



Telesat Partners with Alphabet's Loon to Design a Network Operating System for Telesat's Global LEO Satellite Constellation

Telesat's LEO program continues to build world-class supplier team

Ottawa, Canada and Mountain View, California, USA, January 31, 2019 – Telesat and Loon, a subsidiary of Google's parent company Alphabet, are pleased to announce they have entered into an agreement under which Loon will deliver a network operating system design that Telesat can use to support its global low earth orbit (LEO) satellite constellation. The design will adapt and expand on Loon's cloud-based, temporospatial software-defined network (SDN) platform that Loon uses today to deliver mobile data services over its fleet of stratospheric balloons.

Under the agreement, Loon will adapt its SDN platform design to enable Telesat's LEO constellation to consistently deliver a fiber-like broadband experience on a global basis to both fixed and mobile terminals. The Loon SDN will be specifically customized for Telesat's use, giving its innovative LEO constellation a powerful and highly differentiated capability for serving growing commercial and government markets. The effort will result in Telesat having access to a scalable and robust network operating system that Telesat can use to optimize capacity across its global fleet of LEO satellites while minimizing latency and ensuring reliable connectivity to end-users worldwide.

"Loon's cloud-based SDN platform is already managing services over the Loon high-altitude balloon network and Telesat is pleased to be working with Loon to have Loon optimize their solution for Telesat's LEO constellation," said Erwin Hudson, Vice President, Telesat LEO. "Loon has unique experience developing sophisticated network management software that assures delivery of reliable broadband services over highly dynamic networks that undergo constant change. The addition of Loon brings an entirely new set of capabilities to the world-class supplier team Telesat has built for our LEO program – capabilities that will give Telesat a powerful competitive advantage in our global broadband service offerings."

"By leveraging our expertise to assist in the development of Telesat's advanced and innovative LEO constellation, we see another opportunity for Loon to pursue our mission of connecting people everywhere by inventing and integrating audacious technology," said Alastair Westgarth, CEO of Loon. "With billions of people still lacking Internet access, there's an urgent need for multiple approaches to solving this problem. Telesat has an outstanding record of innovation in commercial space communications. We're excited to work with a global leader like Telesat and expand the number of ways that Loon can help bring connectivity to those who need it."

The Loon SDN coordinates its balloon-powered internet efforts, which are set for commercial deployment later this year. The SDN schedules, predicts, controls and optimizes the wireless topology, radio resources, and routing of packets across the ground and aerospace segments of non-geostationary networks, which pose unique challenges because of their high degree of mobility. The SDN ensures that data is constantly flowing across the network, even as network nodes change position and orientation. The synergy between stratospheric balloons and LEO satellites comes from a shared characteristic - both are in constant motion relative to the Earth and one another. Because of that, the network challenges presented by Loon's internet balloons are also present for Telesat's LEO satellites, making the Loon SDN technology an ideal solution for both.

Telesat's LEO constellation will leverage the company's global, priority spectrum rights in Ka-band and proprietary LEO architecture to transform global communications. It will offer a combination of capacity, speed, security, resiliency and low cost with latency that is equal to, or better than, the most advanced terrestrial networks. Able to serve the entire globe, Telesat LEO will help satisfy many of the world's most challenging communications requirements. It will accelerate 5G expansion, bridge the digital divide with fiber-like high speed services into rural and remote communities, and set new levels of performance for commercial and government connectivity on land and in key maritime and aeronautical broadband markets, which are among the fastest growing in today's satcom industry.

About Telesat (www.telesat.com)

Telesat is a leading global satellite operator, providing reliable and secure satellite-delivered communications solutions worldwide to broadcast, telecom, corporate and government customers. Headquartered in Ottawa, Canada, with offices and facilities around the world, the company's state-of-the-art fleet consists of 17 GEO satellites, the Canadian payload on ViaSat-1 and one Phase 1 LEO satellite which is the start of Telesat's planned global LEO satellite constellation that will offer low latency, high throughput broadband services. Telesat is also a leading technical consultant providing high value expertise and support to satellite operators, insurers and other industry participants on a global basis. Privately held, Telesat's principal shareholders are Canada's Public Sector Pension Investment Board and Loral Space & Communications Inc. (NASDAQ: LORL).

About Loon (www.loon.co)

Loon's mission is to connect people everywhere by inventing and integrating audacious technologies. By leveraging its advanced technologies, Loon is making it possible to expand internet access to the billions who currently lack it. Loon works with a range of partners to expand and supplement existing networks and provide expedient coverage after natural disasters. To date, Loon's stratospheric balloons have travelled more than 30 million kilometers around the world. Loon is a subsidiary of Alphabet, the parent company of Google.

Forward-Looking Statements Safe Harbor – Telesat

This news release contains statements that are not based on historical fact and are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. When used in this news release, the words “will”, “can”, “growing”, “expand”, “transform”, “accelerate”, or other variations of these words or other similar expressions are intended to identify forward-looking statements and information. Actual results may differ materially from the expectations expressed or implied in the forward-looking statements as a result of known and unknown risks and uncertainties. Detailed information about some of the known risks and uncertainties is included in the “Risk Factors” section of Telesat Canada’s Annual Report on Form 20-F for the fiscal year ended December 31, 2017 which can be obtained on the SEC website at <http://www.sec.gov>. Known risks and uncertainties include but are not limited to: risks associated with operating satellites and providing satellite services, including satellite construction or launch delays, launch failures, in-orbit failures or impaired satellite performance, the ability to successfully deploy an advanced global LEO satellite constellation, volatility in exchange rates and risks associated with domestic and foreign government regulation. The foregoing list of important factors is not exhaustive. The information contained in this news release reflects Telesat’s beliefs, assumptions, intentions, plans and expectations as of the date of this news release. Except as required by law, Telesat disclaims any obligation or undertaking to update or revise the information herein.

Forward Looking Statements Safe Harbor- Loon

This press release may contain forward-looking statements that involve risks and uncertainties. Actual results may differ. Please refer to the associated risks and uncertainties included under the caption “Risk Factors” in Alphabet Inc.’s Annual Report on Form 10-K.

For further information:

Gerry Nagler, Telesat +1 908 470-4907 (gnagler@telesat.com)

Scott Coriell, Loon +1 802 353 1449 (scoriell@loon.co)