

Point of View: Sanchaita Datta

CTO FatPipe Networks

by Colin Kelly Jr., 5.29.2003 MT

Sanchaita Datta, known to all as “Sanch,” and her husband Ragula Bhaskar, both have worked in the network hardware engineering field for some time. In the late 1990s the couple researched ways to address a need many Internet companies seemed to have: “How can we get faster and more reliable bandwidth for less money?”

The couple was driving on a highway between Orlando and Miami one day in 1997 when they had an epiphany: Why not develop a system that would take multiple low-cost lines and combine them to make one virtual high-bandwidth connection?

They thought that by teaming up multiple sources such as T1, T3, DSL and ISDN lines, they could offer a network connection that provided redundancy, security and reliability all at a greater speed.

And thus the concept of the “Fat Pipe” was born. They formed a company and started looking for funding. In the fund-raising process, Sanch and Bhaskar found themselves using the term “Fat Pipe” so often to describe their idea that they decided to name their newly formed company FatPipe Networks.

FatPipe’s products have been able to address the changing concerns of network administrators over a six-year span all with little modification to the basic technology.

A few years after FatPipe was formed, the price of bandwidth came down. Focus in the industry then shifted to security. As more institutions came to rely on the Internet for transactions, protecting

the data in those transactions became crucial. Fortunately, FatPipe’s technology already had built-in security.

Now in a post-9/11 world, many companies seek to avoid the network disruption that a large disaster in a different part of the country could cause. Again, FatPipe’s products already have the redundancy built into the system needed to avoid this disruption.

To understand how the FatPipe technology works, Sanch and Bhaskar explain it using a hypothetical company, such as a law firm, to show the benefits of the technology.

Suppose that this law firm has an office in Salt Lake City and another in Boise. The firm would normally have one network connection, or data stream, between offices. If this one data stream gets broken, the office-to-office network goes down. To compromise the firm’s data security, an individual needs only tap into that one line somewhere between Salt Lake and Boise.

FatPipe’s technology lets the firm use multiple data streams, which run physically between the two offices and are aggregated to appear as one line. Office staff won’t notice anything different in the day-to-day operation of the firm (except for the increased network speed from the multiple lines). The real magic happens behind the scenes and is transparent to the general office staff. If one of the lines between Salt Lake and Boise temporarily goes down, the data load is shifted to the remaining operational lines.

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FatPipe’s security feature, called MPsec (multi-path security), makes use of the redundant lines to increase the level of security up to nine times that of a single data stream network. When a file is sent from one office to another, the file is broken down into packets. The order of the packets is then scrambled. Each packet is randomly sent over one of the available data streams. On the other end of the network, the MPsec technology reassembles all the random packets into their proper order and renders the file intact. In order for someone to steal the data, not only would all of the data streams have to be simultaneously tapped, but also the data thief would have to know the proper encryption key to reassemble the data into a recognizable file.

connect recently caught up with Sanch Datta in FatPipe’s Salt Lake City headquarters to discuss her and her husband’s company and the unique innovation of the FatPipe technology.

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connect: Give us a simple overview of what FatPipe does for its customers.

Sanchaita Datta: We have developed technology that provides reliability, redundancy, speed and connectivity to corporate WAN networks. We bond together multiple communication lines seamlessly to provide a reliable connection to corporations. It helps keep your network up and running 24 hours a day, 7 days a week.

connect: Why is your product so secure?

SD: When you are transferring data point-to-point over a single line there is a single data stream that flows between the two sources. Our product takes that data stream and splits it between multiple data connections. The product also encrypts the data and sends it in a random order. Once we split the stream, if someone were able to capture one of the data streams they would find it impossible to reconstruct the data.

It is just like shredding a piece of paper and throwing it into the wind. It is very difficult for someone to r

ecapture all the parts of the paper and then know how to paste each piece back in its original place.

connect: Who is your typical customer?

SD: We have everyone from elementary schools to Fortune 500 companies. Our clients used to be only law firms, financial institutions, and health facilities. Now we find more and more that all types of people can benefit from the boost in security, reliability, and speed. Manufacturing companies, airlines, even NFL teams are all using our

products.

connect: What has been one of your larger challenges in keeping FatPipe thriving?

SD: The constant search for funding is a big challenge. We have been very lucky to find the money we have received. We are very happy with our investors. Our timing for funding has been good. We received our initial round in 1998. A second round was obtained in 2000. We are working on closing a third round now and we are right on track for profitability. We have had positive growth for the last eight quarters.

connect: What are your customers looking for right now?

SD: Disaster avoidance and security is a thing that every company is looking to implement in their network. Our products play into that area very well. We can provide a product to a customer that helps avoid a disaster and improves security.

connect: Has 9/11 helped or hurt your sales?

SD: The need for security has always been there. However 9/11 brought it to the forefront of people's minds. People realize that they have to have redundancy in their networks in case one data connection goes down. We have never used 9/11 as a marketing tool. It is in poor taste to bring it up.

During the dot-com bubble, there was the need for speed. High-speed lines were very expensive. Everyone was looking for cheap and fast bandwidth. Our products serviced that need. As the Internet became more prevalent in people's lives, the need for security became

very important. Our products addressed that need as well.

After 9/11, people started to look for disaster avoidance in addition to security. Again, that same product fit that need.

Our market message has changed over time, but the need in the market for speed, reliability and security has always been there. The focus has just changed periodically.

Our core technology from the beginning has remained the same. It just happens to address all these concerns.

connect: Have you been able to find good employees locally?

SD: You can find talent. But finding talent that is complementary to other people is hard. We select people that complement others employee's strengths.