



NOKIA

ISP uses Nokia Deepfield Cloud Intelligence to optimize peering and avoid unnecessary costs

Use case

Internet service providers (ISPs) have many complex peering relationships with other service providers, content delivery networks (CDNs) and companies that provide transit services. ISPs want to ensure that customers get the best possible quality of experience (QoE) when they consume internet content, while optimizing the costs of their business arrangements.

ISPs' peers aren't typically concerned about the composition of ISPs' peering traffic. Peering is usually billed based on 95th percentile bandwidth and billing disputes are settled based on 95th percentile bandwidth measurements. However, ISPs care about this traffic because they are being charged for it. With improved visibility into all of their peering and transit traffic, ISPs can make the best possible choices about what traffic goes over paid transit and what traffic can be sent to direct peering links while ensuring that they deliver a high-quality end-user experience.

Challenge

ISP A was receiving a large peering bill from ISP B. ISP A thought the bill was incorrect but couldn't dispute the charges because it had no detailed information about what traffic was involved in peering or what service flows contributed the most to its high peering costs.

Solution

ISP A deployed Deepfield Cloud Intelligence and immediately gained a detailed perspective on all application and content flows as they originate from different CDNs, traverse peering and transit points and reach its end systems.

The solution categorizes each IP flow in the network and maps traffic from source and destination points against peering and transit and points of presence (PoPs).

In addition, Deepfield Cloud Genome® tracks, maps, analyzes and categorizes billions of

internet endpoints to provide a dynamic service delivery supply chain map of the internet.

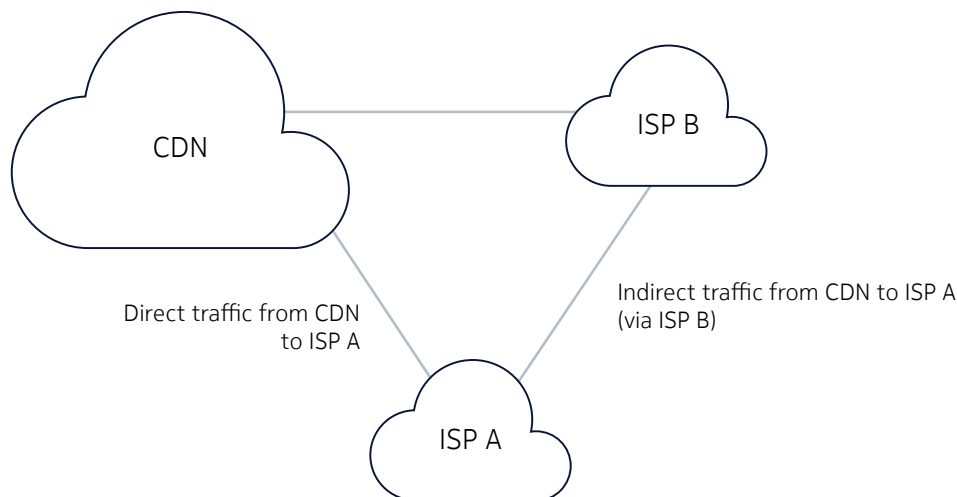
By combining information from Deepfield Cloud Genome with the insight obtained from ISP A's network, the solution gave ISP A full visibility of how applications and content were being delivered from all internet sources and across its network.

ISP A used this knowledge to investigate peering traffic patterns and traffic logs to see if they corresponded to the amounts it was being billed by ISP B. ISP A had a direct peering agreement with a CDN company, but it discovered that the CDN company was delivering a significant volume of traffic to it via ISP B. This was happening because the CDN company had been incorrectly sending traffic destined to ISP A's customers via the peering link with ISP B. Armed with the facts obtained from the Deepfield solution, ISP A contacted the CDN company and corrected the problem.

Benefits

Deepfield Cloud Intelligence has enabled ISP A to optimize its monthly peering costs. The solution has also allowed ISP A to gain detailed insight into traffic flows across all of its peering and transit links. ISP A uses this valuable information to negotiate more favorable peering and transit contracts with its business partners.

Deepfield Cloud Intelligence provides a detailed perspective on all application and content flows as they originate from different CDNs, traverse peering and transit points and reach an ISP's end systems.



About Nokia

At Nokia, we create technology that helps the world act together.

As a B2B technology innovation leader, we are pioneering networks that sense, think and act by leveraging our work across mobile, fixed and cloud networks. In addition, we create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Service providers, enterprises and partners worldwide trust Nokia to deliver secure, reliable and sustainable networks today – and work with us to create the digital services and applications of the future.

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