

Development of a Component- Based Framework using VSIPL++

HPEC

September 15-16 2010

Alan Ward
Systems Engineer



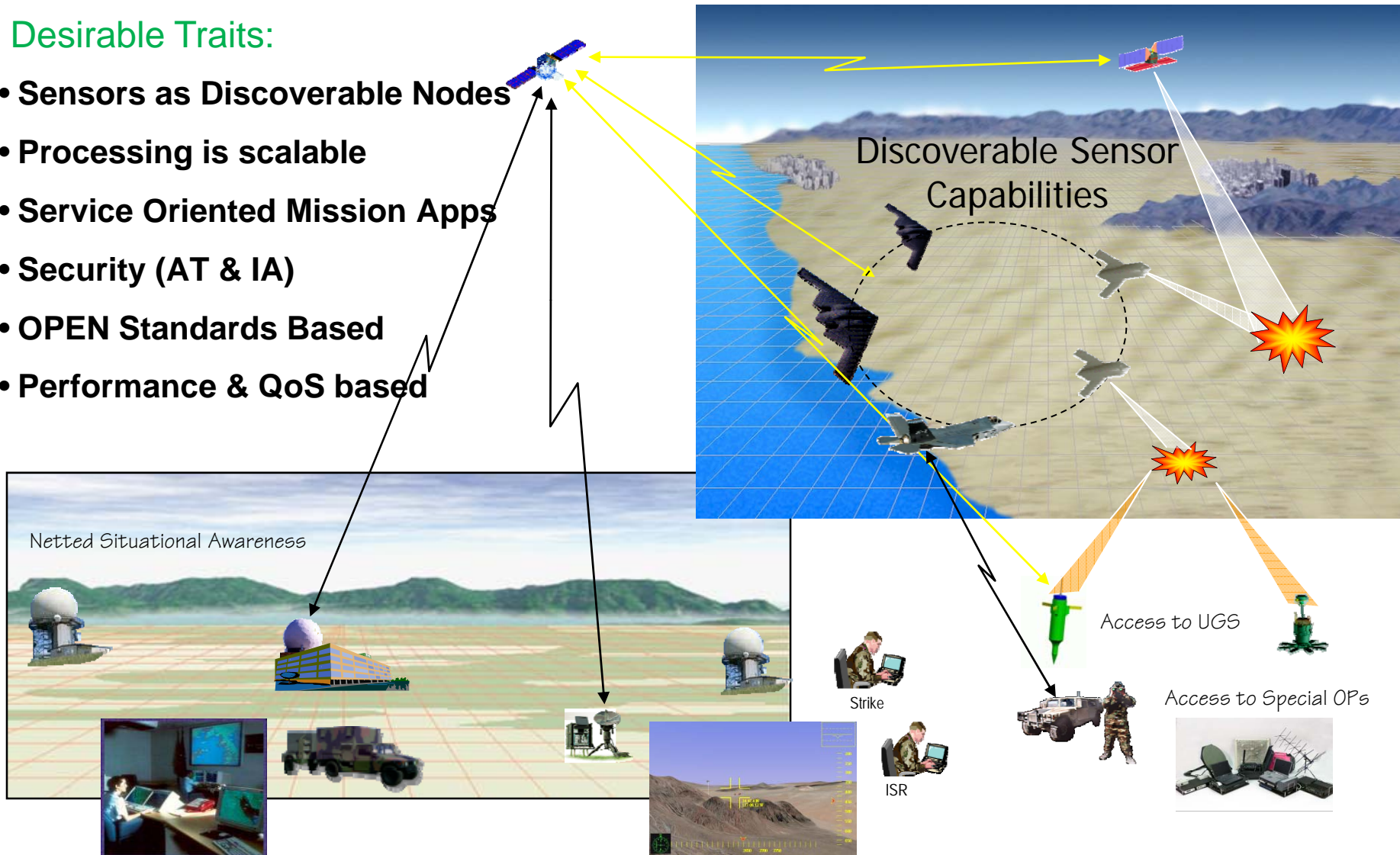
Our Data Sharing Challenge

Current State: Lots of Data, Little Sharing/Interoperability



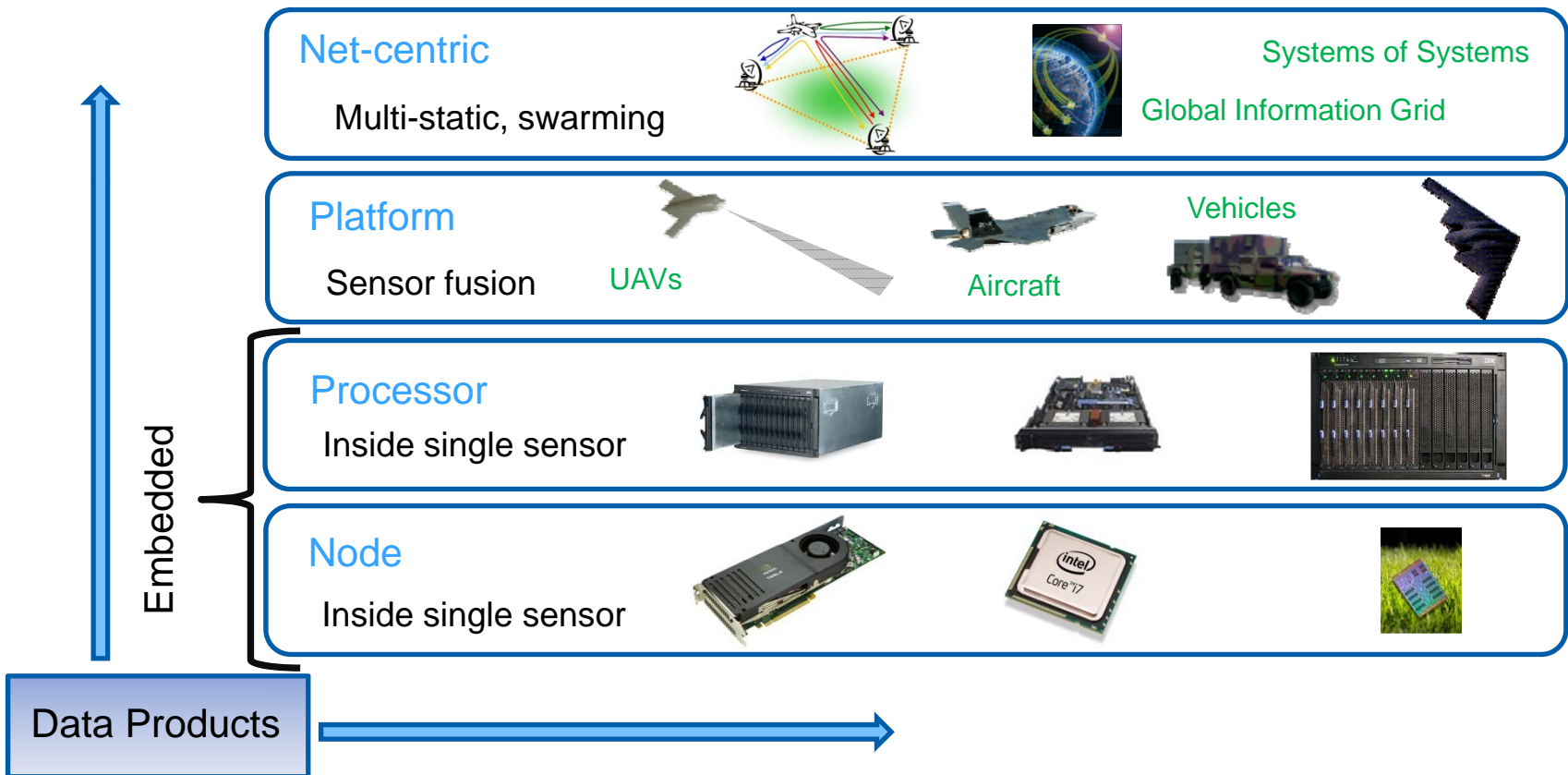
Desirable Traits:

- **Sensors as Discoverable Nodes**
- **Processing is scalable**
- **Service Oriented Mission Apps**
- **Security (AT & IA)**
- **OPEN Standards Based**
- **Performance & QoS based**



Data Sharing Between Solution Classes

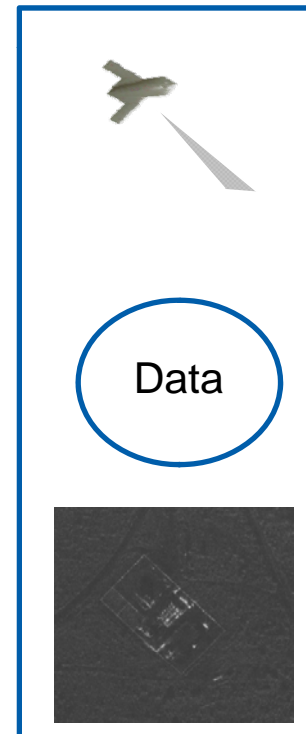
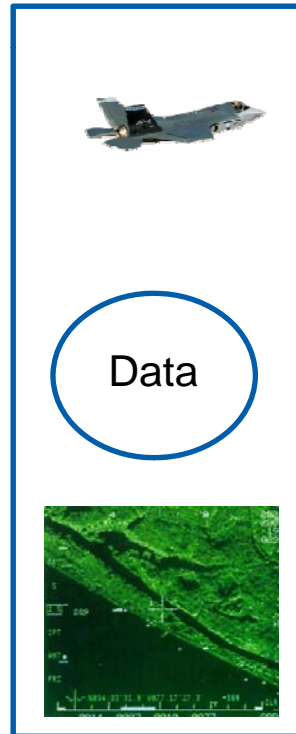
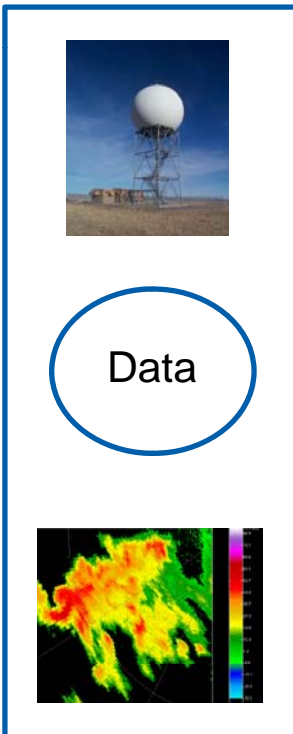
- Want to share data products both within and between different solution classes
- Requires data products to be represented in a standard and modularized format



We are creating an infrastructure to facilitate the transfer of data products between applications in the same and different Classes

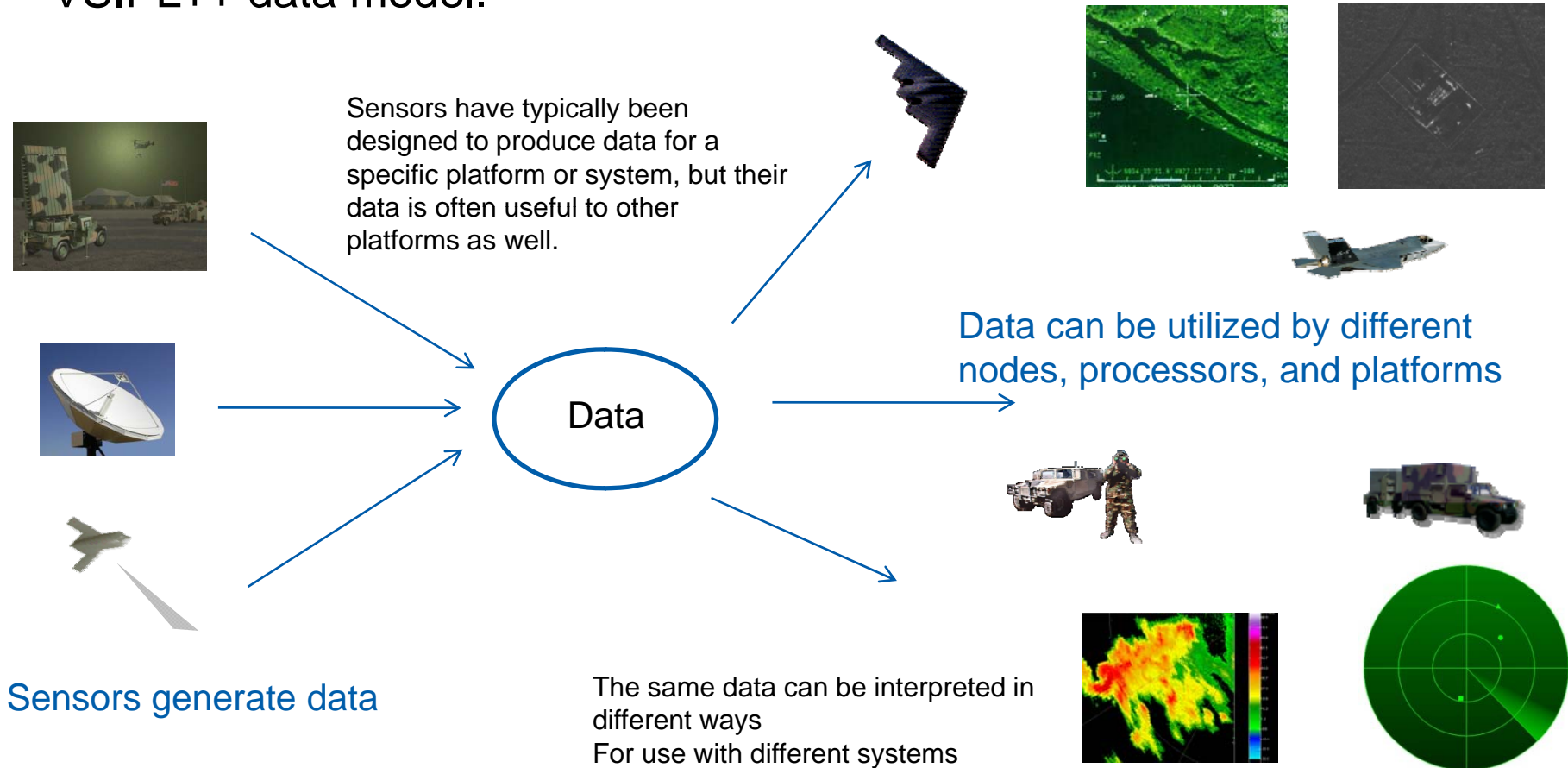
Legacy Design Pattern: Stove Pipes

- Sensors produce data in their own world – not shared with other platforms or systems.
- Leads to redundancy and waste in systems, inefficiencies, and increased cost and development time.



Enabling Data Distribution and Interoperability

- The data products in the embedded space are defined using the VSIPL++ data model.



Come see our poster for details!

NORTHROP GRUMMAN

