Nokia AirScale Base Station
Changes the way to build networks
An integral element of Nokia AirScale Radio Access, the AirScale Base Station offers a smooth and flexible journey towards 5G and cloud connectivity. And when you need to evolve to different radio access technologies or network architectures to meet future demands, it’s ready too.
Flexible, capable, lean, efficient – it sounds like a mobile operator’s wish list for a base station. That is exactly what the AirScale Base Station delivers.

AirScale Base Station comprises RF elements, including single band radios, multiband radios and baseband module. Working with any radio access technology, the base station offers an easy route to 5G and cloud. It also provides all the capacity and connectivity you will need as your traffic grows. Multiband, compact and easy to install at a wide choice of sites, AirScale Base Station ensures your network can serve customers without delay.

Already using Nokia Flexi Base Station? AirScale Base Station also allows you to use your existing site investments and seamlessly expand your Flexi Multiradio 10 base station sites.
Need to use GSM, WCDMA, FDD-LTE, TD-LTE or 5G? AirScale Base Station can work with them all – it has an unmatched ability to run all technologies and offers up to three bands in a single radio. All the technologies are defined by software, making it the ideal Single RAN base station.

As well as being compatible with existing Flexi Base Stations, protecting your investment, AirScale Base Station is ready to support you however you decide to evolve your network.

The AirScale Base Station is ready for any network architecture and topology - Distributed RAN, Centralized RAN and Cloud RAN - and caters for a variety of indoor and outdoor deployment scenarios.
As traffic continues to boom, this base station can keep pace. AirScale Base Stations, enabled by the new Nokia ReefShark chipsets, deliver market leading throughput, up to 84 Gbps per system module. It is scalable: simply add plug-in units to increase capacity as needed. Further, AirScale baseband module chaining supports base station throughputs of up to 6 terabits per second, which will allow operators to meet the huge growing densification demands and support the massive enhanced mobile broadband needs of people and devices in megacities.

Centralized RAN, CoMP (Coordinated Multi-Point) and LTE Carrier Aggregation, and enhancements from Cloud RAN, further contribute to unlimited cell capacity and connectivity. What’s more, these cells can be of any size, from micro cells to large macro cells.

In addition, integrated passive intermodulation (PIM) cancellation delivers enhanced service quality and performance.
Ease of installation for base stations is another vital requirement and the AirScale Base Station’s small and lean size fits this criterion perfectly. AirScale base station offers the leanest multiband, multi-standard and multi-mount radio site solution available.

AirScale Base Station, enabled by the new Nokia ReefShark chipsets, delivers market leading throughput, up to 84 Gbps per system module. AirScale multiband radios, including the world’s first triple band radio, make the radio system and antenna lines leaner and simpler, while the radio units are delivered with integrated zero bolt installation kit to reduce radio unit installation time by up to 66 percent. The single radio platform supports all possible installation options like integrated antenna (triple/multiband RAS), book, wall, tower and pole (horizontal and vertical) mounted installation.

ReefShark chipsets for radio frequency (RF) units such as the radio used in antennas significantly improve their performance. This results in halving the size of massive MIMO antennas.
Why use energy during periods of no traffic? The AirScale Base Station ensures you minimize energy consumption during zero traffic conditions.

It uses advanced features to consume very low energy in the absence of traffic, or to shut off network layers experiencing low traffic. This results in up to 60 percent higher energy efficiency, while the reduced energy requirements also allow broader use of renewable energy sources, like solar, to power the sites.

Single, common software takes site simplification to the next level. What’s more, efficiency is further enhanced by the built-in hexa-resiliency that also enables the highest possible network availability.
With higher efficiency, faster installation, more site options and the ability to serve an ever expanding number of subscribers, using the AirScale Base Station means total cost of ownership falls dramatically.

AirScale Base Station is built for the 5G, cloud and IoT era in which 50 billion connected devices will radically change the demands that networks must meet. AirScale is the only base station solution you’ll need for a long time because not only does it deliver high quality connectivity and coverage for unprecedented user experience, but it enables you to evolve your network as and when needed to meet changing requirements.

Cut costs, not corners
About Nokia
We create the technology to connect the world. Powered by the innovation of Bell Labs and Nokia Technologies, the company is at the forefront of creating and licensing the technologies that are increasingly at the heart of our connected lives.

With state-of-the-art software, hardware and services for any type of network, Nokia is uniquely positioned to help communication service providers, governments, and large enterprises deliver on the promise of 5G, the Cloud and the Internet of Things. http://nokia.com

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