrypted cloud experience for customers, even those using other vendors' devices, letting customers conduct their meetings with confidence.

When investigating a service, make certain it supports devices deployed behind firewalls. Traversal through firewalls must lead to an authenticated server managed in a cloud-based solution only. Another helpful security feature is the ability to have an optional passcode, or security PIN, on each meeting. This provides an added level of security for gaining entrance to a meeting. Last, the service provider must support state-of-the-art encryption using a 128-bit AES algorithm, enabling peace of mind for secure communications.

Quality

The measure of quality is different depending on which device is connected to the cloud-based video conferencing service. Most important is that the service provider should provide the highest quality to any device. This should be maintained in point-to-point calls as well as multiparty calls.

Meeting room video systems should support 720p60. Ideally, your video conferencing solution should support up to 60 frames per second (fps) for the best possible motion handling. If users are sharing data, which includes presentations, spreadsheets, videos or web pages, these should be transmitted with the highest possible quality. The frame rates can range from 5 to 30, depending on whether full motion is detected in the stream (e.g., YouTube video). For mobile clients the resolutions may range from 360p (640x360) to 720p (1280x720).

Equally as important to providing the best video quality is managing the many different networks involved with a service. These vary by region as well as type. Some devices will be connected directly to the Internet, a service provider's corporate LAN or a wireless high speed network. Make sure the cloud-based video conferencing service provider supports network resiliency and packet error correction solutions (i.e., forward error correction). These tools will help maintain a high level of quality.

Cloud Video Conferencing

Lifesize Cloud

Lifesize Cloud is a cloud video service that lets everyone simply and instantly have real-life meetings.

Only Lifesize provides an award-winning room video system with best-in-class mobile apps combined with a cloud video service so that everyone gets a connected experience from the meeting room to the office and on the go.

Lifesize Cloud is designed to work the way you work; from group video calls to document sharing and even audio calls, we've got you covered. Call anyone instantly for an impromptu call, or jump into a scheduled meeting by selecting a virtual meeting room. Simply scroll through the shared company directory and with one quick click, you're in a video call! Keep adding people (up to 25) to have a group video call. Pick up the call on any device. Lifesize Cloud helps you work smart by working the way you work.

The best way to understand Lifesize Cloud is to experience it, so please take our 14-day free trial:
www.lifesize.com/en/solutions/cloud/trial

To learn more about Lifesize Cloud, visit
www.lifesize.com/en/solutions/cloud

WHY LIFESIZE CLOUD?

1. Connecting a Lifesize Icon and Lifesize Cloud provides an unparalleled meeting room experience:

   • Lifesize Icon comes with the Lifesize Cloud software preloaded so it works right out of the box—plug it into any IP outlet and go.

   • Your directory is auto-populated; now every user in your network has instant access to every user and custom-named meeting room.

   • We push software updates automatically to you so you never have to update your device.

   • Group calling—up to 25 participants can collaborate at a time. Simply click to add or accept more participants!

   • We traverse firewalls so you don't have to! Rest assured that we provide business-class security and encryption.

2. We offer the highest quality video, audio and presentation in a room video system and mobile apps designed for the most robust business applications.

3. Lifesize Cloud works the way you work; from group video calls to document sharing and even audio calls, we've got you covered.

USER BENEFITS—WORK SMART

Simply have real-life meetings, no matter where people happen to be. Connect over the highest quality video on any chosen device and meet with teams and outside guests. Lifesize Cloud links Lifesize Icon room video systems to laptops, tablets and smartphones so you can enjoy a connected experience no matter where you are.

1. Instant + Scheduled Calls—Call anyone instantly or have everyone dial into a virtual meeting room.

2. Shared Directory—When it's time to call someone, simply scroll through the directory to see if they're available, and call them with one quick click.

3. Rings All Devices—Rings your video system, laptop, tablet and smartphone for a video call.

4. Single + Group Calls—To add another person to the conversation, simply click on their name. Keep adding people as you go (up to 25).

CONNECTED EXPERIENCE

All of this culminates in the best user experience. Only Lifesize delivers the connected experience to your meeting room, your office and on the road by working on virtually every device you use.

lifesize®