SmartHaul™ Wireless Network Design Engine Datasheet

SmartHaul™ Wireless Network Design Engine (WiNDE)

Accelerate your time to deployment by automating complex mmWave network designs

Key Features & Benefits

- Automated network-wide Topology Designs
- Comprehensive RF Planning
- Bill of Materials generated from rule-based configurations
- Deploy as Designed with auto-generated configuration files
- SaaS, constantly up to date, no installation required

SmartHaul™ WiNDE, Experience Not Necessary

Siklu SmartHaul™ Wireless Network Design Engine (WiNDE) automates the many tasks involved in designing a complete millimeter wave wireless network. WiNDE integration in an operator's planning environment takes days compared to traditional tools that can take weeks or months. The engine reduces days of complex work and tedious details to hours. Intuitive and easy to use, the 5-step wizard will guide a user with 40 years or 40 days of network design experience to the same swift results.

Topology Design Optimized for Cost or Performance

SmartHaul™ WiNDE crunches through thousands of possible designs in an iterative process to optimize the network for performance or cost, with any mix of Point-to-Multipoint (P2MP), Point-to-Point (P2P), rings, meshes, fiber-links, single- or multi-PoP wireline interfaces. The resulting designs are presented graphically and numerically for straightforward evaluation of the results.

Bill of Materials

WiNDE will assemble a detailed Bill of Materials with all the required accessories and licenses. The user can amend and annotate the BOM with additions or subtractions or include 3rd party deliverables, easily maintaining a consistent project scope.

### Sectors & Azimuths, Channels, Polarization

WiNDE allocates frequencies to sectors and point-to-point links utilizing the minimum number of channels, and calculates the noise levels on all links to deliver an interference-free design achieving the target performance levels.

SmartHaul™ Apps from Siklu

Siklu SmartHaul™ Apps pack 10 years of leadership in millimeter waves network deployments and business models, into a set of planning and operations tools. A growing set of Apps hosted in the cloud or on-premise accelerate your time to decision and deployment, with consistency of information and decisions, reducing labor with automation and flow-through.
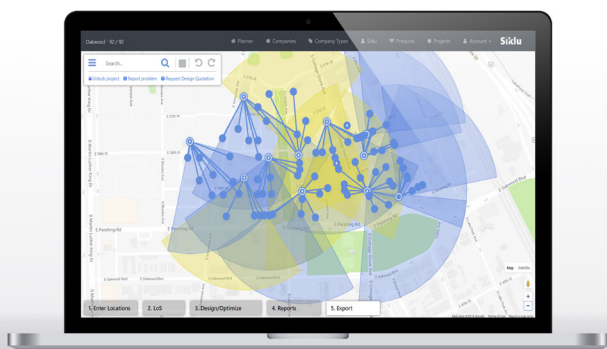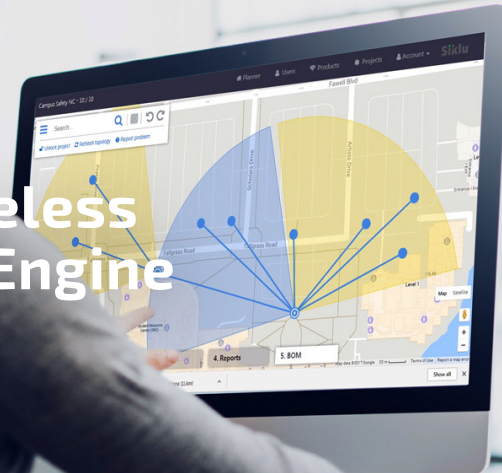
Design Features

Single-click complete topology designs	Topology optimization for P2MP, P2P, rings and mixed modes. Sector maximization to reduce installs while following collocation rules.
Automated RF design	Allocation of RF channels to all Siklu radios, operating in V-band or in E-band. Selection of polarizations. Calculations of azimuths for MultiHaul™ sectors and EtherHaul™ links.
Integrated interference validation	Network wide calculation of interference for each link end separately, utilizing nominal location or range of distances from center point.
Choice of design constraints	Distance from wired network interface (hop count), devices per roof / pole, redundancy levels, polarization preferences.
Automatic Bill of Materials (BOM)	A Bill of Materials is assembled automatically from the network topology and product selection, and can be amended globally or selectively.

User Interface and Data Input/output

Wizard driven	User is guided to progress logically from start to finish through the 5 steps of the network design.
Complete project and wireless network information	Bill Of Materials can be annotated to include site information, building materials or additional tasks.
Radio Configuration Files auto generation	Configuration files generated for all the radios in the project, assuring trouble-free deployment and commissioning as designed.
Easy node imports	Point-and-click or bulk-import with standard file formats (Excel, Keyhole Mark-up Language (KML/KMZ)).
Project defaults	Radio type & antenna size preferences, max radios per roof or pole.
Map modes	Google Earth, map or satellite view modes.
Rich reports in standard formats	Design results presented in graphical and tabular formats, allow quick evaluation and validation of the results. Information can be extracted into standard files (Excel, KML) for off-line processing or presentation to 3rd parties.
Database backups	Complete project database automatically saved in the cloud, available anywhere and anytime, shareable between multiple users.

General

Usage Tiers	3 tiers: Free, Startup, Professional.
Software as a Service (SaaS)	No desktop installation, instantaneous access over the Internet, always up to date, maintenance free.

rev. 01

sales@pulsesupply.com | www.pulsesupply.com/siklu

PulseSupply
pulsesupply.com