



5 BIG MOVES // COMPLETE CORRIDORS / TRANSIT LEAP / MOBILITY HUBS / FLEXIBLE FLEETS / NEXT OS

Frequently Asked Questions about Next OS

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GENERAL – NEXT OPERATING (NEXT OS)

Who owns the Next OS? How would the system be maintained, updated, and protected against threats (e.g., power outages, hackers, etc.)?

Much like existing physical infrastructure and transportation assets (e.g., highways or bus fleets), the Next OS *digital* infrastructure will likely be owned by the public and administered on its behalf by governments and transit agencies in the region. It is envisioned that the Next OS will be built and maintained through collaboration between public agencies and private sector technology providers to deliver services that are driven by regional goals. SANDAG and its partners treat cybersecurity and related concerns with the utmost importance, and the Next OS architecture would be designed as a distributed system with no single point of failure.

Would the Next OS include open source data tools? How would the private sector, researchers, or others be able to use Next OS data products? How would user data be protected?

Yes, the Next OS will include open source data tools. The exact data specifications and public-facing data products that will be produced by the Next OS are still being determined. The platform is envisioned to allow academia, researchers, and the public to access much of its insights and analysis. Individual residents' data, however, will be strictly managed and secured.

SANDAG is committed to protecting privacy and firm guidelines for the responsible collection, management, and use of mobility data is vital. A recent [UC Davis report](#) offers compelling recommendations on mobility data sharing and privacy issues. The Next OS policy framework and systems architecture will take robust data security principles like these into account.

How will you get the general public comfortable with change as the Next OS is implemented?

A guiding principle of the Next OS implementation will be transparency and SANDAG representatives will be available to answer questions and concerns. The public will be engaged throughout the entire Next OS development and implementation process. SANDAG and its partners are already actively seeking public feedback through open forums, community surveys, focus groups, and direct resident interactions. Public outreach and education will continue to inform and solicit input about Next OS implementation. As new tools and solutions enabled by the platform are released, they will be accompanied by public education and outreach.

How will persons with disabilities use the Next OS? What about people without a smartphone?

The Next OS will provide mobility solutions through enablement of the other 5 Big Moves (Complete Corridors, Transit Leap, Mobility Hubs, and Flexible Fleets), which will expand and provide new mobility choices for everyone, accompanied by better tools for accessing those choices.

The Next OS will be designed to ensure that new solutions are accessible to all residents throughout the region. For example, residents with visual impairments will have access to large text and computer-generated speech, and for the elderly or physically disabled travelers, the Next OS will help identify demand-response paratransit vehicles and other services to improve their access to employment, education, and healthcare opportunities.

In addition, kiosks stationed in Mobility Hubs could allow users without smartphones or personal devices to access real-time travel information and plan multimodal travel. It is expected that these kiosks will accept cash and prepaid cards to allow those without smartphones or credit cards to experience the same seamless travel benefits.

Are private sector mobility providers responsive to integrating into a single platform like Next OS?

Both private and public sectors recognize the enormous potential of integrated mobility solutions offered by new platforms like the Next OS. As expressed in a [joint statement on “Shared Mobility Principles,”](#) there is an opportunity for public transportation agencies and private mobility services to complement each other and even collaborate with new seamless, integrated services that benefit the public and their customers.

Transportation network companies like Uber and Lyft are already exploring partnerships with transit agencies across the country. For example, [Uber](#) partnered with Denver’s Regional Transportation District to offer ticketing for public transportation within its mobile app. Other firms in the US and internationally are offering “Mobility-as-a-Service” by including public and private modes of transportation in a single integrated app, for example Transit’s [pilot program in Ontario, Canada](#). Finnish company [Whim](#) was one of the first to pioneer this concept and is now active in European cities like Helsinki, Antwerp, and Birmingham.

SANDAG is committed to working with private sector partners to bring similarly innovative solutions to the San Diego region.

How will the 5G network facilitate seamless mobility and smart cities?

Next generation communications infrastructure, such as 5G wireless networks, will underpin much of the innovation and improved public services envisioned in smart cities of the future. In fact, most of the “smart” scenarios described by researchers and the business community would not be possible without the massive improvements in connectivity enabled by 5G networks. Telecommunications firms are laying the groundwork for these new networks now and anticipate exponential advances over existing wireless systems, including much lower latency, faster speeds, and higher capacity.

For mobility and smart cities, 5G connectivity will allow for a proliferation of Internet of Things enabled devices, “edge” based computing and analytics, and new data-dependent modes of transportation. Much of this innovation is underway already: the automotive and technology industries are testing automated vehicles on public streets across the country; transportation and transit agencies are partnering with startups to offer dynamically routed buses and microtransit shuttles; and traffic engineers are leveraging connected infrastructure such as smart intersections and traffic signals to improve the reliability and average speeds of local transportation networks.

When 5G networks are fully deployed, now-disparate innovations in transportation and infrastructure management can be managed holistically to benefit an entire city or region. This is what SANDAG envisions as Next OS.