

Virtual Air Controller

Virtual Pilot and communication software is executed on a small, ruggedized computer.

Operating Principle: A preplanned mission created with a Graphics Mission Editor is loaded into the Virtual Air Controller (VAC) residing in either the UAS or on the ground. The VAC executes the mission using the Virtual Pilot Software. Communication between vehicles and the ground occurs via the PROTEUS® software using a mesh network environment.

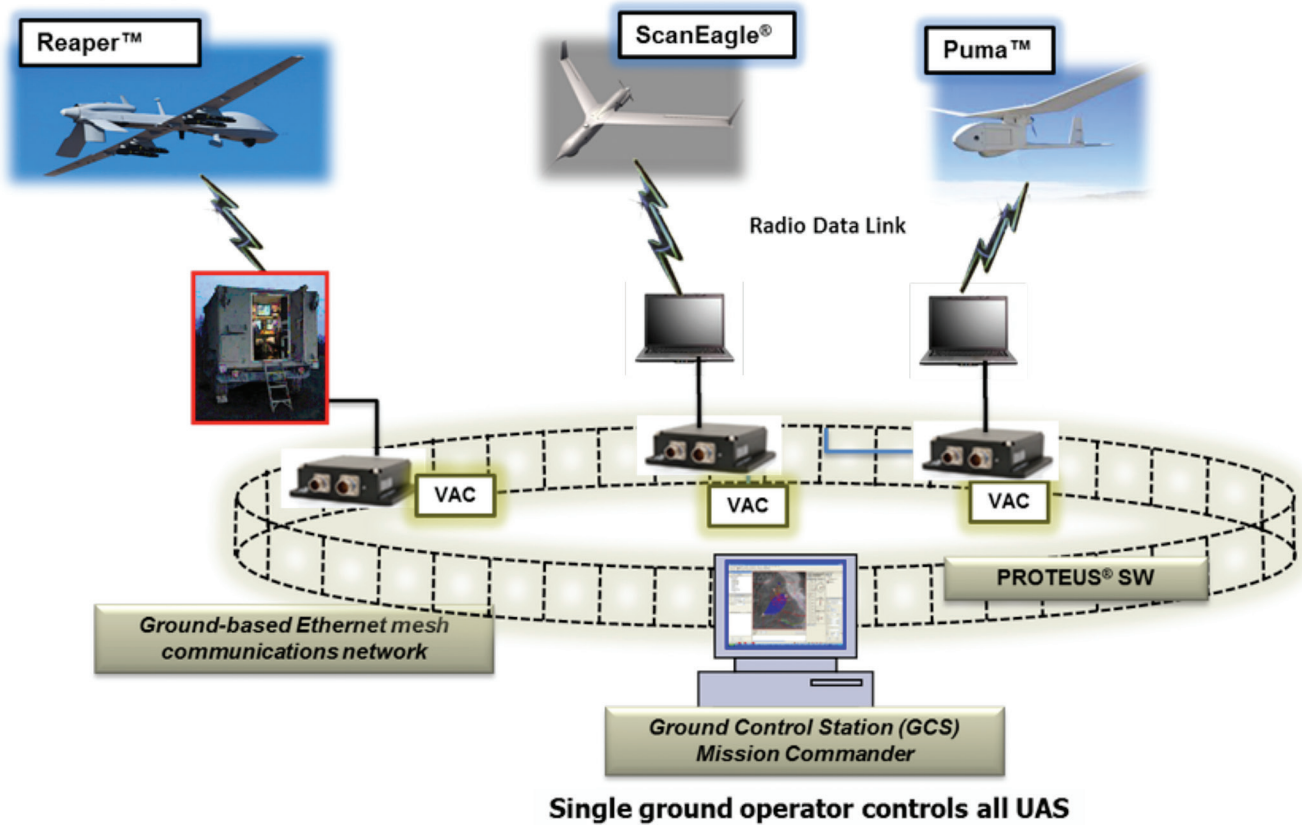
Operational Benefits:

- Minimizes the need for communication with the Commander on the ground through on-board intelligence
- Incorporates an intelligent agent into the vehicle
- Automatic updates of latest mission information from other vehicles
- Frees Operator to focus on high level mission control tasks
- Rules-based expert system that makes decisions and adapts to evolving mission dynamics
- Provides high level of autonomy and cooperation between vehicles
- Automatic reconnection when communication is intermittent
- Prime functions:
 - Autonomous control
 - Collaboration with other vehicles
 - Real-time navigation planning
 - Networked with Commander on ground and with other vehicles
 - Automatic terrain and collision avoidance
 - Fault mitigation

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VAC Implementation



Open Architecture Design supports “Open Architecture” standards allowing for easy integration into Command, Control, Communication and Intelligence (C3I) systems.

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