Good route selection needs more than map reading.

The ability to communicate is critical to a mission’s success, yet too often a planned route is incompatible with reliable radio communications.

This issue is compounded with UHF radios in complex environments where signals are attenuated significantly by obstacles, and the vendor’s radio-map can only show you what you already know.

SOOTHSAYER™ is a scalable, vendor agnostic, tactical radio planning server for closed networks. Designed for radio operators, not scientists, this unique edge capability empowers radio users to make **better decisions, faster** and **avoid communications failure**.
Interfaces

- ATAK, WinTAK chatbot
- Cross-platform 3D web interface
- Google Earth™ interface
- OpenAPI 3.0 specification REST API for C2 integration

Inputs

- 2MHz to 100GHz
- RF power: 1mW to 1MW
- Feeder loss options
- Co-ordinates: DD,DMS,MGRS
- Height ceiling: 60,000 ft
- Antenna templates
- Antenna azimuth, tilt, gain
- Custom antenna patterns
- Tx & Rx gains in dBi
- Terrain and climate contexts

Outputs

- dB (PL), dB (S/N), dBm, dBµV
- Bit Error Rate & Modulation
- Receiver threshold
- Min resolution: 2m/6ft
- Custom colour schemas
- Max range: 300km / 180Mi
- Profile & Fresnel zone
- Area efficiency & %

Models

General purpose
- ITM / Longley Rice
- ITU-R P.525
- ITU-R P.529
- Line-of-sight
- Plane Earth Loss

Cellular
- Okumura-Hata
- COST231-Hata
- Egli VHF/UHF

Microwave
- Stanford Interim (SUI)

DSM/LiDAR & Clutter

- BYO DSM system and interface drawing tools supporting KML & GeoJSON
- 10m Global Landcover, 9 DIY clutter classes with custom profiles

Security

- AES-256 disk encryption, Role based accounts, TLS 1.2 transport encryption, RSA certificates for TAK server, E-purge.

Standards

- HTML5, KML, KMZ, CoT, JSON, GeoJSON, GeoTIFF, SHP, PNG, HTTP, WMS, ISO-8601, EPSG 4326, EPSG 3857, CoT, OAS3

Host requirements

- VMware / Azure / Proxmox / Virtualbox.
- 4 x 2GHz CPU, 4GB Memory, 20GB disk space, SMB data share

Options

- WMS OSM tile server, Global LiDAR & buildings, Radio templates
- Self hosted or hosted (EU) server with subscription