

As the Standard of Measuring Mobile Video Quality of Experience (QoE), Avvasi Inc. Is providing Operators with the Tools needed to become Video Service Providers and enabling Profitable Participation in the Value Chain for Mobile Video Delivery

Technology Mobile Video Management

Avvasi Inc.
103 Randall Drive
Waterloo, ON N2V 1C5 Canada
519-772-6902
www.avvasi.com



Mate Prgin
CEO

BIO:

With more than 15 years of experience founding, building and selling businesses, and pioneering technology to deliver video content across wired and mobile networks, Mate is expert at identifying unmet demands and opportunities for service providers.

Prior to his current role overseeing the management and strategic direction of Avvasi, Mate held business management roles at LSI Corporation which acquired VideoLocus, an H.264

fabless semiconductor company where Mate was co-founder and CEO. He also held engineering roles at PixStream, a video networking systems company, which was acquired by Cisco Systems.

Mate holds a Bachelor of Applied Science in Systems Design Engineering from the University of Waterloo and an MBA from Richard Ivey School of Business.

About Avvasi Inc.:

Avvasi enables QoE-driven measurement, improvement and monetization of the video experience, and is the industry reference in mobile video QoE measurement. Avvasi provides operators with the tools to become Video Service Providers, enabling profitable participation in the value chain for mobile video delivery. Service providers around the globe are deploying Avvasi's solutions to measure, improve and monetize mobile video in their networks.

Interview conducted by: Lynn Fosse, Senior Editor CEOCFO Magazine

CEOCFO: Mr. Prgin, what is the concept for Avvasi Inc.?

Mr. Prgin: People are increasingly starting to watch videos services such as YouTube, Netflix, etc. on their mobile phones. Service providers originally did not imagine this to happen at such a high volume, and what they are struggling with is the cost and volume of video that is starting to swamp their network relative to the revenue they are making off of that traffic, which is not very much with

flat rate data plans. One of the things happening in the industry right now is a search for monetizing video in order to pay for all of the underlying infrastructure. Part of it requires to make that infrastructure smarter to transport video with a good quality of experience.

CEOCFO: What role does Avvasi play?

Mr. Prgin: We have become the standard for measuring mobile video quality of experience. That is the first problem that we have solved, which is how to measure every subscriber's quality of experience in the network and tell the service provider how they are performing. We have then solved the problem of how to improve the quality of experience in real time, so that if there is congestion or other types of issues in the network, we can react in real time and solve problems before the customers call the call center. The next step we are working on is how to monetize mobile video and turn that into a service.

CEOCFO: What were the biggest challenges in putting together your technology and what have you figured out that other companies perhaps have not?

Mr. Prgin: A big challenge is that it is a cross-section of several technology domains. To build the product and solve these problems, you need to have deep expertise in video, in wireless networking, and in deep packet inspection. Historically, there are many people who come from the video broadcast space that do not understand wireless networks, and people from wireless networks who do not

understand video. Putting all these skills together and getting that team to create and produce something innovative was by far the biggest challenge.

CEOCFO: Would you tell us about the new platform for LTE and beyond?

Mr. Prgin: What we are finding is that video was a bit of a hobby on 3G networks. With LTE, it is becoming a must-have because as soon as providers launch LTE, marketing departments are claiming that it is the fastest and best to watch HD video. It is hard for the service providers to charge for the speed upgrade. Rather than saying, "It is much faster, it is worth more," it is much easier to say, "LTE enables new applications such as HD video." All of sudden, there is an inherent promise that if you come to a service provider that has LTE, you will have a better video experience. This is driving great demand for our technology. LTE networks are blurring the lines between wireless and a true broadband network. The speed and capacities are comparable. We launched a massively scalable platform that is something that carriers were not used to when they were building equipment for 3G networks. LTE is requiring a whole different approach to scalability and cost, so that is one aspect of it. The second aspect is the support of the protocols of the LTE network-particularly the control protocols. Third is the advanced features to be able to handle both measurement of video and quality of experience management.

CEOCFO: Who is using your services today?

Mr. Prgin: Our announced customers include Telus, which is a tier one, as well as Wind Mobile, which is smaller service provider in Canada. We have announced a tier one wireless service provider in the US, and we have several customers across North America, Latin America, and Europe that are unannounced.

CEOCFO: How do you reach potential customers?

Mr. Prgin: We reach customers mostly through direct sales. We have a team of very experienced sales and pre-sales people that have sold into the service provider market. If you are solving a problem that is acute and is a problem that is amongst the top three things that keep the service providers from sleeping at night, then it is not very difficult to get in. Once you get in, it is about a twelve to eighteen month sales cycle with any carrier to get a deal done. You have to be patient, have the right technology, and solve the right problem at the right time.

CEOCFO: In twelve to eighteen months technology changes vastly, so what you are showing them on day one is very likely to be different down the road. How do you keep up with

"We have become the standard for measuring mobile video quality of experience. We have then solved the problem of how to improve the quality of experience in real time. Mobile has become the prime platform for accessing the internet, and it is going to become the prime platform for accessing video."- Mate Prgin

the changes during that long sales cycle?

Mr. Prgin: That is a big challenge in telecom. There is a joke that by the time a tier one service provider deploys a service, it is already obsolete. Some of the big technology vendors can take up to two years or more to launch new technologies. It is definitely a big challenge but there are a couple different things you can do. One is that if you are a brand new company, you can start by solving smaller problems that are easier to get in fast. One of the reasons we solved the measurement problem first was because it is a passive approach. In other words, we do not interfere with the network, we just measure the quality without changing the video. In a typical engagement, we do then migrate to solving active problems meaning having a box in the traffic. This means that we are receiving and managing all the video traffic in real time. There is no place for mistake.

That is a second step for us now. The other thing we do is that we have built a very flexible and scalable platform, and once we get the platform in we can do a lot of different things. As technology and the internet changes, the software and the hardware can keep up. The idea is that once you get the hardware in, you do not want to be changing it every six months. You want the hardware to stay in for three years minimum. However, the software can change, and carriers are used to it changing all the time. It is finding that balance of hardware that is going to be reliable getting it in and then updating the software that makes the sales cycles easier.

CEOCFO: What is your geographic reach today and do you see that changing?

Mr. Prgin: Today we cover the Americas, (North and South), Europe, the Middle East, and some parts of Asia. The Asia Pacific region is our weakest geography because it is the furthest away and most expensive to cover for us. That is something that we are going to be solving in the next twelve to eighteen months, so it is just a question of seeing the growth.

CEOCFO: Are there areas of the world that are more receptive than others and realize the problem more, or is it pretty universal?

Mr. Prgin: The interesting thing about wireless networks- which is very different than wire line- is that there used to be a technology battle between GSM and CDMA that delimited very specific regions and standards. Now with LTE, everybody is using the same technology, these networks built are now standard around the world. The differences are the subscriber and consumption patterns, but the devices are all largely the same. Where we see some interesting trends is that carriers are deploying LTE no matter which region they are in; and video is a big problem/opportunity. That is where we see the most traction in that market. The geography is particular to carriers that are able to invest in that type of tech-

nology. It just so happens that if you look at LTE deployments around the world today, it is mostly US, Canada, Germany, UK, Japan, Korea, and Australia. The emerging markets have not yet started to deploy LTE as aggressively as some of the developed countries, but that is where we are seeing the opportunity. The other interesting trend is in emerging countries, where they are starting to use their wireless networks as a way to leapfrog their wireline infrastructure, which is not as developed as developed countries. On the wireless networks in those countries, you tend to see more usage which is similar to true broadband networks because people are hooking up WiFi hubs with PCs, Xbox 360s, and things like that.

CEO CFO: You recently had the University of Texas validate your technology and you have been at a number of conferences. What is the most helpful for you as you are growing the business?

Mr. Prgin: The UT Texas was huge because the way we present our solution—especially for QoE measurement—is that we calculate a KPI (Key Performance Indicator) of 1 to 5. This score of 1 to 5 shows how happy the user is with that video session. The service provider does not get to actually talk to the user necessarily, or

does not have the ability to understand a user's satisfaction of video services. They only have our score and they have to decide whether to trust it or not. A huge element to selling our solution is being the trusted source and representing the subscriber's true perspective. Having that third party validation, especially from a University that has a track record in similar types of technologies, is huge. It answers a lot of questions and doubts that people might have had regarding us being a small company and whether or not we can be trusted.

CEO CFO: Are you funded for the roll out and the next steps you would like to be taking?

Mr. Prgin: Yes, we are a venture funded company. We have several investors, three VCs and one strategic investor that is a carrier. We are well funded and we have investors who understand the telecom space as well as how to fund through a long sales cycle. The first step was to fund the Research and development of the technology and products, and now we are funding the sales and marketing growth as well as the geographic expansion. The other thing I should mention is that you should see some announcements from us in the near term. We are expanding through partnerships, and it is something that

allows us to accelerate our growth. Existing partners with footprint and credibility also validate our story, so it is another way of validating the product and the company as well.

CEO CFO: Why should people in the business and investment community pay attention to Avvasi?

Mr. Prgin: The big opportunity here and the big market is that represents over half of mobile traffic (growing to 2/3 over the next years). Mobile has become the prime platform for accessing the internet, and it is going to become the prime platform for accessing video. That is a huge land shift in the sense of when you think about Google catalyzing the shift from print media to online. There is an even bigger amount of revenue that is going to be shifting from traditional video distribution platforms (TV, Cinema, the internet) to the mobile platform, and you are talking about subscription dollars, advertising dollars, and everything else. There are going to be a lot of winners and losers, and there is going to be a lot of change. We are at the forefront of that and we have a key enabling technology that is allowing that to happen smoothly and faster. We hope to be one of the big leaders in this field and explosively grow in the market.



Avvasi Inc.

**103 Randall Drive
Waterloo, ON N2V 1C5 Canada
519-772-6902
www.avvasi.com**