

A DAY-IN-THE-LIFE OF ALTRON TMT

ALTRON TMT PRODUCTS AND SERVICES SUMMARY

1. Telecommunications

Altron TMT provides communications services ranging from voice, data and video to digital radio communication networks and internet services.

1.1 DIGITAL RADIO COMMUNICATION

Altech Alcom Radio, Altech Alcom Matomo and **Altech Fleetcall**, offers digital two-way radios and integrated information and communications products and services to a broad range of industries and environments.

1.2 CONNECTIVITY AND TURNKEY COMMUNICATION SYSTEMS

Altech Autopage, Altech Radio Holdings, Altech Collab and **Bytes Systems Integration** provides internet access solutions and designs and supplies turnkey communication systems including wide area networks, analogue two-way radio systems, broadband wireless and fibre networks and telecommunication products and solutions.

1.3 VEHICLE TRACKING, FLEET MANAGEMENT AND TELEMATICS

Altech Netstar is a market leading provider of specialist vehicle tracking and recovery systems, fleet management services and usage-based telematics to prevent misuse of company fleet vehicles, reduce cost per kilometre, monitor driver behaviour and increase security and safety of drivers. Digital fleet solutions provide instant real time monitoring of small and large fleets, offered as a solution operated by customers or as a service to customers. Value-added products include lifestyle, roadside and emergency response services.

1.4 TRAFFIC MANAGEMENT

Altech Netstar provides intelligent, real-time traffic flow information and journey times to motor manufacturers and the motoring public of South Africa in a variety of applications such as in-vehicle navigation systems, portable navigation devices and mobile phones.

1.5 MANAGED SERVICES

Bytes Systems Integration offers management and control of business critical applications such as, email and groupware, firewalling, virus and spam detection and data backup and archiving. As a specialist outsource service provider they design, implement, service and manage customised ICT services and solutions, providing a full range of IT infrastructural services, such as service desk, end-user computing, server support, data security, network support, data centre storage solutions, as well as contact centres, biometrics and identity life-cycle management, workforce management and cloud-based solutions.

2. Multimedia

Altron TMT's multimedia and electronics division designs and produces various products such as set-top boxes and distributes electronic components, products and solutions.

2.1 MULTIMEDIA DEVICES

Altech Multimedia manufactures and distributes products to the digital broadcast and broadband industries within South and Southern Africa. These products include digital set top boxes and the **Altech Node**.

2.2 SECURE DIGITAL MEDIA DISTRIBUTION

Altech Multimedia recently entered into a new sector of the market, secure digital media distribution that was launched as the **Altech Node** is a consumer electronic device which enables a converged services platform that brings internet connectivity, entertainment, home control and monitoring into consumers living rooms.

2.3 INTEGRATED SOLUTIONS

Altech Multimedia specialises in the provision of integrated solutions comprising specialised hardware supported by innovative software solutions and global logistical support services. Comprehensive after sales support and device repair service both for in-house products as well as third party products globally also form part of their product range.

2.4 ELECTRONIC COMPONENT DISTRIBUTION

Arrow Altech Distribution is a distributor of industrial electronic components for amongst others: batteries and solar; lighting and optics; software and compilers; and semiconductors and aerospace products.

3. Information technology



Altron TMT's information technology division provides services including specialised software solutions and secured transactional solutions for the financial, retail and healthcare industries. In addition they also provide complete outsource solutions for IT and communication infrastructure necessary to enable business process.

3.1 PEOPLE CONSULTING

Bytes People Solutions are providers of talent management services including assessment centres, content development, ICT learning solutions, online technologies and soft skills development. In addition they also provide outsourced services for contact centres and extended capability in business processes.

3.2 OUTSOURCE SOLUTIONS

Bytes Managed Solutions and **Bytes Systems Integration** provides outsource solutions for IT infrastructure, communication technology architecture and management of communications technology. Key services include IT architecture, infrastructure management and security, communications technology management, service management, business process outsourcing and application development and maintenance.

3.3 MANAGED SOLUTIONS

Bytes Managed Solutions support and maintain enterprise-wide information products and services, which include servers, desktop and laptop, point of sales (POS) and ATM dynamic solutions, warranty and incident management, availability management and project management. **Bytes Managed Solutions** is the exclusive distributor for NCR products in South Africa and has strategic partnerships with Dell, HP, Lenovo, Burroughs, Unity, Postec, Unisys, Alcatel-Lucent and Cisco.

3.4 WORKFORCE MANAGEMENT

Bytes Systems Integration's workforce management division offers products and services that includes time and attendance solutions, access control, vehicle barriers, management of overtime, leave and absenteeism, biometric authentication and turnstiles as well as various credential verification products. Its labour management solutions include CCTV and intelligent building management products and services.

3.5 IDENTITY MANAGEMENT

Bytes Systems Integration's identity management solutions division specialises in the provision of full identity lifecycle management solutions through an array of hardware devices and software solutions, ensuring the accurate collection of identity information, the verification of the collected information, the provision of an identity and the devices and solutions required to read and re-verify these credentials throughout their lifecycle.

3.6 DOCUMENT SOLUTIONS

Bytes Document Solutions provides a range of hardware and consumables to manage outsource print services such as installation and training, paper and toner supplies, maintenance and services of equipment and service contracts. Xerox provides leading-edge technology, services, software and supplies for production and office environments of any size whilst NOR Paper provides a range of paper and paper based board products for the sheet fed lithographic printing market.

3.7 CONVERGED SOLUTIONS

Bytes Systems Integration deliver technical solutions to optimise business value in cloud services and support, contact centre optimisation, and provides next-generation enterprise systems. Additional services include Microsoft infrastructure and application development and deployment services and Microsoft volume licensing programmes.

3.8 NETWORK MANAGEMENT SOLUTIONS

Bytes Systems Integration provides office integration of all an organisation's technologies into one solution namely: network refresh services, remote access services, network hardware maintenance and network management services.

3.9 TRANSACTION SOLUTIONS

Bytes Secure Transaction Solutions provides a selection of managed electronic payment solutions including mobile or online platforms, e-wallet and medical transaction switching. Operations that support these services include **Altech Autopage Eyenza Mobile Money; Altech Card Solutions, Altech NuPay** and **Bytes Healthcare Solutions**.

3.10 SPECIALISED SOLUTIONS

Bytes Universal Systems and **Altech Card Solutions** supply, design, develop and implement specialised solutions providing a portfolio of services, software and solutions directed at solving business critical customer problems. Industries that have benefited from these solutions include national government, local municipalities, the telecommunications industry and a range of other market sectors. In addition they assist clients by creating, building and operating innovative services that support open digital ecosystems, revenue realisation and cost optimisation.

A DAY-IN-THE-LIFE OF ALTRON POWER

ALTRON POWER PRODUCTS AND SERVICES SUMMARY

1. Powertech Cables



Aberdare Cables, Africa's leading manufacturer of power, telecommunication and control cables and cable accessories manufactures high, medium and low voltage electrical cables for application in electricity transmission and distribution utilities, in locomotives, mines, ports, airports, telecommunication, renewable energy and the building and construction environments.

1.1 POWER CABLES

Aberdare Cables manufactures a range of low voltage general purpose wire and cable; medium voltage XLPE and PILC cables; overhead conductors and elastomeric cables

1.2 TELECOMMUNICATION CABLES

Aberdare Cables through its operations in Portugal and Spain, manufactures a range of telecommunication wires and cables including telecommunication metallic cables, optical fibre cables and signalling and control cables.

2. Powertech Transformers



Powertech Transformers designs and manufactures transformers and transformer-related products for the local and international markets and are commonly used in generation, transmission and distribution networks. Their product range also includes insulation, rail and switchgear products.

2.1 POWER AND DISTRIBUTION TRANSFORMERS

Powertech Transformers designs, manufactures, installs and commissions power and distribution transformers of all sizes for the transport, utilities, mining, industrial, building and construction industries.

2.2 GENERATOR STEP-UP TRANSFORMERS

Powertech Transformers' product range includes generator step-up transformers and shunt reactors installed in power stations and locomotives and traction transformers used in transport applications, specifically rail.

2.3 FURNACE TRANSFORMERS

Powertech Transformers produces furnace transformers that are used in various industrial and mining applications.

2.4 MINIATURE SUBSTATIONS

Powertech Transformers manufactures miniature substations that are used in rural and urban electrification projects as well as in renewable solar farms.

2.5 SERVICES AND MAINTENANCE

Powertech Transformers' services and maintenance expertise include the installation, commissioning, maintenance and condition assessment of transformers for the entire range of products from pole transformers, miniature-substation transformers, to large power transformers.

2.6 ELECTRICAL AND THERMAL INSULATION

Powertech Calidus manufactures and supplies electrical and thermal insulation, conductor material and related mechanical products and services used in energy generation, thermal sectors and general industry as well as various types of transformer accessories.

3. Powertech Batteries



Powertech Batteries manufactures and supplies a wide range of automotive batteries as well as Reserve and Motive power battery solutions, through its joint venture company, Enersys Powertech, whilst ensuring suitable robustness for the rugged demands of the African market. Industries covered include automotive, telecommunications, mining, utilities, rail, reserve or back-up power and many other alternative energy and industrial market segments. Renowned brands supplied locally and internationally include: Willard Batteries, SABAT Batteries, Enersys Batteries and Dynamic Batteries.

3.1 AUTOMOTIVE BATTERIES

Powertech Batteries is home to two of the best-known battery brands in the automotive aftermarket sector, Willard and SABAT Batteries. The company's comprehensive battery range extends to a wide variety of market sectors including; passenger and heavy duty vehicles, agriculture, leisure and marine. In addition they offer industry-leading features and benefits such as extensive warranties as well as comprehensive service and support.

3.2 INDUSTRIAL BATTERIES

Enersys Powertech, the joint venture company between Powertech and Enersys, manufactures and supplies inverters and rectifiers that are designed and integrated into the telecommunication industry using up to date technology and the highest quality components to ensure that communications are always reliably maintained. In addition they also manufactured and supplied inverters, solar powered energy and hybrid power solutions to a variety of industries.

4 Crabtree

Crabtree is the leading supplier and manufacturer of innovative branded products for the developers, maintainers and users of low voltage electrical accessories in Southern Africa.

4.1 SWITCHES AND SOCKETS

Crabtree's main products include a wide range of sockets and switches, primarily found in domestic, commercial and industrial buildings.

4.2 CIRCUIT BREAKERS

Crabtree supplies a fit for purpose range of circuit breakers and distribution boards used primarily in domestic, commercial and industrial buildings.

4.3 CONDUIT AND ELECTRICAL FITTINGS

Crabtree produces and distributes a wide range of conduit, trunking and PVC fittings, complemented by a varied range of domestic products such as adaptors, multi-plugs and extension cords.

5. Powertech System Integrators

Powertech System Integrators is a supplier of system technology integration solutions to commercial and industrial power users, utility companies and industries such as building and construction, transport and rail, renewable energy and mining. It is a solutions based business whose core competence is system technology integration to improve customers' operating efficiencies.

5.1 ENGINEERING INFORMATION SYSTEMS

Powertech System Integrators' engineering and information systems division leverages asset and operations information in streamlining and supporting business processes for asset intensive customers, by deploying integrated network planning and management solutions, asset and maintenance management solutions, as well as mobile field workforce management.

5.2 INDUSTRIAL PLANT PROJECTS

Powertech Systems Integrators' industrial plant projects division operates in the industrial sector, providing professional multi-disciplinary engineering, project and construction management services for fluid gas systems, environmental emissions control, distributed power generation and energy optimisation.

5.3 ENERGY MANAGEMENT

Powertech Systems Integrators' energy management division assists large power user clients to manage and reduce their energy consumption by visualising consumption to adapt business processes for sustained savings. In addition we allow municipalities and power utilities to effectively measure and bill electricity usage by their customers.

5.4 POWER INFRASTRUCTURE MANAGEMENT

Powertech Systems Integrators' power infrastructure management division serves the power, water and industrial industries with integrated protection and control solutions for large electrical infrastructure to improve network reliability and resilience. Our power infrastructure management solutions also support Smart Grid applications and employ world-class products from GE Digital Energy.

5.5 PRODUCT SALES

Powertech System Integrators' product sales division provides world-class products that serve the needs of utilities and large power users as regards low-, medium- and high-voltage electricity asset protection, revenue management and system reliability.

6. Turnkey substation projects

Powertech QuadPro designs, supplies, installs and commissions turnkey substations and is also an engineering, procurement and construction (EPC) company. The division's capabilities include among others substation design, equipment and civil layouts, civil work, substation buildings, equipment support structures, earthing or grounding designs and protection and control.

7. Transport and rail solutions

Powertech supplies automotive and transport solutions that holistically manage asset performance, automate common processes, including standardising and sharing data – improving overall performance and assisting in reducing cost.

8. Renewable energy solutions

Powertech have identified renewable energy as an important growth and business opportunity offering project management skills, system integrated solutions and a variety of electrical products namely power and distribution transformers as well as substations; high voltage and medium voltage switchgear and accessories; and solar powered energy solutions as well as reserved power solutions.

9. Switchgear

Powertech Switchgear distributes, installs and commissions a variety of medium voltage and high voltage switchgear and switchgear components, including indoor and outdoor air and gas insulated breakers.