Delivering Telecom-as-a-Service with Search Intelligence

With Elastic Search, Observability, and Security, you can collect, process, and analyze data at scale, closer to where users are for faster turnaround time, and protect user data and network infrastructure from threats and fraud.

5G and Cloud: Greater push for Telecom-as-a-Service (TaaS)

5G and the cloud technologies have made it imperative for telecom providers to become service creators and enablers. Digital transformation requires holistic investments in technology, IT tools and processes, infrastructure, human resources, and more. So, it is only logical for telecom providers to seek ways to monetize those investments and assets for incremental value extraction. Telecom providers can leverage their technical expertise built over decades and combine that with data-led insights from networks, customers, and various systems used across their organizations to unlock a wide range of innovative services and offerings.

Primary headwinds in implementing TaaS

Inundated with data, telecom providers often find it difficult to derive meaningful insights from siloed compartments that reside across the network layers and multiple operational and business systems. This struggle will only intensify as an increasing number of applications, such as gaming, live streaming, connected vehicles, and so on, get deployed on the intelligent edge. Meanwhile, macro trends such as software-driven networks, growth of the intelligent edge, and elevated risks from targeted cyber threats further compound the complexities of delivering secure and seamless telecom services at scale.
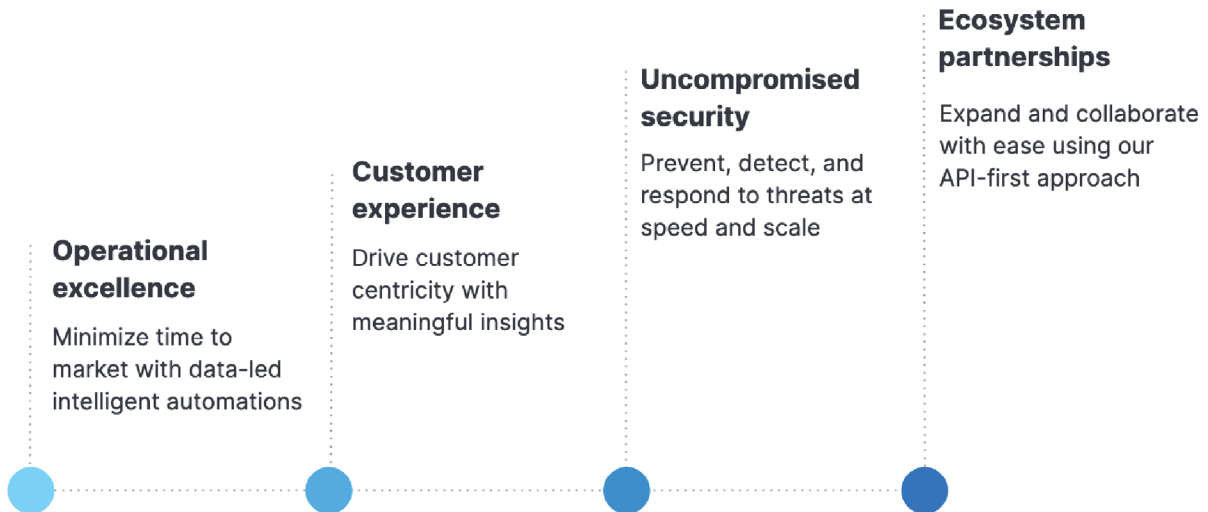
How can Elastic help?
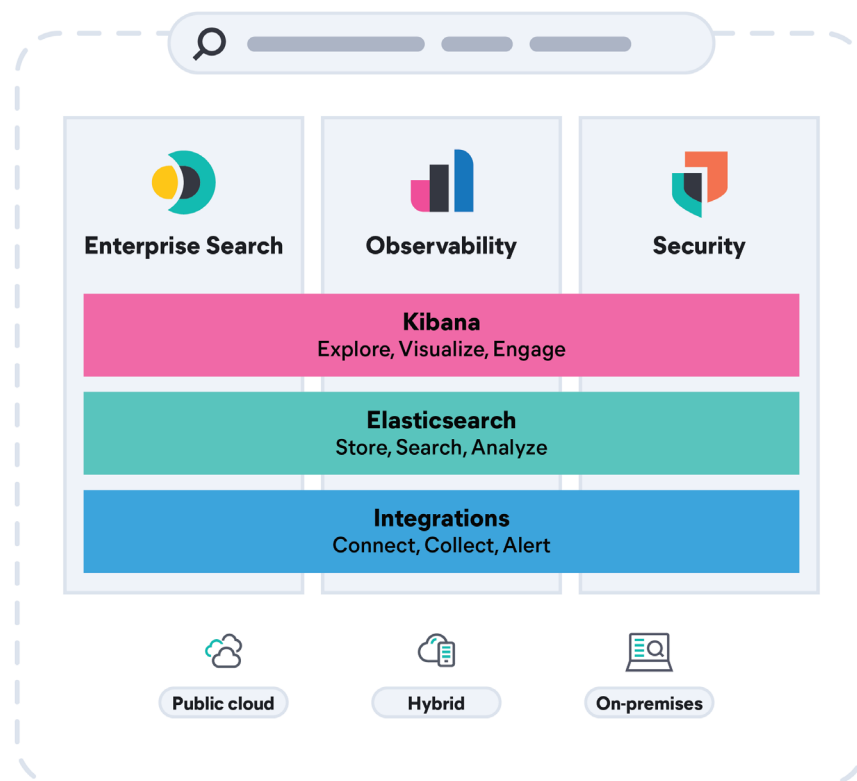
TaaS is all about bringing scalability, flexibility, and profitability with uncompromised security to telecom offerings. And Elastic precisely delivers these capabilities.
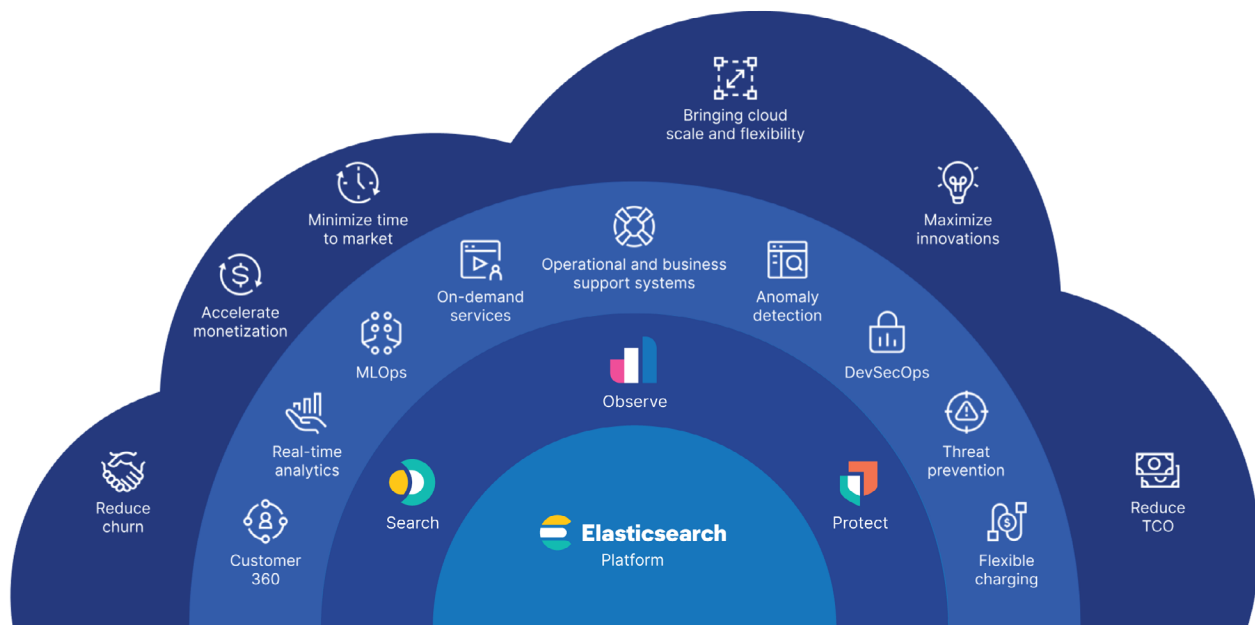
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Elastic Cloud

Delivering scale, flexibility, and security

Ecosystem partnerships

Expand and collaborate with ease using our API-first approach

Uncompromised security

Prevent, detect, and respond to threats at speed and scale

Customer experience

Drive customer centricity with meaningful insights

Operational excellence

Minimize time to market with data-led intelligent automations

With an API-first approach, Elastic brings two unique benefits: the flexibility to integrate existing systems for uncovering new insights, and opening new collaboration opportunities to minimize time-to-market and reduce overall cost of ownership. Elastic Cloud further amplifies these benefits: Telecom providers can now deploy at cloud scale, manage risks and compliance with built-in security, leverage managed services so that they can focus on technology and service innovation, and reduce the total cost of ownership, all while customers, their data, and services continue to grow.

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Telecom-as-a-Service with search intelligence

Get more out of data

Elastic addresses traditional data silos with a fundamentally unique approach to data analysis. The Elastic platform co-locates and ingests data across diverse layers — radio access network (RAN), transport, core network, value-added services (VAS), customer relationship management (CRM), marketing and social media, and more — into a single intelligent search platform. Once data is inside the Elastic platform, organizations use the Elastic Common Schema to normalize disparate data for efficient streamlining and correlation. So, they can get more value out of data with fast, relevant insights at scale.

1800 data points for each customer

T-Mobile was able to design curated experiences and surface anomalies that would otherwise go unnoticed.

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Define KPIs to match business objectives

2X faster growth of revenues from 5G Open RAN

Better insights drive better action. With a rapid growth in network disaggregation and open network interfaces, telecom providers can leverage the Elastic platform for complete visibility into complex multi-layer, multi-vendor networks. Unified visibility can enable different kinds of analytics, artificial intelligence modeling, and machine learning algorithms to build composite KPIs that can drive key business decisions. For example, RAN KPIs can provide aggregated insights into the overall network environment and the core network analytics could shed light on individual customer usage details, while analytics from the transport layer combine information from both the RAN and the Core network. In comparison to analytics drawn from a single layer, the Elastic's unified visibility enables enriched network analytics for better data-led decision making.

Take actions to meet defined KPIs

Leverage the ability to establish relations between observed issues to quickly identify root cause and resolve problems even before customers notice them. Map network and system KPIs to design enhanced customer experience. Act on the insights gained to focus on high-revenue use cases, proactively plan for capacity demand surges during popular events, identify malicious usage patterns and prevent threats to avoid service disruption, or optimize resources in real-time to meet low latency applications.

> ## "The team was able to reduce MTTR from 20-30 minutes to 2-3 minutes on average, a 10x improvement."
>
> *– Director, Verizon Wireless*

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Prioritize security, leverage observability

>11% growth

In targeted cyber attacks against telecom companies in 2021

Security can no longer be an afterthought for modern networks that continue to trend towards software-driven architectures. The Elastic platform facilitates the DevSecOps continuum by instilling security practices right into the agile framework of software development. Unified visibility into the environment, network, applications, logs, and metrics with Elastic Observability allows security controls to be applied at each step of the development cycle. From continuous threat monitoring to identifying vendor deployed containers that do not adhere to security norms to infrastructure and catalog monitoring, Elastic simplifies all aspects of network monitoring and operations and reduces tool and data sprawl significantly.
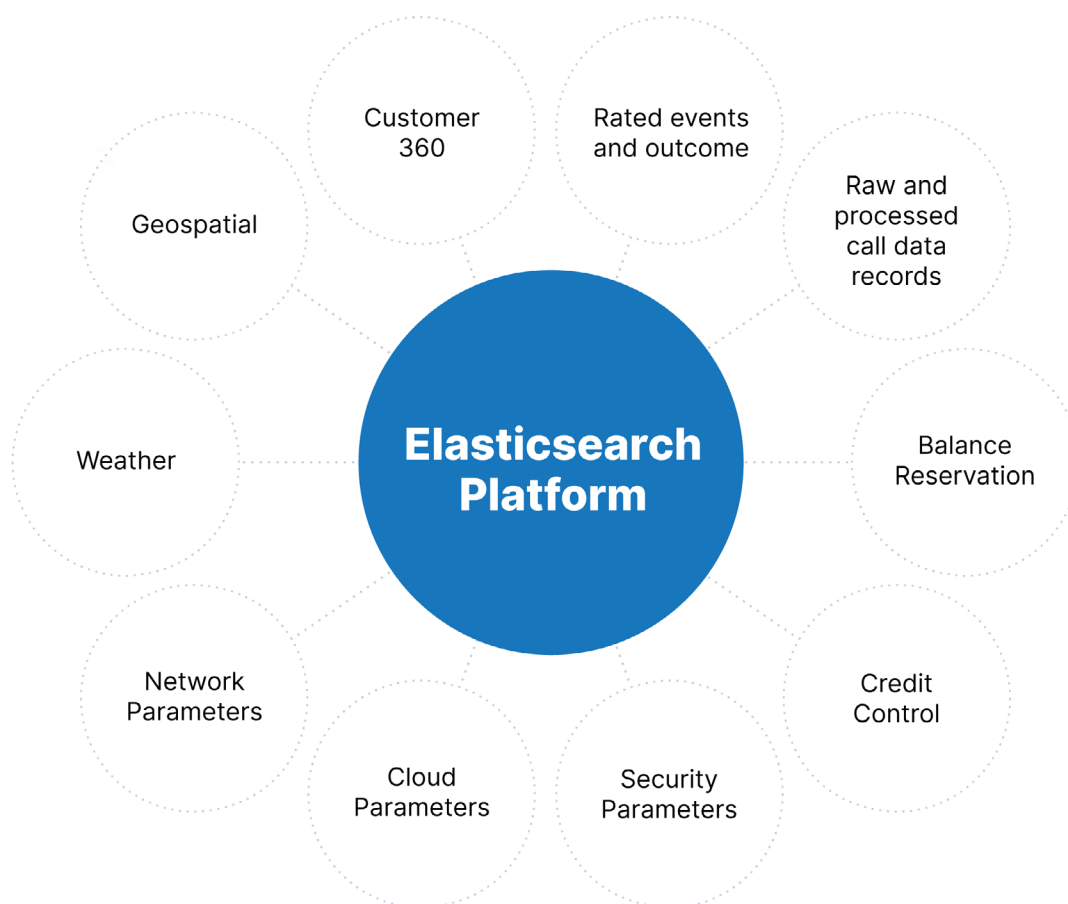
Accelerating service enablement with flexible charging and billing

Flexible billing and charging can be a key driver to accelerate the adoption of premium telecom services. The Elastic platform can help telecom providers design such a system based on usage.

- Enable meaningful insights based on customer persona, ecosystem readiness, market trends, performance and configuration parameters from networks, infrastructure, cloud, and security, financial details in charging functions, and more to arrive at a comprehensive list of meaningful and relevant insights.
- Identify the key metrics that tie into organizational strengths and business objectives. It could be customer acquisition or reducing churn to competition, capacity demand planning for high-revenue potential services such as multi-user gaming or live-streaming at a concert, or enabling secured pay-as-you-go services. With robust data-led insights, you can leverage Elastic's machine learning capabilities to arrive at KPIs that align to your business goals.
- It's now time to act. With Elastic's unified observability, fine-tune parameters to meet specific QoS requirements, use machine learning-based predictive analytics to perform load balancing or resource management efficiently to meet capacity demand surges, or proactively stop threats on detecting malicious patterns.
- Instill best practices, real-time insights, and learnings into the organization. This will ensure machine learning algorithms get even better, intelligent automations are based on the most relevant insights, and teams across the organization are referring to the same data set to take actions or make decisions.

Build for intelligent edge, at cloud scale using Elastic Cloud

Accelerate results that matter — securely and at scale — no matter your location. Spin up a fully loaded deployment on the cloud provider you choose (Amazon Web Services, Google Cloud, or Microsoft Azure). Quickly get your teams up to speed on Elastic's capabilities and easily maintain one platform for delivering seamless telecom services.

Start free trial

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