INFRASTRUCTURE/FACILITY	Data-Centre and the Direct Receiving Station
INFRASTRUCTURE/FACILITY	N/A
LOCATION OF INFRASTRUCTURE/FACILITY	TERINOV – Parque de Ciência e Tecnologia da Ilha Terceira - Canada de Belém s\n, Terra Chã	9700-702 Angra do Heroísmo, Portugal 36,67345N 27,25105W
LEGAL NAME OF OWNER ORGANIZATION	Associação para o Desenvolvimento do Atlantic International Research Centre
COUNTRY	Portugal
CONTACT	(RI Responsible/PI name, address, ph., email) Adriano Lima adriano.lima@aircentre.org +351 913632439 TERINOV – Parque de Ciência e Tecnologia da Ilha Terceira - Canada de Belém s\n, Terra Chã	9700-702 Angra do Heroísmo, Portugal

DESCRIPTION

In-house satellite direct receiving station + data centre. The Direct Receiving Station (DRS) X-Band ingests satellite data in real-time as the satellites Terra, Aqua, Suomi-NPP, NOAA-20 and Feng-Yun-3pass above it (300GB of Earth Observation data daily). The data ingested is immediately processed and stored for one week. In 2023, we started the development of the indexing/cataloguing and storing service. This retrieves the data as it is produced, stores it and catalogues it, allowing us to make it immediately available online via an API, with a latency between 2 and 13 minutes from the passage of a satellite.

| RI/ Facility participating in an ERIC | **NO** | |

ANALYTICS/EXPERIMENTAL INFRASTRUCTURES/FACILITIES

TYPE	SERVICE DESCRIPTION	ADDITIONAL INFORMATION	…..

Data aquisition
 	
- AIR Datacentre (Data Centre + Direct Receiveing Station)
	- 300GB of EO data, daily
	- Real-time (Low-latency 2-13min.)
	- Satellites:
	  - Terra
	  - Aqua
	  - Suomi-NPP
	  - FengYun
	  - JPSS-1
		- Hardware:
		• Core Switch speed 100 Gbit/s (Gigabit per second)
		• 2 x 2 ports per node
		• Storage + Web Servers
		• 100 TB NVMe + 5 TB SSD (RAID 6)
		• 1.5TB (8 x 192) + 96GB (3 x 32) Memory
		• 8 x 24 Cores + 3 x 32 Cores
		• Serial and Parallel Processing: Under study	

Data storage - AIR Datacentre (Data Centre + Direct Receiveing Station)			
Computation - AIR Datacentre (Data Centre + Direct Receiveing Station)	APIs (Aplication Programming Interfaces) + Provide access to data (in a structured and safe manner) + Preserve data integrity + Provide scalability + Enable automation + Increase availability + Increase efficiency Software Packages + Provide easier and concentrated access to APIs + Provide access to data and to common operations + For most common data science programming languages R & Python + Open source + Chronological Synchrony Web interface + Available to any web user + Complete		

	catalogue + Programatic-only access		
Software Packages	+ Provide easier and concentrated access to APIs + Provide access to data and to common operations + For most common data science programming languages R & Python + Open source + Chronological Synchrony		
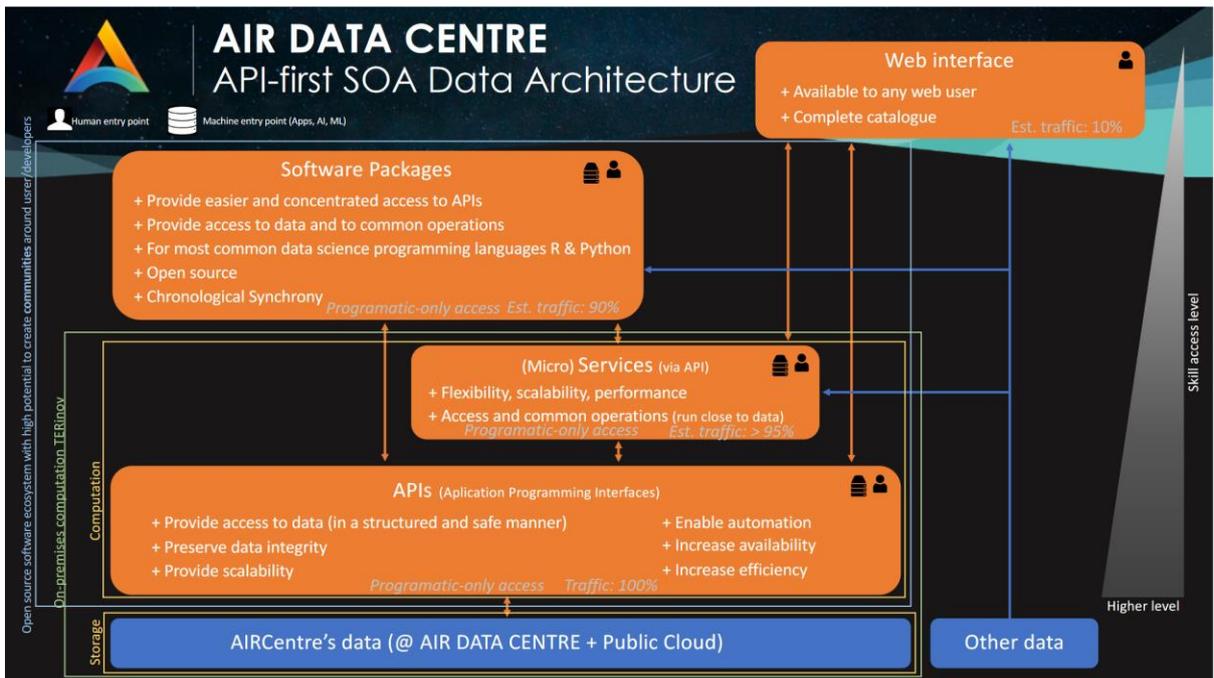
ACCESS PROVIDED

Remote: the requested facility is operated by the owner's staff the presence of the user team is not required,

SPECIAL REQUIREMENTS

Num of access/Call;	
Max period granted in the year:	None
Exclusion Periods in the year:	None
Max period granted per single user team (working day; days for R/V)	No limit
Max num of user team members admitted	No limit
Admin/Safety requirements for the user team (free itemized text)	No specific ones
Min # days/months of notice to the RI Resp/PI for preparing the access	7 days
Geographical Areas where RI/facility access is granted to user teams	Atlantic, worldwide