

A question of quality

MATTHEW WHALLEY FINDS US TIER 2 PROVIDER MZIMA NETWORKS EMPHASISING THE QUALITY OF ITS SERVICE AS A MEANS TO BUILD UP ITS BUSINESS



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GRANT KIRKWOOD, FOUNDER AND CTO, MZIMA NETWORKS

Proudly Tier 2. US carrier Mzima Networks is focussing on quality over cost as it seeks to differentiate itself and compete with Tier 1 carriers.

Three predominant models have emerged in the IP transit and data transport markets and Mzima believes that optimisation rather than network reach or price can be its unique selling point in an increasingly commoditised market. While costs are being driven down, Mzima hopes to be a performance player on some of the world's most commoditised routes. Since its inception in 2001, Mzima

Networks has primarily offered IP transit services across its US, Europe and Asian backbone but is branching out to meet the needs of carrier customers.

“At present we have a lot of video and audio streaming customers. However, in the past year we have been putting much more effort into getting into both the international carrier and enterprise space,” says Grant Kirkwood, founder and CTO at Mzima Networks. “We have designed the network to be very sensitive to latency and packet loss. Mzima has a custom performance enhancement engine that we

designed ourselves. For that reason, a lot of companies that are streaming content to end users or between corporate sites find that our network is well suited for them.”

The hope is that a high quality of service and route optimisation will appeal to carriers in the same way they have already appealed to the content market. “Mzima” means “alive” or “stream” in the Kiswahili language. The company's active approach to performance has allowed it to win business among content players, and through serving this small but growing market segment, the company has been profitable from its inception. Kirkwood says that Mzima has found success in aggressively pursuing direct relationships across the telecoms market to ensure the flexibility and quality of its services.

“By interconnecting with consumer networks (like DSL providers and cable companies) and regional telecoms carriers (ILECs, international networks, etc) we provide rapid transit for high-priority traffic. Traditional models have included multi-homing to multiple Tier 1 providers. While this provides multiple outbound routes to choose from, we take this concept further by interconnecting directly with end-user ISP networks, eliminating the need for these less efficient routes,” says Kirkwood. “Our goal is to get customer traffic to end users as quickly as possible. We achieve this through a delicate balance of multiple Tier 1 backbone providers along with extensive public and private peering relationships, interconnected with a private backbone network.”

IT'S ALL ABOUT DOUGHNUTS

Kirkwood advocates a concept Mzima calls “doughnut peering”, which uses these direct relationships to avoid interconnecting with Tier 1 providers. The “doughnut” being the Tier 2 carriers, ISPs and content providers on the periphery of the Tier 1 backbones that sit at the centre of internet routing.

“The whole concept of ‘doughnut

peering' is that as a service provider sitting outside that core we want to establish links directly to all of the other content providers and ISPs that also sit on the outside. If we are sending traffic from one of our content customers to a user on Comcast, we want to send it directly from our network to Comcast's network and by pass the Tier 1 networks," says Kirkwood. "That results in better performance and lower costs as well. At the end of the day, we are a Tier 2 and we want to buy transit. If that relationship with Comcast has a technical issue or there is congestion, we have other paths. We can send it to Tier 1 providers or we can send it to other Tier 2s that have access to Comcast."

Internet monitoring firm Renesys says that 80% of Mzima's routes bypass Tier 1 networks and to facilitate this Mzima has over 500 peering partners worldwide.

Kirkwood says: "Our key differentiator is that we have looked at peering as a performance enhancing tool not as a cost saving tool. On a technical level it is not

terribly different but on a philosophical level, because a lot of our customers are content focussed, we are going to keep that in mind as we make decisions on who we peer with and how we interconnect and not to try to save money doing it."

Mzima is now looking at expanding its scope. It has established a presence in Hong Kong, Tokyo and Singapore and has plans to continue growth in Asia. "Our goal is to touch countries like China, Vietnam, Thailand and a lot of eastern European countries, the Middle East and south America. We want to bring this open network into these developing countries and foster open communication on the internet for these new users," says Kirkwood. "In most of these places their only option is one regional often state-owned player that is going to be very slow and difficult to work with or a very small number of global Tier 1s."

In the next two to three years, Mzima hopes it will have circled the globe and have established a presence on every

continent. "In the IP transit market there are price players that are unabashedly selling on price. There are pure price players then there are the others that have a base to differentiate. Mzima falls into a group of carriers that are not Tier 1s but they have an angle. They are not a Tier 1 but they are very much in this market," says Erik Kreifeldt, senior analyst at Telegeography. "If anything Mzima is saying something novel about how to approach this market. Their footprint is not terribly unique but if they can deliver a creative solution then they can certainly carve out a place for themselves in the market. As a carrier you buy some of the cheap connectivity and you buy some of the high performance connectivity and you have a blend. Quality can be a tough sell but there are always different segments that are willing to pay. If you have got a niche that is specialised enough to serve in a differentiated way and are receiving a premium price that is big enough to make it worth your while, there is a business there." ■

KEY FACTS

> **History:** Mzima Networks was founded in California in 2001 by a team of telecoms executives and network engineers. From its beginnings as a small but quickly growing network service provider in southern California, Mzima has extended its backbone to major markets throughout north America and Europe. Its history of creating an open network means that it has interconnection agreements with over 500 other networks throughout 90 plus countries around the world.

Mzima offers a set of products and services aimed not only at internet content providers but at the enterprise market deploying network or systems infrastructure. Throughout its history, Mzima has remained focussed on delivering its unique network services approach to customers throughout the world.

> **Ownership:** Private

> **CTO and founder:** Grant Kirkwood

> **Revenues:** Not available

> **Customers:** Mzima's content customers include Legalzoom, Eharmony, Godaddy, Pandora, Mozilla, Radio Free America, Scansafe, theplatform/Comcast, Bizrate/Shopzilla, Barnes & Noble, Carsdirect.com, NetDNA, Mahalo. Mzima Networks also targets international carrier customers.

> **Network:** Mzima Networks has designed a completely fault-tolerant backbone network connecting to multiple Tier 1 carriers and hundreds of private peers to provide the highest performance and reliability to its customers. Mzima uses customised, proprietary software in combination with BGP4 routing to make on-the-fly routing decisions, constantly analysing the many possible paths customer traffic can take. Mzima's expertise and focus is on routing and traffic delivery, allowing customers to receive the benefits of well-managed multi-homed bandwidth without requiring the expertise, equipment or associated costs, as well as receive the benefits of direct private peering with end-user ISP networks.

Mzima interconnects at most major peering locations in north America and Europe, and it is constantly seeking to expand its network to new locations to further its route diversity and global reach. Mzima's network is engineered to move IP traffic to and from end users as quickly as possible. For this reason Mzima aggressively pursues direct traffic exchange with broadband ISPs around the world.

> **Products and services:** Mzima Networks offers high value IP transit services. Its combination of route-optimised transit and private peering offers a high-quality low-cost alternative to traditional service providers and multi-homed networks. Services include IP transit, Ethernet private line, Sonet private line, and metro Ethernet/wavelength. ■