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The Aragon Research Globe™ for Web and Video Conferencing, 2017: Visual Collaboration is Here

Summary: *The 2017 Aragon Research Globe™ for Web and Video Conferencing examines 22 major providers in the market. Visual Collaboration, with increased quality and more connectivity, has emerged to become a key way to move faster as an enterprise. New use cases make Visual Collaboration a strategic imperative that can provide an enterprise with a competitive advantage.*

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Introduction

Consumer demand for video has led to a natural progression for enterprise demand, with a focus on real-time video that allows for better collaboration among associates and customers. Video is a compelling communication channel in the enterprise due to the accelerated rate at which it allows information to be exchanged, and in the way it offers this exchange: in a highly interactive, highly personable format.

To stay competitive and innovate quickly, people are expected to work quickly, which means the way your people communicate with associates, partners, and customers to exchange information—whether they are local, regional, national, or international—needs to match pace. Today's Web and Video Conferencing providers are evolving to meet the demands of modern work. In this fourth edition of the Aragon Research Globe for Web and Video Conferencing, we overview 22 major providers in the market and the major use cases they support.

Video Mobility: Mobile, Desktop, and Rooms

With mobile devices offering the capability for an HDR Immersive Video meeting, the new competitive frontier will be about Video Mobility: enabling video meetings from anywhere and on any device. The caveat is that video experiences on mobile devices can vary, as does the ease of accessing meetings. This has led lower-cost solutions to acquire substantial capabilities. Basic web conferencing features are now essentially table stakes.

Today, it has become the new normal to support mobile, desktop and room devices for meetings and to allow seamless switching between devices. Some providers are offering their own Room Systems (Avaya, Cisco, Google, Highfive, and Microsoft) and making them intelligent. Others are accomplishing this by partnering with providers such as Logitech and Huawei.

In the near future, Aragon expects new use cases to arise in 2018 as video endpoints become fully mobile, with cars and drones playing a larger role.

Figure 1: Today, Web and Video Conferencing providers need to support all workplace modalities.

The Platform Play: Messaging, Voice, and Devices

There are two types of Web and Video Conferencing Providers: those that are best of breed and those that offer a more integrated experience with Voice and Messaging. The ability to integrate into other applications is now a must-have capability, as the need to collaborate in real-time is becoming part of the new Digital Work Hub experience (the Digital Work Hub is an emerging category of enterprise-grade software that facilitates and manages the creation, curation, and communication of business content from the individual to ecosystem level).

One of the current challenges that enterprises face is reconciling their different Collaboration and Communications options. Aragon views Web and Video Conferencing and their associated use cases as part of the larger Unified Communications and Collaboration landscape (see Figure 2).

Figure 2: Web and Video Conferencing is part of an overall approach to Unified Communications and Collaboration.

From a platform perspective, more providers are allowing their Web and Video Conferencing capabilities to be integrated with third party applications. They might integrate with Skype for Business; or Salesforce Sales and Service Cloud, like Cisco and Microsoft do; or they might even license their technology to be included in a platform, the way Polycom licenses its Voice technology as an IaaS offering.

Today, most providers do not integrate with non-office access points, but we expect that to change, as buildings become fully digital and drones that have 4K video capabilities become integrated into office real estate and security applications.

How to Evaluate Providers for Ease of Use in Mobile Use Cases

Ease of use is not optional, no matter the device or the environment—albeit there are still providers today who are not optimized for mobile.

Buyers should not only look at their platform options, but should also carefully evaluate the provider for ease of connectivity:

- The mobile application should automatically connect to the meeting via VOIP or dial-in

- The mobile application should not require a passcode

- One-click connectivity

HD Video: 1080P and the Race to 4K Ultra HD

Business users are demanding rich, immersive video. More providers can now deliver both 760P and 1080P video reliably, with some requirement for MPLS connectivity between campuses. Aragon recommends that enterprises push for 1080P usage given the increase in overall fidelity of the image quality.

Apple doubled down with even more support for 4K this year with the launch of the iPhone X and we are seeing providers offering the ability to support 4k content sharing. To date, Avaya, Cisco, Google, and Vidyo offer true 4K support. We expect to see more support for 4K video in 2018 and beyond, as many mobile devices can already capture 4K video and many video portals can playback 4K video.

The Demand for Real-time Cloud vs. On-Premise

The demand for leveraging SaaS and Cloud overall has also been one of the key drivers of the Web and Video Conferencing market. Cloud is one of the reasons that there are more vendor choices today than ever before. Real-time Cloud also means that the expense of enabling on-premise systems can often be mitigated. Leading providers often have Wide-Area networking built into their Cloud—which means that the enterprise can often look to lower some of the costs directly attributed to MPLS.

Today, buyers are demanding National and Global meeting capabilities. Larger enterprises will want to look at connectivity that goes to all locations and this means that they need to look closely at the needs and where the locations of the meetings will be. The better providers do this with global voice and video delivery.

Making a Choice between Webcasting and Live Broadcasts

Webcasting is offered by a number of providers in this report and it is an important capability for internal and external-facing use cases. Video broadcasting to large numbers of people is a growing use case popularized by applications such as Facebook Live, Periscope, Vimeo, and Google YouTube. The ability to do this in a consumer setting has become a target use case for events—marketers are drawn to live broadcast because it can increase demand and brand awareness.

In some cases, Webcasting can be a more proven delivery environment, but providers like YouTube blur the lines between the two modalities.

Automating the Enterprise: Intelligent Video Rooms

Going fully digital requires intelligence, and that means meetings need to be automated. Intelligent Video Rooms leverage Artificial Intelligence to understand what is going on with the active meeting, and the devices and the users who are involved. Many leading providers have taken significant steps to make their Video Room offerings intelligent and to make the meeting experience more personal though the use of HD Video with auto-zoom and HD Audio with auto muting of background noise.

Enterprises need to realize that there is a difference when it comes to these Room offerings. Classic offerings are unintelligent and provide basic video meeting capabilities, requiring people to ensure that the meeting starts and ends.

Visual Collaboration and Workspaces

The increasing trend is to digitize not only conference rooms, but open workspaces and smaller huddle areas. Because of Cloud and lower hardware prices, Aragon is seeing a fivefold growth in video-enabled conference rooms from 2017 to 2022. Increasingly, Digital Work Hubs will include Video Meetings as a key requirement that offers seamless integration with day to day work applications (e.g. chat, mail, calendar, CRM).

> *Prediction*: By YE 2022, 65% of conference rooms will be video-enabled.

This digitization is giving rise to more integrated workplace platforms and it demands more video collaboration. Real-time collaboration tools like video bring geographically dispersed teams together visually, which improves the collaboration experience and impacts work for the better.

Even more noticeably, the people within these global enterprises find their teams expanding to include co-workers in many other organizations and in different geographies and time zones. The new worker has to be much more collaborative across groups, distances, and affiliations—and this is made possible through Visual Collaboration.

Visual Collaboration: Vying for Faster Outcomes

Enterprises are increasingly looking to focus collaboration investments on specific business outcomes. As a result of this focus, we expect to see more proliferation of Web and Video Conferencing Solutions. Use cases, along with quality and reliability, are the key criteria.

In many cases, we are leaving the one-size fits all approach that IT recommended a few years ago. Today it is about the outcome the solution is delivering. Whether the buyers are in sales, marketing, or HR, they are looking for support of real business use cases from sales communications, to marketing webinars/webcasts, to virtual training. Sometimes buyers are also seeking out support for industry-specific use cases, such as telemedicine (e.g. an area of focus for Vidyo), for example, or video collaboration in industries such as manufacturing.

When it comes to investing in collaboration, the growing requirement is for video-enabled business applications. In addition, real-time collaboration is being integrated into existing business applications, and is also merging with social into the contextual fabric of business processes. Collaboration providers that fail to support business process and application integration will miss this wave and be left behind.

The Market Is Consolidating

Since collaboration providers have to support a wider range of use cases, we are seeing tremendous market consolidation occurring. Traditional providers are acquiring adjacent technologies and vendors to round out their portfolios and offerings. In 2016-17, we saw Siris Capital acquire Polycom, LogMeIn acquire GoToMeeting, and most recently, Cisco acquire Broadsoft.

The race to cloud means that we also expect providers to continue to enhance both use case focus and overall video capabilities. Many of the Webcasting providers evaluated in this report are major Enterprise Video providers that allow an enterprise to manage their full portfolio of Video content. Given the need to manage both meeting recordings and Video Content Management Capabilities, analytics should be expected to be more closely integrated with Web and Video Conferencing. We expect to see more movement here as a natural way that markets converge.

> **Prediction**: *By YE 2022, Web and Video Conferencing providers will expand their portfolio to include Video Content Management.*

How to Use this Globe

From a buyer's perspective, this Globe represents a wide assortment of vendors that have expertise in different parts of the Web and Video Conferencing spectrum. Within this converged market, there are different levels of convergence. At one level, web and video converge on desktops and mobile devices, as evidenced by many traditional web conferencing offerings, such as Adobe Connect and LogMeIn.

At another level, convergence has happened where traditional room-based video conferencing providers include the necessary content, application, and screen sharing capabilities in conjunction with HD quality video room systems and multiple different endpoints, including desktop and mobile. Still others are focusing on large scale Webcasting or the smaller and more engaging Webinars.

Our advice to enterprise buyers is to first consider what your core requirements are with regards to Web and Video Conferencing. We encourage buyers to go beyond just the positions on the Globe graph: consider which capabilities and products best fit the required use cases that pertain to your enterprise or buying center. For example, if the requirements are for external audience sharing, then a provider that offers Webcasting or Webinars may be the best fit.

The table below segments the providers in this report by the key use cases they support:

Vendor	Video Meetings	Room-based Video Conferencing	Webcasting	Webinars	Virtual Classroom
Adobe	✔			✔	✔
Avaya	✔	✔	✔		
BlueJeans	✔	✔	✔	✔	
Cisco	✔	✔	✔	✔	✔
Fuze	✔	✔	✔	✔	
Google	✔	✔	✔		
Huawei	✔	✔			
Highfive	✔	✔			
Lifesize	✔	✔			
LogMeIn	✔	✔	✔	✔	✔
MediaPlatform	✔		✔	✔	
Microsoft	✔	✔	✔	✔	✔
Pexip	✔	✔			
PGi	✔	✔	✔	✔	
Polycom	✔	✔	✔		
ReadyTalk	✔	✔	✔	✔	
Saba	✔			✔	✔
uStudio	✔		✔		
Vbrick	✔		✔	✔	
Videxio	✔	✔	✔	✔	
Vidyo	✔	✔			
Zoom	✔	✔	✔	✔	✔

As market convergence continues with Web and Video Conferencing, we are seeing buyers increasingly look for solutions that encompass high quality video with content sharing capabilities. This will bode well for those providers who can offer a converged experience. While use cases such as webinars are still in the expertise and domain of specialist web conferencing and online meetings providers, we will see those capabilities increasingly become part of converged Web and Video Conferencing offerings.

Aragon Research Globe Overview

The Aragon Research Globe graphically represents our analysis of a specific market and its component vendors. We use a rigorous analysis of each vendor using three dimensions that enable comparative evaluation of the participants in a given market.

The Aragon Research Globe looks beyond size and market share, which often dominate this type of analysis, and instead uses those as comparative factors in evaluating providers' product-oriented capabilities. Positioning in the Aragon Research Globe will reflect how complete a provider's future strategy is, relative to their performance in fulfilling that strategy in the market.

A further differentiating factor is the global market reach of each vendor. This allows all vendors with similar strategy and performance to be compared regardless of their size and market share. It will improve recognition of providers with a comprehensive strategy and strong performance but limited or targeted global penetration, which will be compared more directly to others with similar perspectives.

Dimensions of Analysis

The following parameters are tracked in this analysis:

Strategy reflects the degree to which a vendor has the market understanding and strategic intent that are at the forefront of market direction. That includes providing the capabilities that customers want in the current offering and recognizing where the market is headed. The strategy evaluation includes:

- Product

- Product strategy

- Market understanding and how well product roadmaps reflect that understanding

- Marketing

- Management team, including time in the job and understanding of the market

Performance represents a vendor's effectiveness in executing its defined strategy. This includes selling and supporting the defined product offering or service. The performance evaluation includes:

- **Awareness**: Market awareness of the firm and its product.

- **Customer experience**: Feedback on the product, installs, upgrades and overall satisfaction.

- **Viability**: Financial viability of the provider as measured by financial statements.

- **Pricing and Packaging**: Is the offering priced and packaged competitively?

- **Product**: The mix of features tied to the frequency and quality of releases and updates.

- **R&D**: Investment in research and development as evidenced by overall architecture.

Reach is a measure of the global capability that a vendor can deliver. Reach can have one of three values: *national*, *international* or *global*. Being able to offer products and services in one of the following three regions is the third dimension of the Globe analysis:

- **Americas** (North America and Latin America)

- **EMEA** (Europe, Middle East and Africa)

- **APAC** (Asia Pacific: including but not limited to Australia, China, India, Japan, Korea, Russia, Singapore, etc.)

The market reach evaluation includes:

- Sales and support offices worldwide

- Time zone and location of support centers

- Support for languages

- References in respective hemispheres

- Data center locations

The Four Corners of the Globe

The Aragon Research Globe is segmented into four sectors, representing high and low on both the strategy and performance dimensions. When the analysis is complete, each vendor will be in one of four groups: *leaders*, *contenders*, *innovators* or *specialists*. We define these as follows:

- **Leaders** have comprehensive strategies that align with industry direction and market demand, and perform effectively against those strategies.

- **Contenders** have strong performance, but with more limited or less complete strategies. Their performance positions them well to challenge for leadership by expanding their strategic focus.

- **Innovators** have strong strategic understanding and objectives, but have yet to perform effectively across all elements of their strategy.

- **Specialists** fulfill their strategy well, but have a narrower or more targeted emphasis with regard to overall industry and user expectations. Specialists may excel in a certain market or vertical application.

Inclusion Criteria

This Globe looks at the overlapping categories of web and video conferencing, and unified communications and collaboration. It will help clients navigate the intersection of web, video meetings and UCC to look at the overall set of capabilities that support critical business use cases.

The inclusion criteria for this Aragon Research Globe are:

- *Revenue:* A minimum of $7 million in primary revenue for web and videoconferencing, or $15 million in revenue in a related market, such as collaboration or UCC.

- *Shipping product:* Product must be announced and available.

- *Customer references:* Vendors must provide customer references in each region where they do business.

- Support for web conferencing or video conferencing.

- Support for mobile devices.

Inclusions and Exclusions for 2017

Inclusion:

Videxio

Exclusions:

- ***Logitech:*** Logitech is a leading supplier of Cameras and Room Hardware. However, it does not offer a Meeting Service, a requirement to be included in this Globe.

- ***Kollective:*** Kollective was not included in this Globe, as it is focusing on more eCDN and software distribution.

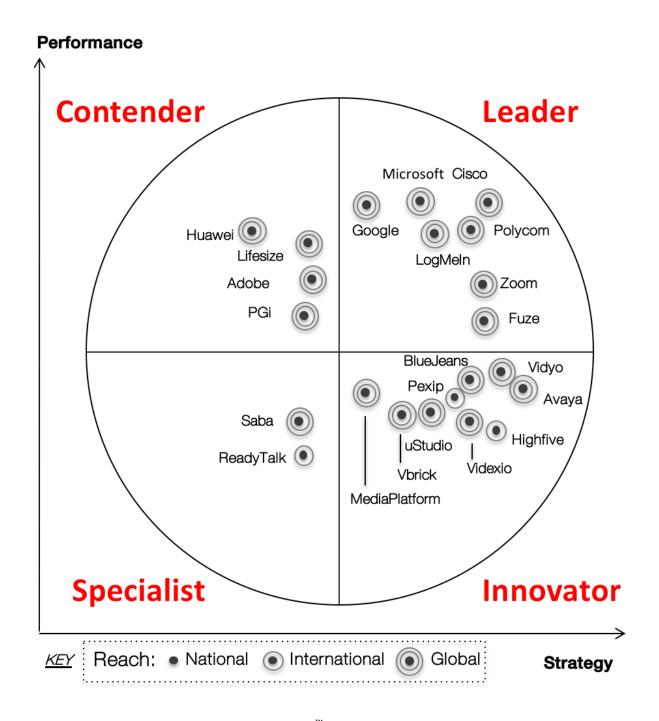## The Aragon Research Globe™ for Web and Video Conferencing, 2017
(As of 12/6/2017)

Figure 3: The Aragon Research Globe™ for Web and Video Conferencing, 2017.

<u>Leaders</u>

Cisco

Cisco has a robust set of Web and Video Conferencing products that differentiate themselves by focusing on video quality and mobility. Cisco Spark has become the defacto platform that serves as the hub of the Cisco Communications and Collaboration offerings for teams. Cisco Spark, which has meetings, messaging, calling, and content sharing, is now available as a native integration with salesforce.com. In 2017, it introduced the Cisco Spark Board, allowing users to wirelessly present, white board, and have video or audio conferences from the device. Cisco WebEx, also a cloud service, is ideal for organizations that just need meetings. Cisco Meeting Server provides highly scalable and interoperable video conferencing for organizations that need an on-premises solution. Cisco has been adding intelligence into its room systems and these added capabilities mean that users will spend less time starting and managing meetings.

WebEx works very well in a mobile setting and it is also now more integrated into Cisco Spark, as the launch point for all team collaboration interactions. Cisco is also one of the few vendors that supports H.265 on some of its offerings. The new intelligent rooms that are tied to the Cisco Spark brand augment its robust set of offerings. Its endpoint portfolio includes desktop (DX series), room (Cisco Spark Rooms, Cisco MX and SX Series, Cisco Spark Board), and immersive video systems (IX systems for on-premise deployments only). Cisco endpoint options also include phones (Cisco 7800 and 8800 Series) and even web access using webRTC. Cisco continues adding intelligence into its video offerings, a move others will need to emulate.

Strengths	Challenges
• Cisco and WebEx brands	• Overlapping Product Branding
• High quality Video across devices, including mobile	
• Intelligent Video Rooms and Endpoints	
• Support for multiple use cases	
• Cisco Spark Mobile Platform	
• FedRAMP certification for WebEx	
• Interoperability	

Aragon Research

LogMeIn

LogMeIn, with the Citrix GoTo Division fully completed, is now one of the largest Web and Video Conferencing Providers on the Market. The family of GoTo offerings—GoToMeeting, GoToWebinar, and GoToTraining—have continued to have strong demand. In 2017, LogMeIn added an initial Video Room offering that we expect it to expand on as the integration continues. GoToMeeting and GoToWebinar each continue to lead in ease of use and functionality, particularly in the SMB space.

LogMeIn still offers the join.me offering, which had been one of the fastest growing offerings on the market. With the two offerings and its Grasshopper and OpenVoice UCaaS offerings, LogMeIn has a formidable set of offerings for enterprises to consider. In Webinars, LogMeIn continues to lead with an offering that is easy to configure and easy to operate, which is something others should look to emulate.

Strengths	Challenges
• Freemium to premium model	• Overlapping Product Branding
• Install base	
• Ease of use	
• Mobility Support	
• Phone bridge integration	
• Webinar Use Case	

Fuze

Fuze added a new CEO Colin Doherty in 2017 to continue its growth trajectory. Fuze continues to win new deals in the mid-to-large enterprise space by leveraging its ThinkingPhones UCaaS heritage—with HD Video capabilities that are a core part of its platform. The strength of Fuze's all-in-one platform is one of the reasons Fuze is winning large deals. With a seamless mobile experience, Fuze has continued to push the envelope on ease of use and has also expanded its Meeting portfolio, with tightly integrated persistent chat optimized for cross functional project collaboration. It offers a full Room experience in addition to optional Webcasting, supporting up to 25,000 participants. As Web and Video Conferencing converge, other collaboration capabilities will also join to add persistence, content, and context for distributed teams.

Fuze has received additional investment of U.S. $134M in 2017 and this will help it continue with its global expansion. The ability to launch a video meeting from any device and share high quality content are capabilities that make Fuze standout. Given its overall capabilities in Unified Communications and Collaboration, Fuze is well positioned to continue to deliver voice, video, and collaboration capabilities for the enterprise.

<table>
<tr><td align="center">Strengths</td><td align="center">Challenges</td></tr>
<tr><td>

• UCC Platform
• Video Rooms offering
• Webcast Support
• Video conferencing integration options

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• Awareness outside of U.S.

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Google

Google Hangouts Meet is the current flagship video conferencing application offered by Google as a core part of the G Suite bundle for Enterprises. Google Hangouts Meet now supports up to 50 video participants and has easy-to-use screen sharing. It scales well and runs on almost any device. Additionally, it offers seamless integration with other Google apps such as Gmail, Calendar, and its newest offering, Google Hangouts Chat, which allows users to launch straight into a full video Hangout from a Chat session. Google also offers software-based room video conferencing with Chromebox.

Google offers two Room-based approaches. Its ChromeBox video system has sold well and it recently launched the Hangouts Meet hardware kit. Jamboard, a collaborative digital whiteboard, caps off the meeting room solution. It syncs with Chromebox for Meetings and allows remote participants to whiteboard and brainstorm together from multiple locations. Google is a full-fledged provider of Software and Room-based systems. Google Hangouts Meet supports both voice and video calls and it is enhancing its interoperability with other room systems via a Gateway. Mobility is one of the strong suits of Hangouts Meet, and has one of the easiest joining methods we have seen. With G Suite, the ease and speed of shifting from messaging to a full meeting is one of the advantages of Hangouts and fosters enhanced and seamless collaboration between users.

Strengths	Challenges
• Enterprise penetration with G Suite	• Minor Overlap with Google Duo
• Real-time collaboration in meetings	
• Video Room offerings	
• Video quality	
• Ease of use	

Microsoft

Microsoft continues to win in enterprises of all sizes due to the strength of its flagship Office 365 suite. In 2017, it announced that it is integrating its Skype for Business offering with Microsoft Teams, which is the new brand for its UCC Platform. Microsoft plans to leverage Teams as a platform delivering collaboration and communication together into a Digital Work Hub. Microsoft Teams leverages the full SfB Cloud Service and can deliver a seamless experience across all platforms (iOS, Android, Windows, Mac, and Skype Room Systems).

Skype Room Systems were enhanced in 2016 and partners such as Crestron, Lenovo, Logitech, and Polycom are fully certified for SRS. The Skype for Business ecosystem continues to grow, with Microsoft enabling group video from nearly any device. Additionally, Microsoft announced at Ignite 2017 that it was fully committed to On-Premise customers and that 2019 Skype for Business Server Edition will be available in the second half of 2018. The pull that Microsoft created by bundling Skype for Business with Office 365 in both E3 and E5 configurations means that many enterprises now have the rights to use it. With E5, Microsoft can offer small meetings or full Skype Broadcast for webcasting and webinar use cases.

Strengths	**Challenges**
• Microsoft brand	• Minor Brand overlap between SfB and Teams
• Video Meetings	
• Webcasts	
• HD video quality on point-to-point calls	
• Global PSTN Conferencing Coverage	

Polycom

Polycom, which is now private, continues to expand its product portfolio with a focus on Intelligent Video Rooms, Content Sharing, and Visual Collaboration. Polycom looks to leverage its strong position as a premiere provider of video solutions with more partnerships, such as its new relationship with Zoom. With its flagship endpoints, such as the Trio 8500 and 8800, Centro, Debut, Pano, and RealPresence Group Series, Polycom solidifies its new strategic focus on Visual Collaboration. One of its offerings that stands out is Centro, which is unique in the market with its ability to offer video conferencing from the center of a room rather than from the walls in a conference room.

Polycom continues to power the Microsoft Video Interoperability service and has become one of Microsoft's preferred partners. Polycom also continues to offer some of the most focused Video Enabled Business Applications in markets such as manufacturing, healthcare, and criminal justice. Polycom's focus on user experience and new, innovative Visual Collaboration offerings are welcome changes and signal a redirection in strategy. With these new solutions, Polycom now has a more compelling story for enterprise collaboration.

Strengths	Challenges
• High-quality video and audio	• Migrating its large install endpoint base to new Polycom solutions
• Video Innovation	
• Video Interoperability	
• Microsoft Interoperability	

Zoom

Zoom, which continues to be led by Founder and CEO Eric S. Yuan, partnered with Sequoia in a $100M Funding Round in January 2017. Zoom continues to grab market share by focusing on innovative product releases, increasing brand awareness, and expanding its sales team both in the US and internationally. Zoom's go-to-market strategy includes a feature-rich freemium offering, and as it has moved up market, it has signed new distribution partners including Ingram Micro. Zoom's software-based video conference room system, Zoom Rooms, works with off-the-shelf hardware, including touchscreens, and has a unique feature that allows users to see if a conference room is busy. It also allows booking, with a scheduling display that is mounted outside of the room. 2017 also saw Zoom enhance its Webinar offering, including streaming to YouTube and Facebook, and it is starting to see it gain traction with buyers.

Zoom has continued to innovate with a focus on ease-of-use and introducing features such as recording transcripts and workplace digital signage. Zoom also expanded its partnerships – including native integrations with Epic, Workplace by Facebook, Slack, Polycom, and Cisco Room Systems. Zoom's unique architecture means that it can display over 500 video participants, and support Webinars with 10,000 attendees. Zoom offers a full mobile first video conferencing capability, which means that users can join from anywhere.

Strengths	**Challenges**
• Scalable HD Video Conferencing and Webinars	• Market awareness outside of U.S.
• Software-based Video Room Systems	
• Mobile apps	
• Webinars	
• Partner network	

Contenders

Adobe

Adobe Connect continues to be one of the lead choices for Webinars and offers continued support for Virtual Classrooms. In 2017, Adobe announced new desktop applications for Windows and MacOS that do not require Flash— in preparation for the end of life of Flash in 2020. These new applications also have a fresh, modern look and feel, which will appeal to buyers.

Adobe leverages strong integrations between Adobe Connect and the Adobe Experience Manager platform, and this makes Adobe a go-to choice for marketers. Adobe Connect also has a solid install base for Virtual Classroom due to its Class Breakout feature.

Strengths

- Webinars
- Virtual Classroom
- Hosting meetings with video from mobile devices
- Support for multiple online meetings use cases
- Security

Challenges

- Support for broader UCC and Video Conferencing Rooms

Huawei

Huawei continues to focus on the entire Unified Communications and Collaboration landscape with a particular emphasis on Web and Video Conferencing as well as Video-Enabled Business Applications (VEBAs). In 2016, Huawei saw success in growing its base of Cameras (TE10, TE20, and the TE30) and Group Video offerings that are making an impact in the market. The offerings include the SMC2.0 Video Conferencing System and the MCU VP 9660 Video Conferencing Solution. Huawei's enterprise collaboration solutions encompass video conferencing, telepresence, and its eSpace UC platform.

Huawei is known for its cross-vertical industry expertise and solutions. One of the new offerings that is related to Web and Video Conferencing is its new Video Cloud Solution that features Advanced Video analytics to understand what is happening in a live video. This VEBA is one that should prove to be popular in certain use cases, such as Security. Given this base, we expect Huawei to offer more VEBAs like this to leverage its growing Video portfolio. Its launch of its CloudMCU, which supports virtualization, cloud-based deployment, AVC, and SVC, is helping it win business in its launch of Telecom in countries such as China and Germany, and in the Middle East.

Strengths	Challenges
• Video Conferencing End Points	• Market awareness in North America
• Full UCC platform	
• Ecosystem	
• Video Enabled Business Applications	
• Video Analytics	

Lifesize

Lifesize has continued to grow and as a result has revamped its executive team with a new CRO, CTO, and CFO over the last year. Lifesize is now a fully Cloud based offering and its growth is partially attributed to this pivot. It can support up to 13 simultaneous video feeds live at one time. Lifesize continues to market its own Lifesize-branded HD cameras and a smartphone that is ideal for conference rooms. Given the popularity of the Integrated Room platforms, this is an opportunity for Lifesize to expand its hardware portfolio.

Lifesize also offers some solid configuration options for Board Rooms that should make it a popular choice in the SMB segment. Lifesize is also focusing efforts on video-enabling business applications in key verticals, such as healthcare and manufacturing. The pivot towards cloud will enable Lifesize to reach new audiences within the business.

Strengths	Challenges
• Ability to integrate disparate systems	• Balancing hardware and software solutions
• Hybrid capabilities that pair a cloud-based service with conference room hardware	
• Video quality	

PGi

PGi expanded its management in 2017 to strengthen its go-to-market alignment by elevating John Stone as CRO and June McCarthy as EVP of Global Marketing. PGi offers GlobalMeet and iMeet as its primary conferencing services. In 2017, PGi took steps to combine the best attributes of each web conferencing product and will deliver a combined solution in 2018. To achieve this, GlobalMeet was updated this year to add support for more Webcams and more intelligence into guiding users to adjust their sound (mute or alternative dial-in). This builds on previous enhancements, which included the addition of Dolby Voice—bundled in for a high quality audio experience—as well as the ability to escalate from chat, voice, or video calling into a meeting.

PGi also offers iMeetLive for webinars and webcasts for 10,000+ people. In 2017, PGi enhanced its compatibility with Microsoft Skype for Business Online and now seamlessly integrates PGi's world-class global audio conferencing into Skype Server. PGi now also offers iMeet VRC, which connects different third-party video conferencing systems together.

Strengths	Challenges
• Service provider expertise	• Multiple products
• Global Market reach	
• GlobalMeet brand	
• Global audio network	
• HD audio solutions	
• Large live support team	

Innovators

Avaya

Avaya, which is known as a complete Unified Communications Provider, named new executives in 2017 as it exited Chapter 11. It made its new flagship offering, Avaya Equinox Conferencing, available in January 2017. It offers a full set of capabilities, including a zero download WebRTC client, a smooth user experience, and mobile support. To make this happen, Avaya leverages the Breeze Client SDK and harnesses the power of several Avaya offerings including Aura, IP Office, and Scopia, which, when combined together, offer one of the most robust collaboration and communications platform offerings.

Avaya Equinox also offers a growing set of integrations, including support with Apple, Google, Microsoft, and Salesforce. Avaya's Room-based systems support Content Sharing and 4K Video. Its new solution can connect and manage third party Room Platforms, including Cisco, Lifesize, Polycom, and Microsoft SfB (via a Gateway). With a full refresh of its Web and Video conferencing product line complete, Avaya is well positioned to serve both midsize and large enterprises.

Strengths	**Challenges**
• H.265 HD Video, high quality content sharing with room systems, desktop, and mobile clients	• Migrating large install base to new offerings
• Video User experience	
• Extensive video inoperability with Cisco, Polycom, Lifesize, and Microsoft	
• UCC Platform	
• Partner network and ecosystem	

BlueJeans

BlueJeans, a pioneer in Cloud-based Video Conferencing, announced a new CEO Quintin Gallivan, with co-founder Krish Ramakrishnan remaining as Chairman. BlueJeans offers a full Video Platform that is optimized or Meetings, Events, and Room-based Video Conferencing. BlueJeans is an easy-to-use service that also has proven reliability. It offers the BlueJeans Command Center for central management, reporting, and analytics needed for Enterprise deployments. BlueJeans enables a broad range of third party solutions to be supported with solid HD video and content sharing capabilities. These integrations include support for public/private cloud deployment, audio conferencing, and integrations with Google Suite, Microsoft Office, Slack, and other applications.

BlueJeans Rooms with Dolby Conference Phone enables any room to be a video meeting room. It's easy to use and manage, while providing stunningly clear audio that optimizes the BlueJeans experience and makes meetings more productive. BlueJeans Rooms provides an accessible and easy-to-use in-room video meeting solution to easily modernize your workspaces and increase workforce collaboration. BlueJeans Video Meetings now includes Dolby Voice, which allows attendees to hear clearly and communicate naturally and productively, as if they were in the same room. The BlueJeans Events offering was one of the first to offer integration and management of a Facebook Live Event.

Strengths	Challenges
• Dolby Voice audio technology	• Deployment options, besides cloud
• HD video and content sharing	
• Broad range of third-party solutions and integrations	
• Event Support for Facebook Live	
• Lower cost	

Highfive

Highfive continues to innovate with its unique, integrated video conferencing camera platform that is included with a built-in subscription. Business users are fully capable of installing and completing the setup, which makes it ideal for SMBs or large enterprises with remote facilities and limited IT staff. With a simple, compact design, Highfive Web and Video Conferencing mounts on top of any monitor or TV screen.

Highfive offers a subscription for its hardware and service that ranges from $99–$329 per room per month, which is less than the maintenance for some other room systems. Highfive's service supports unlimited users, meetings, and minutes. Dolby Voice is included in its high-end enterprise offering. We believe the ease of use and the all-in-one camera/microphone design, along with overall voice and video quality, make Highfive a good value that will continue to disrupt the current Web and Video Conferencing market.

Strengths	**Challenges**
• Ease of use	• Integration with other Video Platforms
• Ease of Installation	
• Cost is relatively affordable for outfitting rooms	
• HD Voice	

MediaPlatform

MediaPlatform, a leading Enterprise Video provider that focuses on all aspects of video, leverages its WebCaster webcasting offering. MediaPlatform enables Video Content Management and live delivery. Besides WebCaster, MediaPlatform offers SmartBridge—a Video Conferencing Gateway that enables connectivity with other leading providers. MediaPlatform integrates with Microsoft Skype for Business and in 2017, it announced a partnership with Pexip that should help both companies gain market traction.

MediaPlatform PrimeTime offers a full set of APIs. This will enable MediaPlatform to continue to expand its integrations, which already include SharePoint and Cisco WebEx. Its growing solutions focus allows it to offer video-enabled business applications (VEBAs) for Consulting, Healthcare, Government, and Financial Services. Finally, MediaPlatform offers a growing set of analytics that should benefit both IT and Marketing teams.

<table>
<tr><td align="center">**Strengths**</td><td align="center">**Challenges**</td></tr>
<tr><td>

• Webcasting and "enterprise YouTube" capabilities

• Web conferencing integrations

• Videoconferencing gateway

• Real-Time QoS and QoE Analytics

• Event management and archiving

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• Awareness outside of North America

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Pexip

Pexip enables video-based communications for both small and large audiences by leveraging its Virtual Meeting Rooms and Virtual Auditoriums. Pexip works across a variety of platforms such as Skype for Business, legacy video conferencing, and WebRTC, or by providing every member of an organization with personal Virtual Meeting Rooms. In 2017, Pexip announced its partnership and cooperation with Microsoft to add support for video conferencing interoperability to Microsoft Teams, on top of its product's existing certification by Microsoft as a video conferencing interoperability solution for Skype for Business Server. With multiple deployment options, Pexip Infinity can run virtualized on any standard off-the-shelf server and in most cloud environments. For 2017, Pexip added Google Cloud as a new Cloud deployment option in addition to its Microsoft Azure and AWS options.

Pexip has browser-based support for joining virtual meetings with various endpoints and communications systems. For enterprises with multiple providers, Pexip can natively integrate with video conferencing solutions from Cisco, Polycom, and Lifesize, with any other software or hardware UC solution, such as Skype for Business, as well as web browsers and audio callers via its Virtual Meeting Rooms, or as a pure gateway.

Strengths	**Challenges**
• Interoperability	• Market awareness
• Webcasting	
• Scale	
• Virtual Meeting Rooms	
• Microsoft Partnership	

uStudio

uStudio has been delivering innovation with its entirely Cloud-based Enterprise Video platform that includes Live Video Streaming and OnDemand Viewing. This approach is becoming popular with enterprises in media and entertainment, service, and support. uStudio also helps to deliver video experiences inside of other applications such as Oracle Sales Cloud and Salesforce. The uStudio Live capabilities are also optimized for delivery over Wans, eliminating some of the costs associated with MPLS.
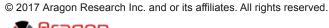
uStudio also excels at analytics for live and on-demand playback via its partnership with IBM Watson. The analytics are integrated with its native HTML5 Interactive Player framework and SDK that allows it to wrap any open 3rd party player. The full platform play has allowed uStudio to replace competitors in accounts where scale and reliability are critical. As Live Broadcast and the associated playbacks become more popular, uStudio has the modularity to support existing delivery environments.

<u>Strengths</u>	<u>Challenges</u>
• Live Broadcast from anywhere	• Awareness outside of the U.S.
• Deliver video anywhere including competitive players	
• Video metrics from any site	
• Customizable video platform	

Vbrick

Vbrick is a complete Enterprise Video Platform that supports Webcasting and Webinars with a modern and engaging user experience. Since it has shifted to a mainly Cloud offering, Vbrick has been seeing increased client growth. In 2017, Vbrick added to its integrations with the Cisco Collaboration stack, including Rev live streaming and recording from video conferencing end points and a new Vbrick Rev Spark Bot that can to automate the recording process for Cisco meetings.

Additionally, Vbrick has added more security capabilities by allowing customers to control their own Security keys. Vbrick's go-to-market approach of partnering with tech titans is helping it grow and win larger enterprise deals. Its recent addition of a European Data Center should help build awareness in that market.

Strengths

- Webcasting
- Enterprise Video Platform
- Highly secure video delivery
- Cisco partnership and integration

Challenges

- Awareness outside of U.S.

Videxio

Videxio, based in Lysaker, Norway and Reston VA, provides an intuitive Cloud Video Conferencing Service with global delivery capabilities. In 2017, it expanded its offerings with a new Video Streaming Service it calls Videxo Live. Videxio mainly goes to market by selling via partners and distributors. In 2017, Videxio signed an agreement with Ricoh to enable its Video Conferencing Service to be sold into the Japan market.

In 2017, Videxio also added a gateway to connect its Video Cloud with Microsoft Skype for Business and it features an easy-to-use, intuitive interface. As the demand for Cloud based Video Conferencing grows, Videxio is well positioned for growth.

Strengths	**Challenges**
• Webcasting	• Awareness in the U.S.
• Video Meetings	
• Microsoft Integration	
• Ease of Use	

Vidyo

Vidyo has been expanding its footprint by broadening its platform and cloud Video Collaboration-as-a-Service (VCaaS) offering. This has also enabled it to expand its success in healthcare, where it has a robust set of offerings and customers. Today, Vidyo works with over 295 health systems and powers three of the top electronic healthcare record vendors. Vidyo's cloud platform is gaining traction in part because of its robust VCaaS capabilities that include 4K support for collaboration and for content sharing. In addition to public cloud, Vidyo can be deployed on premises, or configured for hybrid cloud.

Vidyo has been focused on its Communications Platform as a Service (CPaaS) longer than most, a strategic focus that has helped it grow. The vidyo.io CPaaS offering provides video APIs and SDKs for the creation of customized, embedded, video-enabled applications and devices. The Vidyo platform is helping to power efforts in both the traditional Vidyo OEM Business (e.g. Mitel & Fuze) and multiple verticals. The verticals that have seen the most success for Vidyo include healthcare, financial services, and government. These success stories, along with the addition of more global partners, is helping to power Vidyo's customer acquisition.

Strengths	**Challenges**
• HD video quality with low multipoint latency	• Limited brand and market awareness due to embedded video strategy
• Flexible deployment options	
• APIs and SDKs	
• Scale	

Specialists

ReadyTalk

Denver-based ReadyTalk was acquired by PGi in 2017. Its focus is on offering a complete set of audio, web, video conferencing, and UC products as an all-in-one cloud communications solution. That said, it has garnered market attention for its Webinar offering that has done well in the market. The conferencing solutions are easy to join, with no participant downloads and are suitable for meetings of up to 100 participants.

The addition of a Unified Communications solution at the end of 2016 rounds out ReadyTalk's cloud communications solution with voice and collaboration tools. ReadyTalk's focus on webinars and webcasts make it ideal for marketing teams incorporating webinars into their strategy or for large town-hall meetings of up to 3,000 participants.

Strengths

- Portfolio that serves webcast, webinar, collaboration, and UC
- Ease of Use
- Customer support
- Webinars
- Integrations
- HD Video

Challenges

- Market awareness outside of Webinars and Webcasts

Saba

Saba was a pioneer in offering Virtual Classroom functionality via Saba Meeting, which is tightly integrated with Saba's Flagship Modern Learning platform, as well as the rest of Saba's Cloud-based Talent Management suite. Saba makes playback of recordings seamless and part of the overall knowledge delivery approach to its Modern Learning offering.

Saba Meeting supports high quality Voice over IP (VoIP), which works very well in low-bandwidth environments due to its infrastructure. With full Mobile Clients and HD video support, Saba Meeting is ideal for organizations that do lots of Live Training. Unique in the Saba portfolio is its predictive analytics that work in conjunction with its collaboration and Talent capabilities. Saba Meeting is not sold standalone, so enterprises will need to license the Saba portfolio to leverage it.

Strengths	**Challenges**
• Virtual classroom	• Awareness outside of corporate learning
• Predictive analytics	
• Mobile Support	
• Overall approach to Real-time Learning	
• Real-time cloud and recording support with playback on mobile	

Aragon Advisory

- Enterprises need to look holistically at Web and Video Conferencing for both ease of use and integration with other critical business applications.

- Given the need internal and external events, enterprises may have unique needs for use cases that include Webinars and Webcasts.

- Enterprises should ask for detailed roadmaps from providers to ensure that they mesh with the enterprise technology and business direction.

- When evaluating video conferencing products, understand the performance characteristics for local, national, and international meetings.

Bottom Line

The Web and Video Conferencing market continues to consolidate. With a core focus on Cloud applications, the key requirement is still user experience and overall voice and video quality of meetings. Room offerings are becoming more intelligent and at the same time, use cases still dictate vendor selection. Enterprises need to realize that a visual collaboration experience can help to speed up internal employee and external customer journeys to get to faster business outcomes.