



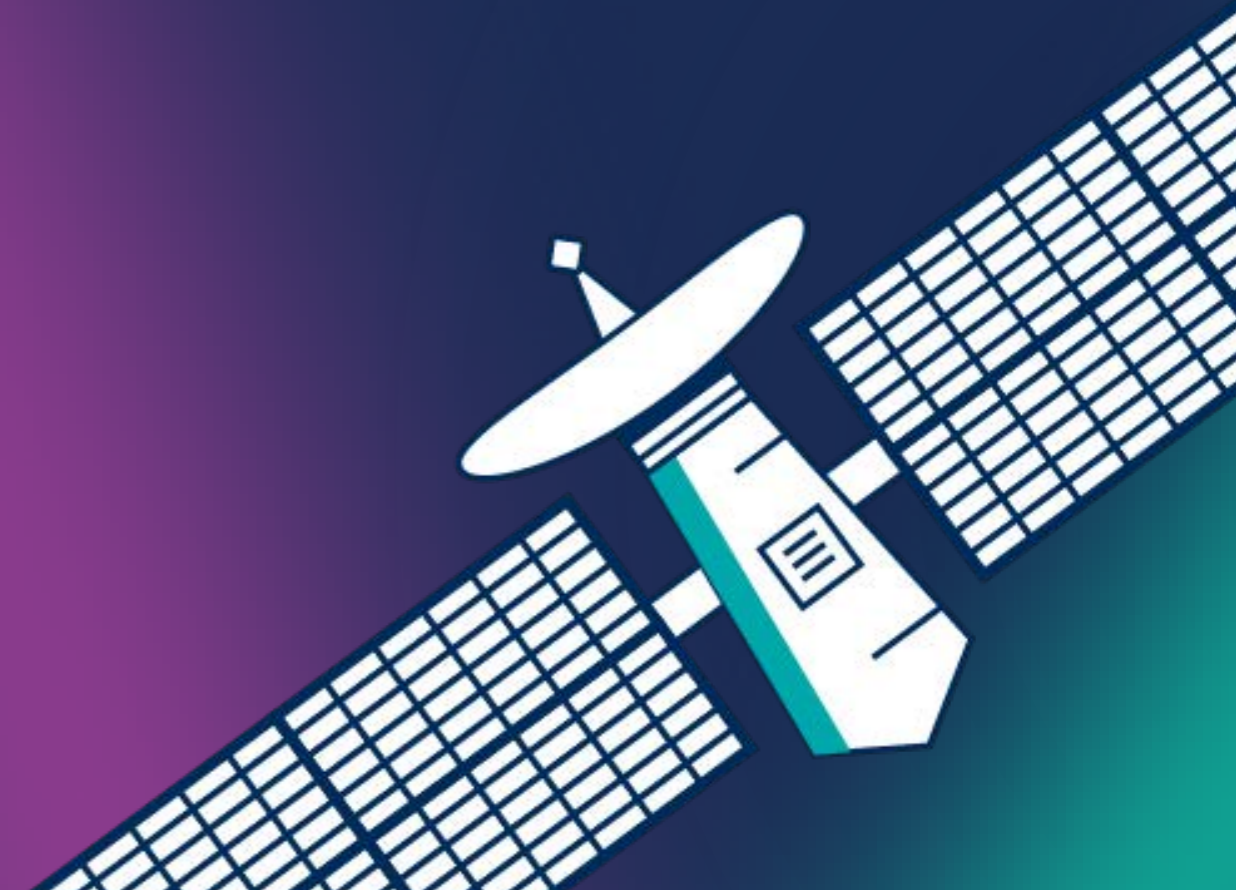
SSC CONNECT[®]

Your link between Earth and Space



SSC Connect offers one of the world's largest, most flexible and dependable ground station networks. Throughout our 50-year history, we've been a trusted partner for many pioneering space missions, renowned for our unique expertise in operating satellites and the ground segment.

If you plan to operate a large satellite platform, small satellite constellation, a lunar vehicle or a rocket launcher, **SSC Connect** is your link between Earth and Space.



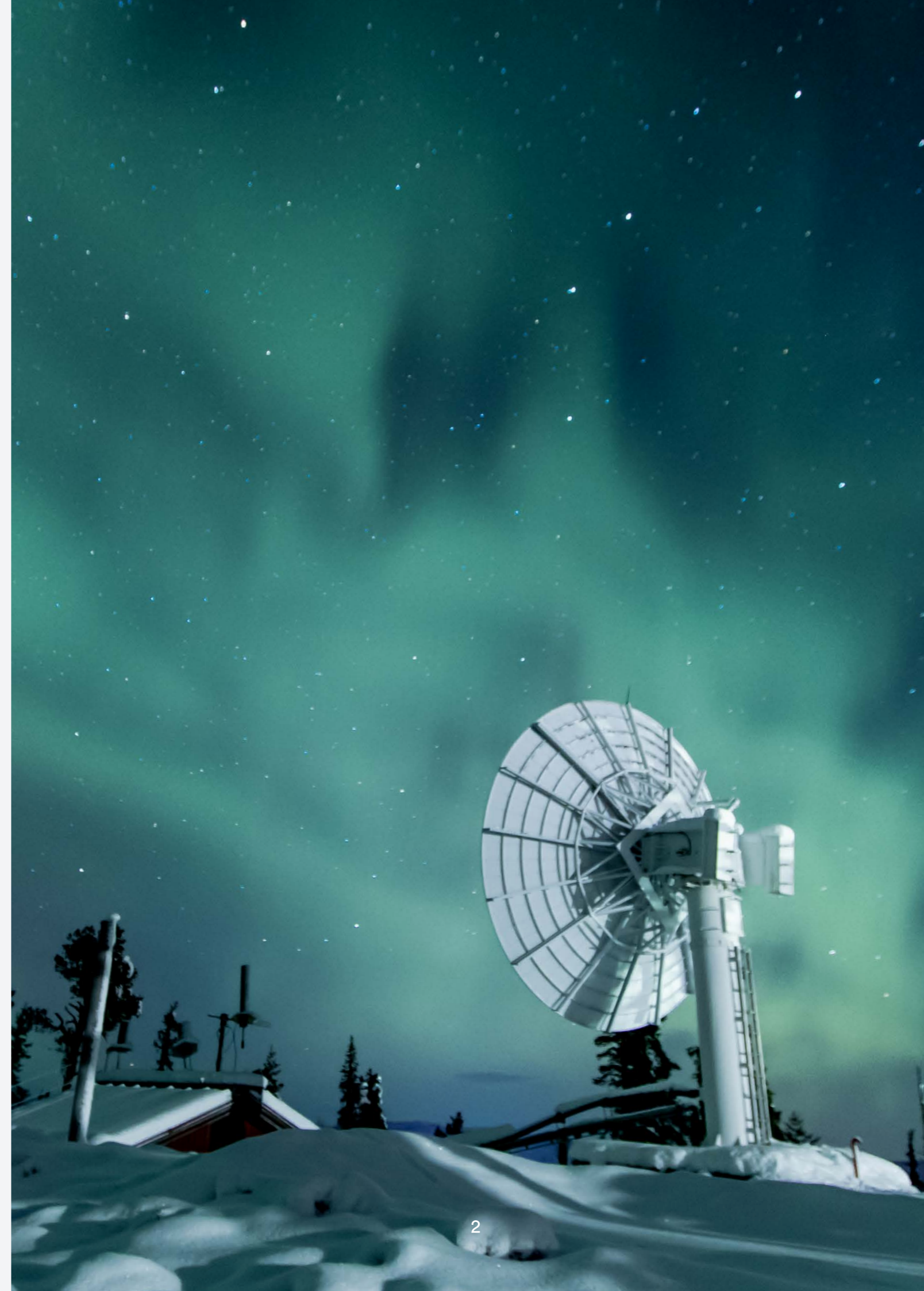
Global. Flexible. Growing.

Access the world's most advanced commercial ground station network

SSC CONNECT Ground Station Network



SSC provides flexible and reliable ground station services to spacecraft's operators around the globe. We help optimize spacecraft operators' ground segment operations. SSC CONNECT solutions are built on a strong and highly versatile multi-mission ground station network.





Antenna sizes ranging from 5-30m.

Covering frequencies: L, C, S, X, Ku, Ka, DBS.

Advanced uplink, downlink and baseband characteristics.

Advanced Ground Station Capabilities

SSC operates 10 ground stations strategically located around the world for optimum coverage, plus 8 supplementary partner stations. The SSC CONNECT ground station network capabilities fit all mission types, sizes and orbits from LEO to Lunar and beyond.

Antenna capabilities

Overview of SSC stations' capabilities

The SSC CONNECT ground station network offers access to a large choice of frequencies and antenna sizes to best serve satellite operators in a flexible and cost-effective way. The network is constantly growing and adapting to the latest technologies and market needs.

SSC Ground stations	Esrang Space Center, Kiruna, Sweden	Inuvik, Canada	North Pole, Alaska USA	South Point, Hawaii, USA	Western Australia Space Center	Santiago, Chile	Punta Arenas, Chile	Clewiston, Florida, USA	Si Racha, Thailand	Ågesta Teleport, Stockholm Sweden
LAT	67° 53'N	68° 19'N	64° 48'N	19° 00'N	29° 02'N	33° 09'N	52° 56'N	26° 45'N	13° 06'N	59° 12'N
LONG	21° 04'E	133° 32'W	147° 30'W	155° 39'W	115° 21'E	70° 40'W	70° 51'W	81° 03'W	100° 56'E	18° 05'E
Antenna class	2.4 - 13 m	7 - 13 m	5 - 13 m	13 m	7 - 13.6 m	9 - 13 m	7 m	9 m	7 m	1.9 - 9 m
Receive RF bands (Down)	S, X, Ka	S, X, Ka	S, X	S, X, Ku	S, X, Ku	S	S, X, Ka	X	S, X, Ka	Ku
Transmit RF Bands (Up)	S	S	S	S, X, Ku	S, X, Ku	S	S	S	S	Ku

This table is subject to change as the SSC CONNECT network's capabilities continue to grow. Please don't hesitate to contact us to discuss your mission needs: info@sscspace.com.

Overview of SSC partner stations' capabilities

SSC has built a network of 8 partner sites, adding extra capabilities worldwide to the SSC CONNECT network. Our collaboration is based on a careful selection and long-term relationships to ensure our customers the highest quality of services they expect from SSC. Our partner sites' antenna sizes range from 5-30m and cover frequencies: L, C, S, X, Ku, Ka and DBS.

SSC Partner Ground stations	O'Higgins, Antarctica	Fucino, Italy	Weilheim, Germany	Madrid, Spain	Hartebeesthoek, South Africa	Bengaluru, India	Hokkaido, Japan	Okinawa, Japan	TOTAL
LAT	-63.32 S	41.97 N	47.87 N	40.82 N	-25.88 S	13.12 E	42.77 N	26.14 N	
LONG	-57.90 W	13.60 E	11.08 E	-3.77 W	27.70 E	76.13 N	141.62 E	127.66 E	
Antenna class	9m	9.3-14.2m	6.8-30m	11-15m	5.4-13.2m	10-11m	7.5m	7.3m	5.4-30m
Receive RF bands (Down)	S, X	S, C, Ku, DBS	C, L, S, X Ku, Ka	S, X	C, S, X, K	S, X	S, X	S, X	L, C, S, X Ku, Ka, DBS
Transmit RF Bands (Up)	S	S, C, Ku, DBS	S, Ku, Ka	S	C, S, X, K	S, X	S	S	

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Operational and scheduling interfaces

Available interfaces for operations and scheduling of service via API, web-sockets, web, SFTP, e-mail and phone.

Uplink characteristics

	S-band	X-band	Ka-band	Ku-band
EIRP	50.0 - 73.6 dBW	85.0 - 88.0 dBW	68.5 dBW	84.0 dBW

Downlink characteristics

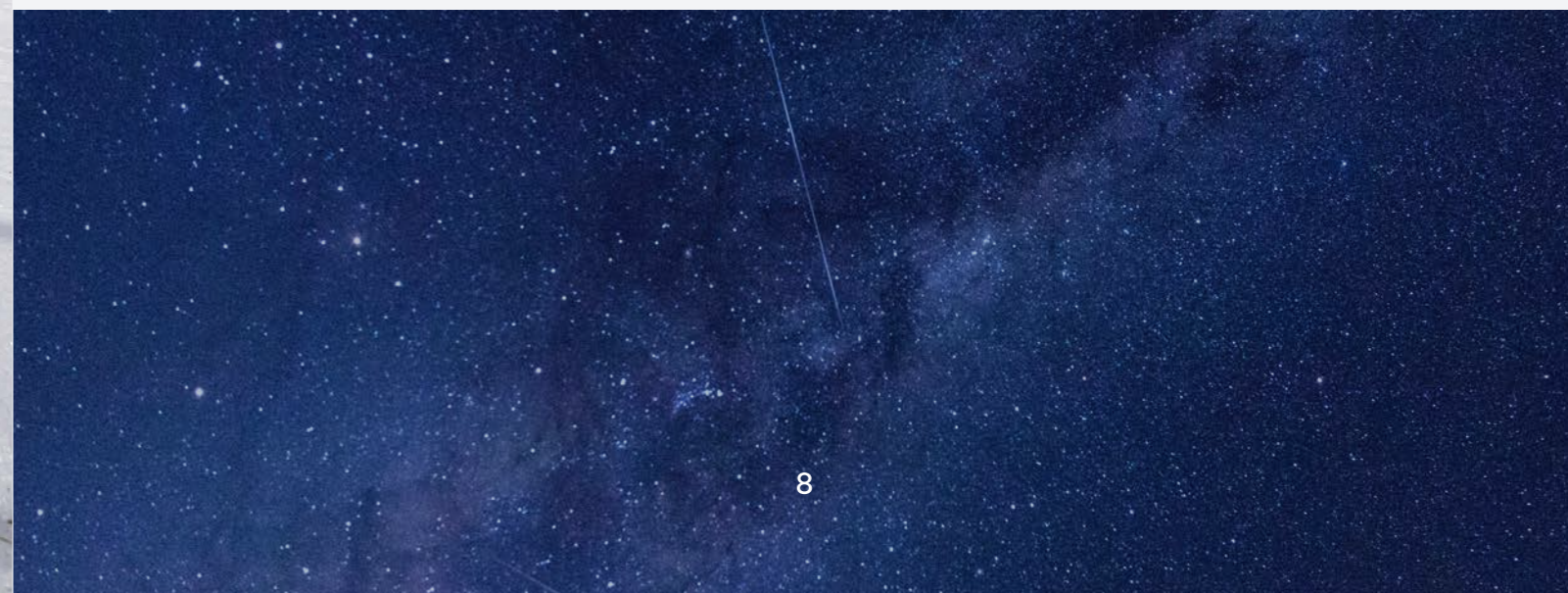
	S-band	X-band	Ka-band	Ku-band
G/T	10.0 - 24.9 dB/K	30.5 - 37.7 dB/K	34.0 - 42.0 dB/K	37.4 dB/K

Baseband characteristics**

Modulation	FM, PM, BPSK, QPSK, OQPSK, GMSK
Carrier data rate	10 bps - 1 Mbps
Demodulation	FM, PCM/PM, BPSK, QPSK, OQPSK, SOQPSK, GMSK, 8PSK
Data rate	100 bps - 400 Mbps

**Characteristics vary between sites*

***Alternative modulations are available within the network*



Network Coverage areas

SSC CONNECT provides satellite operators with the possibility for multiple satellite contacts per orbit. Extended length of continuous support can be provided by using our strategically located ground stations with connecting or overlapping coverage areas.



Network Coverage areas from 600 km



Polar Coverage from 600 km

Terrestrial Communication

Bandwidth connections in the SSC CONNECT network may vary from a location to another. SSC L3VPN and Internet VPN service standard bandwidth are available from 1Mbps up to 1 Gbps. Interface for data handling with SFTP and cloud-based solutions are available.

Communication point of presence (PoP)*

- Stockholm, Sweden
- Edmonton, Canada,
- Horsham, USA
- Perth, Australia
- Santiago, Chile

*Option; cloud-based interface for post-pass data handling (Amazon, Google).

- SSC Ground Station
- SSC PoP
- SSC Backbone
- - - WAN circuits



For further information please contact info@sscspace.com and we would connect you with a representant from our regional sales or engineering team.

Our services

Lunar Services

Your connection to the Moon and beyond

SSC offers the world's first commercial lunar communications solution. Our advanced ground station network has assisted high-profile lunar mission for over 15 years – including the Apollo Space Program and contemporary missions for NASA, ESA, ISRO and SpaceX. With our extensive network capability and experienced staff, SSC offers the full range of mission network solutions, from LEOP to surface operations.

LEOP Support



TT&C and Data Reception



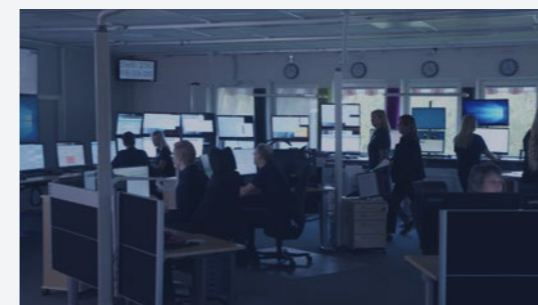
Antenna Hosting



Teleport & Media



Mission Control



Data Handling & Processing



SSC INFINITY

Full flexibility for small satellites

SSC Infinity makes use of standard configurations for fast and reliable implementation of an automated ground network service adopted for the new generation of small satellites and large constellations. The service offers webbased and API customer interfaces for pass scheduling and is based on full motion antennas located around the globe.

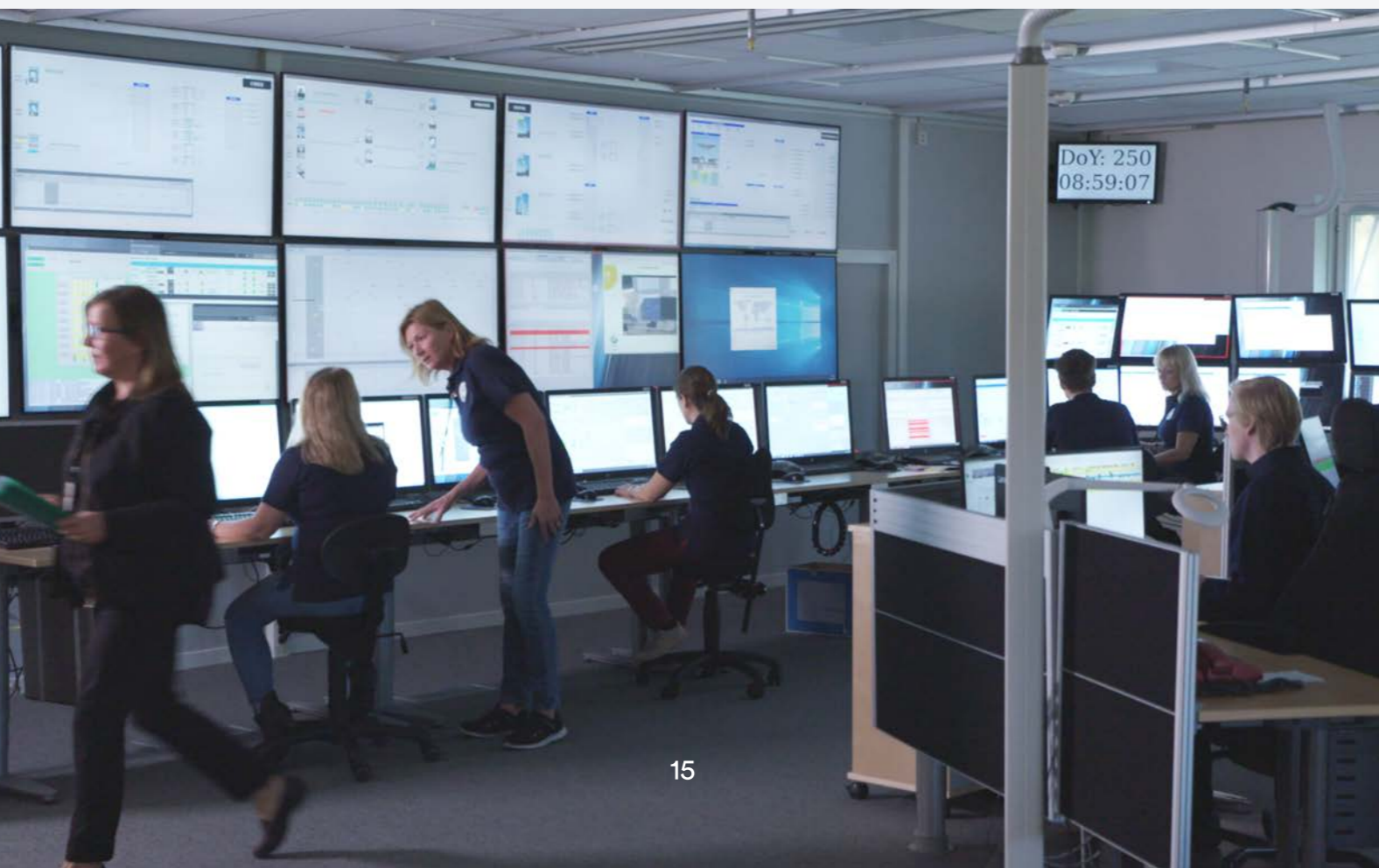
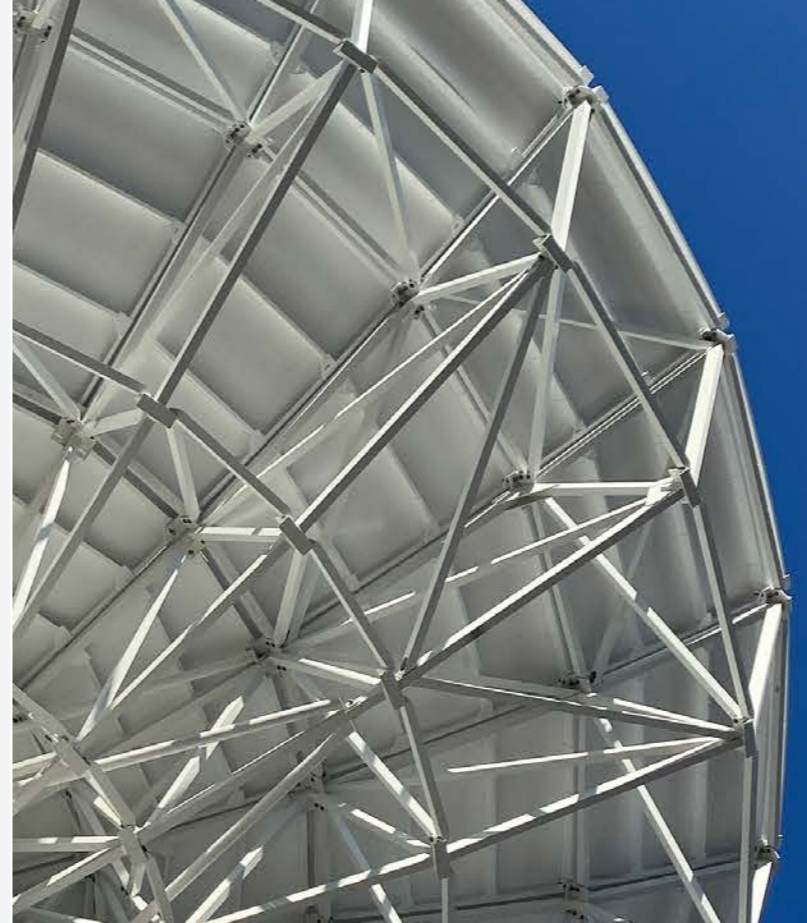
- Time and cost saving standardized interfaces and configurations
- Cloud integration for easy access
- Rapid full network resource scheduling
- High level of data integrity and security
- Resilient satellite operations

Choosing SSC Connect

Our customers mean everything to us. They choose SSC for our highly reliable services, built on decades of experience and deep technical expertise, but also for our solid and innovative capabilities and for who we are: trustworthy, solution-oriented, dedicated and friendly.

Through SSC CONNECT you leverage from our:

- Seamless service offering for global operation
- Complete and versatile service portfolio
- Advanced network capabilities
- Unique skillsets for mission success
- Hard-to-beat experience and expertise
- Dedicated colleagues around the world
- Sustainable ground station operations



Expanding Network Capabilities

The future of spacecraft communications will require some significant innovation on the ground segment capabilities side.

Spacecraft operators both need to communicate further as we continue to explore outer space and communicate larger amounts of data.



Esrange Space Center

Launching satellites from 2023 onwards

Are you planning to operate small satellites and need a launching partner?

At Esrange Space Center in northern Sweden, SSC is now building a new site for orbital launches. By the end of 2022 the new infrastructure will stand ready to host reusable rocket tests, engine and fuel tests, as well as launches of satellites, making it the first site on EU territory with orbital launch capability.

Apart from satellite launches, the facility will also host preparatory steps for ESA's planned demonstration of the reusable rocket Themis.

Don't hesitate to contact us to discuss your mission needs.

Connect with us at info@sscspace.com.

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We help Earth benefit from Space

www.sscspace.com

