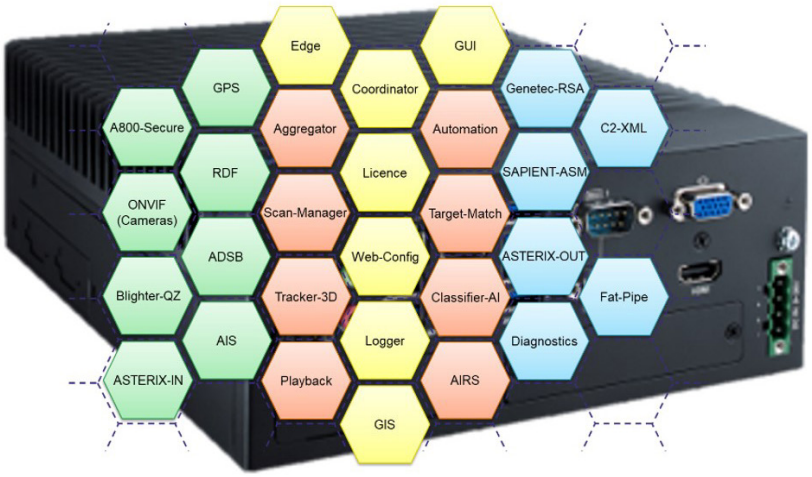
Blighter® BlighterNexus Hub



A typical BlighterNexus Hub configuration

- Multi-sensor connectivity, processing and C2 delivery platform
- Aggregates multiple Blighter radars into a single unified radar interface
- Integrated 3D tracker, Machine Learning target classifier and Automation functions
- Built-in zone creation with target filtering function
- Secure recording and timestamping of all sensor data
- Supports a variety of industry standard interfaces to C2 Systems

BlighterNexus Hub is a powerful computing platform pre-installed with the BlighterNexus software suite. It provides a simple and low-risk Smart-Radar interface between a Command and Control (C2) system and clusters of Blighter radars and other sensors.

To ensure wide applicability, it provides encrypted multi-sensor connectivity, data processing and C2 (Command and Control system) interfacing via a variety of industry standard interfaces.

The 'Smart-radar' interface simplifies the challenge of connecting C2 systems to groups of radars and other sensors and then configuring and managing them all. The primary interface for C2 systems is an XML based protocol and this allows maximum control and flexibility of the radar network. SAPIENT is a NATO compliant smart-sensor interface, while older C2 systems can rely on well established ASTERIX protocols. For C2 systems requiring large quantities of raw sensor data to support pattern-of-life type applications, BlighterNexus includes a 'Fat-Pipe' TCP/IP interface.

Many modern radar systems comprise groups of non-rotating panels each scanning 90° or 120° to provide 360° coverage Typically a C2 system will have to manage the 3 or 4 radar feeds individually. In 2D space that is simple, but in 3D space, target crossovers between panels can be complex to handle.

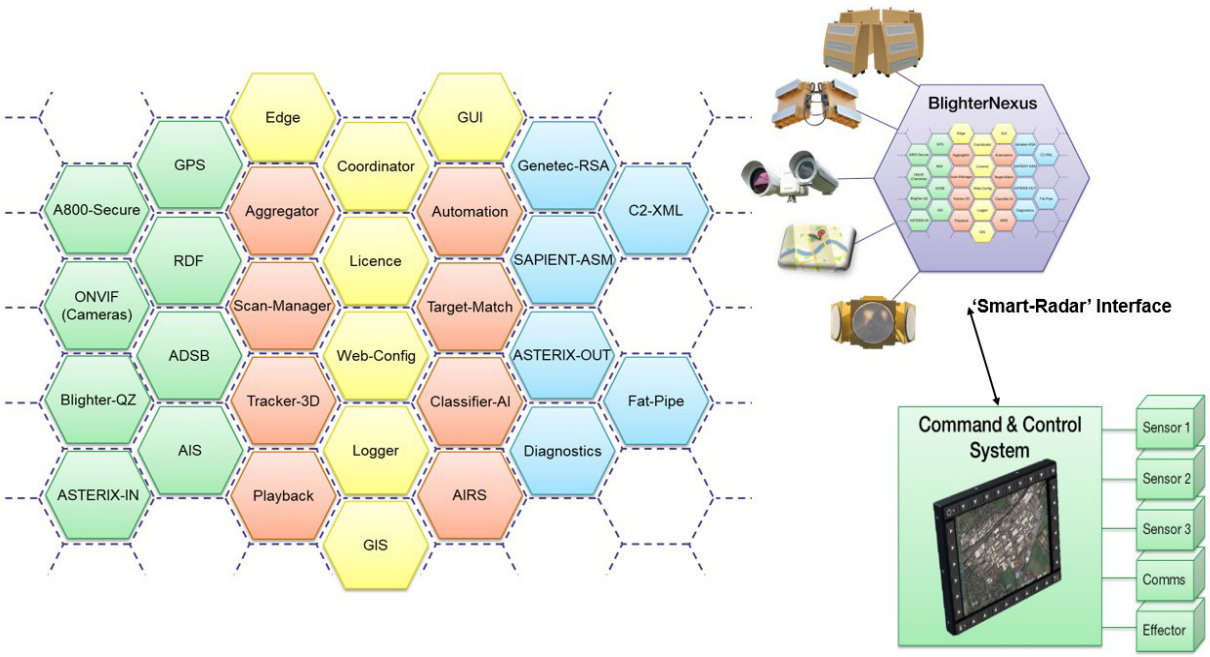
The aggregation module in BlighterNexus joins radar panels together to provide seamless target plots, tracks and ground clutter map within a single 360° radar feed.

To remove the need for advanced operator training, BlighterNexus includes a variety of modules that help to automatically configure the radar network. This includes the management of multiple radars within the network as well as automatically configuring some of the settings to achieve optimum system performance.

The entire BlighterNexus system, including the radars being managed by it, are accessed and configured through a single secure web-based portal, allowing either local or remote access depending on site requirements. The configuration controls can also be applied through the C2 interface.

The BlighterNexus Hub is supplied pre-installed with the BlighterNexus software application to ensure fast and trouble-free system integration. The BlighterNexus Hub is currently based on the Microsoft Windows operating system, with Linux based system on the roadmap.

Architecture



Specification

Hardware Overview:

- Computer Type: Intel i7 or higher
- Operating System: MS Windows 11
- Grade: Industrial Grade
- No. of Ethernet ports: minimum 4
- Ethernet compatibility: 10/100/1000baseT

C2 Interfaces Supported:

- XML
- ASTERIX Types 15, 62 and 65
- SAPIENT
- Genetec-RSA
- 'Fat-Pipe' TCP/IP stream

BlighterNexus Packages:

BlighterNexus Essentials Package, comprising Module Licenses for:

- C2-XML C2-Connector Module
- Coordinator Service Module
- GUI Service Module
- License Service Module
- Logger Service Module
- Scan-Manager Application Module
- Target Match Application Module

BlighterNexus BlighterRadar Sensor-Connector Module Licence:

- Provides secure control of a Blighter radar unit

BlighterNexus Aggregator Application Module Licence:

- Provides aggregation of up to four co-located radar feeds into a single, unified radar feed

BlighterNexus Tracker-3D Application Module Licence:

- Provides multi-hypothesis 3D target tracking capability

BlighterNexus Classifier Application Module Licence:,

- Provides on demand classification of targets through machine learning based target classifier

BlighterNexus is subject to continuous improvement and development, and therefore specifications and features described in this datasheet are liable to change. Please contact Blighter for updates about this product.

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