



## West Africa's Largest Data Centre Relies on High-Performance Cabling Solutions from Siemon

*Large companies and organisations in Nigeria are increasingly participating in today's digital economy of the country. The availability of high performance data centre facilities is therefore critical to achieving future growth and profitability. With the opening of the Premier Tier III colocation data centre, MainOne now provides infrastructure that delivers consistent high-level performance, data storage and data security to support leading businesses across West Africa. By choosing high-bandwidth cabling systems from Siemon, MainOne ensured that the most solid and future-proof cabling infrastructure was laid to support the company's colocation customer base.*



Described by Omobola Johnson, Nigeria's minister for communication and technology, as "a very significant addition to the ICT infrastructure of Nigeria," the MainOne Premier Tier III data centre officially opened in January 2015. This 3,500 square metre, 600 rack facility located outside the capital city of Lagos is the only purpose-built, commercial data centre in Nigeria and West Africa built to Uptime Institute Tier III specifications and in compliance with the TIA 942 data centre standard. As the largest colocation facility in West Africa, it is poised to play a critical role in supporting the development of the country's digital economy. Offering colocation, cloud and managed services, this carrier neutral facility is interconnected with all major telecom operators and Internet service providers (ISPs) in Nigeria.

"With the creation of this state-of-the-art data centre facility, we aim to provide critical infrastructure to businesses and organisations across West Africa," explains Gbenga Adegbiyi, Head of Capital Projects at MainOne. "We provide hardware and software so that these organisations don't have to invest their own capital into their own data centres."

MainOne is a leading provider of innovative telecommunication services and network solutions for businesses in West Africa, enabling broadband services for businesses needing critical connectivity solutions through its world class submarine cable system, a state-of-the-art IP-based next generation network, growing regional and metro terrestrial fibre optic networks and data centre facilities. MainOne's customer base includes major telecom operators, ISPs, government agencies, large enterprises, and financial and educational institutions.

### Laying the Foundation with Best-In-Class Products

"To successfully establish a facility of this scale, it was crucial to bring together the best professionals in the trade, select top quality products and utilise the most up-to-date design methods," explained Gbenga Adegbiyi. "From cooling to power supply to IT infrastructure, we were looking for best-in-class suppliers."

Selecting best-in-class products was also essential for achieving TIER III classification. Developed by the Uptime institute, the TIER model measures the functionality and reliability of data centre infrastructure. TIER III data centres guarantee 99,98% availability, which means no more than 1.6 hours of downtime allowed per year.

Largely invisible, a cabling infrastructure forms the foundation of any network and all network systems rely upon it for data transmission. The cabling infrastructure must be designed and deployed to prevent network congestion and downtime-its performance almost solely determines which applications can be supported both now and in the future.

As Gbenga Adegbiyi at MainOne explains, "With every decision made for this premier facility, we had our future tenants and their requirements in mind. With regard to the cabling - the lifeline that everything else relies upon - we needed to ensure that the selected system would meet their needs both today and into the future to allow for growth and expansion."

Realising that cabling is the most disruptive and labour-intensive element of a network to replace, it was key to MainOne to specify products that would fully support applications today and well into the future. Re-cabling a facility of this size at a later stage was simply not an option.

## **Partnering with Joint Effort**

MainOne's Premier Tier III colocation data centre project was put out to a competitive tender. Siemon, a global provider of network and data centre cabling infrastructure solutions, presented their proposal in cooperation with their certified installation partner, DBH Solutions.

Oswald Osaretin Guobadia, Executive Vice President at DBH Solutions, recalls, "A lot of the conversation at our meeting with MainOne focused on understanding MainOne's colocation customers. This included providing answers to questions like 'What does a customer expect when they come into the facility?', 'What does a multi-cabinet user require and what would a single cabinet user need?', 'How much cabling infrastructure needs to be put under the floor?', and 'How can we prevent re-cabling and ensure that we don't bind capital by over cabling the facility?'".

In addition to product choice, cabling design expertise also played a major role in winning the project. With extensive expertise in data centre design, both Siemon and DBH Solutions were able to guide MainOne through the process of selecting and designing a new infrastructure that their future customers could safely rely on.

Regarding their choice of partner, Gbenga Adegbiyi said, "Siemon and DBH Solutions were excellent at helping us understand what our customers need and providing design advice and product solutions accordingly. They demonstrated how cabling adds value to the overall network infrastructure and were always ready to support and provide clarifications during the design stage. This combined with a best-in-class high-performance cabling product portfolio prompted our decision to select them as our partners."

"Competition was fierce and we are therefore all the more pleased to have won the tender to supply the complete end-to-end cabling infrastructure for such a prestigious project," said Jide Olagbenro, Business Account Manager for West Africa at Siemon. "DBH Solutions has been instrumental in securing this project, and we are extremely pleased that they were awarded the installation work."

Siemon and DBH Solutions have been partners for the past six years, working together in Africa on successfully completing projects in the data centre and office building space across various industry sectors, including finance and retail. DBH Solutions has strong capabilities in design advisory services, therefore perfectly complementing Siemon's data centre design services portfolio.

## **The Right Product for Performance and Time Savings**

MainOne's new data centre facility was designed to meet the TIA 942 data centre standard. This standard recommends that to future-proof a data centre facility, new cabling infrastructures should be able to support at least 10 gigabit per second (Gb/s) applications and future migrations to 40 Gb/s and 100 Gb/s. In line with these requirements, MainOne selected Siemon's high performance XGLO® Fibre Optic Cabling Systems with OS2

singlemode and OM3 multimode fibre and Siemon's Z-MAX® 6A shielded end-to-end category 6A copper cabling system.

The XGLO Fibre System is ideal for next generation backbone applications, exceeding all ANSI/TIA/EIA and ISO/IEC insertion loss and return loss requirements to provide 10 Gb/s performance and beyond. Siemon's Z-MAX 6A shielded system combines consistent best-in-class performance with the security and robust noise immunity of a shielded cabling system to easily support 10 Gb/s. It also provides the highest margins on all performance requirements for category 6A/class EA, including critical alien crosstalk parameters.

With such an enormous project under construction, all contractors on site had to work hand-in-hand to complete their work within the given time frame. "Just like the other parties, the cabling installation was under time pressure and did not leave any room for mistakes", explained Guobadia.

A combined total of more than 2400 fibre links using 1200 pairs of multimode (OM3) fibre and 1200 pairs of singlemode (OS2) fibre were installed for the backbone infrastructure, which connects every cabinet to Cisco Nexus 7000 series core switches located in each of the two main network rooms. With Siemon's Z-MAX Shielded Category 6A copper system, MainOne was able to provide a best-in-class copper cabling solution to connect servers and work area outlets to access switches. To meet the TIER III classification, the cabling system was designed to be fully redundant.

Given the challenging schedule, the Z-MAX 6A shielded system provided significant advantages in terms of product handling and ease of installation. With a termination time of just under 60 seconds per outlet, Z-MAX 6A offers significantly reduced installation time compared to other shielded category 6A solutions on the market.

## **Final word**

With the new colocation data centre facility, MainOne will be supporting leading businesses in West Africa with a comprehensive portfolio of services, including colocation, cloud and managed services.

"We are confident that with the high performance Siemon cabling solution we have deployed in our state-of-the-art facility, we will be able to provide quality and reliable services to our customers, concludes Funke Opeke, CEO at MainOne.

## **About MainOne**

MainOne is a leading provider of innovative telecom services and network solutions for businesses in West Africa. Our world-class infrastructure enhances the productivity and profitability of our customers online.

Since its launch in 2010, MainOne has developed a reputation for highly reliable services to become the preferred provider of wholesale Internet services to major telecom operators, ISPs, government agencies, large enterprise, and educational institutions in West Africa.

MainOne's world class submarine cable system running down the coast of West Africa, state of the art IP NGN network, growing regional and metro terrestrial fiber optic networks, and data center facilities enable broadband services for businesses needing solutions in West Africa.

Our network is interconnected and peers with leading operators and internet exchanges worldwide to provide global reach to our customers.

[www.mainone.net](http://www.mainone.net)

## **About Siemon**

Established in 1903, Siemon is an industry leader specialising in the design and manufacture of high quality, high performance low voltage infrastructure solutions and services for data centres, LANs and intelligent buildings. Headquartered in Connecticut, USA, with global sales, technical and logistics expertise spanning 100 countries, Siemon offers a comprehensive suite of copper and optical fibre cabling systems, cabinets, racks, cable management, data centre power and cooling systems and intelligent infrastructure management solutions. With more than 400 patents specific to structured cabling, Siemon Labs invests heavily in R&D and the development of industry standards, underlining the company's long-standing commitment to its customers and the industry. Through an ongoing commitment to waste and energy reduction, Siemon's environmental sustainability benchmarks are unparalleled in the industry, including 179% global carbon negativity and zero-landfill status.

Siemon Interconnect Solutions (SIS) is a Siemon business unit comprised of a team of dedicated technical sales professionals supported by Siemon Labs, mechanical, electrical and signal integrity engineers committed to solving industry and customer driven interconnect challenges. Siemon provides custom network infrastructure solutions to OEMs, leading manufacturers, value-added resellers and system integrators.

[www.siemon.com/uk](http://www.siemon.com/uk)

## About DBH

DBH Solutions provides state-of-the-art IT Infrastructure and Building Solutions for new and existing buildings across West Africa.

Our IT Infrastructure business is one of the leading providers of network cabling solutions in the Nigerian market. This includes design and build of data centres and NOCs and clean power solutions.

Our Building Solutions business provides a wide range of quality partitioning, flooring, ceiling and lighting systems. We complete our end-to-end fit-out approach with an offering of a large selection of quality European-sourced furniture, fixtures and fittings.

We have also introduced smart building solutions that can deliver improved cost efficiencies and productivity gains to both landlords and tenants alike.

Our reputation has been built on delivering high quality products and solutions. Some of our flagship customers range from multi-nationals to financial sector heavy weights. We provide solutions to all sectors and our success in attracting some of the top businesses in the region is a reflection of the quality of our work.

[dbhsolutions.com](http://dbhsolutions.com)

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