# Enterprise Wireless and Communications Solutions Capability Statement

## Networks, Cabling, Fibre, Wireless, Telecommunications

Enterprise Wireless
and Communications Solutions

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# 01. An Introduction to Enterprise Wireless

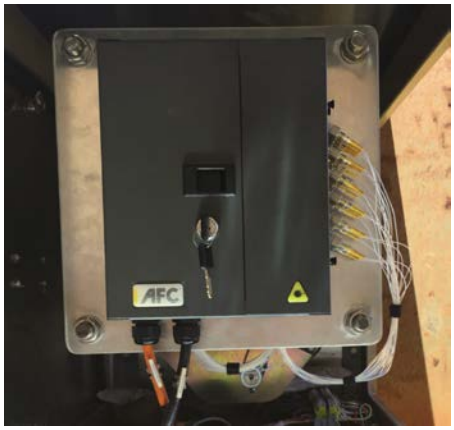
Enterprise Wireless offer an end to end, turn key communications and infrastructure service from planning, design, construction, and installation through to operations and support.

Our team has the experience and capabilities to meet the infrastructure needs that connect remote sites. Enterprise Wireless solutions delivers solutions to resource the most challenging, complex, integrated projects typically required by mining, resource, oil and gas companies.

- Project Management
- Enterprise Wireless – Controller based or controller-less, cloud managed
- Wireless Surveys – Active, Passive, Predictive
- Fibre Optic Cabling – SMOF/MMOF, RoughIn, splicing, joints, FOBOTs, Trailing cable, hauling, testing
- Structured Cabling – Cat5, 6, 7, RoughIn, Outlets, Patch Panels, Testing
- Trenching, Pit and Pipe Works
- Coaxial Cabling – MATV, DAS
- MDF – Exchange, Pillar, Jumpers
- Satellite – Fixed and Mobile, (VAST, VSAT [KuBand/CBand]), AutoDeploy
- Antenna mount design, supply and installation
- LADSAF Inspections
- Microwave Links – PtP, PtMP, Repeaters, Mesh, Licensed and Unlicensed, Link Budget, Path Profile
- Automotive Electrical works
- Office Fit-outs
- Surveillance (IP CCTV) Solutions
- Networking – Switching, Routing and Monitoring
- RTLS – Real Time Location Services
- Drafting (CAD) – Autocad / Microstation
- Servers and Storage
- Virtualisation
- DC Power Solutions (Solar and UPS)
- Rigging – tower rigging, cable feeders, cable sweeping, cable terminations, aviation lighting
- Design and Manufacture – brackets, enclosures, pallets, trailers, skids, tailored solutions
- Support and Maintenance – help desk, remote, onsite
- Registered Builder, contracts and procurement, supply chain management
- Audio/Visual solutions
- Desktop Support and Upgrades
- Active / Passive Optical Networks (GPON)

# 02. Structured Cabling and Optical Fibre

Enterprise Wireless offers cost effective services without compromising in quality. We offer a range of services from small to large office and industrial network installations, to meet the business needs of SME, Healthcare, Education, Hospitality, Retail, Government, Industrial and Mining. Most network faults experienced are due to cabling not being tested properly during installation. Our Cat5/5e/6/6a/7 structured cabling and fibre optic installations are completed with full test reports and certification. All single-mode and multimode fibre installed is fusion spliced, to ensure the best possible test results to comply with industry standards.




Prior to the commencement of any installation, comprehensive surveys and enquiries are made to ensure what is installed covers the current and foreseeable business needs. The Enterprise Wireless cabling division can provide the following services:

- Provide advice on selection and design
- Supply, installation and testing of structured cabling systems
- Testing and certification to current standards and requirements
- Internal and inter-building cabling, including fibre to desktop
- Trenching, pits and conduit works
- Long Haul Fibre
- Trailing cable installation and maintenance
- Fault Finding and rectification works
- Provide ongoing maintenance
- Fusion splicing
- Project Documentation
- Media converters, Fibre leads and accessories

# 03. IoT, BYOD and Mobility Solutions, WiFi

Enterprise Wireless is focused on solution selling and problem solving, to provide clients with the ultimate customer experience, from project conception to implementation. This vision is achieved by combining world-class wireless mobility solutions with creative thinking, innovative ideas, following best practices and validated reference designs.

Wireless access has changed the workplace dramatically over the years, so it's crucial that the Access Points you select do the job that you need. Enterprise Wireless will aid in the selection process, ensuring the right products and technologies are chosen to achieve a specific outcome. With the growth of mobile and IoT devices, IT more than ever require deeper insights about how the network is performing. With cloud based solutions or hardware/ software based offerings, predicting problems before there are disruptions to connectivity, app quality and RF coverage is essential.

The Enterprise Wireless stages of a project are to firstly determine the customer requirements, type of network (Number of SSID's, number of users, types of applications), perform a desktop analysis to place and visualise AP coverage with predictive heat-maps on floor-plans of the customers building. This is later verified with an onsite pre-deployment RF site survey using the proposed radio(s) in the predicted locations and making changes accordingly. Moving to the installation, terminating, labelling and testing of the structured cabling system to support the enterprise wireless network, understanding and integrating with existing customer services for RADIUS and to define switch configurations (VLANs, Subnets and Ports) or consulting/implementing the necessary changes on their behalf. Integrating with 3rd party services such as Firewalls. NAC (Network Access Control), provisioning a tailored Guest Captive Portal with rich functionality. On completion, a post-install RF site survey is carried out to verify coverage and capacity, aid with client on-boarding (as required), define analytics, reporting and optimisation. All installations are closed out by providing detailed reports and network drawings on completion (Final As Built).

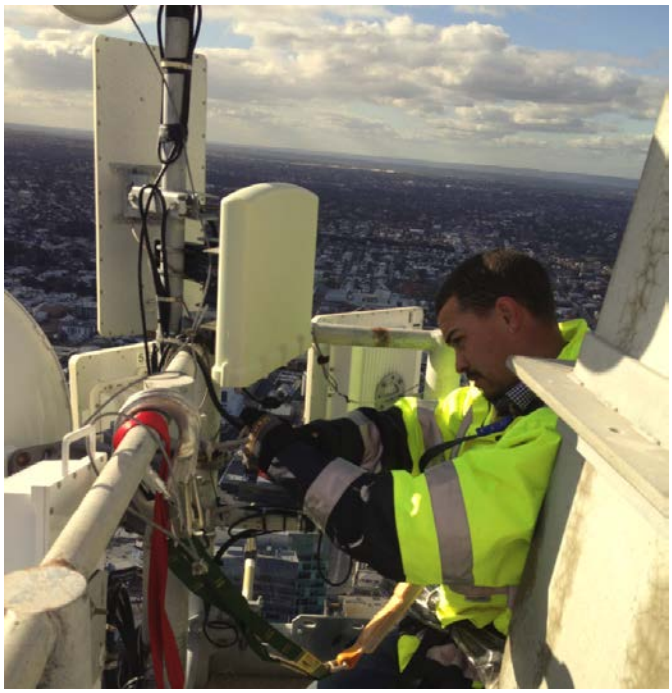
We aim to help empower businesses to achieve the following objectives;

- Higher Capacity
- Improved Coverage
- Provide relevant and reliable analytics
- Higher Speeds
- Global Reach
- Client Aware
- Anytime, Anywhere, Any device
- Move to Paperless
- Collaboration
- Seamless voice and video
- Provide seamless connectivity between distributed or branch office locations
- Support a greater number of mobile devices connected simultaneously

• Ensure a robust wireless network connection

# 04. Outdoor Wireless and Telecommunications Services

Enterprise Wireless can provide wireless 'last mile' technology solutions, to provide a wireless alternative to wireline internet access technologies, such as cable or fibre when services are not available or can be expensive to provide reliable leased link alternatives or offer redundancy. We also can provide rigging services, microwave installations, configurations and tuning, feeder installations (and removals), design and/or install aviation lighting solutions (when deemed necessary by CASA) and aid with the design (path profiles, link budget calculations, site surveys) as well as many other unique services. Enterprise Wireless offer three key areas of focus, to meet your outdoor and last mile business needs;



**Point to Point** (An Alternative to Fibre, Rapid Deployment):

- Building to Building connectivity
- CCTV Solutions
- Leased Line Replacement
- Fibre Redundancy
- Wireless Failover
- Solar Repeaters

**Point to MultiPoint** (A means to interconnect multiple locations):

- Multiple Buildings
- CCTV Solutions
- Outdoor WiFi
- Telemetry, Process Control and Automation

**Wireless Mesh** (A self-configuring, self-healing, scalable solution):

- Public WiFi
- Last Mile Connectivity
- Campsite / Village WiFi
- Locations that can't be cabled (due to expense or otherwise)

Other rigging and outdoor telco services provided by Enterprise Wireless are:

- Feeder Installation and Removal
- Feeder Testing (i.e. Return Loss, Distance to Fault)
- LADSAF Fall Arrest Certification
- Microwave (Installation, Configuration, Tuning and Commissioning)
- Bird Proofing, Sealing, Labelling
- Installation of steel works and mounting brackets
- Site Surveys (detailed photos, measurements, documentation)
- Spectrum Analysis / Planning
- Sector-based AE
- Coaxial cabling
- Cable termination and grounding

# 05. Satellite Communications (SATCOMM)

Communications satellites have been around for more than 50 years, and they are often the only way to communicate with remote parts of the world. Considering 70% of the planet is covered by oceans, it is easy to see how life would have been very different had satellite connectivity not become both practical and affordable. Today's businesses should be able to reach customers, share resources or have network access anywhere and at any time. Enterprise Wireless specialise in Satellite Communications, VSAT (Very Small Aperture Terminal) and VAST (Viewer Access Satellite Television).

Our engineers are proficient with the installation, tuning, commissioning, and working with providers to provide post-installation support and reporting. We are proficient with the use of RF/Satellite communications concepts and fundamentals, the use of spectrum analysers and undergoing calibrations as required, such as cross-pol isolation, antenna patterns, transmission tests and LNB tests. Fixed installations are normally performed in a few

hours, after a site survey has taken place (depending on location, size of reflector and other variables). We can provide ground system pole mounts, non-penetrating mounts, or custom mounting solutions.

We specialise in Ku-band/C-Band satellite systems, both fixed and mobile (auto-deploy) and have worked largely with iDirect and Hughes platforms. We are aligned with satellite providers to ensure competitive rates, but can also provide installation and commissioning only services depending on your requirements and existing arrangements or contracts.

# 06. Information Technology (IT)

Enterprise Wireless are committed to providing innovative, tailored IT solutions with expert technical support. We have an in-depth understanding of the issues and concerns that affect most business and we pride ourselves on ensuring smart and service focused solutions are delivered.

Independently and through our aligned partners we are well positioned to provide proactive support, including patching, updates, security and monitoring of your critical IT services to ensure everything stays operating as it should be.

If your organisation operates physical servers and storage in a standalone or virtualised environment, are looking to transition from a hosted or on-premises exchange to Microsoft Office 365 (hybrid or full) or Microsoft Azure (hosted servers and infrastructure), Enterprise Wireless and its partners are here to help.

We can also provide a 24x7x365 help desk to provide remote or onsite assistance as necessary, or as part of a managed service.

# 07. Project Management

Enterprise Wireless is a reliable, capable, and trustworthy partner to our clients in the successful and safe completion of their projects and programs, and construction Management Services. Much of our company's work is repeat business from loyal customers. This demonstrates the value of the long-term relationships that we always strive to achieve with our clients.

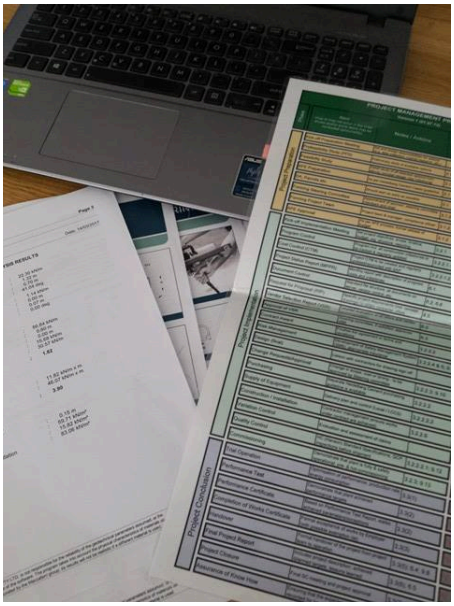
Each client is unique, so through collaboration and a flexible team approach, we can achieve your unique delivery program.

Enterprise Wireless can deliver total design and construction management using our own talented resources, or we can orchestrate the work of outside architects, engineers, and contractors, or we can facilitate a combination of both to best suit the project requirements.

We perform the delivery of the pre-construction planning to actual construction, then finally on to post construction. Enterprise Wireless works in conjunction with our client in partnership, handling every part of design and construction, putting our client's best interests first.

Services include:

- Design development/management
- Bid support/RFQ-RFP development
- Program planning, oversight, & controls
- Value needs analysis
- Project controls
- Master schedule development & updating
- Master budget development & tracking
- Alternative project delivery approaches
- Preventative maintenance plans
- Building maintenance transition
- Contractor management
- Cost estimating
- Inspection & testing
- Change order management/Contract administration
- Claims management/mitigation
- Dispute resolution



# 08. Procurement

Enterprise Wireless is able to partner with companies and governments to assist delivery of complex projects and programs. Enterprise Wireless will look for the highest quality materials, best prices, and lowest risk to create and maintain the smooth supply chains

With purchasing experience on projects of all scales, Enterprise Wireless partners with the best strategic suppliers for basic and fabricated materials, logistics partners for delivery and inspection, and financial reconciliations and inventory controls.

We always look to partner with safe, ethical, and environmentally responsible contractors and vendors, Enterprise wireless are able to deliver high quality, cost effective procurement services.

Enterprise Wireless's contract and procurement professionals provides a range of services including;

- management of contracts,
- purchasing,
- tendering,
- award formation and administration,
- inspection,
- expediting,
- quality control,
- logistics, and
- materials management.

Every vendor/contractor we look into goes through a pre-qualification process, and must meet our supplier code of conduct, anti-corruption guidelines, and safety standards.

Services include:

- Market research / intelligence
- Procurement planning
- Sub-contracting & vendor sourcing
- Transportation & logistics support
- Warehousing & inventory

# 09. Construction Management

Enterprise Wireless is a full service, fully integrated business, Enterprise Wireless designs, engineers, and constructs our clients' projects from beginning to end. We can provide field services personnel and skilled technical staff, we wear hardhats, operate machinery, and get our hands dirty. In addition to construction management and project management, Enterprise Wireless provides a complete range of field construction services, including modular construction and fabrication, for clients in both the public and private sectors.
With our processes and procedures, it allows us to integrate and identify unique opportunities to add value, efficiency and to focus innovation where possible. Our preferred approach is to integrate our construction expertise with our design planning as early as possible. That way, our construction plan including design and procurement will result in reduced schedule and costs. Enterprise Wireless has experience delivering complex schedules, and we offer a number of alternatives to our delivery processes.
In everything we build for our clients, safety is our number one priority.

Services include:

- Field services
- Cost estimating/management
- Start-up and commissioning
- Construction management
- General contracting
- Materials management
- Quality assurance/quality control
- Scheduling

# 10. Why Enterprise Wireless ?

We can design solutions for any site and our team has unmatched experience in wireless networks, rigging and cabling, technology installations and commissioning. Enterprise Wireless values are based upon comprehensive training and full certification. Our implementation adheres to the strictest health safety standards.
When you engage a firm to handle your national or international multi-site technology rollouts, the last thing you want is an inconsistent quality or speed of deployments. Enterprise Wireless protects your reputation and minimises your workload, seamlessly rolling out technology across many sites with the use of professional resources.

Project Management: The primary challenge of project management is to achieve all of the project goals within the given constraints, something we work hard towards.

Support: We can provide post-installation support, maintenance and management solutions.

Extensive Technical Skills: We have a commitment to continuous training and learning, we are constantly improving our expertise as new technologies evolve.

Our Values: Integration, Innovation and Implementation. We integrate technology to not only meet but exceed our customer requirements, we are always thinking outside of the box and being innovative while implementing on-time and on budget.

Guaranteed Workmanship: We always ensure the highest quality work with whatever we do, from cable presentation to project management we don't EVER cut corners.

Certified and highly qualified expertise.
Experience in working with mining, oil and gas projects across small and large scale projects. Distinct competencies in executing international, national and state-wide roll outs.

| Manufacturer Approved: | Accredited for: | Telco Skills: |
|---|---|---|
| ADC Krone installer | Austel (Open Cable) certified | Advanced Rigging |
| Molex Installers | CCom Satellite Systems | Tower Rescue |
| Panduit Installers | AIM Australian Institute of Management | Elevated Work Platform Ticketed |
| Aruba Certified (ACMA, ACMP) | Optus Satellite Certified | Registered Building Practitioner |
| Cisco Certified (CCNA) | TITAB Registered | MSIC |
| Microsoft Certified | Optus Satellite Certified | Construction Cards |
| VMWare Certified | | DTEC (driver training) |

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