

Raritan Brings Quantifiable Advantages for MSP Alvaka Through Remote Systems Management

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Executive Summary

While a great deal has been discussed in the industry about the evolution of the enterprise management market towards new technologies and enhanced business alignment, Out-of-Band (OOB) capabilities are often neglected. This is a critical oversight, since OOB capabilities, ranging from KVM (Keyboard, Video, Mouse), to serial port access, to mixed in-band and out-of-band monitoring and management, are evolving to become a fundamental building block of next-generation IT management strategies.

This report looks at the business advantages, including the return-on-investment implications, of managed service provider (MSP) Alvaka Networks' adoption of OOB capabilities from Raritan during the first half of 2006. With an estimated ROI potential based on travel reductions at better than 150% over the course of the first year, as well as additional benefits in terms of customer loyalty, better service, better quality of life for employees leading to improved retention, and strategic business model advantages. Raritan solutions clearly fit Alvaka's MSP requirements well. These solutions have proven to be even more relevant as Alvaka evolves towards offering a more advanced set of remote management capabilities that bring higher profit margins while also providing superior, and more consistent customer service.

Industry Climate: IT and Business Services are Gradually Merging, Placing New Stresses on IT

While MSPs such as Alvaka are clearly businesses where the IT service *is* the business service, their requirements are becoming more and more reflective of broader trends across IT organizations in multiple verticals. Some of the reasons for this include the following:

- To grow revenue, businesses must increase their global market reach.
- Businesses are also evolving more decentralized ways of working to accommodate talent (individual and organizations) that can be dispersed across a large geographical area, including globally.
- One result of this decentralization is increasingly complex business-to-business and business-to-

consumer relationships. This complexity touches small and mid-tier business as much and sometimes more than larger enterprises, as smaller businesses depend heavily on partners for outreach. A growing number of these mid-tier and smaller businesses are in turn supported by MSPs.

- Advances in IT technology are also enabling new kinds of business services. These include many new Web-enabled applications, as well as new opportunities for sharing content, including images, voice and data in a wide variety of ways across the infrastructure.

As a result, the costs of IT service failures are becoming more and more destructive to business success: The impact of downtime in this environment can be catastrophic. The average cost of downtime for enterprise businesses can range from \$50,000 to \$6 million per hour, and EMA has documented services organizations with downtime costs in terms of failed transactions as high as \$1 million a minute. Moreover, the cost of downtime for service providers often has a cascading effect, multiplying the impacts of poor performance or a lack of availability across many businesses at once.

Customer impatience is also a factor. The average Web user will wait 10 seconds for a page load and will examine two pages before clicking to another Web site. Many Web businesses have customer churn rates above 50%.

This is all the more disturbing since according to EMA data, the average time for most IT organizations to fully complete a fix for a relatively routine application failure is nearly 24 hours – from initial failure to final correction and validation that the correct fix has been made.

OOB and Remote Management in the General Market

OOB can help to solve this problem by bringing a powerful and resilient capability for correcting availability and performance issues remotely. More specifically, OOB can:

- Remedy the issues with “in-band” transmission bandwidth consumption.
- Enable device access even if network or OS failures occur.

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- Incorporate a direct “fix” capability which is especially useful in cost effective remote management deployments.

How OOB Works

KVM console support should be a mainstay for all remote systems management solutions. KVM has four basic functions:

- KVM enables administrators to work with the processor or system as though they were virtually beside the machine.
- KVM enables IT to control multiprocessor machines or machines with multiple blades.
- KVM allows designated IT professionals to stop and start processes, or restart processes that may have failed.
- KVM allows serial console access – core to accessing internetworking devices, such as switches, firewalls, load balancers and routers. Virtually every network device has an RS232 serial port.

It should be added that KVM capabilities also include remote power control for power cycling, which is critical when it’s necessary to fix device problems by turning the power on and off. Management consoles should be able to control KVM functionality, as well as capabilities to support serial access and remote power devices. As such, a well designed console can integrate digital and analog KVM and serial console controls, as well as aggregating information accessed by these sources and displaying it for different types of users. It can also serve as an integration point for other management solutions, such as in-band monitoring tools.

ROI Savings from OOB

OOB solutions can reduce the hours required for a single dispatch that can range from a one hour commute to a journey requiring multiple days and significant travel expense. Including travel costs and personnel/dispatcher time, the cost of an average trip to fix a failed device in a remote facility is currently estimated at \$350/ hour. In these cases, OOB solutions have demonstrated an average 66% decrease in Mean Time to Repair (MTTR) by eliminating travel delays and optimizing in-depth device diagnostics.

From interviews with OOB customers, EMA has also observed:

- Operational advantages through improved collaboration among different IT professionals and sometimes with other functional groups as well.
- Operational savings gained through headcount consolidation, with the technical skill base more concentrated, made possible by remote management.
- Business effectiveness – including reduced costs of downtime, new revenue stream generation and improved morale and customer/partner loyalty.
- Cost effective growth – as IT organizations can expand more predictably to support business needs.

Raritan

Raritan is a KVM pioneer, and a major provider of analogue and digital KVM switches, serial console servers, power management and in-band monitoring. Raritan equipment is used in more than 50,000 data centers around the world, including those at IBM, JP Morgan, Chase Manhattan, Microsoft and NASA. In 2005, Raritan broadened its capabilities to include support for in-band availability and performance monitoring when it acquired Oculan Systems. The Oculan products evolved into CommandCenter NOC, which positions Raritan as a leader in integrating in-band monitoring with out-of-band control.

Alvaka Networks

Alvaka Networks, an MSP based in Orange County, California, has a suite of solutions for network and systems management. “Alvaka” is an Icelandic word for “ever vigilant” or “always awake.” The MSP’s roughly 75 customers can pick a la carte services, or choose complete outsourced support from a variety of services such as network management, patching, unified threat management and general systems monitoring. Alvaka’s network operations center (NOC) is fully redundant and designed for 24x7x365 support. Alvaka will also help its customers meet individual requirements, such as negotiating with telecommunications access providers on behalf of its customers.

Alvaka is transitioning from on-site to remote managed services. Currently, Alvaka’s business is about 50% re-

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remote and 50% on-site. According to Rex Frank, CTO, "We succeed by having repeatable processes." This means creating an environment where customer requirements can be managed through more consistent processes.

Alvaka has recently invested in Raritan's KVM/IP and serial/IP access technologies. It is also deploying Raritan's CommandCenter NOC for in-band monitoring. Alvaka uses other tools such as BMC Patrol Express and Patchlink. For remote access Alvaka is moving away from VPNs and towards HTTPS connectivity, in order to keep costs down for its customers.

Two Alvaka Customers

Two of Alvaka's customers agreed to become part of a business impact assessment done by EMA February 1st through June 30th, 2006.

Customer 1: E-business for Sports Activities Reservations

This first customer is a new engagement for Alvaka. Service availability is critical for this customer as it makes its business through online transactions ranging from \$140 to \$340 for a single reservation. This customer was vulnerable on weekends, when many of the reservations occurred, as the site was staffed only five days a week. In this case, not only were problems slow to be resolved, but many costly problems simply went ignored since there were no capabilities for remote monitoring. With Alvaka's help, this situation has changed dramatically. This customer currently has 20 systems being monitored by Alvaka through Raritan KVM/IP capabilities, which are jointly in use between the customer and Alvaka.

Customer 2 – A Financial Services HMO

The other customer participant was an established Alvaka client that supports hundreds of doctors and thousands of patients in the southern California area. Doctors use this customer's service both for financial and billing records and for actual medical records. In many cases the service is used for diagnostic reasons while the doctor is in the room with the patient. Therefore delays or availability failures have a very pronounced effect on service effectiveness and customer loyalty. For this customer Alvaka monitors about 30 servers with Raritan KVM/IP.

Alvaka's Business Advantages and ROI

Alvaka's business advantages and ROI from its Raritan investments are multidimensional, and as such need to be examined from a number of perspectives. However,

in order to lay a foundation for business impact analysis, the first place to look is cost.

Costs:

Raritan offers unique pricing for MSPs. For KVM/IP support for remote systems, Raritan's model is as follows:

- For a complete set of KVM-related capabilities, including full console integration and Raritan supplied services, the cost is:
 - \$10.82 per server per month for 36 months. Or \$129.84 per server per year.
- For a basic KVM offering the cost is:
 - \$3.60 per server per month for 36 months. Or \$43.20 per server per year.
- An average cost, reflective of Alvaka's requirements, is \$7.09 per server per month for 36 months, or:
 - \$85.08 per server per year.
- For the 50 servers spanning the two customer locations that participated in this analysis, the cost would then be:
 - **\$4,254.00 for 50 servers for one year**
- Alvaka estimates that it has roughly an average of ten supported servers per customer across its 75 customers. (This is a rough average, as an individual customer may have as few as three or four servers, or as many as hundreds.) So a blanket estimate of what it would cost for Alvaka to use Raritan pervasively for remote KVM server management would be:
 - **63,810.00 for 750 servers for one year**

These costs include:

- Software licenses (monthly)
- Cost of maintenance (monthly)

Additional costs per site that are one time only are:

- Cost of deployment (one time only)
- Cost of MSP training (one time only)
- Cost of end customer training (one time only)
- Cost of administration (one time only)

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Savings and Business Advantage

Alvaka's savings and business advantage as indicated are multi-dimensional, and can best be understood both in context with its own and with its customer success. However, the single most dramatic savings that's reasonably easy to quantify are travel savings achieved by minimizing "truck rolls" or trips to customer locations.

Savings From Travel

The biggest and most easily measurable savings for Alvaka is the elimination of truck rolls to customer locations. Alvaka calculates these to be \$145.65 per truck roll. More specifically:

- *41 cents a mile*
- *Average round trip 30 miles, 15 each, and time is 45 minutes for those thirty miles – \$12.15 – mileage*
- *Hourly pay – around \$40 an hour average, so lost wages at \$30*
- *Average lost billing opportunity of \$150, so lost opportunity expense of \$112*

Total travel cost – \$154.65 – (just in the travel time) average service call.

- Alvaka had experienced 1,060 field service requests during the five-month period from February to June 2006. Conservatively, it estimated that 25% of these could have been prevented by pervasive KVM/IP implementations based on extrapolating the experiences with their initial two deployments.
 - That would mean 265 field service requests that could have been prevented from February to May
 - That's \$41,000 dollars in costs from travel alone during those five months or
 - \$8,200 per month or
 - \$98,400 per year in travel savings
 - When divided by the first-year costs of an equivalent Raritan deployment (\$63,810.00 per year) **the initial ROI on travel expense alone is 154%**

Business Model Advantages for Alvaka

According to Rex Frank of Alvaka: "At Alvaka we are trying to go more and more towards a managed service environment. For on-site professional services we have a 65% labor load to gross margin ratio. On managed services it's 75%, meaning that we keep 75 cents of every billing dollar we get. It's a paradigm shift in the way you deliver service. Instead of sending a guy out for six hours a month, only two of which the customer may need him, we can offer our customer better, more consistent, and more cost effective service by billing on the service versus time. It's a more efficient, and so can save us money. Service availability is also better because we're continually in control – better availability plus faster repair. And so the promise to customers is lower total downtime and faster MTTR when there is down time. The move to adopt Raritan's KVM/IP and CommandCenter NOC solutions are an integral part of helping Alvaka and its customers make this transition."

Frank continues: "A service needs to be architected and delivered. I'm going to do patching and anti-virus on the desktops – and that means a traditional VAR would make billing dollars cleaning up viruses. I should profit from not having to go clean up a virus."

Other Alvaka Savings and Business Advantages

Operational savings: Alvaka noted that having more remote control allows it to be more proactive in its staffing. It allows Alvaka, for instance, to deploy an entry-level professional at \$35K to \$40K to do certain monitoring tasks such as checking backups routinely, while freeing up the more senior professionals at \$100K to tackle more appropriate management and planning tasks.

IT staff retention and quality of life and work: Both Alvaka and its customers were quite forthcoming about the stressful nature of on-demand IT support. Working at unpredictable intervals after hours, including weekends, can be seriously disruptive to personal and family life. In some cases, divorces have ensued specifically from these disruptions. Browser-based remote control, as provided through Raritan solutions, has gone a long way to minimize this.

Better service quality and increased customer loyalty: Alvaka was clear that improved service quality resulted from use of Raritan solutions from a number

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of perspectives. These included the fact that resolution times could be significantly reduced by applying immediate attention to the problem, rather than suffering travel delays. Another factor leading to improved service availability was improved proactive maintenance. In other words, because access to remote systems was much improved, minor problems and routine maintenance that were often ignored or delayed in the past now get attention and prompt resolution. This resulted in overall improved service bringing improved customer loyalty to Alvaka's clients, which in turn resulted in improved customer loyalty for Alvaka's own MSP services.

Business Advantages and ROI as Realized by Alvaka Clients

Both the HMO and the sports activities coordinator had experienced some clear advantages from the on-site presence of Raritan solutions in support of Alvaka services.

Sports Activities Coordinator

This Alvaka client shares access to Raritan's KVM/IP and described the following projected savings:

- **Travel and diagnostics savings** at \$1,750 per year as derived from the following:
 - Blended IT salary costs at \$35 an hour at 50 hours.
 - Travel – 30 minutes per incident round trip as minimum – a conservative estimate. These occur at least once a week, which comes to 25 man hours per year).
 - Another 15 hours are gained in terms of efficiency, as physical connections needed for diagnostics were not available 20% of the time (hence impacts all diagnostics even when there).
 - Additional 10 hours resulting from the ability to provide better diagnostics more generally.
- **Sales saved through site uptime** was estimated to be about 2 to 3 per event, which would result in savings of about \$7,200 a year.

- **Customer retention:** new customers would often not come back if the initial visit to the site occurred while the service was down. Based on its own internally gathered statistics, a regular customer is valued at about \$700 a year. If just one new customer a month is lost, that's \$8,400 per year.

Total business advantage in measurable dollars from remote management capabilities: \$17,350

Additional advantages that this Alvaka customer experienced from enhanced remote control included:

- **IT staff retention** – as staff was saved from having to come back after hours, seriously cutting back on personal disruptions and attrition
- **Improved service performance** – problems that would have been left over the weekend to be fixed on Monday were fixed on the weekend. Also, it was far more likely that minor tasks got done with less procrastination, which can have a major impact on IT when taken cumulatively.

HMO

Since the Raritan KVM/IP is shared between the HMO and Alvaka, the HMO similarly experienced travel reduction advantages from use of the Raritan solutions. These included:

- **Travel costs** at a projected \$7,560 per year:
 - Time to commute round trip from data center is 1 hour and 45 minutes
 - Requirements from home to the data center averaged about nine times a month.
 - At an estimated \$40 average salary, this would then equal \$7,560 travel costs per year based on salary alone..
- The HMO also noted **fewer disruptions to personal life.**
- **More flexible and effective maintenance** resulted as remote control allowed IT organizations to work from home. This was deemed more convenient and less disruptive.

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Conclusion

Out-of-Band and remote management should become an increasingly integral part of both IT and MSP business models as more and more remote locations need effective management, and as MSPs move to a more proactive and consistent management paradigm. Alvaka's use of Raritan OOB solutions highlights a number of critical business advantages. These include:

- ROI benefits are clear (roughly 150% in the first year alone) based on just truck roll savings from the MSP
- Other values include:
 - More effective transition to a new, more proactive business model
 - More effective use of the mix of skilled versus unskilled personnel
 - Better service quality and increased customer loyalty
 - Better employee retention and improved quality of life
 - Direct revenue gains from clients dependent on IT services for business revenue which tend to mirror Alvaka's own gains in such things as reduced travel time, improved service and better employee retention

It would seem clear from the above that the business impact of effective remote management for MSPs and for IT can be sizeable and significant. EMA looks forward to a time when the IT industry becomes more aware of these benefits, and when IT vendors more broadly recognize that OOB is a foundation for effective IT service management that can no longer be ignored.

About Raritan

Raritan is a leading supplier of solutions for managing IT infrastructure equipment and the mission-critical applications and services that run on it. Raritan was founded in 1985, and since then has been making products that are used to manage IT infrastructures at more than 50,000 network data centers, computer test labs and multi-workstation environments around the world.

From the small business to the enterprise, Raritan's complete line of compatible and scalable IT management solutions offers IT professionals the most reliable, flexible and secure in-band and out-of-band solutions to simplify the management of data center equipment, applications and services, while improving operational productivity. More information on the company is available at Raritan.com.

About Enterprise Management Associates, Inc.

Enterprise Management Associates is an advisory and research firm providing market insight to solution providers and technology guidance to Fortune 1000 companies. The EMA team is composed of industry respected analysts who deliver strategic awareness about computing and communications infrastructure. Coupling this team of experts with an ever-expanding knowledge repository gives EMA clients an unparalleled advantage against their competition. The firm has published hundreds of articles and books on technology management topics and is frequently requested to share their observations at management forums worldwide.

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