Structured Cabling
Capability Summary
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Computacenter is a leading provider of structured cabling solutions and is recognised as one of the largest cabling providers in the UK.

We have over 20 years of experience in the design and installation of structured cabling systems that have been tailored to meet mission critical environments, enabling today’s needs to be met and future requirements to be implemented without additional costs being incurred.

Our cabling business is a specialist division within Computacenter providing consultancy and installation expertise in the structured cabling environment.

We continue to develop our capabilities in cabling infrastructure through investment and innovation, and by working closely with leading manufacturers including CommScope, Corning, Brand-Rex, ADC Krone, Tyco, and Panduit.

We are strategically positioned to be partner of choice. A high proportion of our employees are technically biased and delivery of our portfolio is driven by competence and accreditation; we have achieved the highest levels of accreditation for all the major cabling systems through the rigorous ongoing training and development of our people.

Our projects are backed with a professional service mandate, which ensures we are working to the directives laid out in our BSI registration. A dedicated project manager is assigned to our projects to oversee the entire installation and to offer a single point of contact for any communication between Computacenter and the client. Our project management methodology is based on PRINCE2 principles.

As a managed services provider, we also maintain many cabling infrastructures, processing day-to-day incident and change requests.

New technologies, such as the introduction of converged voice and data networks, can help push businesses far ahead of the competition - but only if an organisation exploits them properly. One thing that could stand in the way of a company’s network infrastructure is the very cable that carries the information on which your business depends.

Understanding the existing infrastructure and constructing the most cost-effective and reliable solution is equally as important. Whether the consideration is to implement a new network infrastructure or to improve the efficiency of the existing setup, Computacenter has a range of modular services that can be tailored to specific environments.

Our reputation within the structured cabling industry is second to none and we have gained an unsurpassed reputation of meeting and exceeding the expectations placed upon us, when delivering large scale projects.

This guide is designed to provide an overview of Computacenter’s Structured Cabling capabilities, including our service offerings, vendor accreditations and customer references.
Computacenter’s relationships with our chosen manufacturing partners is of the highest order and we can leverage this strength to ensure the installation goes smoothly and that should problems arise, they are quickly and efficiently resolved. We have long standing relationships with all of the major cabling manufacturers as listed below:

<table>
<thead>
<tr>
<th>Status</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td>CommScope</td>
<td>CommScope is a world leader in network infrastructure solutions, delivering a complete end-to-end physical layer solution, including cables and connectivity, enclosures and network design services for business enterprise applications. Backed by strong research and development, CommScope combines technical expertise and proprietary technology with global manufacturing capability to provide infrastructure solutions for evolving global communications networks.</td>
</tr>
<tr>
<td>Corning</td>
<td>Corning Cable Systems are part of Corning Inc., the American owned world leader of specialty glass and ceramics company. Corning has been specialising in glass production for 150 years and is the market leader in fibre optic solutions. Corning also provides a shielded copper solution to compliment their fibre optic offering.</td>
</tr>
<tr>
<td>Panduit Gold Business Partner (EMEA)</td>
<td>Panduit is a world-class developer and provider of leading-edge solutions that help optimise the physical infrastructure through simplification, increased agility and operational efficiency. Panduit’s Unified Physical Infrastructure (UPI) based solutions give enterprises the capabilities to connect, manage and automate communications, computing, power, control and security systems for a smarter, unified business foundation.</td>
</tr>
<tr>
<td>Tyco NSI</td>
<td>The Tyco AMP Netconnect cabling product range is one of the markets leading connectivity product families consisting of network cabling (fibre and copper), connectors and patch panels. Tyco has worked with networking equipment vendors to drive the reduced power or ‘Green’ message. Via the correct cabling choice and associated networking infrastructure vendor, substantial energy savings can be realised.</td>
</tr>
<tr>
<td>Excel Cabling Partner</td>
<td>Excel is a complete end-to-end networking solution, offering exceptional performance, reliability and support, manufactured to European quality standards and covered by one warranty. Excel represents the broadest possible range of easy-to-specify, easy-to-install copper and optical cabling solutions, and networking enclosure products on the market.</td>
</tr>
<tr>
<td>Brand-Rex Value Added Reseller</td>
<td>Brand-Rex is a leading global supplier of structured cabling systems for data networks, Brand-Rex provides complete cabling systems that connect the IT equipment in our offices and datacentres – from patch cords and wall outlets seen in the office, cable running under floors and above ceilings, to connectivity panels that interface with active equipment in the IT room.</td>
</tr>
<tr>
<td>ADC Krone TrueNet Premier Integrator</td>
<td>ADC KROME is a world leader in providing global network infrastructure products and services that enable the profitable delivery of high-speed Internet, video, data and voice services to residential, business and mobile subscribers worldwide.</td>
</tr>
</tbody>
</table>

Other accreditations are available on request including, but not limited to, Nexans, Molex, Hellermann Tyton and Belden CDT.
Section 3  
Innovation and Service Management

As a direct result of the unprecedented demand from our corporate clients, Computacenter established a division dedicated to the deployment, integration and support of Intelligent Infrastructure Management (IIM) systems. Computacenter has utilised our unparalleled skills and experience in the installation, support and management of complex enterprise and carrier networks, to create a ‘best in class’ portfolio of IIM products and services.

In addition to carrying the necessary accreditation to deploy and commission IIM systems - incorporating, but not limited to, Tyco Electronics AMPTRAC, SYSTIMAX iPatch and Brand-Rex SmartPatch solutions - Computacenter are in the unique position of being able to augment these products with a comprehensive range of professional services, including systems integration and most importantly an unequalled level of post installation support provided via our 24x7 Network Operation Centre.

These benefits, coupled with the fact that Computacenter has a demonstrable record of delivering large scale cabling and IIM projects means that we are the supplier of choice for an ever increasing number of large enterprise organisations.

Computacenter place great importance on our technical capability, therefore a very high proportion of our staff are technically trained. Computacenter has an ongoing investment programme in the training and development of various technical support groups.

A significant proportion of Computacenter’s cabling business is driven by construction projects; therefore we are committed to providing an extremely focused approach and methodology to project management. Computacenter has been responsible for some of the UK’s largest relocation projects. With a special focus on London (Morgan Stanley, PwC and Shell), our teams successfully delivered these critical projects with aggressive deadlines on time and to budget in every instance.

Computacenter’s Cabling Services
Computacenter cabling offers a wide variety of solutions including:
- Complete cabling installations
- Ongoing Moves and Changes Support (MACS)
- Cabling health checks/audits
- Communications room tidy/re-patching
- Cabling/patching management
- BICSI RCDD cabling design consultancy
- On-site managed services
- Equipment room design
- Datacentre design

Computacenter and BICSI
Computacenter is an active member of BICSI. BICSI (a not-for-profit telecommunications association) is a vendor independent internationally recognised organisation that promotes ‘best practice’ for design of low-voltage cabling systems.

Computacenter have a number of RCDD accredited designers and numerous BiCSCI registered technicians.
Computacenter offers a complete management service that includes:

i. Design
Computacenter have accredited BICSI RCDD designers that work with the customer to determine the ‘best fit’ cabling solution. By taking into account strict cabling guidelines, the latest manufacturer’s products and the customer’s future business drivers, the system designer will combine all critical aspects to deliver a state-of-the-art infrastructure.

ii. Cabling installation
Once the cabling design is agreed, a dedicated technical team of cabling engineers, under the guidance of a designated Computacenter project manager, will perform the installation. The project manager acts as a single point of contact between the customer and Computacenter ensuring that the project is delivered on time and within budget.

The project manager will ensure that the implementation of a new infrastructure does not cause disruption to the core business and that the project is delivered within the timescales required and with the minimum of risk.

All Computacenter engineers hold the BICSI Technician accreditation and undergo regular manufacturer product training.

The main benefits perceived for our customers are as follows;

- The customer has complete confidence that the cable assemblies are suitable for the purpose and have been fully tested prior to installation.
- The installation time is reduced to an absolute minimum, with over 1,000 outlets typically being installed and tested each day.
- The ‘off-site preparation’ technique requires no on-site storage facilities as the cable assemblies are brought to site each day as required.
- Our ‘just-in-time’ factory production techniques allow unforeseen changes in the project programme to be accommodated at short notice.
- The quality of off-site factory termination is considerably higher than with site based techniques.
- All documentation and manufacturing/installation instructions are produced from an integrated database.
- No rework on-site is required owing to faulty materials or components.
- All test results are available prior to installation providing a high confidence level for the installed cable.
- The factory testing benchmark is available in electronic format and all factory results are viewable from a client PC.
- Labelling and cable identification is produced from a database to provide conformity.

iii. Off-Site cable staging
Computacenter has the ability to deliver pre-terminated and tested cabling solutions. This can reduce the time scales for on-site deployment, increase efficiency and leverage the investments we have made within our National Integration Centre (NIC) in Hatfield. This can have distinct advantages in reducing the time that our project team needs to “hold the floor”, saving both time and risk of project installation overrun against the overall project.

Section 4
Cabling Management Services
iv. Intelligent Infrastructure Management Solution (IIMS)

An IIMS will provide the hardware and software to give real-time, at-a-glance control of all communication room connections. Every port connection is continuously monitored, verified and logged in a central database. Work orders are easily issued to reduce administration time. Work is guided at each patch panel by electronic visual and audio prompts to virtually eliminate wiring errors.

The main benefits of an IIMS are:

- Monitoring of all patch connections and disconnections
- Guidance for technicians making patch connections
- Quickens administration through one-touch patch cord tracing
- Instant reporting of improper connections to minimise service interruptions
- Verification of the location, availability and use of ports on patch panels and jacks in faceplates
- Tracking of services provided to each desktop
- Elimination of tedious paperwork such as generating work orders and tracking scheduled changes

v. Project management

Computacenter’s project management service assists customers with the critical task of implementing business and technical change within their organisations. Taking responsibility for the whole project life cycle, Computacenter’s project managers minimise the risk of implementing complex solutions, from initial project analysis and confirmation of business objectives, to deployment of appropriate resources and production of deliverables.

Computacenter’s nationwide team of project managers are trained to deliver technical and logistical projects on time, within budget and to specification.

Typical deliverables include:

- Project design and standards development
- Project definition workshops
- Strategic analysis (impact on technical and business issues)
- Programme management
- Network infrastructure implementation

Computacenter’s project management methodology provides specific emphasis on:

- **Organisation** - the identification of roles and personnel who have the authority, delegation and skills to ensure the success of the project.
- **Planning** - the production of technical (products, activities and tasks) and resource (personnel required) plans at project, stage and detailed levels;
- **Control** - pre-defined control and decision points at all levels of planning and authority.
- **Quality** - assigned to each individual product at all levels of planning.
- **Risk management** - the identification and analysis of threats to the success of the project and development of counter-measures.
- **Change** - change management procedures are identified and established at the outset of the project.
- **Configuration management** - prior to the project commencing, ‘configuration items’ or products are identified, allowing control over the release, status, change requests, completeness and correctness of those items.
- **Post implementation review** - a formal review typically carried out prior to project completion, to check that the implementation has met the project objectives and to ensure that the operational products fully meet the specified client requirements.
Section 4 continued
Cabling Management Services

vi. Post installation support
Even the best cabling infrastructure needs to adapt to day-to-day connectivity changes. Computacenter can tailor bespoke service packages that will provide our clients with reliable cost-effective cabling support.

The packages include:

- Off-site support with Service Level Agreements (SLAs).
- Full on-site managed service of voice and data infrastructure.
- Remote monitoring of comms room security, environment and patching activity.

vii. Equipment room and datacentre design
Computacenter have the skills and expertise to design fully functional and compliant equipment rooms and datacentres – from the ground up if required.

Our skills include the design of the following IT facilities:

- Equipment rooms/datacentres
- Modular rooms
- Raised Flooring
- Environmental control (HVAC)
- UPS
- Electrical supply
- Generators
- Lighting
- Fire suppression systems
- Water leak detection
- Security
- Air sampling systems

viii. Equipment room and datacentre audits
Our assessment of clients equipment rooms and datacentres will provide a compliancy and recommendation report to identify potential deficiencies in the physical infrastructure.

The report will include the following:

- Risk report - detailing any operational and technical deficiencies. This will include a cooling and power analysis and environmental survey.
- Recommendations report - explaining how you can future-proof the configuration of the physical environment using methods such as rack row configurations, server and storage allocation within racks, cooling capacity and power allocation.
Section 4 continued
Cabling Management Services

ix. Facilities management

- **Voice Operations Support** - Provision of voice services, PABX operations, management of voice data and mobile phone automated billing system, and a variety of associated service contracts.

- **Survey and Planning** - Surveying and collation of Voice and Data information requirements for planned schedule office moves. Weekly on-site planning meetings to discuss the numbers of users to be moved and new locations.

- **Supervision** - Manage and control all activities necessary to implement moves and changes or installation services and support of infrastructure systems, covering typically, participation in site planning, site co-ordination, health & safety and monitoring of the work face.

- **Faults (Voice and Data)** - Rectification of all Voice and Data faults within set SLAs.

- **Moves and Changes (Voice and Data)** - The provision of installs ceases and B.A.U moves and changes work.

- **New Infrastructure (Voice and Data)** - The design, installation and management of new Voice and Data installations, including:
  - Infrastructure designs
  - Pricing/quotations
  - Project management inclusive of agreed reporting
  - Installation resource
  - Structured cabling materials
  - Full test parameters for completed installation
  - Full system certification and warranty
  - Full support for duration of warranty
  - Service levels and escalation
Section 5
Client References

**BT**
Computacenter project managed and installed the following for BT in their Reigate and Harmondsworth datacentres. The datacentres support BT’s NHS Health Programme initiative and are critical to the success of the project.

**Computacenter have installed:**
- 25,000 copper connections and 7,800 fibre connections,
- 15km fibre
- 450km copper
- 250 cabinets.

**Cisco Systems**
Provide a full cabling installation and support service for 140 Cisco buildings across 40 countries within EMEA.

**Projects have been completed in the following countries:**
France, Jordan, Saudi Arabia, Denmark, Germany, Russia, Dubai, South Africa, Netherlands, Italy, Croatia, Poland, Spain and Copenhagen.

**Department for Work and Pensions**
Computacenter provides a cable design, installation and maintenance service to over 1,400 buildings throughout the United Kingdom.

**Computacenter have completed the following projects:**
- 1,808 individual cabling projects
- 430 equipment room rationalisations
- 315 IP convergence enabling projects

**EDF Trading**
Computacenter project managed and implemented the design and installation of 6,500 Panduit CAT6a 10G shielded ports, fibre and copper backbone and installation of water cooled cabinets.
Section 5 continued

Client References

**UniCredit**
Computacenter project managed and installed 26,600 Tyco ports using the iTRACS IPLM v8.0 system with the latest AMPTRAC Analyser, supporting blade workstation technology.

**Morgan Stanley**
Computacenter project managed, supplied and installed 96,000 Panduit Cat6 outlets and an extensive voice and fibre backbone across twelve floors of this prestigious project HQ1. Approximately 35,000 Panduit Cat6 outlets were installed across the rest of the Morgan Stanley estate at Canary wharf and various datacentre locations.

**Nationwide Building Society**
To re-cable both of Nationwide’s administration centres. This project involved the installation of over 50,000 Cat6 outlets.

This project was phased over floors without the use of decant, during night time periods. All legacy cabling was stripped out and disposed of following user migration onto the new cabling solution. An Intelligent Infrastructure was deployed across the whole estate.

**New York Stock Exchange**
Computacenter project managed, supplied and installed:
- Approximately 10,000 SYSTIMAX Cat 6 lines and 3,500 OM3 fibre pairs within 260 cabinets and 96 X 110 frames at datacentres in Paris and Chicago
- Approximately 120,000 OM3+ plug & play Corning fibre ports and 4,500 SYSTIMAX 10gig copper ports across multiple halls within a further new datacentre.

In addition, Computacenter have undertaken smaller installations at NYSE ‘points of presence’ in Amsterdam, Lisbon, New York, Singapore and Sydney and provide ongoing support for design, management, cabling and commissioning/de-commissioning of active equipment services.
Northampton Borough Council
Computacenter project managed and implemented the design and installation of a new cabling system for Guildhall which is a Listed Building. The project required the installation of new containment and over 400 miles of cabling.

Price Waterhouse Coopers
Computacenter project managed, supplied and installed approximately 45,000 SYSTIMAX Cat6 outlets and an extensive voice and fibre backbone across 4 main buildings: Birmingham, London Bridge, Plumtree Court London and Embankment.

Computacenter have recently completed a 40,000 outlet project utilising SYSTIMAX Visipatch 360 solution at the new flagship site at More London.

T-Mobile
Computacenter have provided a structured cabling design, installation and support service to T-Mobile from April 2002 to date. The service delivers structured cabling to approximately 70 sites across the United Kingdom including Switch sites, office and campus buildings.

Transport for London
Computacenter project managed, supplied and installed approximately 10,000 Tyco Cat6 outlets within TfL’s offices at Greenwich. This was installed as an intelligent ready solution.

Computacenter also project managed, supplied and installed approximately 17,000 fully intelligent - via iTracs - CAT6a links, and 30,000 cores of OM3 and OS1 fibre between 300 cabinets within TfL DC2 in Woking. This also included the supply and installation of 60 x HD water-cooled cabinets within the datacentre. All cabinets are remotely monitored utilising Synetica Hawk-i units whilst the datacentre management is handled by Aperture.
Section 6
Further Information

For more information on Computacenter’s cabling capabilities please visit:
www.computacenter.com/structuredcabling

or email us at:
structured.cabling@computacenter.com
Local Focus - Global Scale

Our scalability and full UK coverage allows us to carry out small installations and moves and changes as well as large HQ and datacentre cabling installations.

Our coverage is not limited to the UK as we carry out many installations throughout EMEA and across the globe. We have worked for many of the world’s largest global organisations in circa 85 counties around the world delivering the same services irrespective of location.
Computacenter (UK) Ltd
Hatfield Avenue
Hatfield
Hertfordshire AL10 9TW
United Kingdom
T: +44 (0)1707 631000
F: +44 (0)1707 639966
www.computacenter.com

Computacenter is a leading independent provider of IT infrastructure services and solutions. From desktop to datacentre, we help our customers minimise the cost and maximise the value of IT to their businesses. We can advise organisations on IT strategy, implement the most appropriate technology, optimise its performance, and manage elements of our customers' infrastructures on their behalf.

Computacenter operates in the UK, Germany, France and the Benelux countries, as well as providing transnational services across the globe.

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