



# Electronic Warfare & Spectrum Monitoring Systems



[spectrum.empresa.co.za](http://spectrum.empresa.co.za)



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# Company Overview

Empresa Solutions is a South African technology company specializing in the design, integration, and lifecycle support of Electronic Warfare (EW) Systems and Spectrum Monitoring & Direction Finding (DF) Systems.

We deliver mission-critical capabilities to Defence Forces, national regulators, and security agencies across Africa and Asia.

Our systems operate across HF, VHF and UHF bands to provide superior situational awareness, spectrum control, and operational advantage.

# About Us

Empresa Solutions (Pty) Ltd — 100% black-owned (30% female-owned, Level 1 B-BBEE) South African company empowering Africa and Asia through advanced electronic warfare and spectrum monitoring solutions.

## Mission Statement

Deliver cutting-edge electronic warfare and spectrum monitoring solutions for superior awareness, threat detection, and strategic advantage across Africa and Asia.

## Vision

Lead innovation in electronic warfare and spectrum monitoring, adapting to emerging threats to protect security in Africa, Asia, and globally.

## Core Values

**Excellence**  
**Motivation**  
**Passion**  
**Reliability**  
**Efficiency**  
**Synergy**  
**Adaptability**



## Key Facts

**Co Reg. No:** 2016/383112/07  
**TAX Reg. No:** 9516197184  
**CSD No:** MAA1076066  
**UIF No:** 2770932/5  
**COIDA No:** 990001463938

# Core Capabilities

## HF/VHF/UHF Spectrum Monitoring Systems:

- Continuous monitoring and analysis of radio frequency activity for interference detection, compliance, and spectrum control.

## Fixed and Mobile Direction Finding Systems:

- Precise geolocation and tracking of signal sources using stationary and vehicle-based DF platforms.

## Deployable Tactical Monitoring Platforms:

- Rapidly deployable systems for real-time spectrum surveillance and operational threat detection.

## Electronic Support (ES):

- Detection and analysis of radar and communication emissions.

## Electronic Protection (EP):

- Secure communications resistant to jamming and disruption.

## Electronic Attack (EA):

- Disruption, denial, and deception technologies.

## Cyber-Electromagnetic Activities (CEMA):

- Integrated cyber and electromagnetic strategies.



## Key Services

We provide comprehensive, end-to-end lifecycle support for Electronic Warfare and Spectrum Monitoring systems — from system design and deployment to training, sustainment, and long-term operational support.

- Systems Engineering and Integration.
- Fixed, Mobile, and Deployable Installations.
- Factory and Site Acceptance Testing (FAT & SAT).
- Operator and Technical Training (including e-learning platforms).
- Preventative and Corrective Maintenance.
- Depot-Level MIL-SPEC Repairs.
- Configuration Management and Documentation (ASD-STE100 compliant).

# Key Solutions

## Installation

Seamless installation & integration of electronic warfare systems to existing platforms, meeting the highest performance standards.



## Maintenance

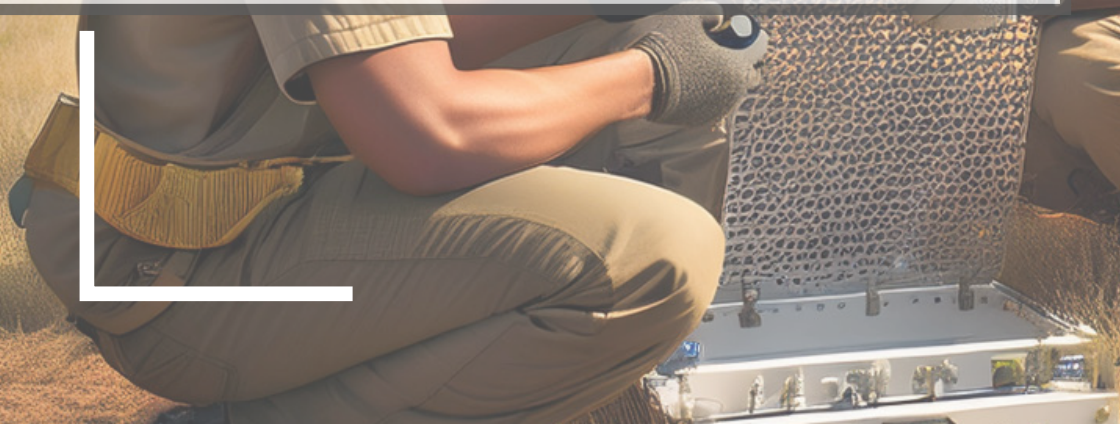
Proactive maintenance with modern diagnostics and flexible scheduling to ensure maximum uptime for defense systems.

# Key Solutions

## Training

We offer specialized training services for Electronic Warfare (EW) and Spectrum Monitoring systems end users, as well as customer Technical Support Teams. Our programs equip personnel with the knowledge and practical skills required for effective system operation, analysis, and troubleshooting.

We leverage an advanced interactive e-learning platform, enabling users to access structured learning materials anytime and anywhere, ensuring continuous capability development and sustained operational readiness.



# Key Solutions

## Workshop Repair Expertise

Military-grade, component-level repair of advanced Electronic Warfare and Spectrum Monitoring modules and equipment — fully MIL-SPEC compliant.

We expertly repair critical items including:

- Antennas
- Receivers
- Computers
- Power supplies
- UPS systems



Cutting-edge diagnostics and repair technologies for depot-quality EW repairs — maximizing readiness and mission reliability.





# Technology Leadership

## **Machine Learning and AI:**

Utilize these technologies for improved signal processing and decision-making.

## **Electronic Attack (EA) Technologies:**

Implement cutting-edge EA solutions for effective disruption and deception.

## **Advanced Cryptography:**

Employ state-of-the-art techniques to secure communications against evolving threats.



# Experience

Empresa Solutions (Pty) Ltd draws on nearly a decade of specialized expertise in Electronic Warfare (EW), Direction Finding, and Spectrum Monitoring systems. Our leadership, rooted in high-profile roles, has delivered proven solutions to the South African Department of Defence, local spectrum regulators, and clients across Africa and Asia.

## **We cover the full system lifecycle:**

- User Requirements Specification
  - System Design
  - Testing (FAT & SAT)
  - Deployment
- Maintenance & Support

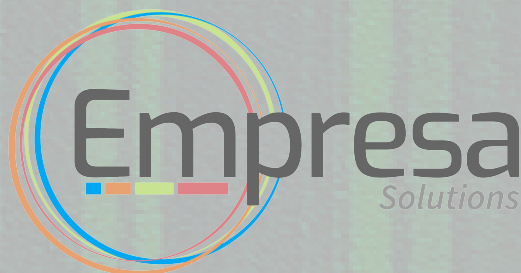
We excel in Quality Management, Configuration Control, and documentation compliant with ASD-STE100 Simplified Technical English.

## **Key highlights:**

Innovative remote, mobile, and deployable systems, including terrestrial and satellite-based signal monitoring. Hands-on installation, commissioning, rigorous software testing, FAT/SAT execution.

Comprehensive technical manuals (installation, user, preventive maintenance) to ensure reliability and client satisfaction.

Empresa Solutions brings battle-proven, mission-critical expertise—delivering quality, innovation, and excellence for defense and security needs.





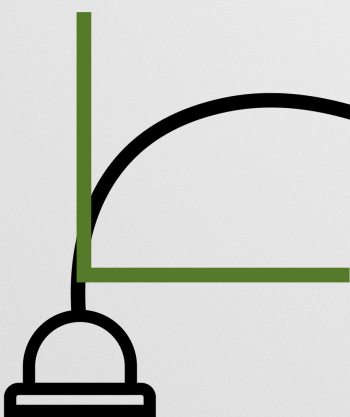
## **Strategic Partnerships**

Collaborating with leading technology firms and defense agencies to ensure access to the latest innovations and insights within the electronic warfare domain.

# Commitment to Innovation and Excellence

At Empresa Solutions, we understand the critical importance of staying ahead in the rapidly evolving landscape of electronic warfare and spectrum monitoring.

By partnering with us, clients gain the assurance of working with a team deeply committed to innovation, technical excellence, and strategic success across complex and contested electromagnetic environments.



# Employment Equity

We are dedicated to promoting diversity and inclusivity in our workplace, ensuring equal opportunities for all employees.

Our commitment to employment equity and fair practices permeates every aspect of our business.

Our goal is to foster career development and advancement for all team members while actively supporting diversity.

We strongly believe that diversity is a strength, and we continuously strive to create a supportive and inclusive environment for individuals of all backgrounds, including youth, women, those with disabilities, and those previously disadvantaged.

# Contact Us

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“Our commitment is to deliver advanced and resilient Electronic Warfare solutions that enhance operational superiority, strengthen national security, and safeguard critical assets.”

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