Network Innovation

STL PARTNERS

Executive Briefing

ENABLING CUSTOMER CENTRICITY IN ENTERPRISE NETWORKS THROUGH NAAS

Analysing the relationship between NaaS implementation and customer success metrics in enterprise network services.

Joe Hurman, Principal Consultant and Data Centre Lead | joe.hurman@stlpartners.com | May 2025

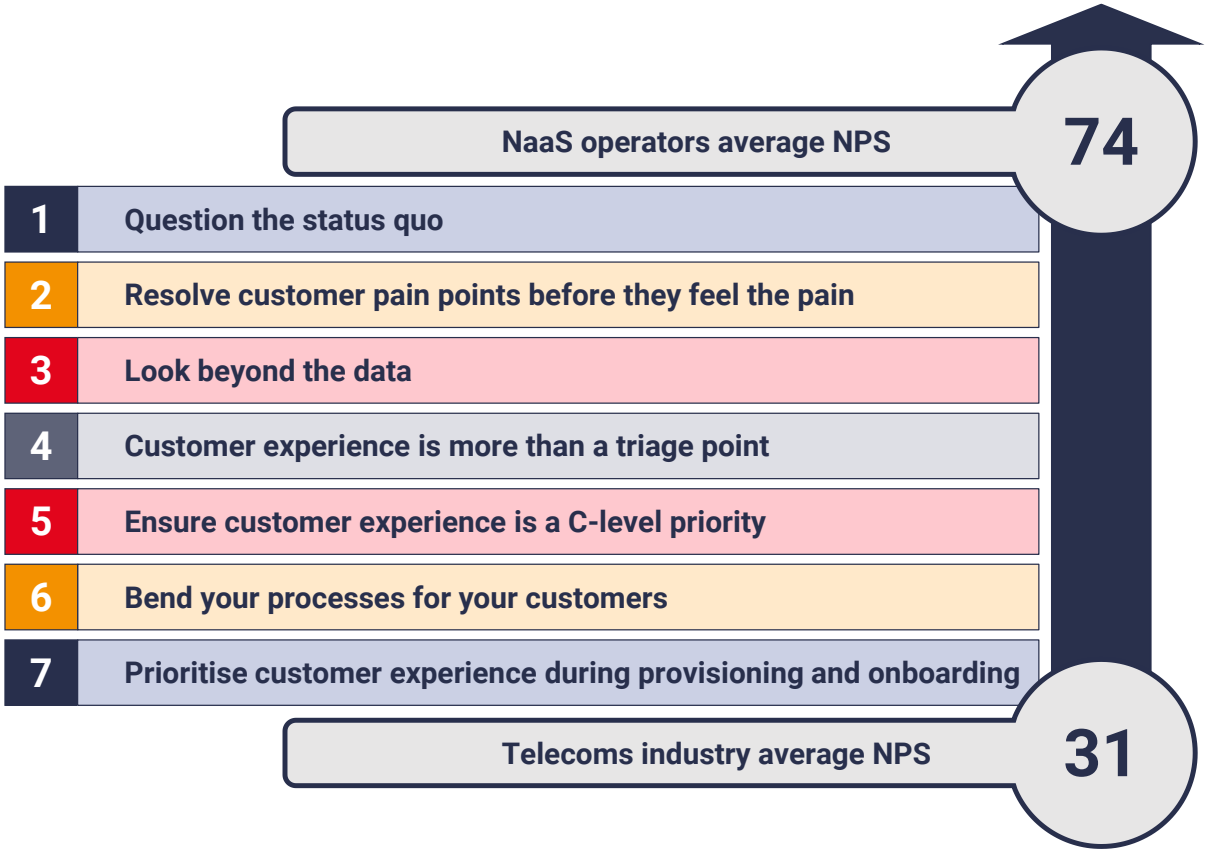
Executive Summary

Network operators who have been early adopters of commercial NaaS propositions are recording markedly higher net promoter score (NPS) than incumbents relying on legacy infrastructure and networking propositions, to the tune of 74 versus 34 among our selected test group.

Through adopting a flexible, modular proposition, network operators can leverage the enhanced data availability which NaaS enables to improve time to respond and resolve customer queries. Publicly available data indicates that this can have material impacts on customer satisfaction, which in turn impacts customer retention, and lifetime value, meaning that NaaS adoption offers the potential to grow revenues for network services, as well as the more commonly documented benefits of cost savings and new service offerings.

This report outlines the key tenets of a NaaS solution, analyses the customer experience challenges for legacy enterprise network services, and evaluates publicly available NPS data to quantify the benefit to network operators of NaaS adoption. In addition, through conversation with Tanuja Bhagat, Lightstorm VP & Head of Customer Experience, we have identified seven key recommendations to network operators who are looking to leverage NaaS to transform their customer experience:

Figure 1: The seven virtues of a differentiated customer experience



Source: STL Partners

Table of Contents

Table of Figures

The coming storm: evolving enterprise networking priorities

Artificial intelligence (AI) is today one of the key accelerants of digital transformation journeys. Transcending sectors and regions, the hype around AI solutions is hard to miss, and this has not gone unnoticed by the marketing departments of the world's telecoms vendors – you only had to peer into one of the eight cavernous halls at MWC in 2025 to see it emblazoned everywhere you looked.

However, with AI opportunities and use cases evolving by the month, and adoption challenges and regulatory uncertainty creating barriers, the downstream impact on networking is somewhat hard to predict. In access networks, both fixed and mobile, the industry is seemingly forming a consensus that until multi-media generative AI (GenAI) use cases become prevalent, AI adoption will not result in a step-change in access network bandwidth demand. However, look to the backbone of the network and a different story emerges.

A recent Ciena global survey estimated that over the next five years, data centre interconnect (DCI) bandwidth demand will increase by a staggering six fold, as an increasingly interdependent fabric of global data centres seeks to enable rapid commercialisation and adoption of GenAI innovation. There are three key drivers of this forecasted explosion in demand:

1. **A record number of facilities are under construction globally**, with 10GW of capacity expected to break ground globally in 2025, according to JLL's 2025 Global Data Centre Outlook. This capacity is split between multi-user colocation facilities and an increasingly large proportion of single-user custom facilities, which are built to serve hyperscaler anchor tenants.

2. **Geographic distribution of these facilities is increasing.** Mature metro markets are facing bottlenecks in land and power availability, leading to increased investment into tier 2 markets. In Europe this is categorised by a shift from FLAP-D (Frankfurt, London, Amsterdam, Paris and Dublin) to markets such as Milan, Madrid and Warsaw. However, this trend is even more prominent in markets outside of Europe with public sector backing, such as Riyadh – where 91MW of capacity is planned or under construction, which upon completion will increase operational capacity (currently 34MW) by 267%, according to Cushman & Wakefield. In addition to an increased number of prominent metro markets, opportunities in AI inferencing have led to a resurgence in edge and distributed computing, targeting use cases which mandate any one or more of low latency, data sovereignty and facility access and configurability, and leading to an increase in smaller facilities outside of major metro markets.

3. **Interdependence between data centre facilities is growing.** Prevailing trends in enterprise IT architectures such as cloud repatriation, coupled with increased AI exploration and adoption, are pulling enterprises towards multi-cloud and hybrid cloud architectures, as they seek to retain commercial flexibility and avoid lock-in while exploring adoption of AI tools. With digital advantage an increasingly strategic differentiator for enterprises in any industry, many enterprises, and service providers, are optimising their infrastructure for different variables (such

as cost or performance) depending on the workload. This increased facility interdependence mandates not just increased interconnect bandwidth requirements, but increasingly flexible connectivity, due to the rapidly evolving landscape of preferred suppliers of AI technology.

This forecasted demand is not primarily being met by a series of incumbent operators, but by a series of relatively new and specialised operators. Companies such as Lightstorm, Console Connect, Megaport and Packet Fabric have tackled the challenge of connectivity from the ground up, designing everything from their infrastructure to their applications with the customer as their guiding light. Such companies have been leaders in creating Networks-as-a-Service offerings, with capabilities such as unified customer portals and near-real-time provisioning taken straight out of a hyperscaler's playbook.

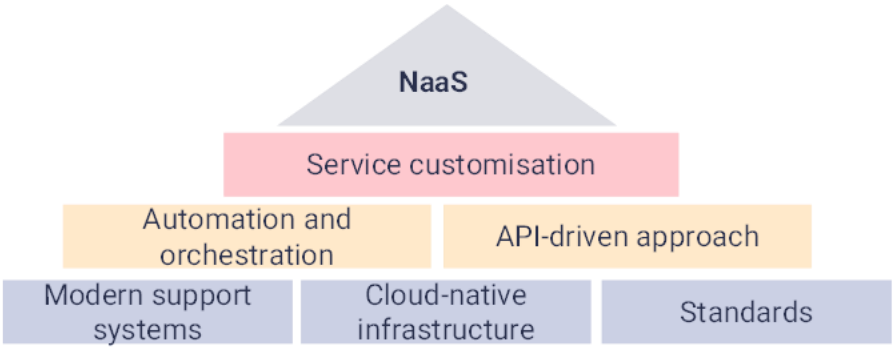
In this report, we'll evaluate how network operators can learn from the early success stories within the DCI sector and analyse the true value that NaaS implementation can be expected to have on customer success metrics.

Defining NaaS and its benefits in enterprise network services

NaaS is the on demand delivery of flexible, modular network services

Underpinned by automation throughout the network stack and enabled by a cloudified platform of API-linked network applications, NaaS is defined as the on-demand delivery of flexible, modular network services. In our previous report titled 'Productising NaaS: A Case Study from India's Most Disruptive Player', we defined three key layers for successful NaaS adoption:

Figure 2: Three key layers of a successful NaaS adoption



Source: STL Partners

- **Designing a standards-driven cloudified solution architecture (blue layer):** enabling cross-domain automation from network to business support systems enables near-real-time network service provisioning, offering enterprises rapid time-to-deployment and an overall more flexible service.
- **Delivering an API-driven and highly automated platform (yellow layer):** Lightstorm's open API design supports seamless integration with original equipment manufacturers (OEMs) and major cloud providers, enhancing service speed and reliability. Standard, open APIs promote interoperability, reduce vendor lock-in and allow enterprises to customise connectivity by integrating preferred services.
- **Serve customer through a flexible, modular NaaS model (red layer):** service customisation enables enterprises to procure network services on demand, without long-term commitments. Alongside fixed bandwidth contracts for enterprises seeking to overprovision bandwidth 'just in case', enterprises can select variable allocations tailored to their needs, paying only for their point-in-time requirements.

These three layers are highly interdependent, and successful adoption is more straightforward for greenfield operators without legacy networking equipment, vendor contracts, and sales functions experienced at selling legacy connectivity services. NaaS services that are designed to address AI-fuelled demand for DCI are by definition cloud-native in both senses: cloudified network functions able to be turned up and customised in a cloud-like way to serve cloud-based workloads.

NaaS adoption benefits both network operators and their customers

However, with networks from interconnect through to mobile access all becoming increasingly cloudified, owing to the benefits in modularity and flexibility, learnings from DCI providers' NaaS journeys are increasingly accessible and applicable to all operators seeking to grow revenues in enterprise connectivity. Given the relatively positive growth outlook for the enterprise segment in comparison to consumer, NaaS adoption must become a strategic priority for all enterprise-focused network operators, for benefits including:

- **Connectivity revenue uplift:** NaaS promises a differentiated service versus legacy connectivity solutions, with network flexibility and programmability commanding a higher price point versus conventional offerings. In addition, NaaS enables dynamic pricing and service availability, which maximises the opportunity to monetise the variable demand for bandwidth.

- **Cost optimisation:** optimise infrastructure utilisation to reduce cost to serve for a given level of demand, reduce truck rolls and network management overheads, as well as service assurance and customer engagement overheads thanks to the presence of a self-service portal.

- **Strategic agility:** service improvements and new customer engagement features can be rolled out regularly, tightening innovation cycles and reducing the time-to-revenue for innovation.

- **Customer service and cross-sell opportunities:** through a service portal covering customer lifecycle management, billing, charging and other support systems. Network operators unlock a regular customer touchpoint creating cross and upsell opportunities via their own portals and through the marketplaces of others.

- **Sustainability:** thanks to the improved infrastructure utilisation and reduction in manual network configuration and other interventions, and their associated truck rolls.

As well as these benefits to the network operator, increasing the range of customer-network engagement pathways thanks to a multi-functional customer engagement portal constitutes an enhancement in overall customer experience. After all, as some of the more in-person, legacy customer engagement practices are retained (and optimised with greater service and network data availability for the service agent), at a high level both main types of customer can be well served by NaaS offerings:

- The enterprise customer persona prioritising service visibility, flexibility and real-time service control would prefer to engage with their connectivity solutions through a self-service portal.

- The enterprise customer persona prioritising reliability, service stability and business continuity may prefer a 'hands-off' approach to their connectivity solutions, looking for a more traditional sales cycle and customer service experience.

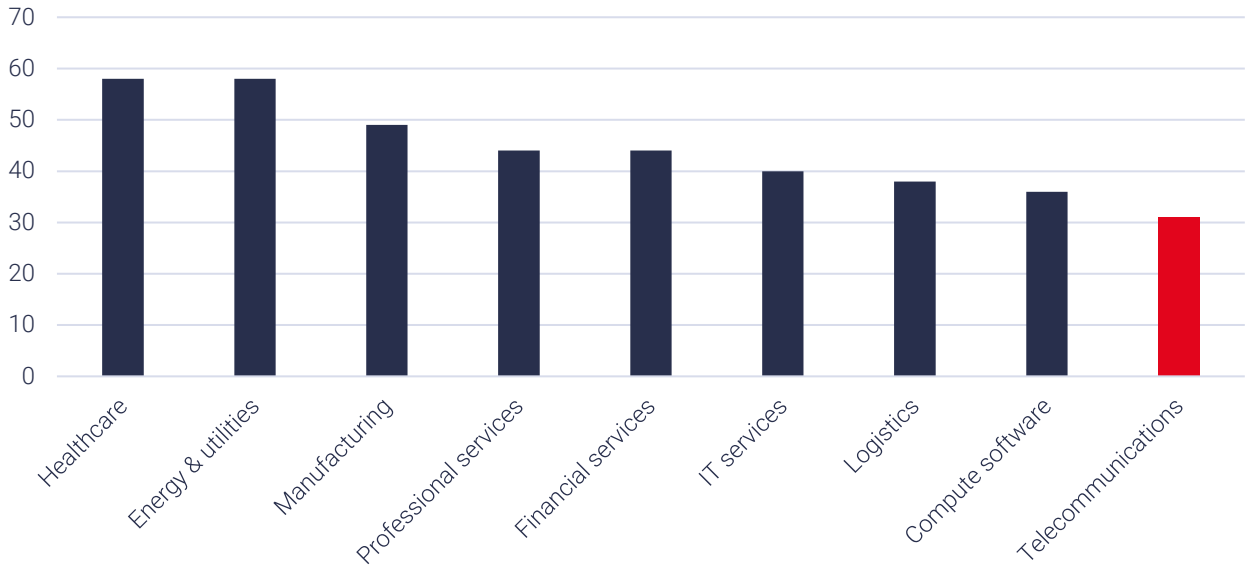
Of course, many enterprises in reality are formed of a blend of the two personas, depending on the customer engagement use case, enterprise vertical, customer role and many more.

NaaS implementation can lead to material improvements in customer success metrics

Network operators have historically struggled to deliver excellent customer experience

Delivering market leading customer experience is not something that comes naturally to the telecoms sector. With a sector average NPS of 31, telecoms operators have the lowest NPS of any industry surveyed as part of CustomerGauge's 'B2B & CX Benchmarks Report'.

Figure 3: NPS by industry vertical



Source: CustomerGauge

Some of the classic pain points for an enterprise connectivity customer for a legacy network operator include:

- **Service provisioning** – enterprises face long provisioning lead times, complex deployment processes, and delays due to infrastructure constraints and coordination issues with third parties (e.g. installation contractors, local public sector).
- **Service assurance and visibility** – network operators have struggled to deliver real-time service because the service assurance features supported by proprietary network components often do not correspond to customer service priorities. In addition, fault detection and resolution can be slow due to reliance on manual processes.
- **Commercial inflexibility** – rigid contracts, high termination fees, and difficulty scaling bandwidth or adapting services to changing business needs create financial and operational constraints.

- **Poor customer service** – slow and manual response processes coupled with limited capabilities for customers to self-serve (either for visibility or service adjustments) lead to frustration for customers.

Customer satisfaction impacts customer acquisition and retention. Indeed, a recent case study from Bain, albeit on the consumer side, demonstrated the potential impact of customer experience improvements on the bottom line, with select customer experience trials increasing sales conversion by 20% with an NPS increase of 50%. On the enterprise side, the impacts of prioritising customer experience on the bottom line can also be seen. In enterprise connectivity, certain early adopters of NaaS solutions have outpaced the industry in terms of customer experience benchmarks, leveraging a cloudified architecture and cross-domain data flows to solve customer pain points such as service assurance, via real-time dashboards, and commercial flexibility by means of pay-as-you-go offerings. This evolution in customer engagement and experience is impacting the bottom line, with NPS up, churn rates down, and customer lifetime value up.

While NaaS is a core enabler of market leading customer experience, it cannot be thought of as a silver bullet. To deliver a truly leading experience for your enterprise customers, NaaS must be considered as the technical enabler of a wider customer-centric operating model, alongside streamlined customer engagement processes, investment into people and capabilities, as well as senior sponsorship for prioritising customer centricity as a core business value.

Early NaaS adopters lead the industry in NPS

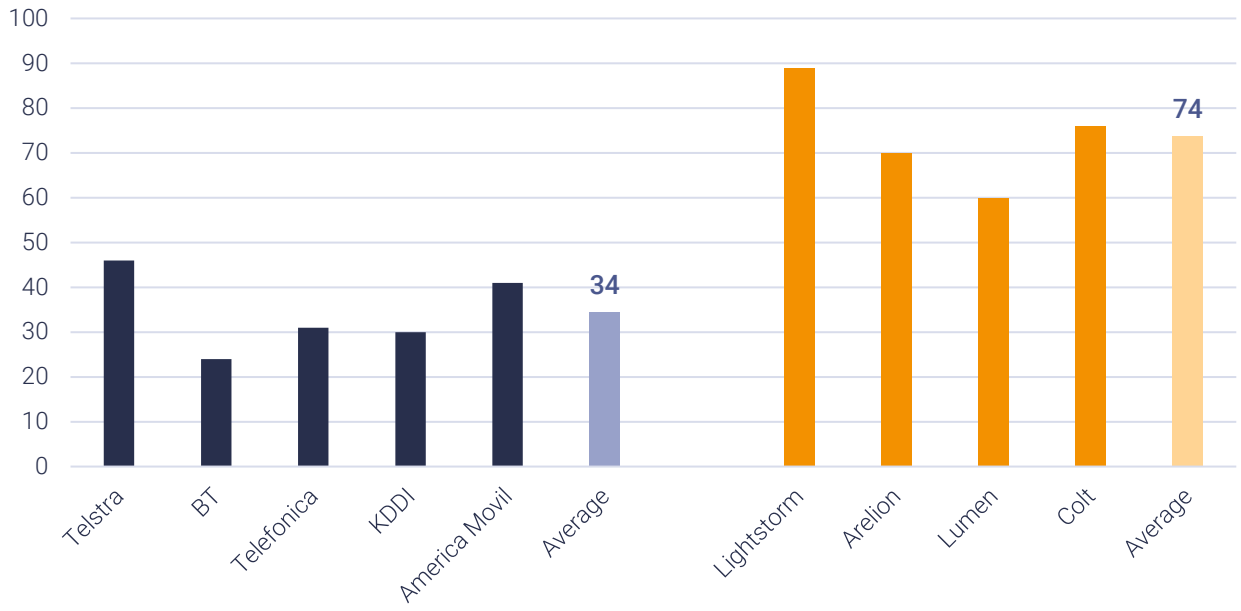
In order to test the impact on customer experience of NaaS implementation, we have analysed the relationship NPS of a select group of network operators who demonstrate fundamental components of a customer centric NaaS solution alongside a select pool of more traditional tier 1 network operators. All of the data within this graph below is taken direct from the network operators (e.g. from annual reports). We looked at four key indicators of NaaS adoption as it impacts customer experience:

- **Customer portal availability** – a web portal available for customers to access information about their service
- **Customer integration** – availability of APIs to allow customers to ingest data from their network operator into their own IT stack (e.g. NOC alerts or service assurance reporting)
- **Commercial flexibility** – availability of pay as you go commercial model
- **Hyperscaler marketplace listing** – service availability through a hyperscaler portal

Company	Customer web portal?	Customer-facing APIs?	Offer PAYG?	Listed on hyperscaler marketplace?
Lightstorm	Yes	Yes	Yes	Yes
Arelion	Yes	Yes	No	No
Lumen	Yes	Yes	Yes	Yes
Colt	Yes	Yes	Yes	No

All four of the network operators below offer a customer web portal and customer-facing APIs, leveraging their 'NaaSified' integrated network and IT stack to facilitate a leading customer experience, driven by network and service visibility. Such implementations have had a clear impact on NPS versus the overall telecommunications sector average of 31, as well as the five incumbent tier 1 network operators used for comparison. The NPS for these incumbents are group-wide, and from a wider product set than the NaaS network operators; so they cannot be considered as a direct comparison, However, they are illustrative of the gains to be made from NaaS adoption as part of company-wide customer centricity initiatives.

Figure 4: NPS comparison between select tier 1 network operators and select NaaS network operators



Source: Company annual reports

However, as discussed previously, NaaS alone is not enough to deliver a truly differentiated customer experience, and one which impacts the bottom line. NaaS provides the visibility, but it is the integration of this within a wider customer experience toolkit which truly sets apart the best operators, e.g. through implementations such as multi-channel customer engagement.

Leveraging NaaS-enabled data to create a differentiated customer engagement model

As we have said, while NaaS adoption unlocks new operating models and customer engagement pathways, it may not improve customer satisfaction and retention by itself. NaaS will provide/enable new tools in the armoury of a leading customer experience department, and such tools should sit alongside senior-level sponsorship of customer experience as a strategic priority and a desire to push the boundaries of what's possible in customer experience.

Clearly, AI also has a role to play here. Telstra, in collaboration with Microsoft, is a good example of what operators can do in using AI to improve their NPS scores. The companies have developed two in-house GenAI solutions, Ask Telstra and One Sentence Summary, to support frontline team members in delivering more personalised customer experiences. Ask Telstra is an AI-augmented internal search engine, enabling customer experience teams to "search the company's extensive internal knowledge bases quickly and easily for information", while One Sentence Summary "transforms recent customer notes, interactions, and transactions into a concise summary of a customer's recent history and status", leveraging the latest OpenAI LLMs.

These solutions do not require specialist technical skills to implement but can have a significant impact for employee experience and process efficiency within customer experience teams. Pilot results indicate their efficacy, showing that 90% of employees found these tools saved time and improved their effectiveness, leading to faster resolutions and a 20% reduction in follow-up contact. As well as improving employee experience and efficiency, digital implementation in employee customer engagement journeys can also bolster customer NPS. One example of this would be Lumen, which reported a 17 point year-on-year increase in NPS as a result of partnering with Qualtrics to leverage their suite of customer experience software.

Based on discussions with Lightstorm's customer experience department, and taking into account their market leading NPS of 89, we have defined **seven key recommendations to unlock new levels of customer satisfaction through NaaS-based network services**:

1. Question the status quo

Market leading customer experience requires pushing the boundaries of what is considered possible within the industry. Whether this takes the form of slashing industry-standard SLAs or unlocking new customer engagement pathways (e.g. Lightstorm's 15-minute provisioning through a self-serve portal thanks to L1 automation using robotics), merely matching your competitors' SLAs and staying within

the industry norm will not lead to a customer experience which truly differentiates your offerings from your competitors. Lightstorm exemplifies this message, looking outside the network operator sector when hiring their Customer Success Manager (instead hiring them from the airline industry, known for its consumer-focus and use of big data in customer experience) to ensure they are integrating the latest in leading customer experience tools and processes.

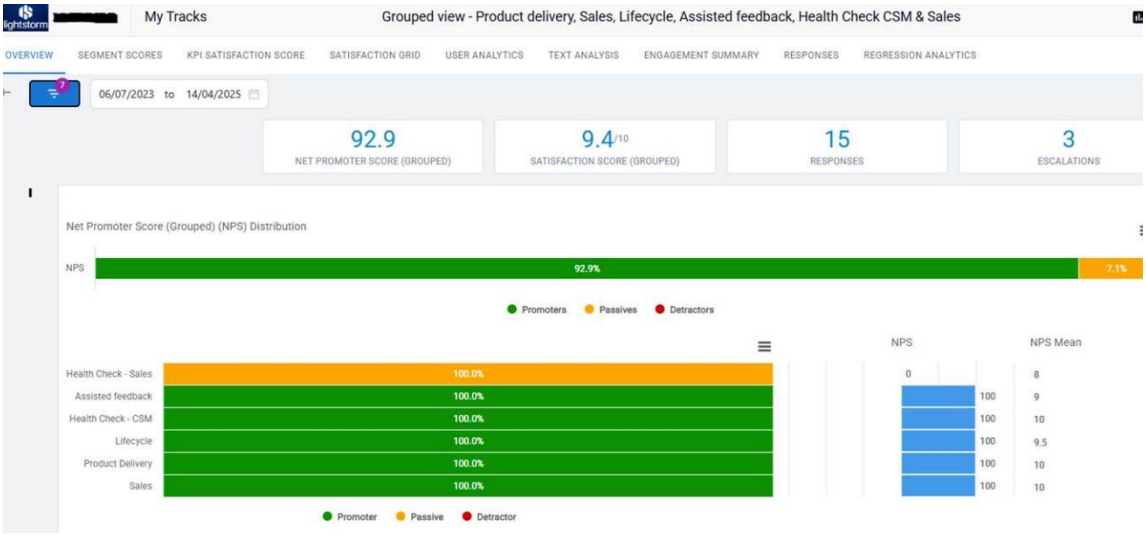
2. Resolve customer pain points before they feel the pain

Leverage leading customer experience indicators, such as network data and AI-backed forecasting tools, to foresee network issues before they become customer pain points. In this way, you can identify customers that might otherwise become dissatisfied and churn before they do so. Customer experience can benefit from integrating workflows such as predictive maintenance into business-as-usual operations, as well as more simple techniques such as regularly running issue retrospective sessions, scenario planning and ensuring that lessons or fixes implemented for one customer are applied to all other potentially impacted customers. Such techniques enable customer experience management to become more proactive, rather than just reacting to issues after they have arisen. Lumen also evangelises on the benefits of such indicators, promoting the benefit of Customer Ease Score (CES) as a leading indicator that directly correlates with NPS.

3. Look at the data, but then look beyond it

While they are undoubtedly a useful data gathering tool, surveys and other forms of asynchronous communication with your customers have their limitations in accuracy of responses. "B2B customers are very polite - when you have an informal conversation that's when you can peel back the layers", says Tanuja Bhagat, Lightstorm VP & Head of Customer Experience, who has quarterly targets for informal conversations with tier 1 customers over coffee or other informal settings. The combination of this with their customer experience dashboard (as shown in Figure 5) allows for data-driven, but also human-centric approaches to customer experience.

Figure 5: Snapshot of Lightstorm's customer experience dashboard



Source: Lightstorm

4. Customer experience is more than a triage point

Customer experience touches on teams across a network operator, from sales and account management through to NOC (Network Operating Centre) and service assurance teams. Often customer success professionals can act as manual orchestrators of these stakeholders, relating customer requirements and comments to the relevant teams in an unnecessary multi-step process. Time and effort can be saved by creating a cross-functional team of problem solvers to act as an account point of contact. In practice, this involves nominating individuals from each team and involving them directly in relevant customer interactions, enabling both improved response times and more opportunities for cross-team collaboration on holistic solutions. NaaS plays a role here, with data dashboards enabling a new level of clarity in desired outcomes and implementation success tracking, both across network operator teams and with customers.

5. Ensure customer experience is a C-level priority

Senior sponsorship is crucial to embedding customer centricity across your organisation. Lightstorm's CEO Amajit Gupta spends 25% of his time on customer engagement, laying down a benchmark for employees across the business. Strategic prioritisation and investment will embed customer centricity into organisational culture.

6. Bend your processes for your customers

Whether it is a tier 1 customer requesting a custom API to integrate your metrics into their dashboards, or an SMB requiring a minor addendum to your standard monthly reporting template, enterprises value personalisation in much the same way consumers do. Invest in your customers and it will pay dividends, especially as the barriers to such customisations are lowered by cloudified systems and cross-domain integration. The hyperscalers are a good example of this: they are renowned for combining their self-serve marketplaces with extensive pre-sales technical support, ensuring customers have all the support they need prior to making amendments to their service. Admittedly, the provision of cloud services is a more heterogenous service than connectivity, but providing the options of both automated self-serve and highly supported pathways has been shown to be a powerful combination.

7. Prioritise customer experience during provisioning and onboarding

Post-sale service provisioning and onboarding can be a period of risk for a network operator as the preferred customer engagement pathways bed in and service expectations are aligned. Prioritising regular and varied customer success touchpoints in the first month, for example, can smooth the onboarding process and ensure nagging issues are quickly resolved and customer retention is optimised. This includes requisite training and upskilling for customers to effectively leverage the tools, dashboard and portals at their disposal to make the most of the service they have procured.

The consistent trend which ties together these learnings from Lightstorm's customer experience strategy is that customer centricity is a key pillar both of product development and corporate vision. This is complemented by a true omnichannel approach to customer experience. Digital and human-led customer experience are complements, not substitutes.

Conclusion

NaaS adoption has the potential to transform customer experience for network operators. network operators that have been early adopters of commercial NaaS propositions are recording markedly higher NPS on average than incumbents, to the tune of 74 versus 34 among our test groups. Through adopting a cloudified solution architecture, combined with an API-driven and highly automated platform layer, and commercialised through a flexible, modular proposition, NPSs can leverage data to respond and resolve customer queries rapidly. This is in addition to enabling rich functionality within customer-facing portals, enabling customers to self-serve with both information and to initiate actions on the part of the network operator.

We recommend that network operators looking to adopt a NaaS proposition should leverage this development as a key opportunity to transform customer experience, including through the following seven key customer experience principles:

1. Question the status quo
2. Resolve customer pain points before they feel the pain
3. Look beyond the data
4. Customer experience is more than a triage point
5. Ensure customer experience is a C-level priority
6. Bend your processes for your customers
7. Prioritise customer experience during provisioning and onboarding

Although network services are heterogenous, from consumer to enterprise, backbone to access, and fixed to wireless, there are lessons to be learnt by all network operators from the customer experience successes of early NaaS adopters. Their customer satisfaction has downstream impacts on customer retention, customer lifetime value, and ultimately, their revenues.

STL PARTNERS

Research

Consulting

Events