



## Training Introduction and Terms and Conditions



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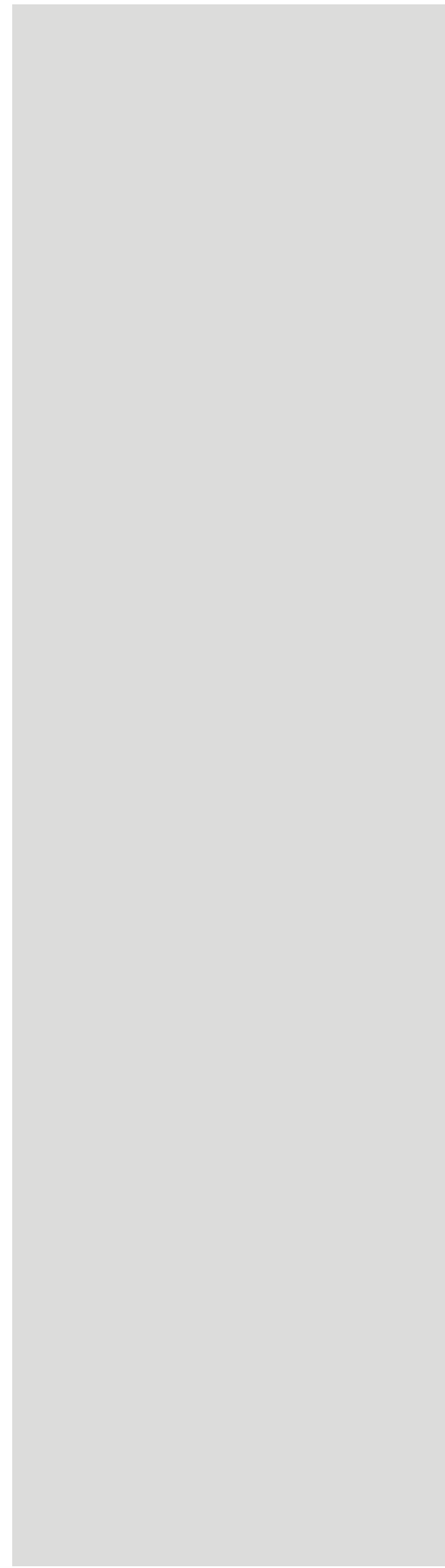
# 1 Overview

## 1.1 Introduction

Our training courses will teach you how to install, configure, and commission Aprisa radio systems. The training also provides the advantage of an in depth understanding of the interfacing capability, ultimately allowing you to achieve operational efficiencies and to improve ROI.

## 1.2 Definitions

Term	Meaning
'We' or 'Our' or '4RF'	4RF Limited
'You' or 'Customer'	Who 4RF is providing the training to



## 2 Terms

### 2.1 Training notes

4RF will provide a soft copy of training notes.

### 2.2 Class size

Class size will normally be limited to eight trainees. We recommend a class size of six to eight people to maximise the benefits of the training, particularly the practical sessions. An additional fee applies per student in excess of eight.

### 2.3 Course duration

The course duration is either two days or five days depending on the course selected. This can be customised to meet your requirements.

### 2.4 Cancellation

If you cancel a course within two weeks of the scheduled start date, a 25% cancellation fee will be invoiced. Cancellations prior to two weeks before the scheduled start date will not attract a cancellation fee.

### 2.5 Training syllabus

The standard course syllabuses are detailed later in this document. We can tailor the training courses to meet your specific requirements.

### 2.6 Courses held at customer premises

For courses held at the customer premises, you are responsible for providing:

- An Aprisa link and power supply for the course duration
- A monitor that can connect to the trainer's laptop
- A suitable training room

4RF can provide an Aprisa link, if required. We will charge freight and associated duties for transporting the equipment to your premises.

The customer is responsible for all expenses incurred by our trainer, including the following;

- Travel expenses
- Freight and equipment costs
- Accommodation
- Meals
- Local transport

## 2.7 Courses held at 4RF

For courses held at our offices we will provide:

- All training equipment
- Mid-day meal during the course

The customer is responsible for all trainee expenses including:

- Travel
- Accommodation
- Meals and local expenses

We can help book local accommodation or arrange travel if required.

## 2.8 Attendance

Each trainee must attend the entire course to receive the certificate of completion.

## 2.9 Pricing and payment

Prices for training courses are detailed in the Training Price List.

The customer must meet all additional expenses (see above).

Payment is net 30 days, unless specified otherwise. Customers without pre-approved credit may be asked to pay before we provide training.

Price is set by 4RF and subject to change without prior notice.

## 3 Aprisa XE training syllabus

### 3.1 Five day course

The Aprisa XE Introduction training course covers installation, configuration and commissioning as outlined below. As an option, the practical sessions may be carried out on a site with Aprisa XE equipment that is to be installed (i.e. the installation becomes part of the training course). In this case, the site should be in close proximity to the training venue.

#### Introduction, Hardware and Architecture (1 day)

- Introduction to 4RF, products and applications
- Overall system description of Aprisa XE
- Description of major components: transmitter, receiver, motherboard, modem, interfaces
- Physical mounting and cabling
- Monitored Hot Standby (as applicable)
- Hitless Space Diversity (as applicable)
- Aprisa XS Expansion shelf (as applicable)

#### Site preparation and Path planning (1/2 day)

- Site requirements: grounding and lightning protection
- Antenna alignment and path planning

#### Introduction to Aprisa XE Supervisor setup software (1 day)

- Connecting to Aprisa XE (practical)
- Overview of SuperVisor layout and navigation
- Setup of radio parameters (practical)
- Setup of Interfaces
- Detailed explanation of cross-connect (practical)

#### Trouble shooting and verification testing (1/2 day)

- Verification testing
- Troubleshooting, alarm identification and analysis (practical)
- Interface card installation

#### SNMP management software (1/2 day)

- Telenium 4RF SNMPc overview
- Basic setup

#### Duplexer tuning (1/2 day, optional)

- Basic duplexer tuning technique (practical)

#### Commissioning (1 day, optional)

- Practical commissioning on site

## 3.2 Two day course

The Aprisa XE two day training course provides a basic overview of the Aprisa XE product and its application. The course covers network applications, hardware architecture, software management and trouble shooting.

Participants who have completed the course will have the knowledge and skill to carry out basic Aprisa configuration, performance monitoring, and fault diagnostics.

### Day 1: Aprisa XE Introduction, Hardware and Software

- Introduction to Aprisa XE
- Applications
- Terminal architecture
- Aprisa SuperVisor management software
  - Display and configure Aprisa terminal parameters
  - Configuration of an Aprisa XE link (practical)
  - Basic cross connections
  - Configuration of cross connects (practical)
  - Display and configure Aprisa interfaces
  - Configuration of Aprisa XE interfaces (practical)

### Day 2: Aprisa XE Configuration, Management and Fault Diagnostics

- Monitor performance and alarm status
- Monitoring and evaluation of performance and alarm status (practical)
- Software maintenance tasks options
- Software maintenance tasks (practical)
- Trouble shooting and fault diagnostics (practical)

### About 4RF



Operating in more than 160 countries, 4RF solutions are deployed by oil and gas companies, international aid organisations, public safety, military and security organisations, transport companies and utilities, broadcasters, enterprises and telecommunications operators. All 4RF products are optimised for performance in harsh climates and difficult terrain, and support legacy analogue, serial data, PDH and IP applications.



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