



# **WebRTC**

## **A REALITY CHECK**

**BY TIM KRIDEL**

**WebRTC today is like  
LeBron James in 2004:  
Saddled with unrealistic  
expectations about  
becoming the next big thing  
overnight, James took years  
to mature into a champion.  
Now WebRTC is struggling  
to overcome the premature  
hype and prove that it can  
be a videoconferencing  
game-changer.**

**S**hort for “real-time communications,” WebRTC enables browsers to support videoconferences without the need for a plug-in. Users simply click on a link – such as in a Outlook invitation or on a Web page – to launch a video call or to join a videoconference. That design is a particularly good fit for B2C applications because the first part of the call doesn’t have to be wasted on installation and troubleshooting.

“What’s exciting about WebRTC is that it has the promise to solve the installation issue,” said Ofer Shapiro, CEO of Vidyo, which plans to add WebRTC to its product line-up.

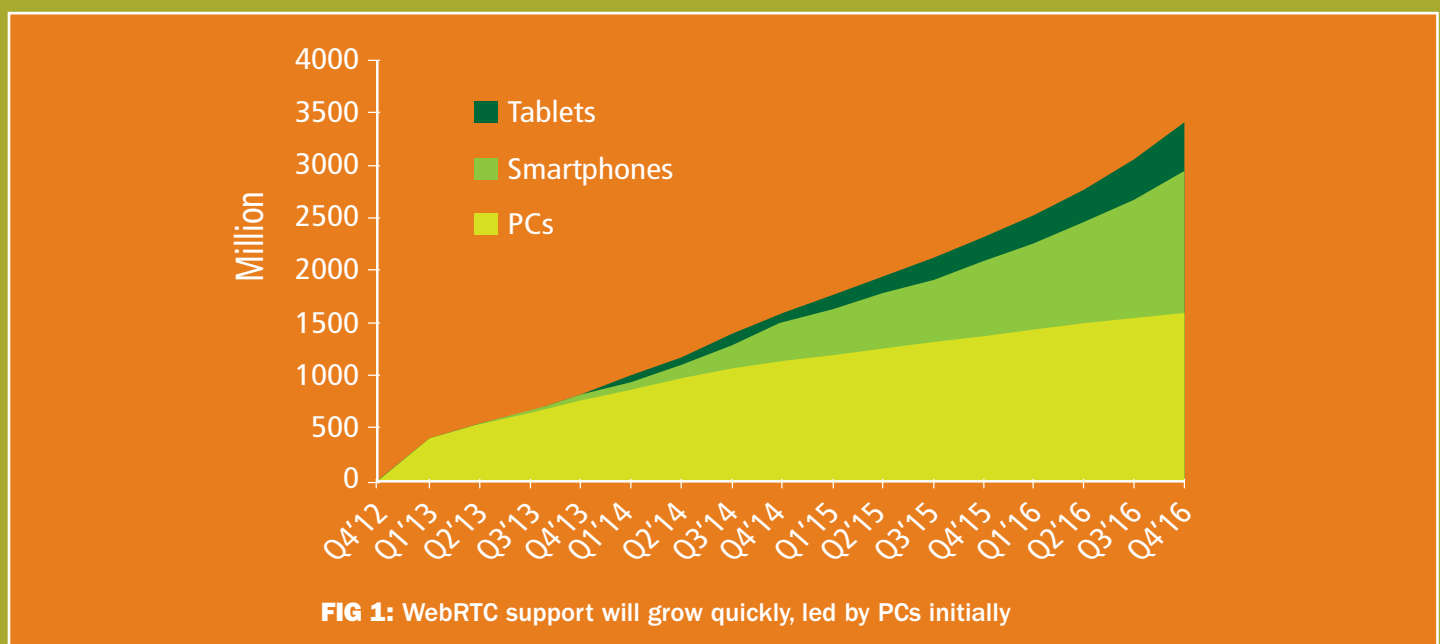
WebRTC’s click-to-conference ability has enormous implications – positive and negative – for the videoconferencing vendors and integrators. For example, WebRTC is a way for enterprises to extend videoconferencing to more employees by leveraging the desktop PCs, laptops and mobile devices that they already own instead of shelling out several hundred dollars apiece for dedicated endpoints. As a result, WebRTC could cannibalize sales of desktop videoconferencing hardware, as well as those that use software clients on PCs.

But WebRTC also could spur sales of room-based and executive-desktop systems by giving those products more people to connect to.

“Traditional videoconferencing has been kind of like a fancy country club,” said Alex Doyle, Vidtel vice president of marketing. “It has remarkable capability, but only a very select few have been able to enjoy its benefits. The costs of entry – equipment, installation, and maintenance – have crowded out most of the potential market.

And as the installed base of consumers with WebRTC grows, it could encourage contact centers to invest heavily in video solutions that require at least some professional services and enterprise-grade infrastructure. Those are all examples of how browser-based video has far-reaching implications.

“That’s just the very teeniest, tiniest tip of this huge, gigantic iceberg, which is about video becoming pervasive and becoming integrated natively and seamlessly into every application,” said Karl Dahlin, Aver vice president of business development.



**FIG 1:** WebRTC support will grow quickly, led by PCs initially



**FIG 2:** Chrome and firefox can now “talk.”

“It changes so many things. It could be the catalyst that brings videoconferencing and collaboration to the mainstream.”

**A NICHE PLAY FOR NOW**

Chrome and Firefox are the only major browsers that currently support WebRTC. Until Internet Explorer, Safari or both add it, WebRTC isn't a viable option for mass-scale B2B and B2C communications.

“WebRTC has been driven by the browser vendors,” said Ken Davison, Magor Communications CMO. “I’m of the opinion that it will be ubiquitous across all browsers in the next year.”

If that turns out to be the case, WebRTC still faces a few other challenges. For example, it doesn't address quality of service and some security issues, which are factors that CIOs and IT managers consider with any video communications service.

“WebRTC would solve one of the reasons why people can't get into a call: they ‘can't install,’” Shapiro said. “But you still may have network, firewalls and transcoding issues. It solves a chunk of the problems but not all of them on it's own The way to think about WebRTC is like http – a powerful way to access cloud based services.”

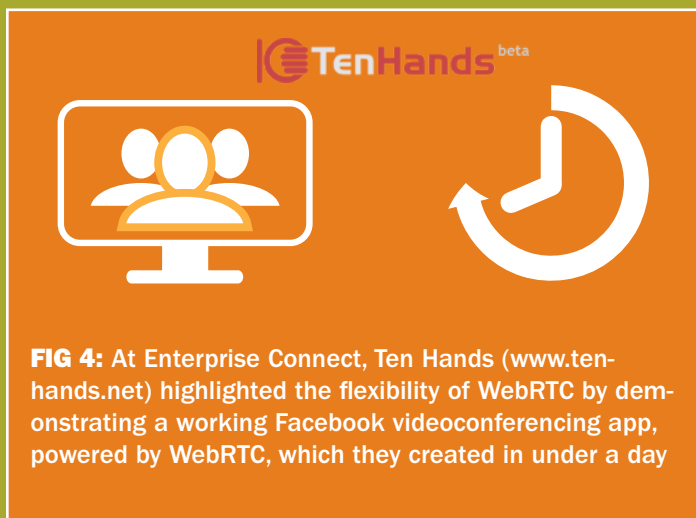


**FIG 3:** Magor and Vidtel are among the providers of cloud-based services that enable inter-operability between WebRTC and video-conferencing endpoints that use SIP or H.323

For enterprises that want videoconferences that include a mix of WebRTC devices and traditional videoconferencing endpoints, another potential hurdle is the cost of bridging those two worlds.

“Nothing in WebRTC natively provides interoperability with these existing systems, so people thinking that WebRTC will magically replace existing systems are incorrect,” Doyle said. “Instead, customers will need a service that can gracefully work with existing solutions and extend them to support WebRTC.”

Over the past few months, several vendors have launched cloud-based services that enable interoperability between WebRTC and endpoints that use SIP or H.323. [Magor](#) and [Vidtel](#) are two examples.



**FIG 4:** At Enterprise Connect, Ten Hands ([www.ten-hands.net](http://www.ten-hands.net)) highlighted the flexibility of WebRTC by demonstrating a working Facebook videoconferencing app, powered by WebRTC, which they created in under a day

“I believe that to date, we’re the only vendor in the market to support natively the VP8 codec used by WebRTC browsers,” Davison said. “This enables us to do direct connection between an enterprise-grade environment – Magor’s Aerus – with the consumer, browser-based endpoint.”

Besides cloud-based services, another potential option is gateways. Either way, it's important to identify those costs because it's easy to get caught up in the hype that WebRTC has minimal or zero upfront costs.

“If using WebRTC requires transcoding gateways to talk to legacy, how much do they cost?” Shapiro said. “People should think about the complete price.”

Whether it's with cloud-based services or infrastructure, it's a safe bet that more vendors will target WebRTC.

“As billions of users are enabled via WebRTC, traditional systems will need to accommodate and build the capability for WebRTC themselves,” said Jack Blaesser, TenHands CCO and founder.

But to notch billions, WebRTC will have to get into Internet Explorer. Microsoft originally advocated a competing technology but now appears willing to implement WebRTC. When that



At Enterprise Connect, Twilio demoed an innovative WebRTC application. A web application was associated with a local phone number. Audience members called the local number with their cell phones, and were added to a call queue, and another slice was added to the pie wheel. When the wheel stopped spinning, the winner was bridged into the browser using WebRTC and heard on the auditorium's loudspeakers.

happens, it could trigger a flood WebRTC adoption, but the question still remains if Microsoft (and Apple) will agree to use the same codec that Google is advocating - VP8 - or continue to push for an H.264 based solution, further complicating the interoperability challenge between WebRTC solutions.

And it's not just because of Internet Explorer's market share. It's also because Internet Explorer is preinstalled on Windows machines and a known entity to enterprise IT departments. By comparison, Chrome and Firefox are downloads, something that many enterprises forbid for security reasons.

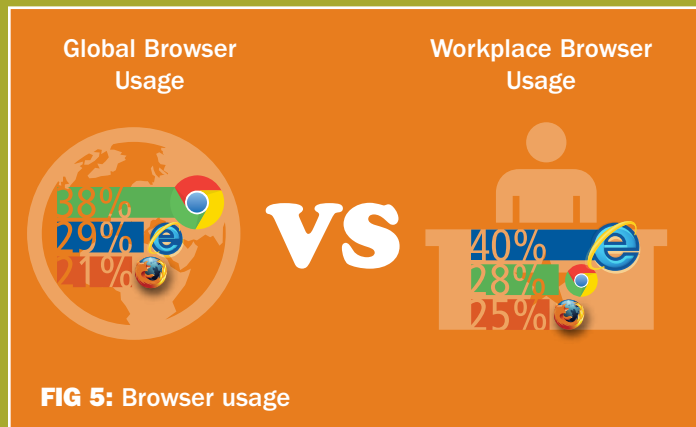


FIG 5: Browser usage



FIG 6: WebRTC could spur sales of traditional videoconferencing appliances by connecting these products to more people.

"It's hard for people to understand how big the opportunity really is," Dahlin said. "WebRTC could be the catalyst that changes the video landscape forever." TPO

"While I am seeing a lot of buzz and promising applications from the venture and UC vendor communities, in my opinion the real-world implementation of applications that can leverage WebRTC is still to come," said Cary Bran, Plantronics senior director of software and innovation. "The reasoning behind this is the need for ubiquitous – or at the very least Firefox and Chrome and either Safari or Internet Explorer – to have interoperable WebRTC implementations."

But for all its hurdles and uncertainties, WebRTC has amassed a vendor following that means it's likely to become more than just a flash in the pan.



**ABOUT THE AUTHOR**

**TIM KRIDEL** has been covering the pro AV industry since 2003 for publications such as AV Technology, InAVate, Pro AV, Sound & Video Contractor and Telepresence Options, as well as InfoComm's Special Reports series. Since 1998, he also has been covering the telecom industry for a variety of publications and analyst firms. For more information, visit [www.timkridel.com](http://www.timkridel.com).