

Read Book Designing A Structured Cabling System For Voice And Data

Designing A Structured Cabling System For Voice And Data

Plan, sell, bid on, install, and upgrade home wiring for networked services The industry explosion in whole-home wiring, also known as structured wiring, is a lucrative opportunity for cable installers, electricians, IT managers, and telecom equipment manufacturers to expand into the residential arena. Developed for BISCI ' s internationally respected curriculum for Registered Residential Installers, Residential Network Cabling provides you with the most reliable residential network cabling manual available. This resource is compliant with NEC, FCC, ANSI/TIA/EIA, CEBus, Firewire, and Bluetooth standards and has been field-tested by tens of thousands of technicians in 85 countries. Here ' s all the information and step-by-step training advice you need to master, including: New installation Upgrades Integration for add-ons Much more This edition has been updated to include LAN cabling standards and developments in fibre optics, gigabit ethernet, cable support structures and wireless LANs. It has information to help design, install and maintain structured cabling systems for data networking.

A systems analysis approach to enterprise network design Master techniques for checking the health of an existing network to develop a baseline for

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measuring performance of a new network design Explore solutions for meeting QoS requirements, including ATM traffic management, IETF controlled-load and guaranteed services, IP multicast, and advanced switching, queuing, and routing algorithms Develop network designs that provide the high bandwidth and low delay required for real-time applications such as multimedia, distance learning, and videoconferencing Identify the advantages and disadvantages of various switching and routing protocols, including transparent bridging, Inter-Switch Link (ISL), IEEE 802.1Q, IGRP, EIGRP, OSPF, and BGP4 Effectively incorporate new technologies into enterprise network designs, including VPNs, wireless networking, and IP Telephony

Top-Down Network Design, Second Edition, is a practical and comprehensive guide to designing enterprise networks that are reliable, secure, and manageable. Using illustrations and real-world examples, it teaches a systematic method for network design that can be applied to campus LANs, remote-access networks, WAN links, and large-scale internetworks. You will learn to analyze business and technical requirements, examine traffic flow and QoS requirements, and select protocols and technologies based on performance goals. You will also develop an understanding of network performance factors such as network utilization, throughput, accuracy,

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efficiency, delay, and jitter. Several charts and job aids will help you apply a top-down approach to network design. This Second Edition has been revised to include new and updated material on wireless networks, virtual private networks (VPNs), network security, network redundancy, modularity in network designs, dynamic addressing for IPv4 and IPv6, new network design and management tools, Ethernet scalability options (including 10-Gbps Ethernet, Metro Ethernet, and Long-Reach Ethernet), and networks that carry voice and data traffic. Top-Down Network Design, Second Edition, has a companion website at <http://www.topdownbook.com>, which includes updates to the book, links to white papers, and supplemental information about design resources. This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

Network Design for IP Convergence

The Cabling Handbook

Electronic Design

Fiber Optic Cabling

The physical linkages responsible for carrying a company's data continue to be the most neglected components of the typical network—to the extent that nearly 70% of all

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network-related problems result from poor cabling. In this third edition of a widely acclaimed resource, three networking experts share their extensive experience, teaching you the cabling skills you need to build a reliable, efficient, and cost-effective network cabling infrastructure. As you master these techniques, you'll learn to avoid common pitfalls and troubleshoot problems as quickly as they arise. Coverage includes:

- Choosing the right cables and components for your network architecture and topology**
- Avoiding unnecessary and unexpected costs**
- Understanding the current limitations of data communications and network cabling**
- Understanding how laws and building codes constrain cabling**
- Understanding the function and importance of universal cabling standards**
- Determining when you have a cabling-related network problem**
- Assembling a complete cabling toolkit**
- Integrating voice and data on the same cable system**
- Setting up an infrastructure in which desktops, printers, copiers, and other nodes share cabling**
- Understanding issues of bandwidth, impedance, resistance, attenuation, crosstalk, capacitance, propagation, delay, and delay skew**
- Working effectively with USB and Firewire**
- Knowing when to discard legacy**

cabling and begin anew Documenting your cabling Creating an RFP and selecting a vendor

Synthetic fibres account for about half of all fibre usage, with applications in every field of fibre and textile technology. Although many classes of fibre based on synthetic polymers have been evaluated as potentially valuable commercial products, four of them - nylon, polyester, acrylic and polyolefin - dominate the market. These four account for approximately 98% by volume of synthetic fibre production, with polyester alone accounting for around 60%. Synthetic fibres: nylon, polyester, acrylic, polyolefin provides a brief history of the early evaluations that led to this situation, then looks in detail at the development and present status of each class in four substantial chapters. Synthesis of chemical intermediates, polymerisation methods, fibre spinning and orientation technology, texturing techniques, production of microfibres, and chemical variants, e.g. for modified dyeability, are considered in detail. This comprehensive and accessible book will appeal to textile technologists in industrial and academic research, chemical and synthetic fibre suppliers, and yarn and fabric manufacturers. Comprehensive overview of

four major fibres

This completely updated edition of the best-selling guide to cable installation for voice and data provides installers with the details of proper LAN cabling and gives network and IT managers the basics of LAN hardware connection. This Third Edition has been updated to reflect the latest advances in Gigabit copper cabling, 10 Gigabit cabling, Category 8 and 7 cabling, Power-Over Ethernet for distribution devices, and the very newest cabling standards. Includes quick reference data, diagrams, tables, charts, details, and standards

The British National Bibliography

Design Techniques and Tools

Hog Cholera

Nylon, Polyester, Acrylic, Polyolefin

Network Basic. AL0-006

Century Technology Pte Ltd provides communication and telecommunication wiring installation, wireless LAN connectivity and structured cabling system design and implementation.

Get up to speed on the latest Ethernet capabilities for building and maintaining networks for everything from homes and offices to data centers and server machine rooms. This thoroughly revised, comprehensive guide covers a wide range of Ethernet technologies, from basic operation to network management, based on the authors'

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many years of field experience. When should you upgrade to higher speed Ethernet? How do you use switches to build larger networks? How do you troubleshoot the system? This book provides the answers. If you're looking to build a scalable network with Ethernet to satisfy greater bandwidth and market requirements, this book is indeed the definitive guide. Examine the most widely used media systems, as well as advanced 40 and 100 gigabit Ethernet Learn about Ethernet's four basic elements and the IEEE standards Explore full-duplex Ethernet, Power over Ethernet, and Energy Efficient Ethernet Understand structured cabling systems and the components you need to build your Ethernet system Use Ethernet switches to expand and improve network design Delve into Ethernet performance, from specific channels to the entire network Get troubleshooting techniques for problems common to twisted-pair and fiber optic systems The most comprehensive guide to network cabling! Designed for cable installers and contractors, network administrators, and PC and network technicians, this book provides all the information you need to know to work safely and effectively with cables in the workplace. Coverage spans cabling system design and installation, electrical and security issues, cabling components, and documenting and troubleshooting your system. Includes a 32-page color insert for quick identification of connectors and cables as well as vendor information and recommendations.

Data Center Handbook

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Synthetic Fibres

The Complete Guide to Copper and Fiber-Optic Networking

Book Review Index

An Illustrated Network Cabling Guide

Designing a Structured Cabling System to ISO 11801CRC Press

Schools facing deteriorating conditions, high costs, and outdated building designs are tapping into the special capabilities of information technology to address the learning needs of their students. This book guides school leaders through school facility planning and technology systems planning, describing the importance of long-range planning and revealing the decision-making faced by some school leaders who have led successful facility design efforts. It recommends a seven-step process that distinguishes what facilities a school district needs and how to gain community support. The book also examines how to select an architectural firm and how to work with it to create educational specifications and building designs that accommodate technology use, including the design of technology-rich spaces such as media centers. Concluding chapters define the infrastructure options school leaders can choose from, and examine the step-by-step approach of a bond issue campaign a school district may need to fund new and remodeled facilities. A list of recommended resources, glossaries of architectural and technology infrastructure terms, and National School Boards Association's publications and ordering forms are provided. (GR)

Two books in one! Complete coverage of data cabling and fiber optics makes this the most comprehensive

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cabling book on the market With the growing demand for fiber optics in large-scale communications networks, network professionals need complete, up-to-the-minute information. The fourth edition of this popular guide provides you with the latest on copper and fiber-optic networking. It is particularly useful for those studying for the Fiber Optics Installer or Fiber Optics Technician certifications. Part I covers the basics of cabling, while Part II is devoted to in-depth information on fiber optics, allowing you to stay up to speed on all aspects of the field. Demonstrates how to work with all of the various types of cables-from those used to network desktops to hubs and switches up to those used by major telecommunications carriers Appeals to anyone who plans, builds, and maintains a network Offers a solid foundation in fiber optics As the industry transitions from copper cabling to fiber optics, Cabling: The Complete Guide to Copper and Fiber-Optic Networking, Fourth Edition is a vital tool for network administrators and technicians.

Cabling

The National Guide to Educational Credit for Training Programs

Designing a Structured Cabling System to ISO 11801

Designing and Managing Local Area Networks

The Corporate Cabling Guide

A guide for the freelance writer, listing pertinent information about publications and editors

This guide prepares readers for the real world by applying networking concepts to solve real networking problems. Contains step-by-step, not click by click, lab scenarios that require students to think critically.

Retail, restaurants, offices, hotel, residential,

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conference and exhibition centers, and parking are typically being built as part of one large complex. Increasing complexities occur as more and more various types of occupancies are combined into the same buildings. A rapidly developing trend is a desire for mixed-use spaces to support lifestyle activities. An increasing number of people are working from home, so they need flexible mixed-use spaces that can accommodate their lifestyle. People are on the lookout for more luxury amenities, such as full fitness and yoga studios, conference centers with commercial kitchens, rooftop pools and spas, and lobby bars and coffee shops. This Technical Standards and Design Guidelines (TSDGs) contains information intended as minimum standards for constructing and equipping new Mixed Use Building projects. Insofar as practical, these standards relate to desired performance or results or both. Details of Architectural and Engineering are assumed to be part of good design practice and local building regulations. This document covers mixed-use building facilities common to a multitude of individual facilities. Facilities with unique services will require special consideration. However, sections herein may be applicable for parts of any facility and may be used where appropriate. The Property Developer will supply for each project a functional program for the facility that describes the purpose of the project, the projected demand or utilization. The TSDG includes a description of each function or service; the operational space required for each function; the types of all spaces; the special

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design features; the systems of operation; and the interrelationships of various functions and spaces. The functional program includes a description of those services necessary for the complete operation of the facility. The functional programs could be applied in the development of project design and construction documents. These standards assume that appropriate architectural, engineering and technology practices and compliance with applicable codes will be observed as part of normal professional service and require no separate detailed instructions. Specialist designers adopting the TSDGs are encouraged to apply design innovations and the property developer to grant exceptions where the intent of the standards is met. Sustainability and Energy Conservation Energy efficiency being a part of the building code requirement in many states, the trend is moving toward achieving it. Higher-performing building envelopes and higher-performing HVAC and lighting systems are some of the essential components to meet current energy codes. The importance of Environmental Sustainability and Energy Conservation is fully considered in all phases of facility design development. Proper planning and selection of building materials, mechanical and electrical systems, as well as efficient utilization of space and climatic characteristics that will significantly reduce overall energy consumption are fully described. The quality of the building facility environment is undoubtedly supportive of the occupants and functions served. New and innovative systems that accommodate these

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considerations while preserving cost effectiveness has been encouraged. Architectural elements that reduce energy consumption are considered part of the TSDG. In addition to Energy Conservation, buildings will be designed to minimize water consumption and operating costs without reducing occupancy standards, occupant health safety or comfort. Water conservation measures such as water-recycling including gray water and rain water collection, water purification, and sewerage recycling are included for consideration and recommendation in the project specific building energy brief. The integration of innovative water efficiency measures, such as storm water management, rainfall capture, treated effluent reuse, roof gardens and other alternative sources of water supply are fully described. Technology In today's ever-changing environment, technological standardization and integration of systems is essential. Technology is viewed as a competitive tool that contributes to the improvement of building occupant services and operating efficiencies. As the importance of access to information increases, so do customer demands for such services. The Intelligent Buildings Market is a rapidly evolving segment that is being influenced by a number of emerging trends. Mobile communications connect people to work, entertainment and each other in ways that boost productivity and enhance lives. Both Operational Technology (OT) and Informational Technology (IT) have entirely changed, and it will change even more as we get deeper into the Internet of Things (IOT). In-

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Building Wireless (IBW) communications provide the critical link to enable the use of cell phones, pagers, PDAs, two-way radios, wireless LANs, emergency communications and wireless building system devices within an enclosed structure. The technology disciplines (telecom, security, building automation, and lighting) have been going through a convergence over the past several years, with telecom wired and wireless networks becoming the common utility for all the technology disciplines.

LAN Networks and Cabling Systems

Residential Network Cabling

Technology & School Design

*Designing a Structured Cabling System to ISO 11801
2nd Edition*

Structured cabling systems

The emergence of quality-of-service (QoS) mechanisms continues to propel the development of real-time multimedia services such as VoIP and videoconferencing. However, many challenges remain in achieving optimized standardization convergence. Network Design for IP Convergence is a comprehensive, global guide to recent advances in IP network implementation. Providing an introduction to basic LAN/WAN/MAN network design, the author covers the latest equipment and architecture, addressing, QoS policies, and integration of services, among other topics. The book explains how to integrate the different layers of reference

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models and various technological platforms to mirror the harmonization that occurs in the real world of carrier networks. It furnishes appropriate designs for traditional and critical services in the LAN and carrier networks (both MAN and WAN), and it clarifies how a specific layer or technology can cause those services to malfunction. This book lays a foundation for understanding with concepts and applicability of QoS parameters under the multilayer scheme, and a solid explanation of service infrastructure. It goes on to describe integration in both real time and "not real time," elaborating on how both processes can co-exist within the same IP network and concluding with the designs and configurations of service connections. Learn How to Overcome Obstacles to Improve Technology This sweeping analysis of the implementation of IP convergence and QoS mechanisms helps designers and operators get past key obstacles, such as integrating platform layers and technologies and implementing various associated QoS concepts, to improve technology and standards.

Covering major standards and relevant design issues, this book explains how to specify, install, and test a modern reliable structured cabling system and analyzes the terminology and physics behind the standards. The author

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empowers the reader with the skills required to read and understand standards and address problems raised by the need to design, procure, install, and test a modern cabling system, using both copper and optical fiber cable technology. He thoroughly discusses the technology and the vast number of standards that accompany it. The material is based on the design recommendations of ISO/IEC 11801. The appendix lists relevant standards and provides contacts for standards organizations.

Provides the fundamentals, technologies, and best practices in designing, constructing and managing mission critical, energy efficient data centers Organizations in need of high-speed connectivity and nonstop systems operations depend upon data centers for a range of deployment solutions. A data center is a facility used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes multiple power sources, redundant data communications connections, environmental controls (e.g., air conditioning, fire suppression) and security devices. With contributions from an international list of experts, The Data Center Handbook instructs readers to: Prepare strategic plan that includes location plan, site selection, roadmap and capacity planning Design and build "green"

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data centers, with mission critical and energy-efficient infrastructure Apply best practices to reduce energy consumption and carbon emissions Apply IT technologies such as cloud and virtualization Manage data centers in order to sustain operations with minimum costs Prepare and practice disaster recovery and business continuity plan The book imparts essential knowledge needed to implement data center design and construction, apply IT technologies, and continually improve data center operations.

Intelligent Buildings

Creating Spaces for Learning

Ethernet: The Definitive Guide

Facilities Design & Management

Cabling Part 1

Essential reading for anyone involved in fiber optic cable applications, from installation engineers to IT professionals. Fiber Optic Cabling is a practical guide to all aspects of designing, specifying and installing systems for LANs and other data communications applications. The second edition has been completely revised and updated by Barry Elliott, taking into account the major developments in LAN and transmission technology over the past 10 years. The latest legislation is also dealt with, including standards relating to flammability. Cutting edge topics such as photonic switching, wavelength division multiplexing and plastic fiber, and their implications for the future are also explored. An

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international perspective of the subject is taken, with the author looking at all the practical implementations for fiber optic cabling, using American, European and International ISO standards. Barry Elliott has twenty years experience in the telecommunications business and became one of the first BICSI Registered Cabling Distribution Designers in Europe in 1999. He currently specializes in optical fiber and structured cabling with Brand-Rex Ltd. In 1991 Mike Gilmore established The Cabling Partnership, a leading cabling design consulting and training organization. Mike is chairman of the UK BSI Premises Cabling Experts Panels and Convenor of the equivalent CENELEC Working Group. Mike also acts as both the Technical and Standards Director of the UK Fibreoptic Industry Association. A practical guide to design and installation of Fiber optic cabling Provides key information on international standards Up-to-date discussion of 'hot topics' in Fiber optic cabling: MCVD and new termination technologies Every 3rd issue is a quarterly cumulation. Revision includes coverage of cable industry, home networking and A+ certification.

The Complete Guide to Network Wiring
LAN Wiring
Designing and Managing the IT Infrastructure
The Definitive Guide
Who is who on the Bulgarian Computer Market
With the growing demand for fiber optics in large-scale communications networks, network professionals need complete, up-to-the-minute information. This book constitutes Part 1 of Cabling: The Complete Guide to

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Copper and Fiber-Optic Networking and focuses on LAN Networks and Cabling Systems, offering comprehensive coverage on current cabling methodologies and is updated to the latest industry standards. Contents include: 1. Introduction to Data Cabling. 2. Cabling Specifications and Standards. 3. Choosing the Correct Cabling. 4. Cable System and Infrastructure Constraints. 5. Cabling System Components. 6. Tools of the Trade. 7. Copper Cable Media. 8. Fiber-Optic Media. 9. Wall Plates. 10. Connectors. 11. Transmission Equipment. 12. Ubounded (Wireless) Media. 13. Cabling-System Design and Installation. 14. Cable-Connector Installation. 15. Cable-System Testing and Troubleshooting. 16. Creating a Request for Proposal. 17. Cabling @ Work: Experience from the Field.

Design and implementation of structured cabling
Convenience is the basic idea of structural network cable system. One should create such a network, for anybody to connect to anywhere in the building. This micro-course introduces the reader to the concept of designing of structural cabling systems. We discuss the most important rules that the designer/installer must follow when building a network. The course provides also the practical knowledge necessary for the installer to realize the project.

Plan, design, execute, and manage building construction projects This hands-on engineering textbook shows, step-by-step, how to work through the many stages of a building construction project?from planning and material

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selection through compliance, safety, and quality assurance. Written by a pair of highly respected experts in the industry, Handbook for Building Construction: Administration, Materials, Design, and Safety contains best practices, real-world examples, and practical applications. You will discover how to develop design specifications, understand complex codes and regulations, and apply the best methods for building construction jobs of all sizes. Coverage includes:

- The construction industry
- The project team
- Contract administration
- Construction Accounting
- Project Estimating
- Scheduling projects
- Risk management
- Building materials and construction methods
- Foundations
- Electrical construction
- Mechanical piping systems
- HVAC
- Energy efficient building systems
- Software support
- Productivity and quality management
- Equipment for building construction
- Safety

Architecture + Design
Data Communications
Bacon's Media Calendar Directory
Network+ All-in-One Lab Manual
Facility Design & Management

Ethernet is a core networking technology used by every high tech business. While the basic protocols have changed little, new options such as Fast Ethernet and Gigabit Ethernet have increased the complexity of the topic. Ethernet has been the flavor of choice for networking administrators since the early 1980s because of its ease of use and scalability. Written by one of the foremost experts on Ethernet standards and

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configuration, Charles E. Spurgeon, Ethernet: The Definitive Guide includes everything you need to know to set up and maintain an Ethernet network. Ethernet: The Definitive Guide teaches you everything you need to know about the IEEE 802.3 Ethernet standard and its protocols. The book is logically separated into five parts: Introduction to Ethernet provides a tour of basic Ethernet theory and operation, including a description of Ethernet frames, operation of the Media Access Control (MAC) protocol, full-duplex mode and auto-negotiation. Ethernet Media Systems is the heart of the book. This section of Ethernet: The Definitive Guide shows you how to build media-specific Ethernet networks, from a basic 10BASE-T Ethernet offering 10 Mbps over twisted-pair cables, to an advanced 1000BASE-X Gigabit Ethernet, providing up to 1 Gbps of data transfer over fiber optic cables. Building Your Ethernet System teaches you how to build twisted-pair and fiber optic media segments, as well as how to build your Ethernet using repeaters and hubs. Performance and Troubleshooting is divided into two chapters. The first describes both the performance of a given Ethernet channel, as well as the performance of the entire network system. The second includes a tutorial on troubleshooting techniques and describes the kinds of problems network administrators are likely to encounter. The last part of the book includes a complete glossary of terms used throughout the book, a resource list, descriptions of thick and thin coax-based Ethernet systems, a guide to AUI equipment installation and configuration, and a listing of troubleshooting numbers.

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This book is the definitive guide for anyone wanting to build a scalable local area network (LAN) using Ethernet. This heavily-illustrated resource is part of BICSI's official training material for professional cabling professionals who want to learn how to design data systems as well as install them. The book teaches by example, breaking each task into bulleted steps. * Prepares telecom cabling professionals to enter the world of corporate IT * Teaches industry-standard practices and protocols * Provides vendor-neutral understanding of hardware and cabling technologies * Clearly and simply explains standards and topologies at the technician level

High-Performance Data Network Design contains comprehensive coverage of network design, performance, and availability. Tony Kenyon provides the tools to solve medium- to large-scale data network design problems from the ground up. He lays out a practical and systematic approach that integrates network planning, research, design, and deployment, using state-of-the-art techniques in performance analysis, cost analysis, simulation, and topology modeling. The proliferation and complexity of data networks today is challenging our ability to design and manage them effectively. A new generation of Internet, e-commerce, and multimedia applications has changed traditional assumptions on traffic dynamics, and demands tight quality of service and security guarantees. These issues, combined with the economics of moving large traffic volumes across international backbones, mean that the demands placed on network designers, planners, and managers are now greater than

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ever before. High-Performance Data Network Design is a "must have" for anyone seriously involved in designing data networks. Together with the companion volume, Data Networks: Routing, Security, and Performance Optimization, this book gives readers the guidance they need to plan, implement, and optimize their enterprise infrastructure. · Provides real insight into the entire design process · Includes basic principles, practical advice, and examples of design for industrial-strength enterprise data networks · Integrates topics often overlooked-backbone optimization, bottleneck analysis, simulation tools, and network costing

Network Design Basics for Cabling Professionals

Consulting-specifying Engineer

Handbook for Building Construction: Administration, Materials, Design, and Safety

High Performance Data Network Design

Writer's Market

This text provides a set of standards and installation guidelines that any organization can immediately apply to its own unique circumstances. It gives detailed specifications for inbuilding, plant and campus cabling.

Technical Standards and Design Guidelines

Mixed - Use Buildings

Top-down Network Design

Century Technology Pte Ltd