

# Cisco Crosswork User-Centric SON

Cisco Crosswork™ User-Centric Self-Organizing Network (SON) revolutionizes RAN automation and optimization for an exceptional user experience over your network.

## Product overview

Providing a high-quality and uninterrupted subscriber experience for specific subscriber populations such as highways and railways commuters and enterprise accounts presents a significant challenge for mobile service providers.

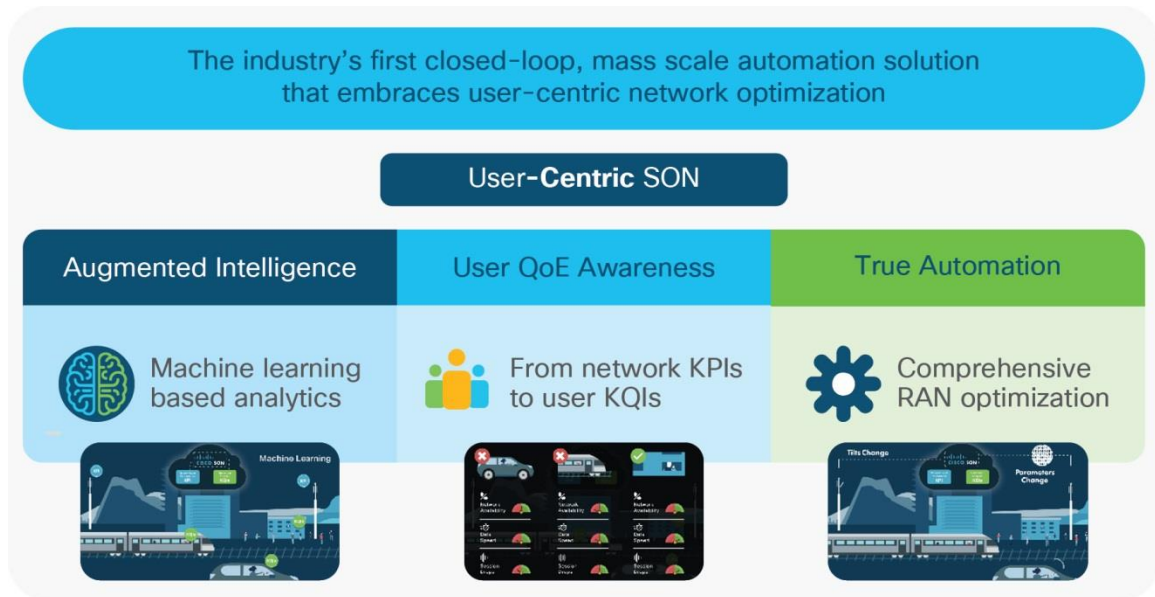
Maintaining performance incurs high OpEx expenditures, in repeated drive tests and optimization campaigns. Such campaigns are aimed at improving network statistical Key Performance Indicators (KPI), which do not generally look at actual driving subscribers' Quality of Experience (QoE). A higher level of granularity is required to effectively optimize mobile subscribers' experience.

Cisco® Crosswork User-Centric SON is designed to meet the demands of mobile service providers. It delivers unique closed-loop RAN automation and optimization, enriched with crowd-sourced subscriber analytics data derived from several data sources, such as Call Data Record (DCR), geolocation, or crowd-sourcing platforms.

User-centric technology based on network subscriber analytics data allows the definition of a new type of performance metrics called Key Quality Indicators (KQI), by analyzing millions of device-sourced data records with cutting-edge machine-learning algorithms. These KQIs reflect the quality of services experienced by subscribers and allow a unique classification of the network cells by the user groups and services provided.

Cisco Crosswork User-Centric SON is then able to target identified low-performing cell sites with advanced interference mitigation, mobility optimization, and load-management techniques based on field-proven closed-loop algorithms, in order to directly impact and improve the user QoE KQIs.

**Figure 1.** Overview of Crosswork User-Centric SON



## Features and benefits

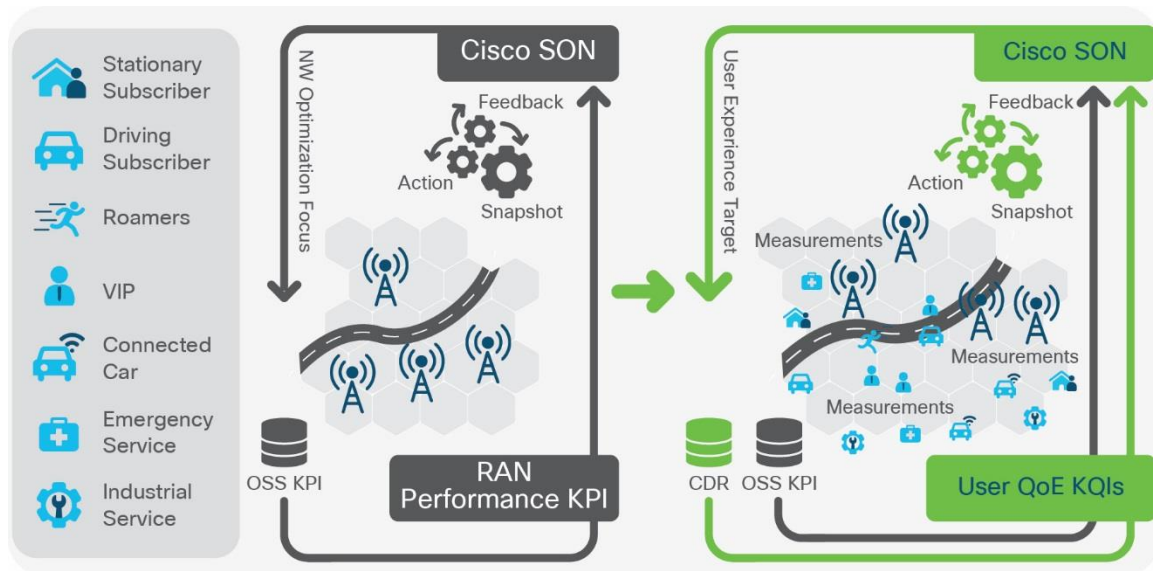
**Table 1.** Features and benefits of Crosswork User-Centric SON

Feature	Benefit
<b>Enriched data connectivity</b>	Enables QoE performance awareness by harnessing subscriber analytics data sources
<b>Cisco Crosswork SON automation</b>	Streamlines RAN optimization with continuous, zero-touch, closed-loop algorithms
<b>User-centric QoE</b>	Identifies subscriber groups service performance: highways and railways commuters, enterprise accounts, and more
<b>Multi-vendor, multi-technology</b>	Simplifies integration and optimizes QoE in multilayer networks
<b>Multi-services</b>	Enables identification and fast improvements on specific services such as VoLTE (quality, retainability) and data services such as social media and OTT (accessibility, rate)
<b>Cisco Crosswork roads management</b>	Helps reducing drive-testing significantly with automated roads identification and performance optimization

## 5G-ready RAN automation with user-centric network slicing

Using subscriber analytics information to identify high-speed or corporate devices, Cisco Crosswork User-Centric SON creates cell groups that address specific highways and railways segments or enterprise accounts branches. The segmentation and slicing encompass any mix of RAN vendors and RAN technologies. This capability is foundational to enable additional segmentations such as roamers and NPS detractors, and enable connected-cars service awareness.

**Figure 2.** Uses of Crosswork User-Centric SON



### Focused, zero-touch optimization for OpEx reduction

By utilizing a segmentation capability, Cisco Crosswork User-Centric SON is able to implement a comprehensive and focused set of RAN optimization actions that target KQIs to improve the subscribers' QoE on highways, railways, or branch offices.

Automated roads and accounts discovery with 24-hour daily performance monitoring removes the need for any manual intervention, with a "set and forget" management policy approach.

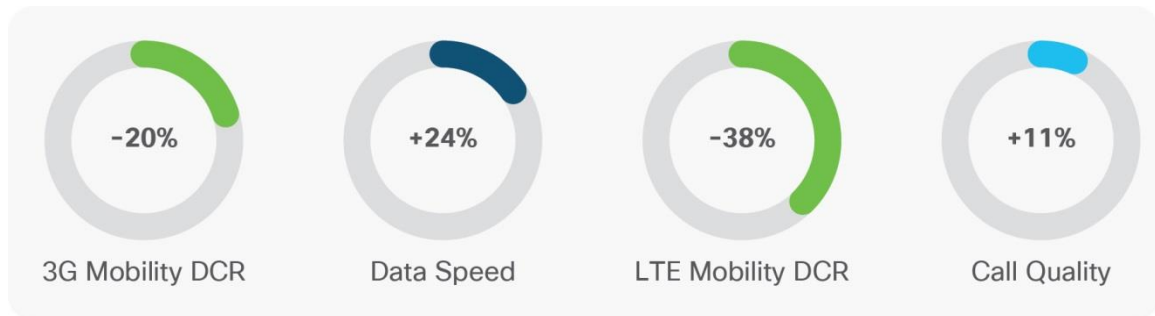
Reducing OpEx becomes simple with Cisco Crosswork User-Centric SON. Customers can experience increased operational efficiency, with minimized drive tests requirements and customer complaint handling costs.

## Deliver an improved user experience for network performance leadership

Increase your network performance by double-digit percentages with a true user-experience impact. Deliver better call quality, improved mobility, and increased data rates for all types of services such as social media, OTT, and web downloads.

Prepare optimally for national benchmarks with increased performance visibility and network optimization to achieve best-in-class rankings.

**Figure 3.** Improved network performance with Cisco Crosswork User-centric SON



## Licensing

We offer flexible consumption models with options from traditional CapEx purchases, to pay-as-you-go subscriptions. License models include:

- Subscription
- Perpetual
- Enterprise License Agreement (ELA)

## System requirements

**Table 2.** System requirement

<b>Hardware</b>	Bare-metal or fully virtualized installation
<b>Software</b>	Dimensions are according to network sizing Linux Debian / Ubuntu distributions

## Cisco and Partner Services for RAN automation and development

Services from Cisco and our certified partners can help you transform your network management and accelerate business innovation and growth.

Planning and design services align technology with business goals and can increase the accuracy, speed, and efficiency of your deployment. Technical services can help you improve operational efficiency, save money, and mitigate risk. Optimization services are designed to continuously improve performance and help your team succeed with new technologies.

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Cisco Services delivers award-winning services with a history of market-changing innovation. We provide software-enabled smart services built through more than 28 years of industry leadership. In addition, Cisco Services is globally recognized for expertise in engineering next-generation network solutions and managing large system and network integration projects.

For more information, visit the [Cisco Services website](#).

## Cisco Capital

### **Flexible payment solutions to help you achieve your objectives**

Cisco Capital makes it easier to get the right technology to achieve your objectives, enable business transformation and help you stay competitive. We can help you reduce the total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services and complementary third-party equipment in easy, predictable payments. [Learn more](#).

### **Boost your mobile customers' experience with innovation leadership, now**

Looking for customer-driven innovation and optimal operational efficiency? Start delivering an exceptional experience with Cisco Crosswork User-Centric SON. For additional information, visit the [Cisco Mobile Internet website](#) or contact your local account representative.



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