COGNITIVE RADAR
CORPORATION

COGNITIVE TRACKER™

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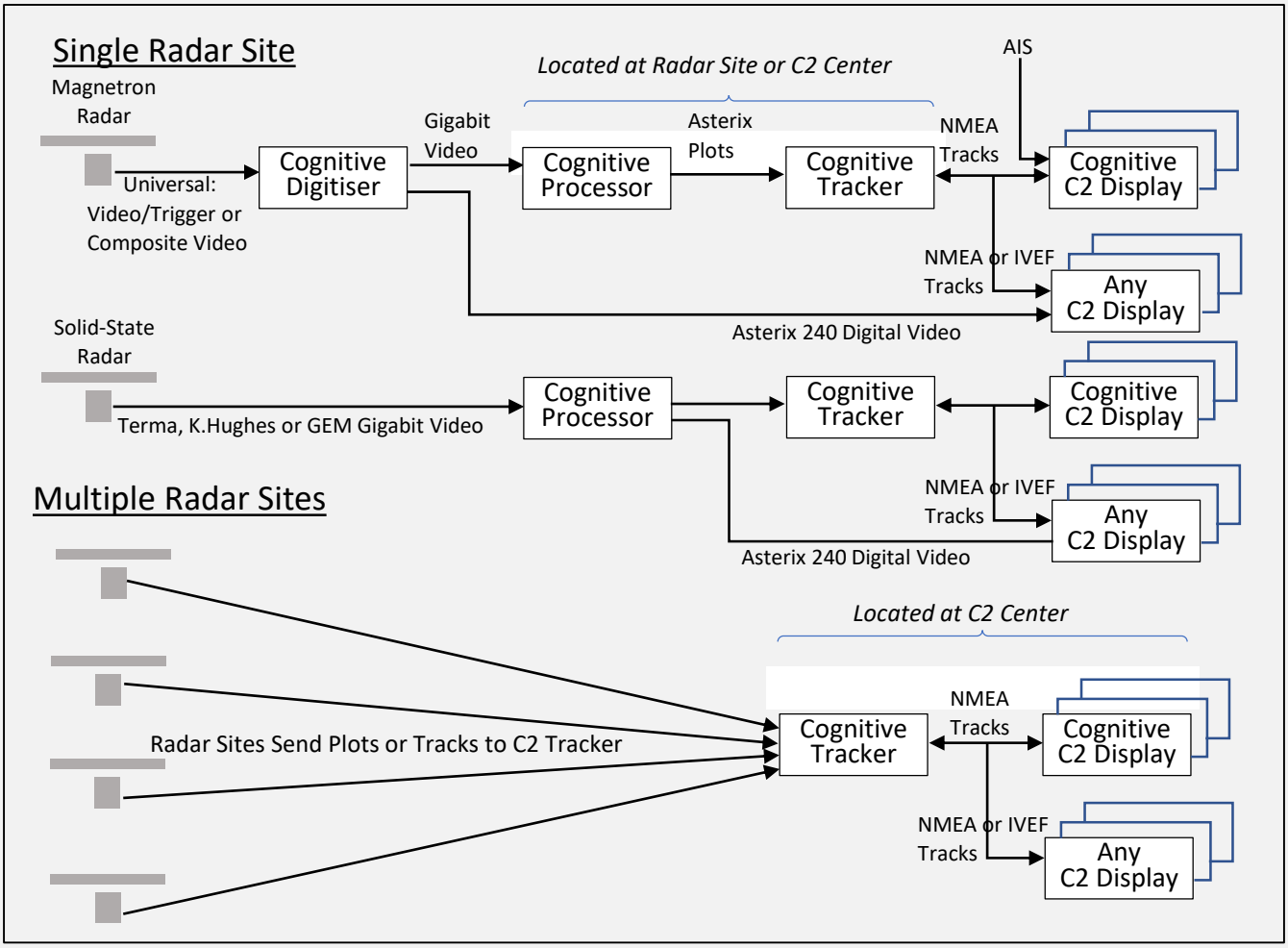
- Detects the smallest targets in rough seas and rain
- Connects to any magnetron or solid-state radar
- Cognitive Tracker™ installed at the radar site or at C2 Center
- Processes plots or tracks from multiple radar sites
- Meets shipboard environmental specifications: No fans or cooling required
- Standard Open-Source Interfaces:
  - Digital Video: ASTERIX CAT240
  - Plots: ASTERIX CAT48
  - Tracks: NMEA, ASTERIX CAT48 and IVEF



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Four modules for flexible low-cost installation:

1. **Cognitive Digitiser™** (for Magnetron Radars)
   - **Universal interface for all magnetron radars** - both video/trigger and composite video
2. **Cognitive Processor™**
   - **Controls Magnetron or Solid-State Radar** (incl. Terma, Kelvin Hughes and GEM)
   - **Radar Interference Rejection** - detects and rejects returns from other radars
   - **Land Masking** - hides land and other non-target areas
   - **Adaptive Clutter Mapping** – improves target detection in clutter
   - **Scan Averaging** - improves detection of small slow targets
   - **Ordered Statistic Detection** - maximises small target detection in rough seas
   - **Non-Target Plot Classifier** - wake, sidelobes, multipath and blockage artifacts
3. **Cognitive Tracker™**
   - **Automatic Track Initiation** - minimises false tracks in heavy clutter and in mapped areas
   - **Multiple Hypothesis Tracker (MHT)** –tracks when plots are missing and targets maneuvering
   - **Interacting Multiple Model (IMM) Track Filtering** - retains track on rapidly maneuvering targets
   - **Automatic Track Deletion** - where track quality and confidence are below limit
   - **Multi-Radar Track Association or Fusion**
   - **1000 Track Capacity**
4. **Cognitive Display™**
   - **Overlays Radar and AIS Tracks on Chart**. Multiple chart views on up to four monitors

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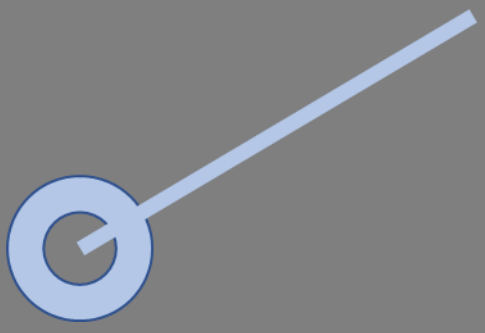

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