EMPOWERING CONNECTIVITY: INNOVATIVE CIRCUIT PROVISIONING SOLUTIONS

In today's digitally driven world, the backbone of any leading technology company's success lies in its ability to maintain robust and scalable network infrastructure. Circuit provisioning, the process of establishing and managing network circuit connections, is pivotal for ensuring seamless connectivity and supporting the vast data demands of modern enterprises.

The client, a foremost player in the technology sector, is renowned for its innovative platforms and services that connect billions of users across the globe. Operating in a highly dynamic and competitive market, the client's commitment to digital innovation has positioned them as a key facilitator of global communication and information exchange The following case study showcases significant operational improvements and underscores the vital role of advanced circuit provisioning in supporting the client's mission to deliver top-tier services worldwide, affirming the importance of IT excellence in achieving business success.

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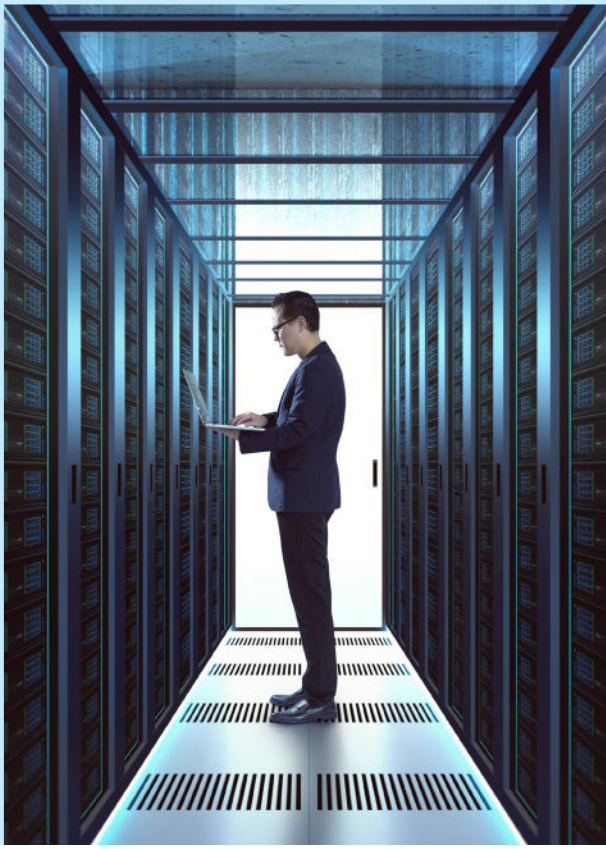
Here's the story.

In a world where digital connectivity shapes the essence of global interactions, our client, a leading technology company recognized for its pioneering platforms and services, stands at the epicenter of digital transformation. Connecting billions worldwide, they navigate a highly competitive landscape, pushing the boundaries of how people communicate, share, and engage with information. For them, an efficient and reliable network infrastructure isn't just an operational requirement; it's the lifeblood that sustains their position as market leaders and fuels their relentless growth.

Facing the dual challenges of exponential data demands and the need for unparalleled service delivery, the client encountered significant hurdles. Their existing network infrastructure, though robust, struggled to adapt to the rapid pace of digital expansion and the evolving needs of their global user base. This scenario set the stage for a pivotal transformation, highlighting the critical need for an advanced circuit provisioning solution that could not only meet the current demands but also scale dynamically with future growth.



BUSINESS PROBLEMS

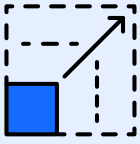
Before engaging with Astreya, our client faced a trio of formidable challenges in their circuit provisioning processes that critically affected their network's performance and scalability. These hurdles included grappling with inefficient circuit provisioning marked by lengthy processes and manual bottlenecks, facing ongoing network reliability issues that compromised service quality and user experience, and contending with scalability constraints that threatened to stifle their capacity for growth in response to emerging technological demands. These challenges not only put a strain on their operational capabilities but also posed significant barriers to maintaining their leadership in a highly competitive digital marketplace. In search of a strategic overhaul, the client enlisted Astreya's specialized services to steer through this pivotal juncture in their operational framework.

Inefficient Circuit Provisioning:

The client's circuit provisioning suffered from lengthy times and manual inefficiencies, hampering network scalability and agility. A prior engagement with another agency resulted in poor delivery and strained colocation vendor relationships.

Network Reliability Concerns:

Frequent downtimes and performance inconsistencies directly impacted critical services and user experience. Improper migration and unprofessional communications with peers and colocation vendors harmed business relationships.



Scalability Challenges:

The existing infrastructure was ill-equipped for rapid growth and new technological demands, limiting the client's competitive edge and ability to deliver top-tier services globally. This necessitated a strategic overhaul to improve efficiency and scalability.

HOW ASTREYA SOLVED THE CHALLENGES

Astreya's strategic approach to solving the client's circuit provisioning challenges involved a combination of process improvements, leveraging data analytics, and capitalizing on strategic knowledge and collaboration:

Process Improvements:

- Conducted a thorough analysis of existing procedures to identify key areas for enhancement.
- Applied best practices and knowledge from years of IT service experience to streamline the circuit provisioning process.

Data Analytics:

- Utilized Astreya's expertise in business intelligence to develop advanced analytics tools.
  - Automated the creation of monthly operation review slides, enabling stakeholders to access current data anytime, thus improving transparency and decision-making efficiency.
- Enabled more informed decision-making and strategic management of network infrastructure through enhanced operational insights.

Strategic Knowledge and Collaboration:

- Expedited the cross-connect delivery process and improved interactions with colocation vendors.
  - Cross Connect Ordering:
    - Initiated ticket assignment to the team and determination of the ordering party.
    - Upon identifying the demarcation points, requests for demarcation and Letters of Authorization were coordinated, leading to the submission of cross-connect orders to colocation vendors.
  - Patching:
    - Following cross-connect delivery, patching from demarcation to the router port was conducted.
    - Port status and RX power levels were meticulously checked, with troubleshooting engaged as necessary.
  - Provisioning:
    - Test IPs were assigned and shared, followed by the configuration of production IP addresses upon successful ping tests.
    - The process concluded with Border Gateway Protocol configuration and validation, ensuring successful establishment and prefix receipt.
- Employed a collaborative approach with the client, refining solutions like the automation of the peering process based on direct feedback.

This holistic strategy not only addressed the pressing challenges but also prepared the client's network infrastructure for future growth and continuous operational excellence.

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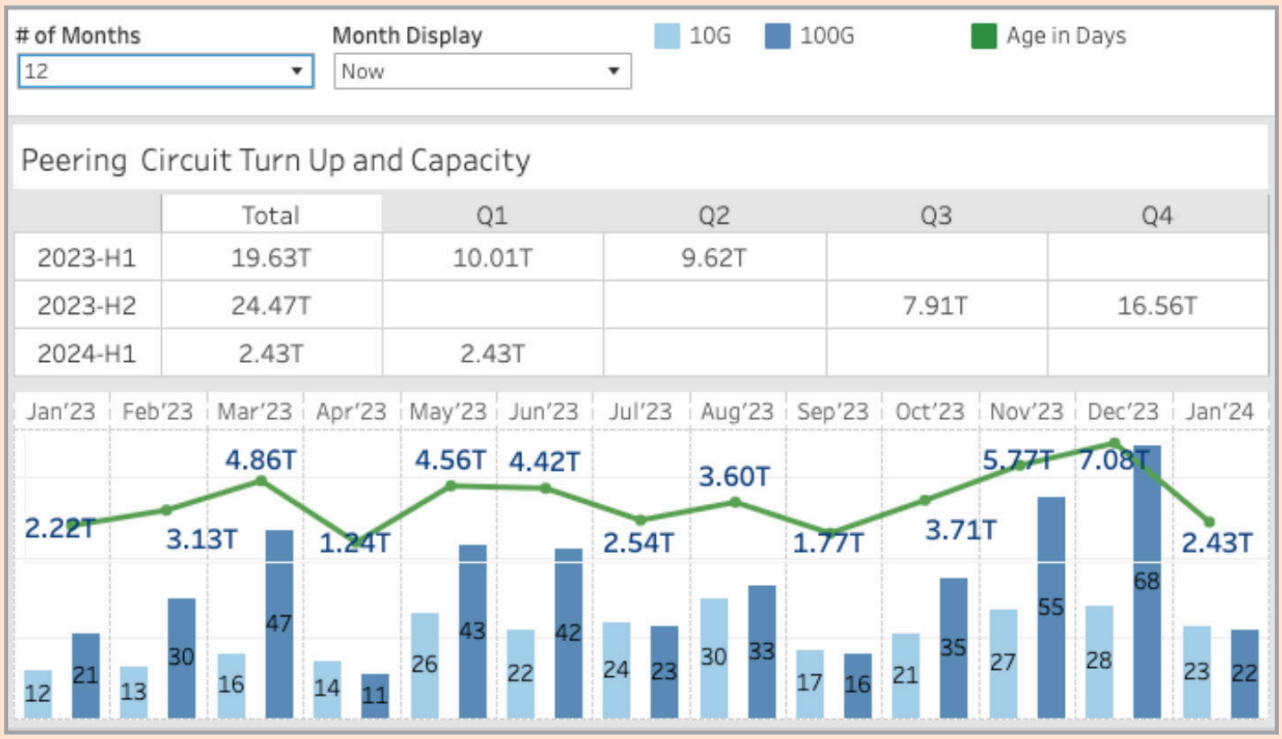
THE BENEFITS DELIVERED

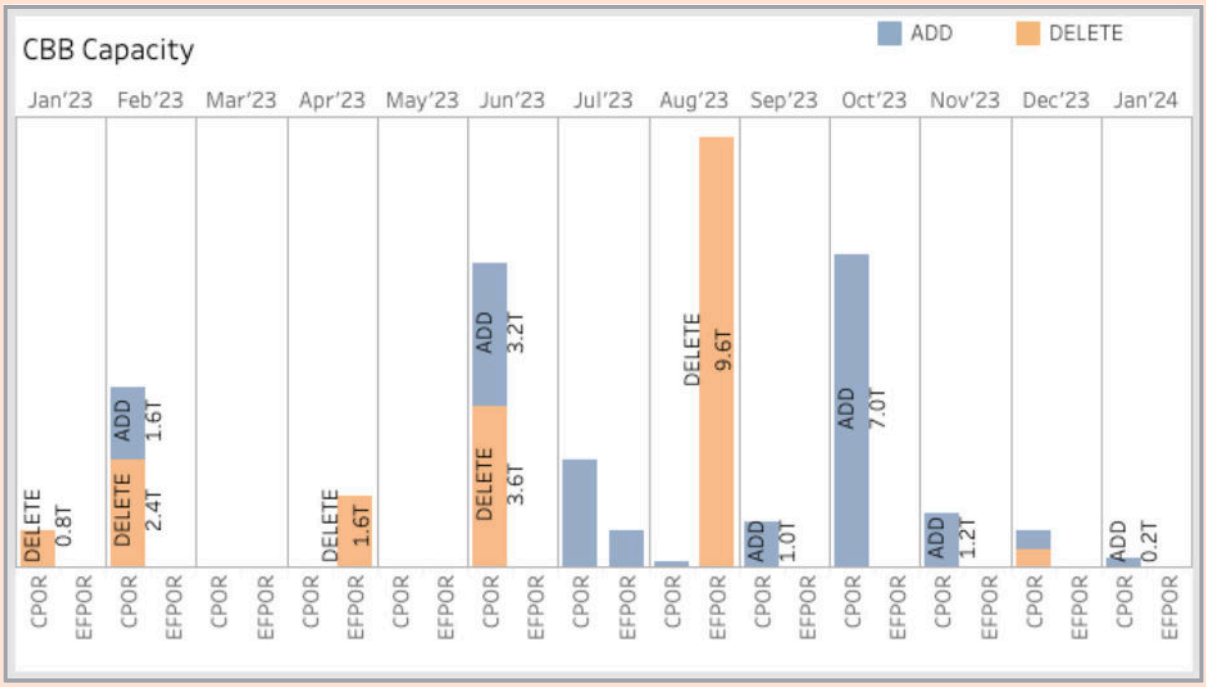
Astreya's implementation of strategic solutions for the client's circuit provisioning challenges resulted in a series of significant benefits:

- **Increased Efficiency:** The introduction of the peering automation tool significantly enhanced operational efficiency, leading to faster processing times, reduced manual efforts, and increased throughput for the client.
- **Improved Customer Experience:** Automating of the Monthly Operation Review process enhanced the customer experience by streamlining data gathering, significantly improving operational visibility and decision-making.
- **Record Performance:** The team achieved a record delivery of 44.90T of peering capacities in 2023, demonstrating the effectiveness of Astreya's solutions in boosting operational capabilities.
- **Increased Circuit Delivery:** On average, the team delivered 3.7T of peering circuits and an average of 57 circuits (10g and 100g) per month, with a peak of over 90 circuits during November and December.

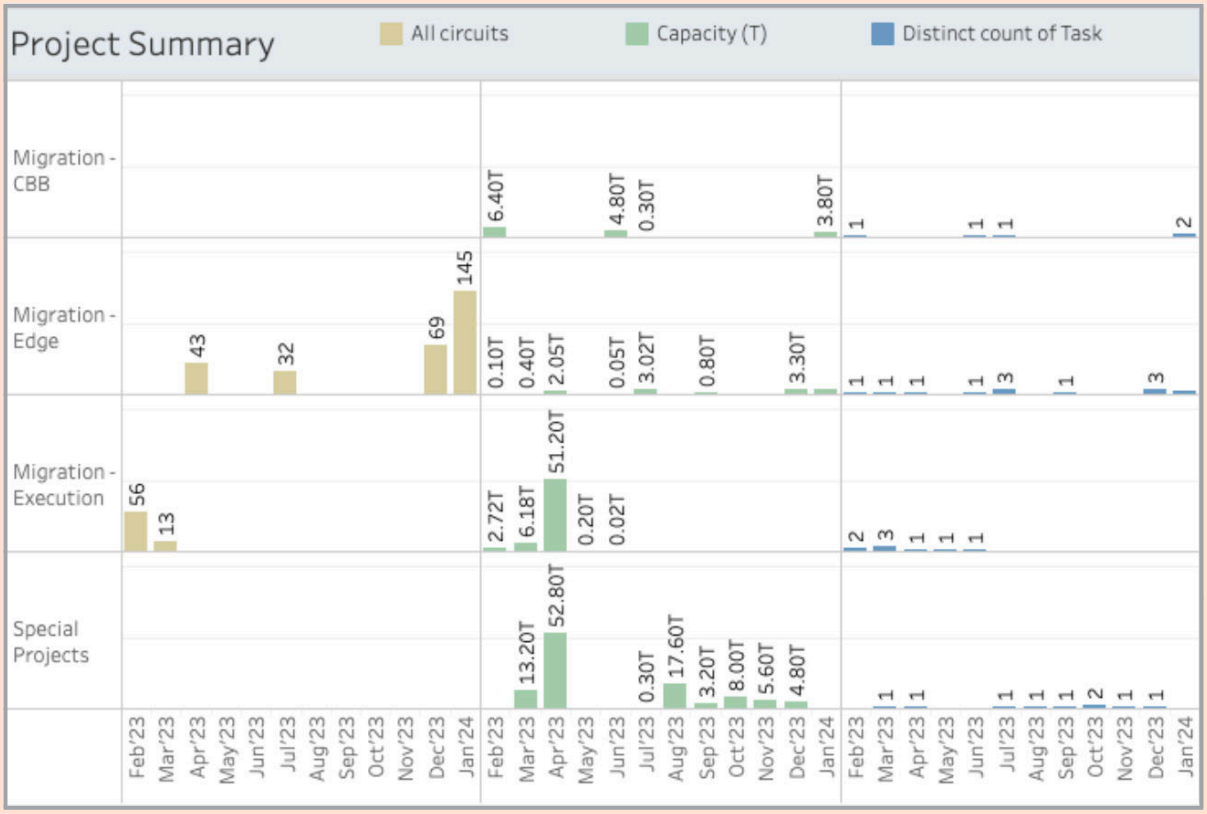
Below is the Peering circuit dashboard (year 2023):



Below is the backbone circuit dashboard (year 2023):



Below is the circuit migration dashboard (year 2023):



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WHY THEY CHOSE ASTREYA FOR ITAM EXCELLENCE

The client's decision to partner with Astreya for their circuit provisioning needs was influenced by several key factors that underscore Astreya's unique value proposition and competitive advantages:

- **Proven Success Stories:** Astreya's track record of success with other industry tech giants showcased our ability to deliver exceptional results in complex IT environments.
- **Advanced Business Intelligence Capabilities:** The presence of a dedicated Business Intelligence team at Astreya, capable of automating critical operational processes such as the monthly operation review slides, offered the client unparalleled access to real-time data and insights.
- **Operational Excellence:** Astreya's approach to integrating advanced analytics and process automation directly aligned with the client's need for operational efficiency and data-driven decision-making.

THE TAKEAWAY

Astreya's circuit provisioning solutions significantly uplifted the client's network infrastructure, reinforcing their competitive stance in the technology sector and bolstering their reputation for delivering exceptional service. *By streamlining circuit provisioning processes and introducing automation, the client witnessed substantial improvements in operational efficiency and throughput, setting new standards for network performance and reliability. These enhancements not only enabled the client to meet the growing demands of their global user base more effectively but also provided a solid foundation for future scalability and technological advancements. The operational improvements and the record-breaking achievements in peering capacities afforded the client a pronounced advantage in a highly competitive marketplace, underlining the transformative impact of Astreya's expertise in driving client success and innovation.*

A word about our valued clients and the markets they serve.

We are honored to support some of the world's most recognizable and innovative organizations.* Astreya partners with the world's most innovative and influential organizations, serving a diverse array of challenging vertical market segments and spanning numerous geographies. Our clients, leaders in their respective fields, rely on Astreya's expertise in navigating complex, ever-evolving technological landscapes, ensuring they remain at the forefront of their industries. Our collaboration with these esteemed organizations underscores our commitment to delivering exceptional IT and digital engineering solutions tailored to the unique demands of global market leaders.

***Fortune 10 company names** available upon request.

About Astreya

Astreya, a leader in managed services for two decades, offers innovative and reliable IT solutions to the world's most recognizable companies. Our expert team of engineers craft tailored service plans that drive operational efficiency while transforming technology into an engine for growth and innovation within your organization - because excellence is always our promise. For more information, please visit us at www.astreya.com.

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