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Case Study



Opteq secures Foskor...

Internet Link Management
Foskor Limited
Large Mining Corporation.

The problem definition by the IT department was that management was unhappy that they had approved a number of upgrades to the Internet link speeds without achieving the desired results. Specifically user satisfaction ratings were still poor and the procurement department still needed to arrive at work early in order to process Internet banking payments and enquiries. Attempts to process Internet banking during working hours were very slow and frequently failed.

A site visit by the Opteq partner (Opteq South Africa) uncovered the following –

- There was budget allocation for increasing the Internet link speed that could cover the cost of an Opteq solution in less than 1 year and potentially less than 9 months.
- Management was unwilling to approve the upgrade without some guarantees from the IT department due to previous experience.
- Procurement staff was unhappy with having to arrive at work early and under duress had agreed to do this only once per week. This was resulting in supplier unhappiness and missed promises from management.
- Staff in general was not happy with their experience in using the Internet even though management was encouraging them to keep up to date with industry, client, and competitor activity.
- The current IT Internet infrastructure was an ISA server running firewall, proxy and cache. Traffic and performance statistics were not enough to enable the IT staff to determine exactly what was causing the problems and they were largely relying on the ISP to provide statistics.
- The ISP statistics were found to be accurate but simply showed total traffic on the link. There was no protocol or user breakdown to enable in-depth analysis. The ISP did not have the capability of providing the required statistics and simply recommended upgrading the link each time they were asked showing peak capacity graphs in order to prove their case.

A proposal for a pilot project was prepared, presented to the IT department, and was accepted. The pilot scope and objectives were –

- An Opteq i.Q. demo unit would be supplied and installed for one week in monitoring mode in order to build a statistical picture of activity on the Link.
- A report of findings and recommendations would then be presented and if accepted would be implemented on the link for a further week during which comparison statistics would be gathered and user surveys would be taken.
- A final report would then be presented detailing the findings as well as an ROI model for the purchase of a unit.
- The ROI model agreed to in this case was simple and only used staff hours and costs in the procurement department and savings on Internet link costs by delaying upgrades. It was agreed that while user satisfaction ratings would not be specifically used they would be taken into account by management. The same was agreed to with regard to potential improvements to service levels for management and suppliers.
- The cost of the project covering T&E and engineers time was accepted and a purchase order was awarded for the pilot.

The pilot was completed successfully and the following summarizes the findings –



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- Email and P2P file transfers were seriously compromising link performance and causing session timeouts and disconnects.
- At peak times discard rates and therefore retransmissions were frequent.
- The restriction of Email to 25% of link speed during work hours did not seriously affect service levels and freed up the link substantially. Bursting was allowed to full link speed whenever the link was not utilized by higher priority traffic and after hours.
- P2P traffic was limited during work hours and staff was trained in how to schedule transfers to start after hours. This further freed up the link without compromising service.
- HTTPS (Internet Banking) was allocated a high priority during work hours and the procurement staff could then process their work with no delays. Two hours per week of overtime was eliminated by this and staff satisfaction as well as supplier and management service levels significantly improved.
- Normal HTTP (browsing) was allocated a higher priority and transparent caching was implemented. Staff satisfaction levels increased substantially. User support calls about Internet connectivity dropped from an average of 15 per day in week one of the pilot to none at all in week two. Link savings averaged 30% during the second week of the pilot due to the caching.
- In summary it was established that for current requirements and growth of 30-50% the current link speed was sufficient to meet required service levels if the traffic was properly managed. This allowed a delay in the upgrade of an estimated 2 years and a pay back ROI of 10 months. The added savings of overtime brought that down to 9 months.

Owing to the statistics that the client is now receiving they have been able to identify areas where additional savings could be achieved. It was determined that an obligatory company internet policy would lead to further savings of bandwidth. Negotiations were made with their unions on a policy agreement based on the usage statistics. The issues negotiated were personal emails – how many is fair and acceptable and how big attachments should be. Which sites and site types should be allowed and disallowed, both during working hours and after. What P2P allowances are fair and whether copyright infringements should be tolerated (i.e. music and movie downloads). Is IM (Instant messenger or ICQ) going to be allowed and how much is fair. The opteq iQ unit was upgraded to include content management in order to implement the agreements policies. It was determined that the ROI on this investment will be a few months and extend the life of their Internet link for a few years more.

The client originally decided to place the Opteq iQ unit outside their firewall. This achieved the desired results but had the effect of not allowing the Opteq iQ unit to see back into the LAN environment which distorted the reports as all the usage looked like it was coming from the firewall itself. It was then decided to replace the current firewall with an opteq solution to overcome this problem – so firewall iQ was enabled and we took over as firewall as well.

The current status of this client is that the solution has now been in operation for well over 18 months and all estimates were met or exceeded. The opteq iQ unit is firewalling with a DMZ. It is also a cache proxy with integrated support for active directory. What this means is that the cache authentication supports single sign on to Active Directory 2003 allowing a user to log onto the domain once and not be prompted for any further login prompts when browsing through the cache proxy. On top of that the client is content filtering and enforcing the companies internet policies. Real time iQ is enabled and helping administrators to quickly identify the source of network problems.

The ROI target was easily met and the unit has performed well with minimal configuration changes. Foskor are currently investigating the possibility of adding additional modules to further enhance the performance of their network.

All about Opteq iQ: Opteq International is acknowledged as an emerging leader in the rapidly evolving world of true network management. We operate according to an independent ethos, remaining inventive, flexible and progressive within a future focused industry. By designing, developing and manufacturing our own proprietary applications on unique hardware server platforms, we retain total control over the quality, performance and reliability of our products. The Opteq flagship product, Opteq iQ, is the unique customised vehicle through which we measurably impact the businesses of our customers by fully capitalising on the investment made in their network. Opteq identifies the existing barriers that prevent your organisation from realising the full potential of your network architecture. The driving idea behind Opteq iQ is to get the most out of our customer's network... to thrive in today's fast-paced, data-intensive economy where our customers depend on the corporate network to be truly responsive and secure. Opteq iQ is designed as a single solution to facilitate the three converging key deliverables of the network management world – Performance, Security and Management. Singular iQ is at the core of our solutions. All of the Opteq iQ application modules reside on, and exploit the rich functionality provided by Singular iQ. With Opteq's Singular iQ, you have all the comprehensive sets of tools and utilities available to enforce true network management within your organisation. This modular architecture fundamentally differentiates the Opteq iQ product set from its competitors and underpins Opteq's approach and philosophy towards managing network infrastructure - end-to-end management, customised for each unique installation, from one transparent solution.