

# Bittium

## Bittium Tactical Network Management™

### **Bittium Tactical Network Management™**

is a network management toolset optimized to be used with Bittium's tactical networks.

It provides intuitive and visual tools for tactical network planning, real-time management of the networks and performance analysis based on big data collected from the network.

This enables quick and effective deployment of the networks and successful operations.

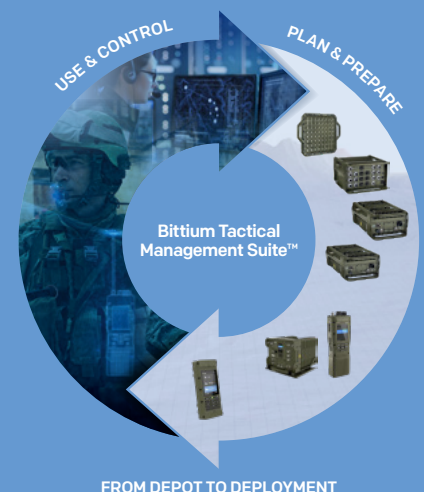
The tools support Bittium Tactical Wireless IP Network™, Bittium Tough SDR™ and Bittium Tough Comnode™ networks and nodes.

FOR MORE INFORMATION, PLEASE CONTACT:

[defense@bittium.com](mailto:defense@bittium.com)

### Benefits

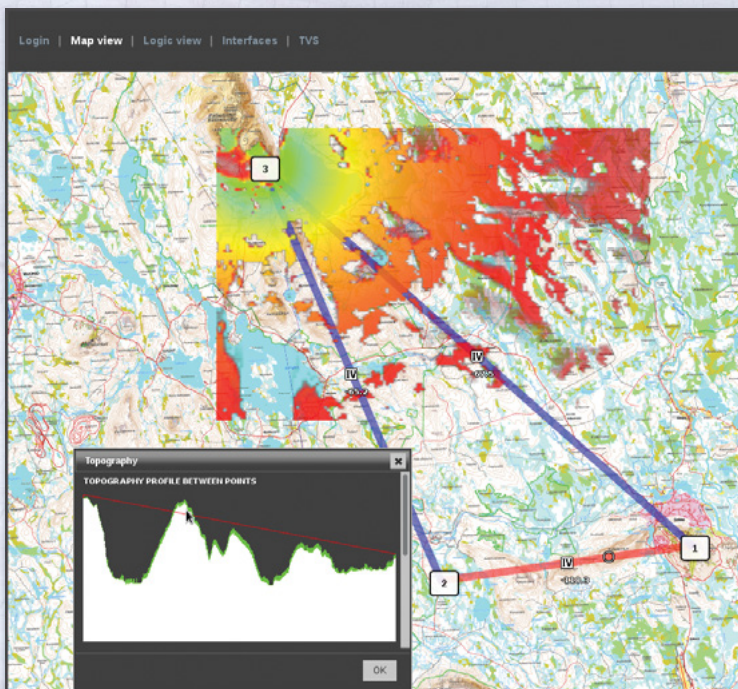
- › Quick and informed deployment of tactical networks based on accurate planning
- › Real-time and reliable status view of the tactical networks
- › Optimized network up-time based on quick issue resolution
- › Analyze and debug issues effectively by recording and replaying network activities
- › Bittium Tactical Management Suite™, including Bittium Tactical Network Management™ and Bittium Tactical Device Management™, is the perfect solution for sovereign management of tactical devices and networks.





# Bittium Tactical Network Management™

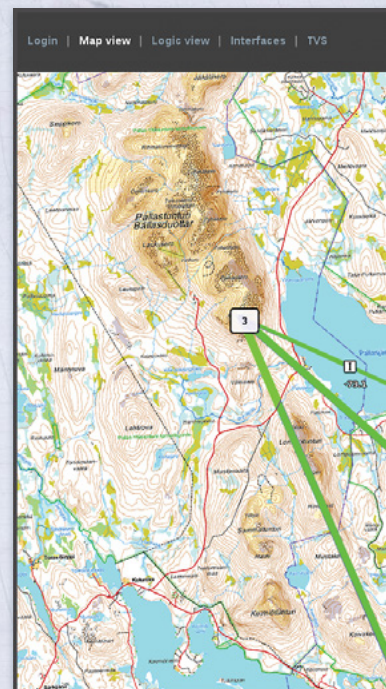
## Preparation



Use the **Bittium Tactical Network Planner Tool™** to

- › Optimize network planning
- › Verify network connectivity of the chosen network topology with coverage simulations. This helps to define the best position for the radio nodes in addition to estimating both coverage areas and link budgets for selected nodes
- › Verify and compare link quality and estimated quality of service against network's geographical coverage and link distances

## Operation



Use the **Bittium Tactical Network Management™** to

- › Monitor network status in real-time
- › Gain in-depth operative information and locations
- › Monitor link statuses, quality and



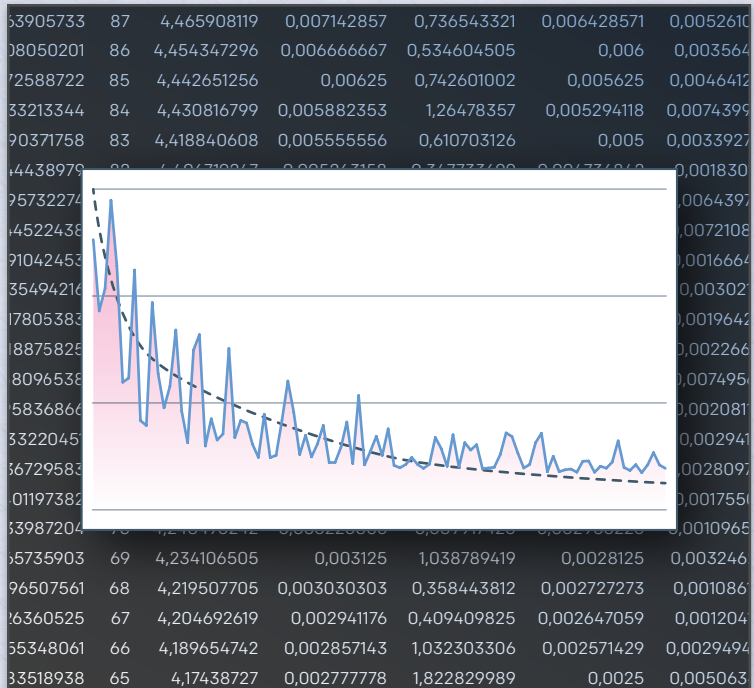
# Analytics



**Network Manager Tool™** to

time  
tion on node configurations

and alarms



Use the **Bittium Network Analytics Tool™** to collect network big data for your own analysis

- ▶ Network link statistics
- ▶ Debug past issues with the help of recordings
- ▶ Analyze network behaviour in detail

# Bittium Tactical Network Management™

## Technical Specifications

### Features

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- › Bittium Tactical Network Planner Tool™
- › Bittium Tactical Network Manager Tool™
- › Bittium Network Analytics Tool™

### Supported Network Nodes

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- › Bittium Tactical Wireless IP Network™ (TAC WIN)
- › Bittium Tough SDR Vehicular™
- › Bittium Tough SDR Handheld™
- › Bittium Tough Comnode™
- › 3rd party device monitoring functions:
  - › PING heart beat
  - › OSFP status
  - › SNMP selected fields

### Supported Services

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- › Bittium Tough VoIP Service™

### Supported Waveforms

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- › Bittium TAC WIN Waveform™

### Installation Software

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- › Bittium Tactical Network Manager Tool: Windows 7
- › Bittium Tactical Network Planner Tool: Debian 8 and Ubuntu 16.04 64-bit

### Material Parameters

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- › Supported formats for map material
  - › PNG / TIFF (Graphics)
  - › EU-DEM (Elevation model)
  - › GDAL (Map projection information)
  - › UTM (Data format)
  - › OSM (Open Street Map format)

### Network Traffic Overhead

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- › Can be controlled so that overhead to tactical network is minimal.