



Prevention is better than cure

Why ensuring application performance is far better than taking out insurance.
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Today you can insure just about anything from your home to your life, a celebrity pair of legs or an old masterpiece; however insurance is designed to address the problem once it's happened, not before.

Like the old adage of closing the stable door after the horse has bolted. Insurance isn't proactive nor preventative however we are all advised to take it out 'just in case'. But today's large enterprises, who have invested tens of millions of dollars on building the most reliable, robust and high-performance systems, cannot afford to adopt a 'just-in-case' policy. The cost to them, their potential customers and their reputation has serious repercussions and this is where 'ensurance' comes in.

Ensurance means that these organisations have taken all the necessary measures to ensure the whole data centre is working to its optimum capacity each and every second, minute and hour it is required to operate. Ensurance means the provider's mobile network won't go down denying the millions of teenagers their 'right' to tweet every five seconds. Ensurance means the ATM network remains available so employees can withdraw their hard-earned cash, and it means that you can sleep peacefully at night through the deployment of an Infrastructure Performance Management (IPM) solution that identifies and notifies you of everything from a trapped patch cable to serious SAN or switch over-utilisation that could bring your critical applications crashing to their knees. And that's where the fibre optic Traffic Access Point (TAP) plays such a significant role.

TAPs are the key to physical layer monitoring which lets you see error, performance, and utilisation data. Monitoring ensures the accuracy of changes and validates that they produce only the desired results. This means that if you are planning to migrate or consolidate data centre components you can set a baseline of application performance before the change, monitor throughout the move and then optimise the new systems for maximum performance, availability and utilisation.

Passive tapping isn't new and has been deployed in corporate networks for years; but with the ever-increasing processing speeds, and as virtualisation becomes a much larger part of your strategy, the TAP is rapidly becoming a widely-adopted design and implementation best practice.

The benefits brought through this preventative approach enable the world's leading banks, the world's largest commercial SAN and the world's most innovative consumer company to have an Infrastructure Performance Management policy that gets them a return on investment in months rather than years. Even one of the world's major software developers now insists that all its SAN arrays are pre-TAPped before shipment; and the real jewel in the crown of this solution is that a passive optical TAP offers visibility into every packet of data while operating in 'stealth' mode, providing 100% visibility without putting any additional load onto the network. Corning, a company recognised as an expert in optical technologies and physical infrastructure

solutions, is getting involved in tapping: "In our desire to consistently address issues our clients are quite often yet to identify we have developed a range of Tap Modules, under our Pretium EDGE® Solution, that easily integrate into our existing hardware. These perform the function of both the physical structured cabling network but also send a portion of the light to the monitoring electronics like the SAN Performance Probe from Virtual Instruments" said Tony.

"With traditional systems whenever monitored ports require changes the link has to be temporarily disabled, including the LIVE traffic, in order to make new physical connections between monitored ports and passive tap devices. By integrating both functions in a TAP it saves the need to deploy separate TAP panels which take up additional and often costly rack space. With an integrated TAP module, one rack unit (1U) can house up to 72 LIVE ports. Monitored ports can be connected and disconnected without disrupting the LIVE links and, distance depending, you can place the monitoring electronics away from the devices for additional security".

The key hurdle to active port monitoring is physically tapping the light out and this is an area where prevention is far better than cure. Installing the TAPs when you have the opportunity, for example during a refresh cycle or a new build, is far more preferable to when you have a major DC outage and are in the middle of an emotional finger pointing exercise!

The latest tapping technology allows you to seamlessly integrate the optical splitters into your structured cabling system with very low losses and a zero increase in rack space allowing you to monitor this critical function in the DC with little to no impact on performance and density.

Putting TAPs into a new data centre is very inexpensive, in the grand scheme of things (compared to servers, switches and storage devices) but can, together with real-time monitoring, make a massive difference to the overall optimisation and performance of critical applications. A large UK bank stated that 'they TAP every port as the cost of downtime is far greater than the cost of the solution to monitor the system'.

Conclusion

Life is always about taking risks, just ask any of the great pioneers or today's industry leaders and they'll tell you the same thing: risk-taking is good, so long as it's calculated risk. By taking an insurance policy you are mitigating the ill effects of an event after this has happened, but you are not reducing the risk of the event itself occurring.

By deploying an ensurance policy, or Infrastructure Performance Management solution, using passive optical TAPs, you are not even taking a calculated risk but executing a solid business strategy that ensures that your enterprise and systems run at optimum operating performance whilst adding cost savings to the bottom line. Risk, what risk?