

FOR: CIOs



The Forrester Wave™: Room-Based Videoconferencing, Q3 2012

by Philipp Karcher, August 21, 2012

KEY TAKEAWAYS

Videoconferencing Lets Firms Cut Travel And Improve Everyday Meetings

In a work culture dominated by virtual meetings, more firms are looking to videoconferencing to replicate the in-person experience that employees prefer — or at least make voice conversations more engaging by fostering the trust and improved communication that comes with being able to read the other person's body language.

New Developments Make Videoconferencing More Scalable

After a boom period epitomized by investments in multiscreen immersive telepresence studios for the C-suite, videoconferencing innovation today is geared toward extending connectivity to PCs and tablets through cloud-based services or new lower-cost on-premises deployment models.

Vendors Differentiate On Endpoint Portfolios, Deployment Models, And UC Strategies

Which system you select will have to do with your interest in immersive telepresence compared with less expensive systems, your UC strategy, and your deployment model preferences.



The Forrester Wave™: Room-Based Videoconferencing, Q3 2012

Polycom, Cisco, And LifeSize Lead, Followed By Resurgents Radvision And Teliris And Aggressive Entrants Huawei And Vidyo

by [Philipp Karcher](#)

with [Matthew Brown](#), [Henry Dewing](#), and Andrew Smith

WHY READ THIS REPORT

In Forrester's 39-criteria evaluation of videoconferencing solution vendors, we identified the seven most significant providers in the category — Cisco, Huawei, LifeSize, Polycom, Radvision, Teliris, and Vidyo — and researched, analyzed, and scored them. Leaders that emerged have broad product portfolios with deep integration into unified communications (UC) infrastructure, while Strong Performers pursue a more focused strategy, excelling in particular market niches or in particular regions. This report details our findings about how well each vendor fulfills our criteria and where they stand in relation to one another to help IT professionals select the right provider for their environment.

Table Of Contents

- 2 **Firms Look To Videoconferencing To Make Virtual Meetings Better**
Vendors Differentiate On Endpoint Portfolios, Deployment Models, And UC Strategies
- 3 **Room-Based Videoconferencing Evaluation Overview**
Vendor Scale And A Focus On Room-Based Systems Narrows The Field
- 4 **Leaders Have A Complete Portfolio Of Offerings**
- 6 **Vendor Profiles**
Leaders Have Broad Portfolios And UC Integration Strategies

Strong Performers Excel In Particular Market Segments
- 8 **Supplemental Material**

Notes & Resources

Forrester conducted product evaluations in April 2012 and interviewed seven vendor companies: Cisco, Huawei, LifeSize, Polycom, Radvision, Teliris, and Vidyo. We also interviewed 16 customer references provided by the vendors.

Related Research Documents

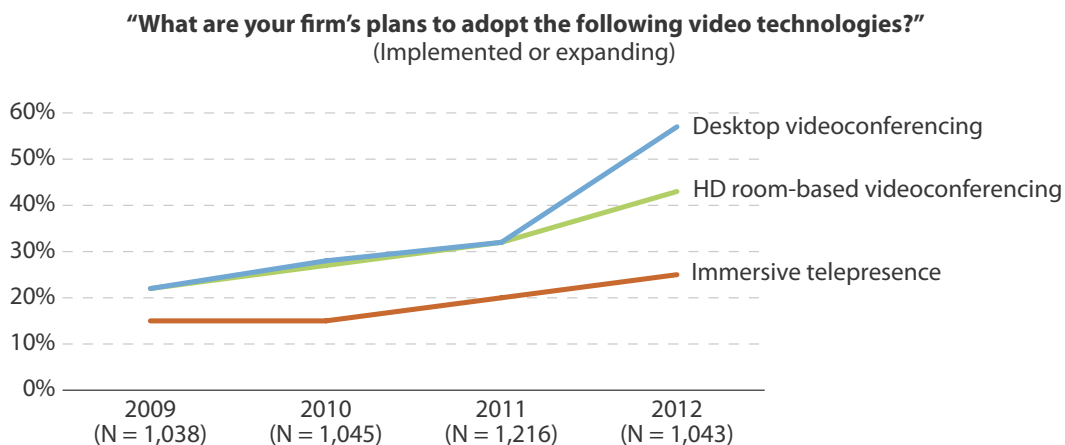
[Q&A: Answers To Your Top Videoconferencing Questions](#)
August 15, 2011

[TechRadar™ For Content & Collaboration Professionals: Enterprise Video, Q1 2011](#)
January 21, 2011

FIRMS LOOK TO VIDEOCONFERENCING TO MAKE VIRTUAL MEETINGS BETTER

In a work culture dominated by meetings that participants attend either in person or by phone, more firms recognize the opportunity to use videoconferencing to avoid travel or to at least make virtual meetings more engaging (see Figure 1). Mobile executives want video for better work-life balance, managers want it to see that their direct reports aren't distracted, and multicultural organizations want it to foster the trust and improved communication that comes with being able to read the body language of remote team members.

Figure 1 Videoconferencing Deployments Continue To Grow



Base: network and telecom decision-makers at enterprises (1,000+ employees)

Source: Forrsights Networks And Telecommunications Survey, Q1 2012

61481

Source: Forrester Research, Inc.

Vendors Differentiate On Endpoint Portfolios, Deployment Models, And UC Strategies

The videoconferencing market is going through significant change marked by efforts to make the historically cost-prohibitive technology more widely accessible. After a boom period sparked by interest in high-definition quality and epitomized by investments in multiscreen immersive telepresence studios, videoconferencing innovation today is happening on smaller screens like PCs, smartphones, and tablets that workers use in their everyday jobs. In response to this growing interest, vendors not only have to show strategies that account for desktop and mobile applications — they also have to make their traditional dedicated room-based systems easier to deploy at scale. Forrester is seeing:

- **Momentum toward desktop and mobile videoconferencing.** While buyers still evaluate videoconferencing vendors on the strengths of their dedicated room-based systems, it is increasingly important that their portfolios also include complementary desktop and mobile applications. Buyers also significantly weight vendor products' ability to easily integrate with popular third-party communication applications like Microsoft Lync.

- **Less competition to provide immersive three-screen telepresence.** Some vendors have made a strategic decision not to compete in multi-codec telepresence, arguing that it will be a smaller segment of the market. However, three- and four-screen immersive telepresence is still important to other vendors — particularly those selling to enterprises that aren't just looking for the best-of-breed but are also evaluating an entire portfolio of solutions.
- **A bifurcation of vendors along different flavors of the H.264 video codec.** Cisco, LifeSize, and Polycom use the H.264 advanced video coding (AVC) codec, which represents the vast majority of endpoints on the market. Teliris and Vidyo use the H.264 scalable video coding (SVC) codec, which performs better in lower-bandwidth conditions (and provides a better experience on low-bandwidth endpoints like tablets). However, the proliferation AVC endpoints gives Cisco, LifeSize, and Polycom an advantage in interoperability (observed, for example, in video quality) when communicating with other AVC endpoints.
- **Alternatives to expensive hardware appliances on-premises.** Instead of using an MCU to transcode multipoint video, Vidyo routes video streams to the endpoints for decoding, which is less processing-intensive and more scalable with less infrastructure. LifeSize now offers virtual machine software as an alternative to fixed-capacity videoconferencing infrastructure products. Most firms still look to dedicated bridging infrastructure as the deployment model for videoconferencing, but they will increasingly include these alternative on-premises deployment models as part of their evaluations, due to the cost savings and flexibility they afford.
- **Sourcing models that lower the cost and skills barriers to using video.** More firms are interested in opex models in the form of hosted or cloud-based infrastructure to mitigate the technology risk of their video investments. Although hosted infrastructure has been available through service providers, several equipment vendors in this Forrester Wave now can bundle access to their own cloud-based infrastructure as an option with their endpoints. The vendors (and their channel partners) sell this access as a turnkey service so customers can unbox their systems and be up and running immediately.
- **Interest in integrating with SIP-based UC environments.** Large enterprises in particular want to choose vendors whose solutions will integrate with their UC environments, but they are challenged by issues with multivendor SIP interoperability. Standardizing on the same vendor for video as your UC infrastructure is one option. Otherwise, video vendors have varying levels of interoperability with Avaya, Cisco, Microsoft, and other UC platforms, which requires careful consideration.

ROOM-BASED VIDEOCONFERENCING EVALUATION OVERVIEW

To assess the state of the room-based videoconferencing market and see how the vendors stack up against one another, Forrester evaluated the strengths and weaknesses of top room-based videoconferencing vendors.

After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 39 criteria, which we grouped into three high-level buckets:

- **Current offering.** To assess the strength of the product offerings, we evaluated the vendors along six groups of criteria: 1) endpoint diversity; 2) conferencing experience; 3) quality of experience; 4) management platform; 5) recording and streaming; and 6) security and compliance.
- **Strategy.** We reviewed each vendor's strategy in several areas: 1) deployment options; 2) UC integration; 3) interoperability; 4) services; and 5) product road map. We also counted client reference scores. We asked about, but did not score, target market as part of strategy.
- **Market presence.** To determine a vendor's market presence, we considered each vendor's revenues, number of employees, and number partners reselling the vendor's solutions or providing operational support.

Vendor Scale And A Focus On Room-Based Systems Narrows The Field

Forrester included seven vendors in the assessment: Cisco, Huawei, LifeSize, Polycom, Radvision, Teliris, and Vidyo. Each of these vendors has:

- **Room-based videoconferencing or immersive telepresence offerings.** The videoconferencing market more broadly includes desktop videoconferencing and webconferencing. However, buyers tend to look at investments in dedicated hardware systems separate from those categories of software. Forrester plans to evaluate desktop videoconferencing vendors in a future Forrester Wave.
- **A portfolio of solutions.** The room-based videoconferencing market includes niche players that focus on a particular form factor or that only sell one or two products. Vendors in the evaluation have a portfolio of single and multiscreen room-based solutions.
- **Enterprise scale and a broad geographic reach in client base.** We chose vendors with experience in the global market, with evidence of large enterprise clients, and that Forrester gets regular questions about from our clients.

LEADERS HAVE A COMPLETE PORTFOLIO OF OFFERINGS

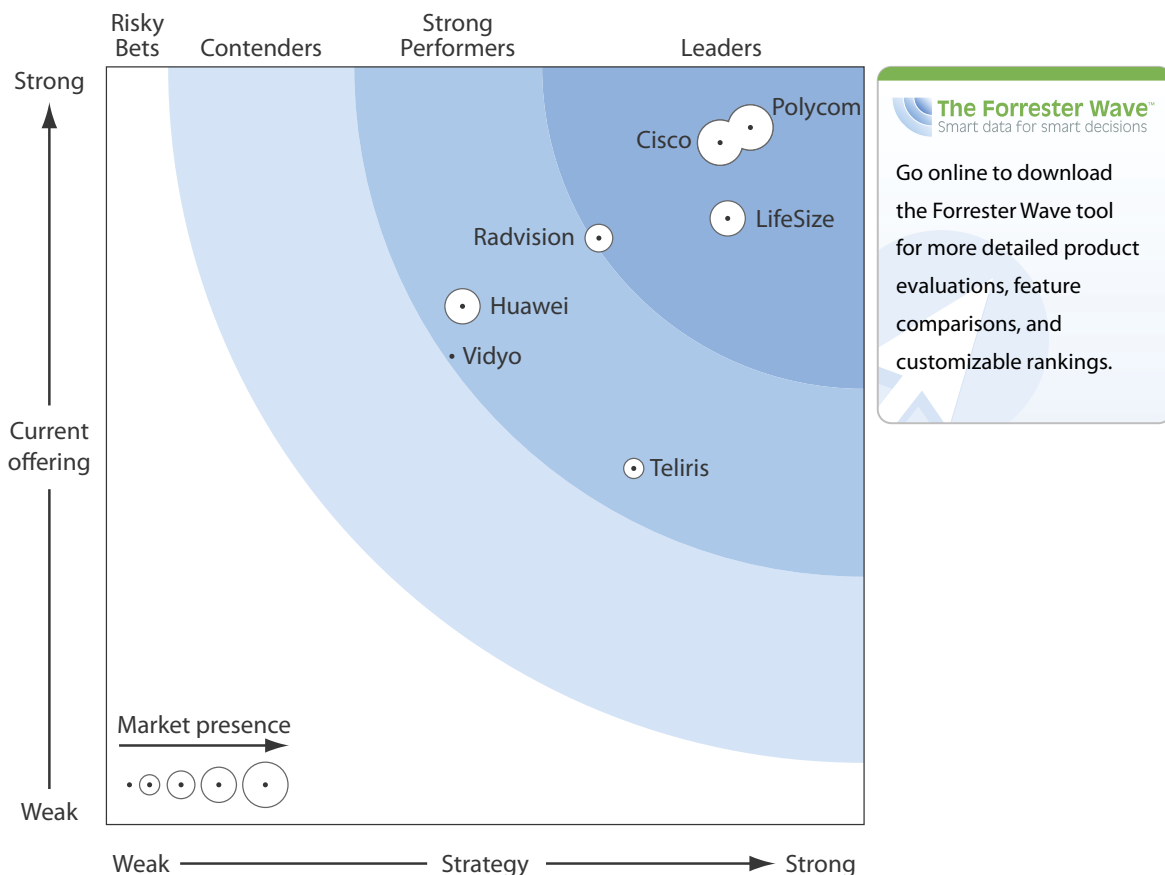
The evaluation uncovered a market in which (see Figure 2):

- **Traditional heavyweights Polycom, Cisco, and LifeSize cover the most bases.** Cisco and Polycom in particular have the most options for immersive telepresence, room-based endpoints, and desktop hardware units. All three have comprehensive management platforms, recording and streaming solutions, multiple deployment options, leading interoperability, and options to integrate with popular UC platforms.¹

- **Resurgent Radvision has a competitive offering.** Coming in under the radar, Radvision (now an Avaya company) went from being an infrastructure provider to developing its own end-to-end offering with an impressive set of room-based systems and desktop and tablet applications. It is separated from the other leaders by only a couple of points in strategy related to services offerings and cloud deployment options. For many companies, Radvision will fit the bill.
- **Teliris, Huawei, and Vidyo are moving quickly to provide complete solutions.** These vendors excel at a particular segment of the market and are expanding their offerings. Teliris is a leading provider of immersive telepresence and managed services. Huawei has a broad portfolio of endpoints and a stronghold on the Chinese market. Vidyo is a leader in desktop and mobile videoconferencing and is building room-based and immersive systems that run on its scalable architecture.

This evaluation of the room-based videoconferencing market is intended to be a starting point only. We encourage readers to view detailed product evaluations and adapt the criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor comparison tool.

Figure 2 Forrester Wave™: Room-Based Videoconferencing, Q3 '12



Source: Forrester Research, Inc.

Figure 2 Forrester Wave™: Room-Based Videoconferencing, Q3 '12 (Cont.)

	Forrester's Weighting	Cisco	Huawei	LifeSize	Polycom	Radvision	Teliris	Vidyo
CURRENT OFFERING	50%	4.50	3.42	4.00	4.60	3.87	2.35	3.09
Endpoint diversity	50%	4.65	3.75	3.70	4.60	3.90	2.20	3.50
Conferencing experience	25%	4.00	4.00	4.00	4.50	4.00	2.25	3.25
Quality of experience	10%	5.00	0.00	5.00	5.00	3.00	3.00	1.00
Management platform	5%	4.40	3.80	4.00	4.40	4.40	3.70	0.60
Recording and streaming	5%	4.00	3.00	4.00	4.00	4.00	0.00	3.00
Security and compliance	5%	5.00	4.00	5.00	5.00	4.00	4.00	5.00
STRATEGY	50%	4.05	2.35	4.10	4.25	3.25	3.48	2.28
Deployment options	15%	5.00	2.50	5.00	3.50	3.50	2.50	3.50
UC integration	20%	2.75	3.88	4.50	4.63	3.88	0.25	0.25
Interoperability	20%	4.00	3.00	4.00	5.00	3.00	4.00	1.00
Services	15%	4.00	3.00	3.00	3.00	1.00	5.00	3.00
Product road map	15%	5.00	1.00	3.00	5.00	3.00	5.00	3.00
Client reference scores	15%	4.00	0.00	5.00	4.00	5.00	5.00	4.00
Target markets	0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MARKET PRESENCE	0%	4.56	3.19	3.06	4.25	2.44	1.06	0.75
Revenue	50%	5.00	3.50	3.00	4.00	2.75	1.00	0.00
Employees	25%	5.00	3.00	2.00	4.00	2.00	1.00	1.00
Partners	25%	3.25	2.75	4.25	5.00	2.25	1.25	2.00

All scores are based on a scale of 0 (weak) to 5 (strong).

Source: Forrester Research, Inc.

VENDOR PROFILES

All of the providers in this Forrester Wave report are worthy of your consideration, and which one you select will have more to do with your interest in immersive telepresence compared with more inexpensive systems, your UC strategy, and your deployment model considerations. With the Excel-based vendor comparison tool associated with this report, you can prioritize the criteria you care most about and create a custom evaluation. In this spreadsheet, you will find a complete assessment of 39 different factors and additional product details.

Leaders Have Broad Portfolios And UC Integration Strategies

- Polycom.** Polycom has a diverse portfolio of endpoints including a range of options for immersive telepresence. It is not an end-to-end provider of UC, networking equipment, and collaboration software, but through technology partnerships (with Microsoft in particular) it provides video endpoints that work well in multivendor environments. Many of its endpoints also interoperate natively with popular nonstandard protocols and codecs.

- **Cisco.** Cisco has a range of video endpoints spanning desktop units to three-screen immersive telepresence studios. Its products show a strong emphasis on industrial design and on the user experience — many Cisco endpoints come with touchscreen controllers. Cisco's philosophy is to provide a "business-class" video experience, which it does best when customers also use Cisco's Medianet networking products. Cisco can also provide an integrated experience (and an opportunity for customers to consolidate vendors) with its WebEx and Jabber UC and collaboration solutions.
- **LifeSize.** Like other vendors, LifeSize has pursued a strategy to develop a portfolio of video endpoints to account for the range of possible use cases from desktops to rooms. LifeSize doesn't compete in immersive telepresence. It has a leading mobile client and an easy-to-use recording and streaming solution. On the infrastructure side, LifeSize now offers a cloud-based service and virtualized software as alternatives to dedicated hardware appliances.
- **Radvision.** Historically an OEM infrastructure provider to other vendors, Radvision has evolved into a provider itself of end-to-end video solutions. It uniquely uses either H.264 SVC or AVC on some endpoints. Radvision also has strong desktop and mobile clients. Due to its legacy as an infrastructure provider, it has a robust management platform. Now as an Avaya company, Radvision will focus more on the integration of multiparty video with directory integration and call control into SIP UC environments.

Strong Performers Excel In Particular Market Segments

- **Teliris.** Teliris is primarily focused on immersive telepresence, including a four-screen solution, supported with a white-glove managed service. The company made a major pivot by recently introducing a cloud-based deployment model and by starting to take on management of non-Teliris endpoints. Teliris now also has a lower-end room-based system and a desktop client, both of which are covered by the managed service. As an equipment and managed service provider with the ability to manage competitor solutions (and even desktop clients) in the same environment, Teliris occupies a unique position in the market.
- **Huawei.** Networking and telecommunications giant Huawei has built a very large portfolio of video endpoints and infrastructure solutions including five different series of immersive telepresence studios. Because Huawei is a UC solution provider, its customers can benefit by standardizing on Huawei for video and UC. Huawei has a major presence in Asia Pacific, particularly China, followed by Latin America.
- **Vidyo.** Vidyo's routing architecture shifts the heavy signal-processing power from bridges to the endpoints, significantly reducing the cost per port to deploy videoconferencing. Its brand of H.264 SVC — which it licenses to Teliris and Google, among others — maximizes quality according to network conditions. Already having best-in-class desktop and mobile clients, Vidyo

is now expanding its room-based offerings with enterprise management features and multivendor interoperability. It has a unique brand of telepresence that supports formats up to 20 screens. Vidyo recently introduced a cloud service for interoperability with non-Vidyo endpoints.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 2 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.
- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.
- **Customer reference calls.** To validate product and vendor qualifications, Forrester also conducted reference calls with two or three of each vendor's current customers.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based

on a clearly defined scale. These default weightings are intended only as a starting point, and we encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve.

ENDNOTES

- ¹ Cisco has comparable UC integration capabilities to other Leaders in the Forrester Wave. It scored lower in this area because it demonstrated evidence of these capabilities to us only after we completed the evaluations.

About Forrester

A global research and advisory firm, Forrester inspires leaders, informs better decisions, and helps the world's top companies turn the complexity of change into business advantage. Our research-based insight and objective advice enable IT professionals to lead more successfully within IT and extend their impact beyond the traditional IT organization. Tailored to your individual role, our resources allow you to focus on important business issues — margin, speed, growth — first, technology second.

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« CAROL ITO, client persona representing CIOs

