



SCIENCE & TECHNOLOGY

NASA Chooses Nokia to Build First Mobile Network on the Moon

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Nokia says it has been chosen by the American space agency NASA to build the first **mobile** phone network on the moon.

The Finnish technology company recently announced that its Nokia Bell Labs division will build the lunar communications system. It said NASA will put the equipment on a lunar lander. The spacecraft is expected to reach the moon's surface in late 2022.

Nokia's announcement comes as the space agency continues preparations for sending astronauts to the moon by 2024. NASA's [Artemis program](#) aims to establish a long-term human presence on the moon as a "warm-up" for future **missions** to the planet Mars.

Earlier this month, NASA announced it had awarded \$370 million to 14 companies to provide technology for the moon-landing program. The money will support studies of **cryogenic fluid management** and technologies related to energy storage and power production on the moon's surface.

The space agency also signed a deal for the development and testing of improved lunar landing systems. And it is seeking private companies to [mine rocks and other resources](#) on the moon.

The Nokia agreement was included in NASA's latest awards to private companies. The space agency said it is paying the company \$14.1 million to build the mobile network.

Nokia said its network will provide critical communications for work astronauts will need to perform on the moon. This will include **remote** control of lunar vehicles and other equipment, real-time **navigation** activities and high-quality video **streaming**.

The equipment includes a base station, **antennas** and computer software programs. All the equipment will be designed to survive difficult launches, lunar landings and extreme conditions in space.

Nokia said the equipment is designed to configure, or set up, the 4G/LTE communications network on its own. Marcus Weldon is Nokia's chief technology officer. Weldon said he sees the 4G/LTE system as a necessity to support "a **sustainable** human presence on the lunar surface."

The company decided to use 4G instead of 5G, the latest mobile technology, because 4G has been available longer and proven its **reliability**.

Nokia said its long-term goal is to move the moon network to 5G technology in the future.

I'm Bryan Lynn.

The Associated Press and Reuters reported on this story. Bryan Lynn adapted the reports for VOA Learning English. George Grow was the editor.

Words in This Story

mobile - *adj.* able to be moved freely or easily

mission - *n.* an important task, usually involving travel somewhere

cryogenic - *adj.* related to the scientific study of very low temperatures and how to produce them

management - *n.* the control and organization of something

remote - *adj.* far away in distance

navigation – *n.* the movement and leading of things, such as ships or vehicles

streaming – *n.* the activity of listening to or watching sound or video directly from the internet

antenna – *n.* a structure made of metal rods or wires, often positioned on top of a building or vehicle, that receives or sends radio or television signals

sustainable – *adj.* able to continue over a period of time

reliability – *n.* the ability to be trusted or believed
