

UK2 Group Success Story

Customer Overview

Since 1998, UK2 Group provides a wide range of advanced hosting and cloud services to enterprise clients through a number of brands including UK2.net, midPhase.com, VPS.net, 100TB.com, WestHost.com, AN Hosting.com, Resell.biz, VI.net, and Hostpuro.com. Headquartered in London, the company runs multiple datacenters worldwide, empowering over a million customers all around the world. Delivering a broad range of hosting services, UK2 Group is challenged to ensure fast and reliable connectivity to all destinations on the Internet. To meet such requirements, UK2 Group operates a fully redundant network infrastructure with links to multiple Tier-1 and Tier-2 Internet providers.

Business Challenges

UK2 Group is running a global network with very heavy bandwidth usage, pushing more than 200 Gbps in traffic through providers with which UK2 Group has established multiple commits. The company's Network Operations team had to continuously monitor the traffic usage and make sure that those commit levels are not exceeded by manually rerouting traffic from one provider to another. Network engineers had to identify the destination ranges that the network was exchanging most of the traffic with and sort them by the amount of traffic. Moreover, the team had to retrieve the source of the traffic from the routers in order to decide on the necessary routing policies to balance the traffic. This process could consume hours of engineering time depending on how complicated the policy had to be for the specific case. Eventually, balancing the traffic volume across multiple ISPs was becoming increasingly difficult resulting in a staff burden for the company.

Reacting to latency issues was another challenge that UK2 Group was facing. The technical support team was relying on being warned by a client about a latency issue. There was no automated means of proactively spotting the problem before a customer would notice it.

Summary



Customer name:
UK2 Group

Industry:
Hosting Solutions Provider

Location:
London, UK

Business Challenges:

- Ensure best connectivity to all destinations on the Internet
- Balance bandwidth usage assuring commit levels are adhered for each provider
- Increase operational efficiency by automating route optimization processes.

"The typical problem with automation tools is that they are not very transparent and engineers are feeling threatened by a potential loss of control. In contrast, Noction shows exactly what, when and why something happens, offering full transparency in its operation"

James Innes,
Director of Tech Ops at UK2 Group

There was also a need in automation of packet loss detection. The engineering team was relying on continuously running traceroutes from and towards the client, in an attempt to find where the questionable hop was. In some instances, engineers had to address the ISP's support team in order to move a specific range of destinations to a different provider. This was a very time-consuming process of identifying and routing around the problem.

Solution

Noction IRP was deployed in UK2 Group's network as a solution to automate load distribution according to the commit levels established with the transit providers as well as to ensure traffic is always directed through the best performing link. IRP's Commit Control feature allows UK2 Group to predefine commit levels that need to be met with specific providers. IRP automatically reroutes traffic to a different provider if the traffic usage on the current one is close to reaching the preconfigured limit. "When the Commit Control on IRP turned on, it had instantly made 900 route improvements in 7 minutes. According to my calculations, we would need about 100 network engineering staff to perform the same optimization." said James Innes - Director of Tech Ops at UK2 Group.

By proactively evaluating each provider's performance in terms of latency and packet loss, IRP is instantly rerouting traffic through the best-performing link without any need for manual configurations from the engineering team. "I was really surprised of how many routes with packet loss are out there, even with big providers. There were some routes from a very significant AS suffering 100% packet loss that Noction picked up and moved them over to another provider dropping the loss to 0%. The statistics that we've seen are phenomenal", stated James.

UK2 Group uses the VIP Improvements feature for intensive probing of important business destinations. UK2 Group operates multiple datacenters across US and UK. By specifying all the company's remote locations within the VIP Improvements feature, engineers are able to ensure that best paths are always selected when sending traffic to them. The same configurations are being applied to specific customers that were severely affected by packet loss in the past. VIP Improvements feature probes the specified targets more frequently than the ordinary probing mechanism, ensuring that the current path is always the best available one.

From a network visibility perspective, Noction IRP provides UK2 Group insights on provider performance in real-time. The company uses this information while negotiating bandwidth cost

Results

- Overall network performance boost
- Efficient traffic distribution across transit provider links
- Full automation of BGP optimization
- Sustainable engineering resource usage
- Reduction of network latency and packet loss

"Noction IRP is similar to a mobile phone in the late 90s – nobody had one and they were considered a luxury. Nowadays you won't find somebody without it: once you got it, why would you use a payphone again?"

James Innes,
Director of Tech Ops at UK2 Group

and commitment sizes with providers. “We put this system in a month before we were due to re-negotiate commits with our current transit providers. The statistics provided by IRP gave us great bargaining power and helped us considerably reduce our commit cost with a provider that did not perform to an acceptable level”, further mentioned James.

Results

During the first month of running in UK2 Group’s network, IRP optimized about 18 PB of traffic by announcing over 2.5 million routing updates to the company’s edge routers. The system reduced latency by an average of 27% and dropped packet loss by an average of 81% for the analyzed prefixes.

With Noction IRP, UK2 Group is now able to automatically execute adjustments in routing when Internet “events” or traffic congestion cause performance to exceed thresholds pre-defined by platform administrators. “To date it has probably been one of the best things that has ever happened to our network team: ticket volumes have gone down, support efforts have gone down regarding anything to do with routing, packet loss or latency and for the first time with no intervention from us, we were actually within our commits with all providers”, stated James.

Contact us for more information:
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