CRATIS

CASE STUDY

Seamless Connectivity, Superior Uptime: CRATIS's Journey with Noction Intelligent Routing Platform

Learn how intelligent routing and data-driven decisions gave CRATIS a decisive competitive edge in Southeast Europe.

NOCTION
NETWORK INTELLIGENCE

CLIENT OVERVIEW

CRATIS, operating the AS61094 autonomous system, is a premier provider of internet connectivity, colocation, and cloud services in Southeast Europe. Central to its operations is DC North, a state-of-the-art data center located in Northern Croatia. Built to meet the Uptime Institute's Tier III Design and Facility standards, DC North boasts robust power and cooling redundancy, advanced security systems, and direct connectivity to multiple Tier I carriers. This sophisticated infrastructure supports mission-critical workloads for enterprises across the region, providing a comprehensive suite of colocation and managed services.

With multiple upstream providers - including Voxility LLP, Hrvatski Telekom d.d., RETN Limited, Cogent Communications, Hurricane Electric, Level 3, and Sprint - CRATIS had established a strong foundation for diverse and resilient connectivity. As traffic volumes grew and the scope of services expanded, however, managing BGP routes and ensuring optimal performance across providers became significantly more complex.

Customer Name:
CRATIS

Industry:
Data Center Services, Internet Connectivity, and Cloud Solution

Location:
Northern Croatia

Business Challenges:

- Reducing latency and packet loss for clients mission-critical and latency-sensitive applications
- Automating BGP route optimization to overcome the limitations of manual configuration
- Gaining deeper analytics and real-time insights for carrier alignments and capacity planning

BUSINESS CHALLENGES

As CRATIS's network and data center services attracted a larger, more demanding customer base, the company faced a persistent challenge: how to balance traffic seamlessly among multiple carriers without resorting to extensive, time-consuming manual configurations. Issues such as congested paths, packet loss, and latency spikes affected the performance of latency-sensitive applications like VoIP, gaming, and video conferencing. Maintaining a consistently high level of service required real-time awareness of potential bottlenecks and rapid redirection of traffic to higher-performing routes.

Manual route adjustments proved labor-intensive and insufficient for maintaining optimal paths at scale. In addition, CRATIS sought deeper analytics to guide not only day-to-day operations but also long-term decisions, such as evaluating new peering relationships or renegotiating transit commitments.

WHY NOCTION IRP

Seeking to modernize and automate its approach to routing, CRATIS turned to the **Noction Intelligent Routing Platform (IRP)**. The platform promised advanced path selection by continuously analyzing traffic performance indicators such as latency, packet loss, throughput as well as historic reliability - and redirecting traffic in real-time:

- **BGP Optimization and Internet Quality:** CRATIS aimed to alleviate performance bottlenecks through more efficient, automated route adjustments.
- **Dynamic BGP Updates:** Instead of waiting on manual intervention, IRP would detect suboptimal routes and reroute traffic instantaneously.

- **Enhanced Visibility:** Built-in analytics would offer critical insights into network health, traffic distribution, and carrier performance.

By automating these processes, CRATIS expected to reduce downtime, lower latency, and achieve a much more robust and intelligent approach to routing.

DEPLOYMENT & IMPLEMENTATION

Integrating Noction IRP into the existing CRATIS infrastructure - including the diverse carrier landscape - occurred smoothly, thanks to IRP's compatibility with multi-vendor BGP routers. Almost immediately, IRP began analyzing traffic patterns and measuring path metrics across upstream providers to identify areas of potential improvement.

Along with IRP's primary functionality, CRATIS implemented several key features to further elevate performance at DC North:

- **VIP Improvements:** These enhancements provided higher-priority routing for critical workloads, ensuring that the most sensitive customer applications experienced minimal latency.
- **Manual Prefix Probing:** The engineering team gained the ability to selectively test and evaluate route changes, allowing for precise tuning of traffic flows without disrupting the broader network.

Within weeks, CRATIS noticed fewer instances of congestion-induced packet loss and observed significantly improved traffic distribution, particularly for bandwidth-intensive and real-time services.

REPORTING & ANALYTICS

A major draw of Noction IRP for CRATIS was the platform's extensive reporting and analytical capabilities. The team at DC North relied heavily on live dashboards and historical data to drive both tactical and strategic decision-making. Comprehensive reports such as "Performance Improvements per Top ASN," "Prefixes Rerouted From/To Provider," and "Bandwidth Usage and Improvements" shed light on which carriers consistently delivered the highest performance or presented chronic inefficiencies.

These insights are invaluable, allowing CRATIS to proactively evaluate future alignment with its upstream carriers. If an upstream provider continues to show poor performance or handle negligible traffic over time, CRATIS can consider adjusting its contractual commitments. Conversely, strong and consistent performance may lead to deeper partnerships and more favorable cost structures. By adopting this data-centric approach, CRATIS remains poised to maintain a finely tuned ecosystem of transit providers in the long run.

Mišo Lovrenčić
CTO at CRATIS

"The level of detail in IRP's analytics is unmatched, giving us granular visibility into carrier performance. Having that data at our fingertips lets us refine our network strategy accordingly."

RESULTS & BENEFITS

After deploying Noction IRP, CRATIS experienced several notable benefits:

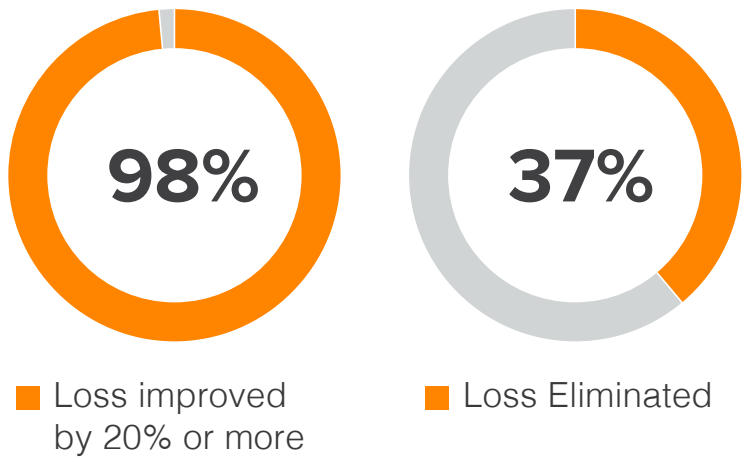
1. **Substantial Latency Reduction:** Automated rerouting around congested paths yielded faster response times, meeting the demands of latency-sensitive industries.
2. **Proactive Congestion Detection:** IRP's real-time analytics allowed CRATIS to spot network issues before they escalated, redirecting traffic seamlessly to maintain uptime.
3. **Operational Efficiency:** With IRP handling routine route adjustments, network engineers could devote more time to strategic initiatives such as data center expansion and new service rollouts.
4. **Enhanced Reliability for Mission-Critical Services**: Improved routing stability and predictability bolstered DC North's reputation as a premier colocation provider, supporting demanding enterprise workloads.

QUANTIFIABLE IMPROVEMENTS

The average statistics below illustrate IRP's impact on CRATIS's network performance:

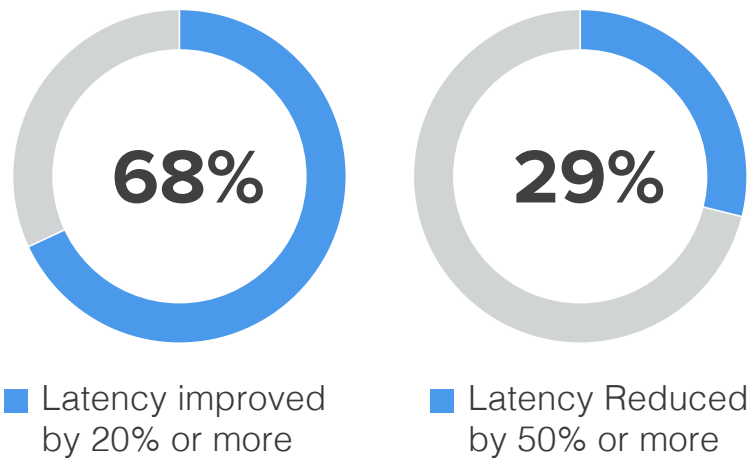
Loss-Based Improvements

- 98% of problematic prefixes detected due to loss were improved by 20% or more.
- In 37% of these cases, IRP successfully avoided 100% of the packet loss.



Latency-Based Improvements

- For 68% of problematic prefixes affected by latency, IRP minimized latency by 20% or more.
- 29% of those prefixes experienced a latency reduction of 50% or more.



LOOKING AHEAD

As CRATIS continues to grow, particularly through expanding services and customer engagement at DC North, Noction IRP remains a cornerstone of its strategy. The data provided by IRP enables ongoing optimization and cost control. CRATIS anticipates leveraging IRP analytics more deeply for bandwidth planning, peering decisions, and potential expansions to new service areas.

In addition, CRATIS aims to maintain the highest possible uptime and performance for all businesses that trust DC North to deliver mission-critical workloads. With IRP's automation and comprehensive monitoring, CRATIS is confident it can sustain the low latency and reliability that enterprise customers have come to expect.

CONCLUSION

For CRATIS, the adoption of Noction IRP was more than just an incremental upgrade - it was a transformative step toward a network that is both more automated and more intelligent. By significantly reducing latency, preemptively bypassing congested paths, and offering data-driven insights into every aspect of its multi-provider environment, IRP has helped CRATIS solidify its position as a leading connectivity and data center provider in Southeast Europe. DC North now stands out not just for its world-class physical infrastructure but also for the dynamic and reliable network services it delivers - an advantage that enhances CRATIS's competitive edge and ensures a superior experience for the enterprises that depend on its facilities.

"Noction IRP's real-time traffic optimization has transformed our approach to routing, enabling CRATIS to deliver exceptional connectivity even for our most demanding clients. It's a genuine game-changer for our operations."

Mišo Lovrenčić
CTO at CRATIS

NOCTION NETWORK INTELLIGENCE

Contact us for more information:

Tel: +1-650-618-9823
www.noction.com/demo