



**Sasol works with Siemon on brand new  
five-star Green Star rated smart building**



Established in 1950 in South Africa, Sasol is a leading integrated energy and chemical company with more than 31,000 people employed throughout 32 countries worldwide.

In a country that naturally lacks large crude oil reserves, the company was originally established to make oil from coal. Today, Sasol is at the forefront of technological innovation, developing innovative energy-related technologies. It builds and operates world-scale facilities to produce products including liquid fuels, chemicals and low-carbon electricity.

For the past 70 years, the company's 3500 strong, Johannesburg-based workforce was spread out across the city in 17 satellite offices but for the purpose of enhancing collaboration and increasing work efficiencies, Sasol called for the consolidation of all sites in to one single location. The result is Sasol Place, the company's stunning new 11-storey, 70,000sqm head office complex on Katherine Street in Sandton. Built in the form of an S-shaped glass structure and with its 5-star Green Star rating, Sasol's new home has been described by Business Insider as one of the 'most awe-inspiring new office buildings in South Africa'.

Featuring a specially designed glass façade that allows for sufficient natural light to enter the building whilst keeping the heat out, as well as balconies and bridges that link various areas within the complex, Sasol Place is a true work of art. The concept of open, transparent and remote work spaces includes work areas that have been designed to support different types of work, plus a range of conference facilities and meeting rooms for both client-facing and internal meetings. Employee well-being plays an important role at Sasol and is supported by an in-house wellness centre and gym, whilst work cafés provide a place for employees to take a break.

## High-end building meets high-end technology

With such careful consideration given to the construction of this high-end and sustainable development, particular scrutiny was also afforded to the IT infrastructure that all systems would rely upon. Technological advancements and future-proof solutions maximising return-on-investment and supporting the business well into the future were some of the primary imperatives of the project.

For the underlying foundations Sasol specified a high-performance 10 Gigabit Ethernet-ready cabling infrastructure and found the right supplier in global IT expert Siemon.

Considering its options carefully, Sasol decided to deploy fully standards-compliant category 7A copper cabling and category 6A connectivity, both amongst the highest performing cabling solutions available in the market today and Rene Proost, Siemon's Sales Manager and responsible for the Sasol project reflects: "It is safe to say that the broad standard for work area cabling installations in South Africa is typically category 6 grade copper or lower. With the cabling solutions chosen, Sasol is certainly one of very few companies that have adopted the highest cabling standard in the country and in one stroke future-proofing their network infrastructure for any applications they will be adding onto their network in 10,15 even 20 years."

Siemon's category 7A and category 6A Z-MAX solutions provide the longest estimated product lifecycles but future proofing and TCO were not the only criteria that had to be met. According to Sasol, 'fit-for-purpose technologies' at the new headquarters include saturated wireless, audio visual and telepresence technologies. A high-performance 10Gb/s cabling infrastructure supports these applications with higher data throughput at faster speeds, and industry recommendations include installing a minimum of category 6A shielded cabling to support 1.3 Gb/s 802.11ac wireless access implementations as well as future 2.6 Gb/s and higher data rate implementations that may utilise 10GBASE-T

## Power play

"An extended benefit that shielded cabling solutions provide us with is power over Ethernet (PoE) technology that we can utilise to remotely power IP- and PoE-enabled devices connected to our building network", explains Revesh Deepraj, Network Infrastructure Manager at Sasol.

In Sasol's case such devices include IP phones, wireless access points and CCTV/security cameras, that currently receive 30 and 60 watt remote power via the cabling infrastructure. "Power delivery, however, leads to elevated temperatures inside the cable and as a consequence connectors and connectivity can be damaged and performance inhibited", explains Rene Proost. "Siemon's shielded cable exhibits much greater heat dissipation properties and is therefore highly suited for trouble-free PoE delivery."

## Becoming truly 'smart'

"Our new head office also features an integrated building management system that remotely regulates lighting, air conditioning and water usage in the building, and we address safety through integrated security systems and protocols also", says Deepraj.

According to Sasol, smart building systems will become a standard at the headquarters in the future and Siemon's cabling solutions have paved the way to making that a reality. By providing a unified IP-based network infrastructure more and more building automation services will be able to converge onto the network over time to help create a workplace that's measurable and controllable and that adapts to the needs of the people working there.

## Green credentials

Both Sasol and Siemon share a strong commitment to environmental stewardship and sustainability, with both organisations having clear and robust environmental policies. Water recycling systems, extended insulation, broad landscaping and utilising natural light are only a few of the measures Sasol takes to create a sustainable workplace. But the choice of technology adds another dimension. Selecting cabling with a 20-year plus product lifecycle reduces the need to replace product over time. “Less cable means less raw materials which, in turn, helps us to protect the environment”, adds Deepraj.

## The result

Approximately 240,000 meters of 1.200MHz category 7A cable and 3,750 category 6A Z-MAX connections were installed across 10 floors to build the new network. This installation also provides sufficient room for growth and can accommodate a total of 7,000 users, thus being able to accommodate Sasol’s future growth plans. Today the cabling system supports all typical data and voice applications and at the same time makes room for higher bandwidth next-generation applications. “We are very pleased with the results of this installation at Sasol Place and are even more proud to have been specified as the preferred cabling partner for all Sasol sites globally as a result of it”, concludes Rene Proost.

**“We have found a truly unique global partner that understands our needs and has delivered on their promise at Sasol Place. I am confident and satisfied that our network is robust and that Siemon’s ConvergeIT solutions for intelligent buildings are the right way to go.”**

**- Revesh Deepraj, Network Infrastructure Manager, Sasol.**