



# Safe & Secure Smart Cities with Networking 2.0

## What is Networking 2.0?

Networking 2.0 is an innovative way of connecting people, entities, and things on the internet, and on any network. Networking 2.0 provides an abstraction layer for IP networking that removes the need to know the details of the underlying physical network. It allows architects to design infrastructure at a higher abstraction layer that they know will be implementable on any IP network. Networking 2.0 is based on a decentralized architecture with SDKs that provide end-to-end encryption. It is ideal for use in smart cities and can be used to build a robust and flexible platform that keeps people safe and secure.



**Fun Fact: Networking 1.0, which we use today, is almost 50 years old and Networking 2.0 is the very first universal abstraction layer.**

## What can Networking 2.0 do for my city?

### Protect critical infrastructure

Eliminating the need for open ports on external surfaces protects critical infrastructure, such as power plants, traffic lights, healthcare, transportation hubs and other essential services, from cyber attacks.

**Example** Networking 2.0 and SSH No Ports can be used to create a secure network of power plants. All connected devices at the power plant would be protected from cyber attacks by using Networking 2.0's decentralized architecture, end-to-end encryption, and SSH No Ports. Devices can be made invisible to anyone without the right access and cryptographic keys.

### Protect data

Communication and data sharing between smart city devices is essential for the reliable operation of cities and the infrastructure that keeps them running seamlessly. Time-critical decisions are made based on this data. At the same time, we must protect the data generated by people using these services. With Networking 2.0, data is automatically end-to-end encrypted so privacy is the default.





## Enable innovative smart city applications for both the administration and the consumer

Networking 2.0 technology can enable the deployment of innovative smart city applications, like self-driving cars and smart grids. By providing a private, secure, and scalable communication platform, Atsign can help cities to implement these new technologies in a safe and efficient manner.

### Example

Self-driving cars need to be able to communicate with each other and with the surrounding environment in order to operate safely. Networking 2.0 provide a secure and reliable communication platform for self-driving cars, one that allows drivers to keep their personal data private, but publish public data.



## New consumer experiences

Networking 2.0 enables contextual responses based on who is asking the question. It also allows for both the retraction of data previously shared with someone and the granting of access to data for a certain time period only. These new concepts enable app developers and businesses to create brand new customer experiences

### Example

Seamless airport baggage pickup and ground transportation. Imagine a day when you can get off your flight, walk to baggage claim knowing that your bag will arrive in 3 minutes, and once you have picked up the bag, your favorite ride-sharing app is notified that you are ready to be picked up. Once you have boarded the car, all of your data can be pulled out from the previous systems at the airport and the airline, if you choose to do so. This experience is possible today with Networking 2.0.



## Promote new businesses and economic growth

When new customer experiences are possible, it gives rise to entrepreneurs and new business opportunities, thereby driving economic growth. Networking 2.0 allows app developers and businesses to build applications and take them to market very easily.



## Meet your Green & Sustainability goals

Networking 2.0's distributed architecture allows for the potential elimination of several traditional layers like firewalls and VPNs, which are costly and energy-intensive for cities and businesses. Removal of these layers and the added security from Networking 2.0 can assist city leaders towards their carbon and sustainability goals.

Learn more about Networking 2.0- <https://atsign.com/networking-2-0/>