

VRX - Advanced GNSS Positioning in Kuwait

Vision Reference XYZ

VRX is an advanced technology that provides accurate real-time positioning. Experience true mobility, working without the constraints of base stations and radio signals. Delivered via cellular networks, VRX offers high-level accuracy across all of Kuwait for various

Introduction to GNSS and RTK Technology

GNSS provides positioning and timing information to users worldwide. The most common GNSS systems include GPS (USA), GLONASS (Russia), Galileo (EU), and BeiDou (China). Although these satellite constellations enable navigation, their accuracy can vary due to factors like ionospheric delays, multipath effects, and satellite geometry. To achieve millimeter or centimeter-level precision, especially for applications such as surveying, GIS, construction, and precision agriculture, RTK positioning is widely used. RTK corrects GNSS errors in real-time by comparing the signals received by a rover with signals from a nearby base station. However, traditional RTK has limitations, especially in terms of accuracy over long distances. This is where VRX networks provide significant improvements.

What is a VRX Network?

The VRX network is a cutting-edge system that delivers precise real-time GNSS positioning in Kuwait by utilizing a network of physical reference stations. These stations communicate with a central server, which calculates a virtual reference station near the rover, simulating a local base station and eliminating distance-related GNSS errors. VRX technology enables true mobility by removing the need for base stations and radio signals, providing high-level accuracy via cellular connectivity. Suitable for all industries, VRX offers various accuracy levels standard, fine, and precise maximizing workflow efficiency and providing the freedom to work anywhere.

How VRX Works?

- Several GNSS base stations are strategically distributed around Kuwait. These stations continuously collect GNSS data and send it to a central control system.
- The server processes data from multiple reference stations to compute error models.
- When the rover sends its GNSS data (position and satellite information) to the VRX network, the server creates a virtual reference station near the rover's location.
- The server sends correction data back to the rover, simulating the presence of a local base station. This minimizes errors and increases positioning accuracy.

VRX Network Components:

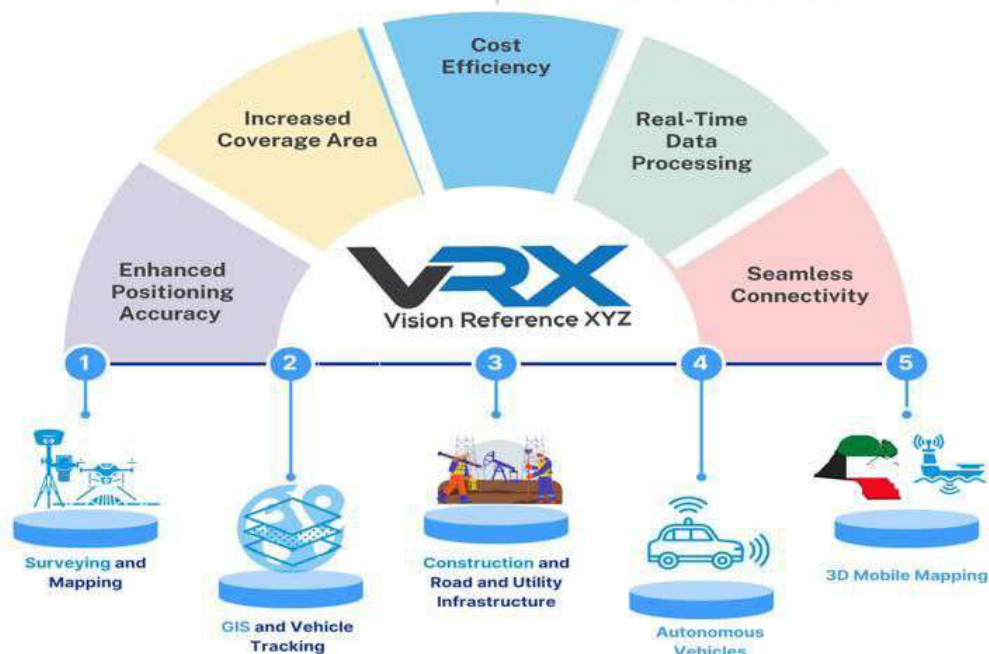
- Base Stations
- Central Control System and Backups
- Rover

Benefits of VRX Network :

- Easy to work with one unit of GNSS without using Base station and radio connection.
- Easy controlling the work in site from your PC in the office.
- No need for Base station setup means more flexibility and productivity as you can work with your rovers only anywhere in Kuwait and still get the desired accuracy.
- No need for processing data and purchasing software.
- No need to establish Control Points and bench marks.
- VRX can be used as reference during different survey and GIS works.
- Stations are tied to each other and this means more accuracy and stable work.
- Unlimited number of rovers connectivity can be purchased when there is requirement.
- Reducing PPM error inside VRX network.

Key Features

- 📍 Achieve up to mm-level Accuracy.
- 📍 Coverage across all of Kuwait.
- 📍 Available with 3 levels of accuracy Standard, Fine and Precise Levels.
- 📍 Scalable subscription plans tailored to different user needs.
- 📍 Seamless integration with all GNSS Brands.
- 📍 24/7 network reliability
- 📍 Supports multi-frequency signals
- 📍 Fast initialization time for immediate accuracy.
- 📍 Comprehensive customer support
- 📍 Compatible with GIS and CAD systems



The VRX network is a game-changer for RTK positioning technology. VRX provides highly accurate, cost-efficient, and reliable solutions for industries.

Unlock the full potential of GNSS technology with VRX. Contact us today for a demo or subscription!

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