case study

customer:

location:

Port d'Informació
Científica (PIC)
Barcelona, Spain

the brief:

Tier One 'centre of excellence' handling approximately 9 Petabyte of data per year. An upgrade of both the active equipment and cabling infrastructure was ordered, to create a future-proof facility that will rapidly respond to growth.

market:

Data Centre

products:

**OM3 Fibre
Plug and Play**

"We need to be fast and agile, with flexible capacity, to serve the needs of both our existing and future users. Siemon has provided expert help to ensure that our data centre can operate dynamically and we are most impressed with both the intelligence of the design, plus the quality and performance of the fibre solution. Reconfiguring our infrastructure in the future will be easy, which is essential as all upgrades at PIC have to be made in operational time: Our facility never sleeps."

Vanessa Acin
Port d'Informació Científica
(PIC)

Siemon fibre supports processing for CERN at PIC data centre

Global infrastructure specialist, Siemon, has been selected by the Port d'Informació Científica (PIC) to upgrade its scientific data centre to OM3 fibre for future migration to 40/100 Gb/s. This 'data centre of excellence' is responsible for processing and storing scientific data from research groups around the world and includes CERN in its client list. Its growing needs mean that data throughput demands are rising from 15 to 100 PB.
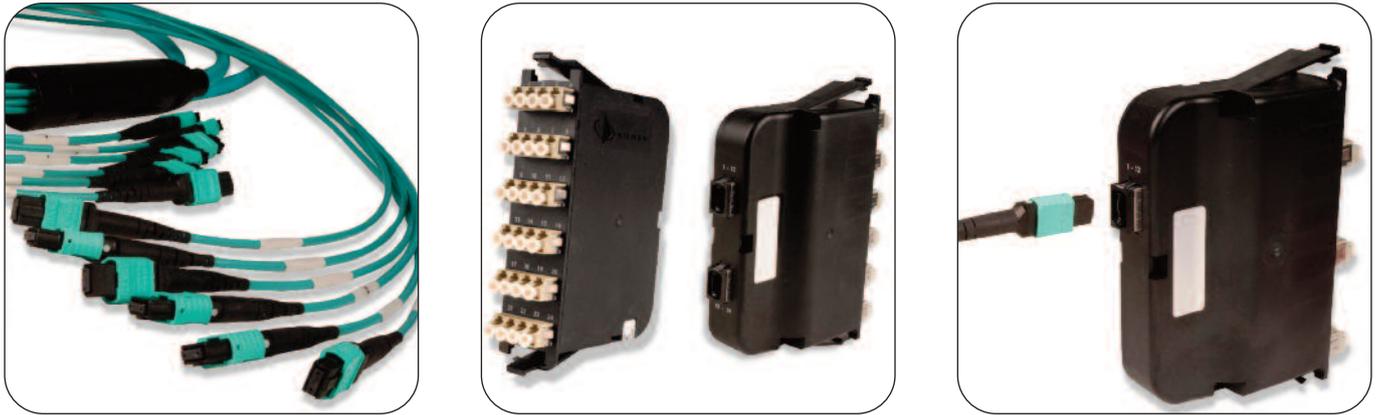
PIC is located near Barcelona in Spain and from here this ultra-high performance site serves national and international scientific groups belonging to public and private institutions. Strong computing resources are housed here for the analysis of massive sets of distributed data, including experimental data from CERN's Large Hadron Collider, which is processed and analysed at the institute.

The data centre needs to handle approximately 9 Petabyte of data per year and its highest priority applications include high energy physics, astrophysics, cosmology and medical imaging. PIC transfers the technologies for data management to other fields of research and is a Tier One 'centre of excellence' that enables Spain to participate in European projects for the development of the International GRID Infrastructure for science and technology.

The massive sets of data processed and stored at PIC recently necessitated re-evaluation of the site's entire IT infrastructure. An upgrade of both the active equipment and cabling infrastructure was ordered, to create a future-proof facility that will rapidly respond to growth. PIC plans to migrate to 40/100 Gb/s and asked Siemon to develop a new structured cabling architecture for the data centre that will support this progress.

An end of row configuration was proposed by Siemon; placing the switching at the end of the row of racks, with patch panels allowing every server to be connected to any port of the switch. This design enables optimised utilisation of switch ports and has lowered overall switching costs for PIC, plus has freed up valuable rack and pathway space.

OM3 MTP plug and play fibre cabling and fibre trunks from Siemon were specified by PIC, to reduce the total number of cables required and facilitate the fastest possible installation. A single MTP module replaces every 12 individual fibre

connections and so this fibre choice automatically created space which, in turn, allowed for greater density of active equipment.

Commenting on Siemon's support and delivery, IT manager at PIC, Vanessa Acín, said, "We need to be fast and agile, with flexible capacity, to serve the needs of both our existing and future users. Siemon has provided expert help to ensure that our data centre can operate dynamically and we are most impressed with both the intelligence of the design, plus the quality and performance of the fibre solution. Reconfiguring our infrastructure in the future will be easy, which is essential as all upgrades at PIC have to be made in operational time: Our facility never sleeps."