



Entrepreneur of the Month, July 2006



Asa Kalavade
Chief Technical Officer
Tatara Systems

Broadening Mobile Horizons

Asa Kalavade's Tatara Systems offers converged mobile offerings to service providers the world over.

Indira Gandhi International Airport at New Delhi is abuzz with activity. Somewhere in a corner a laptop beeps. The user clicks onto the screen, fixes his microphone and BINGO! He's on a business call with his team at California, awaiting a connecting flight to his client's destination. While he's in conversation across borders, with his calls routed through his mobile number onto his laptop, Tatara's team of experienced communication experts is busy working behind the scenes, partnering closely with leading mobile service providers to deliver solutions over Wi-Fi enabled laptops for subscribers of wireless network operators.

The *idée fixe* of Asa Kalavade, Tatara Systems sprouted in the spring of 2001 with a seed funding of \$250,000, and \$23 million funding in 2004 from Highland Capital Partners and North Bridge Venture Partners. "A single service provider can never own all the networks or devices a customer would like to access. So we embarked on converging the cellular world with the IP world," says Kalavade, Chief Technical Officer of Tatara Systems. She placed the bet and decided to leverage on mobile services convergence platform. Extending services beyond traditional connectivity, her team started defining, developing and deploying converged mobile offerings to innovative mobile service providers world-over. These solutions are also offered to fixed line operators and content providers to enable services on subscribers' PC laptops, PDAs and emerging high-performance smart phones.

There is an increasing popularity of softphone-based VoIP services. But that would mean the user holds different brands, providers, accounts, numbers and several customer-care sources. Many times, it so happens that customers do not identify the caller when the call is routed through a different identity over VoIP. This is where Tatara's solutions buoy up. Tatara's converged mobile VoIP service enables mobile service providers to offer voice and data services seamlessly over a consistent user experience while being parked with a single converged identity.

This enables the end user to make and receive phone calls through a softphone on a laptop or PDA over diverse IP networks, be it Wi-Fi or Ethernet, Universal Mobile Telecommunications System (UMTS) or Evolution Data Optimized (EVDO). "With no additional VoIP identity or phone number, users can choose to receive calls on their laptop over a softphone, routed through the mobile number that is registered as contact information," explains Kalavade. When the user makes a call through the Tatara platform it is again identified with the mobile number. The laptop can also be used to send and receive SMSs and MMSs.

Tatara's platform also enables providers to offer secure, consistent user experience and deliver value-added services and other benefits to subscribers, regardless of the network connection the subscriber is currently using. A centrally deployed gateway server is juxtaposed with the client component that is installed in the subscriber's mobile computing device. Tatara's platform maintains real time, secure, two-way communication links across any IP network. "Service providers are offered a feast of building their own brands. While maintaining their customer ownership, they can extend access to IP based services across multiple 'home' and 'roaming' access networks," informs Kalavade. And all this is available in a suite of intelligent secure SIM and SMS based authentication. The solutions are also architected to work in a CIO-approved manner even when the user is working on VPN.

"We are not trying to replace mobile phones but complement mobile services," says Kalavade. With rapidly growing smartphone business and more than 10 million laptops in use today world-over, Tatara is working towards enabling a host of exciting new mobile service offerings. Seamless roaming service is a marked advantage that Tatara offers to today's conventional nomadic roaming users. While crossing each network boundary, users are dynamically assigned a new IP address that obliges them to terminate and reinitiate application connections. Seamless roaming enables users to maintain an active IP connection despite changing connection types and locations. This enables carriers to render better location based services like local café reviews, company locations etc and improve customer support by closing in software updates and troubleshooting user problems.

Providing visibility into critical data like usage and performance information (including information gathered while customers' are on roaming partners' networks), Tatara's architecture offers service providers consummate control over services, usage, network quality and security on a single centralized platform. The end result: higher Return on Investments (ROI) from attractive mobile service business models that expand revenue opportunities and deliver shorter payback periods.

Discovering the Impresario

“Attaining nirvana of converging Wi-Fi and 3G was a puzzle to be pieced well. It was not a sexy story of ‘I can do seamless work’ but it was really the nuts and bolts of what was needed to make the carrier a great service,” reminisces Kalavade. A Doctor in Electrical Engineering and Computer Sciences, she has more than a decade-and-a-half of experience in the wireless domain, multimedia services and real time embedded systems. With multiple patents to her credit, Kalavade spent several years with Bell Labs working on high-end technologies. She invented a technology for wireless multimedia streaming, reconfigurable network interfaces and real time multiprocessor DSP systems during her stay there. Struggling to get her ideas to fruition in a large setup, she decided to step into the world of entrepreneurs.

This was an inflexion point in the making of this impresario. Envisioning an emerging market that allows seamless solutions for Wi-Fi and 3G, Kalavade started off with a vision of the entity and what it’s going to be. She set-off with a business compatriot, researching mobile carriers in advanced European mobile service provider markets. With a validation from Europe, Tatara rocketed off from Boston. But it wasn’t a life of Riley. “As first time entrepreneurs, it was a challenging proposition for a North American company to sell in Europe,” recalls Kalavade. The company decided to shift its focus onto the North American market but found it sophomoric to the new wave in the tech world. It again reverted its focus onto the European markets until two-three years ago when the American mobile service market matured to coalesce with Tatara’s solutions.

After this, there was no looking back. In a span of five years Tatara has partnered with world leading carriers like Vodafone (Ireland, U.K., Netherland, Group), British Telecom, O2, Canada’s Telus Mobility, U.S. based iPass, VeriSign, and JiWire.

An acquisition of Canadian based communications software developer Xybec Solutions is an added eclat. With Xybec’s wireless WAN technologies, strategic customer base and a skilled engineering team, Tatara is looking to converge its voice and data services from laptops to emerging smartphones. Tatara is looking to expand its markets in Japan as well.

Reminiscing about her journey until now, Kalavade is pleased to see her ideas getting implemented successfully in her startup and received well by customers worldwide. “Most of our customers are focusing on access convergence related solutions and are evolving to where we are,” she says, whose vision has been maturing with a growing market and peer customer relationships.

While mobile service providers can now offer laptop based connectivity through solutions available on this platform, Tatara is already making headway to enable laptops to screen high-quality motion videos through Wi-Fi. Envisaging Kalavade’s vision for Tatara, it’s quite probable that forthcoming soccer world-cups would be flashing across laptops world over.

Converged Mobile VoIP & Messaging
“One Number” Nomadic Voice and SMS Across Networks

MOBILE PROFESSIONAL CASE STUDY: “A Day in the Life”

Tatara’s Solution Extends Mobile Services Across Networks & Devices Through Single Identity

