



# Keyhole Radio v4

Private network radio planning

vmware®

## Secure

The system does not require internet access to operate. With individual user accounts, SSL and disk encryption, user data is protected in transit and at rest.

## Scalable

Add and manage your own user accounts and reference data for the system. Concurrent users are limited by the host resources you allocate to the VM.

## Supported

Each machine has web based documentation and the software can be updated remotely. Support packages are available.

## Requirements

VMware player  
VMware workstation 9 or 10  
ESXi 5.1

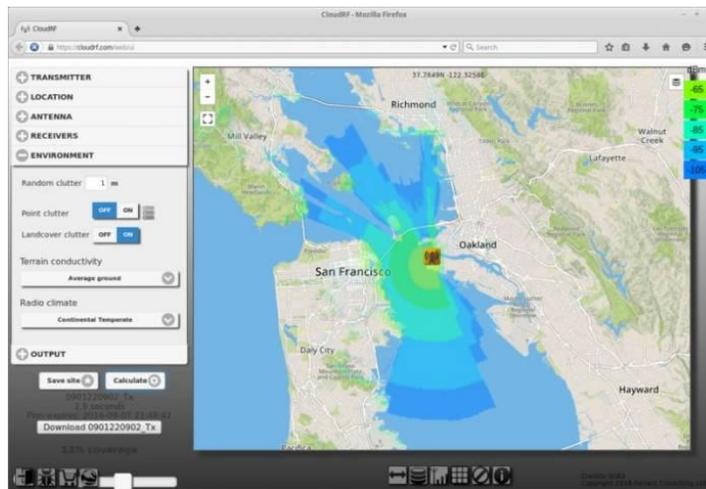
2GB free memory

200GB free disk space

Network connection with DHCP server

Google earth

HTML5 web browser



- Scalable and open architecture
- Supports multiple web clients
- HTML5 web interface
- Google earth™ interactive layer
- Android app
- HTTP API
- Exports to KML, GTIFF, SHP, HTML
- All key features of **CloudRF.com**

Keyhole Radio™ is next generation radio network planning software. Using the latest in virtualisation technology, you can quickly deploy a turnkey server capable of providing sophisticated RF modelling services to remote and local clients on your private network. Get your own private instance of [CloudRF.com](http://CloudRF.com) on your network.

The bandwidth efficient service can be used on any IP network and accessed via a variety of software packages and platforms. Internet access is only necessary to upgrade terrain data post installation. With the addition of a Mapnik tile server, the system can be used on a LAN without any external dependencies.

A powerful server calculates coverage and returns a download link to clients. Historical data is saved in personal archives on the server and can be accessed cross-platform.

## Google earth™ integration

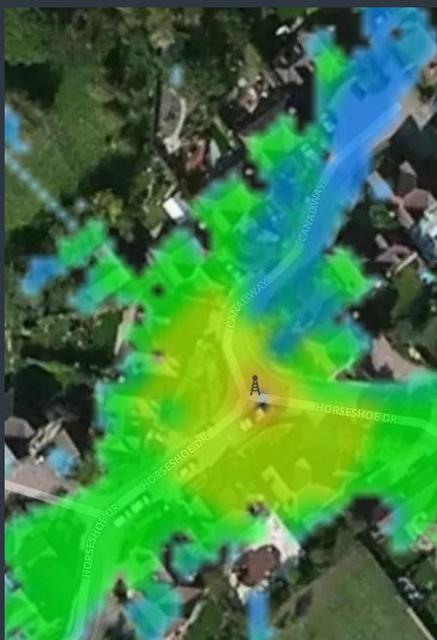
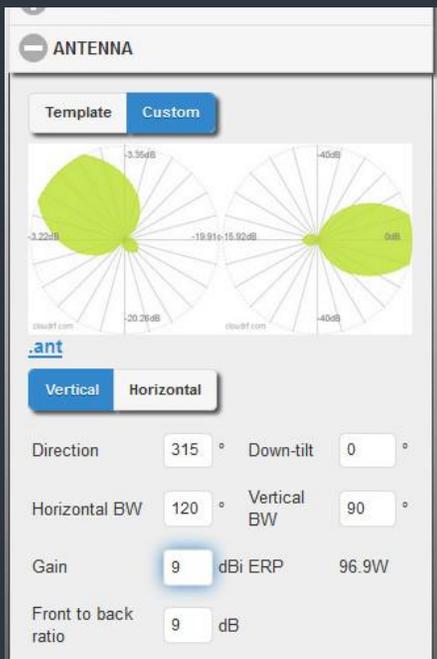
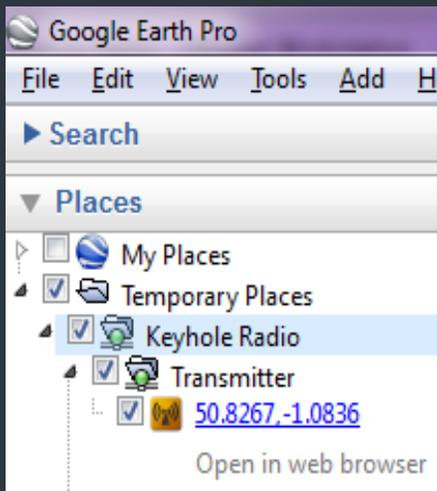
The service has it's own dynamic plugin for Google earth so clients can add it as an interactive layer and the coverage layers can be visualised along with other business layers.

## Android app

The optional Keyhole Radio app for Android allows you to generate calculations on the go using your server or view historical calculations generated via Google earth from your archive whilst out the office. Mobile calculations can be recovered in Google earth.

## Developer's API

The powerful HTTP API allows easy standards based integration with existing mapping and management systems so you can have on demand RF planning via a hyperlink or perform a batch operation on a spreadsheet of tower data.



# Technical features

## Transmitter

Frequency (20MHz-100GHz), ERP (0.1W-2MW), Radius (0.1 to 300km).

## Location

Co-ordinates (DD,DMS,MGRS), Height AGL (Metric/Imperial).

## Antenna options

3D Patterns in .ant format or custom patterns, Polarisation, Azimuth, Down-tilt, RF input power, Max gain (dBi), Front to back ratio (dB)

## Propagation models

FCC Irregular Terrain Model (Longley Rice), Line of sight (LOS), Okumura Hata (Urban, Suburban, Rural), COST231-Hata (Urban), ECC33 (ITU-R P.529), SUI microwave, ITU-R P.525 (Free space), Ericsson, Plane earth pass loss

## Receiver options

Knife edge diffraction, Output as Path loss (dB), Received Power (dBm), Field strength (dBuV/m), Adjustable receiver sensitivity.

## Environment options

Global Landcover, Random clutter, KML point clutter, Ground conductivity, radio climate

## Output options

Terrain resolution (600/1200/3600 pixels/degree), Transparency, Colour schema, LIDAR high resolution tile support (requires tile preparation).

## 2D Path Profile Analysis with Fresnel zone

### Multilink WISP coverage tool

### Site meshing tool

## Calculation archive

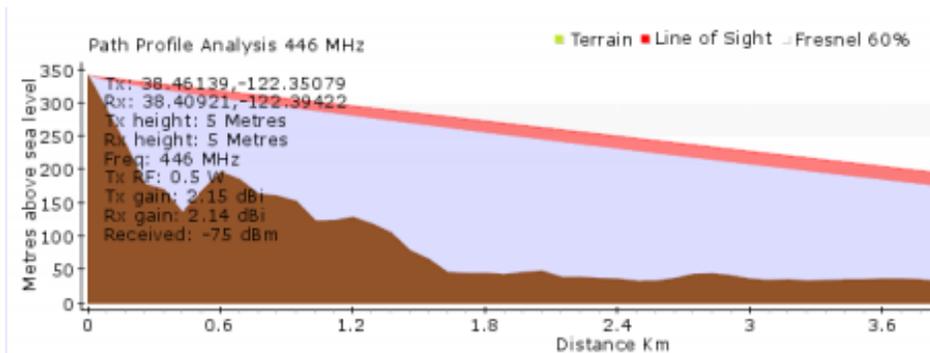
Private user login

Search by name, frequency, location

Download as KMZ, GTIFF, SHP

Share as URL

HTML embed code



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*Pricing varies by seats, interfaces and support requirements. Get in touch for a quote or more information.*



Farrant Consulting Ltd  
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