

Operational Considerations & Interoperability for NFN

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Where and How will we fight wars in the future?

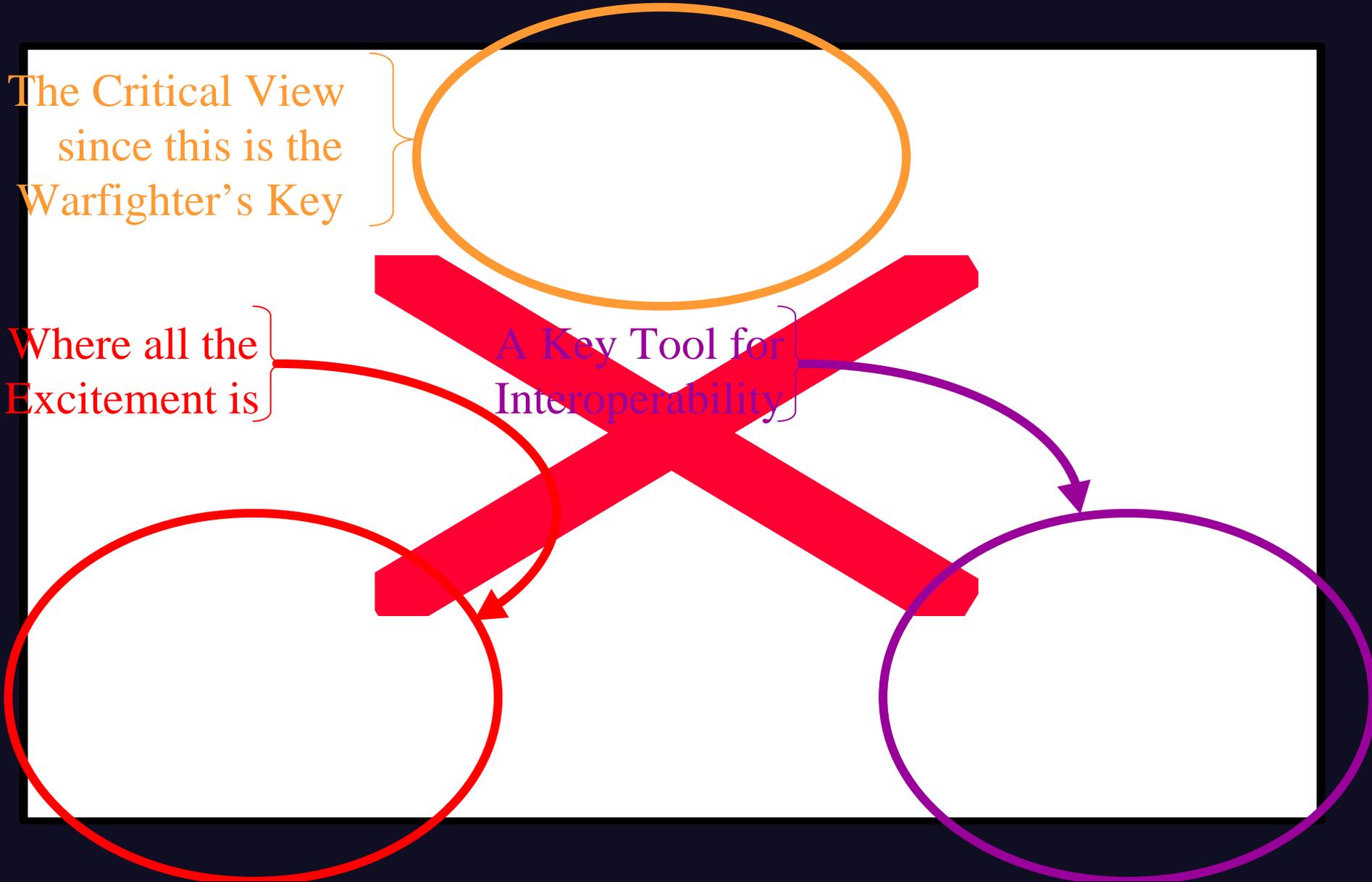
- Where? - Scenarios:
 - Vietnam
 - Desert Storm
 - Kosovo
 - Afghanistan
- How?
 - Release Authority at 4 star and above
 - Navy as JFMCC Afloat
 - Afghanistan example
- These are Critical Operational Issues beyond our Pay Grade
 - However: It matters
 - The cost of flexibility to do certain things must be weighed against the expense
- Why these matter

The DoD Architecture Framework

The Critical View
since this is the
Warfighter's Key

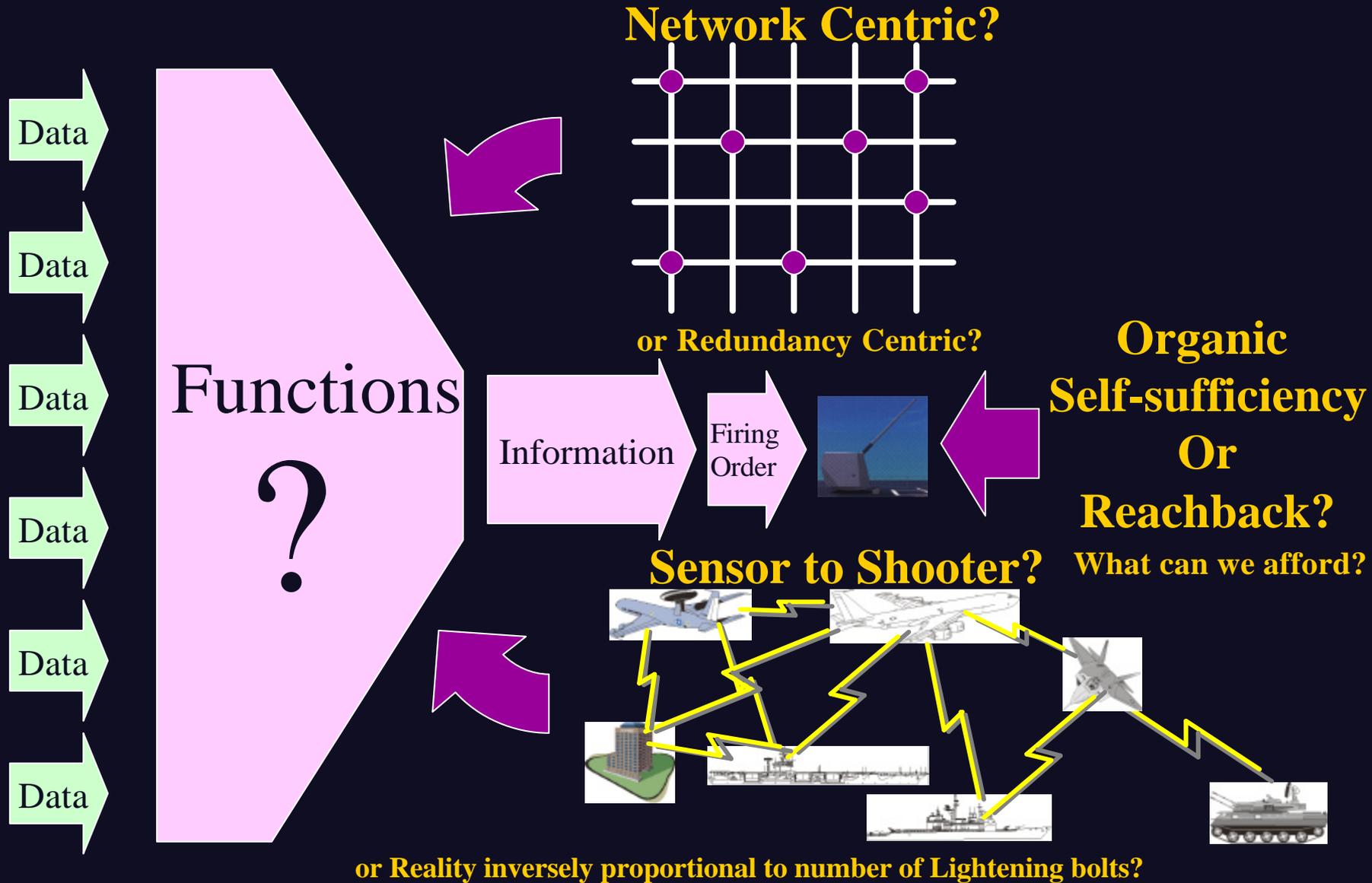
Where all the
Excitement is

A Key Tool for
Interoperability



Looking at Operational Issues:

BAE SYSTEMS



How we are going to Fight?

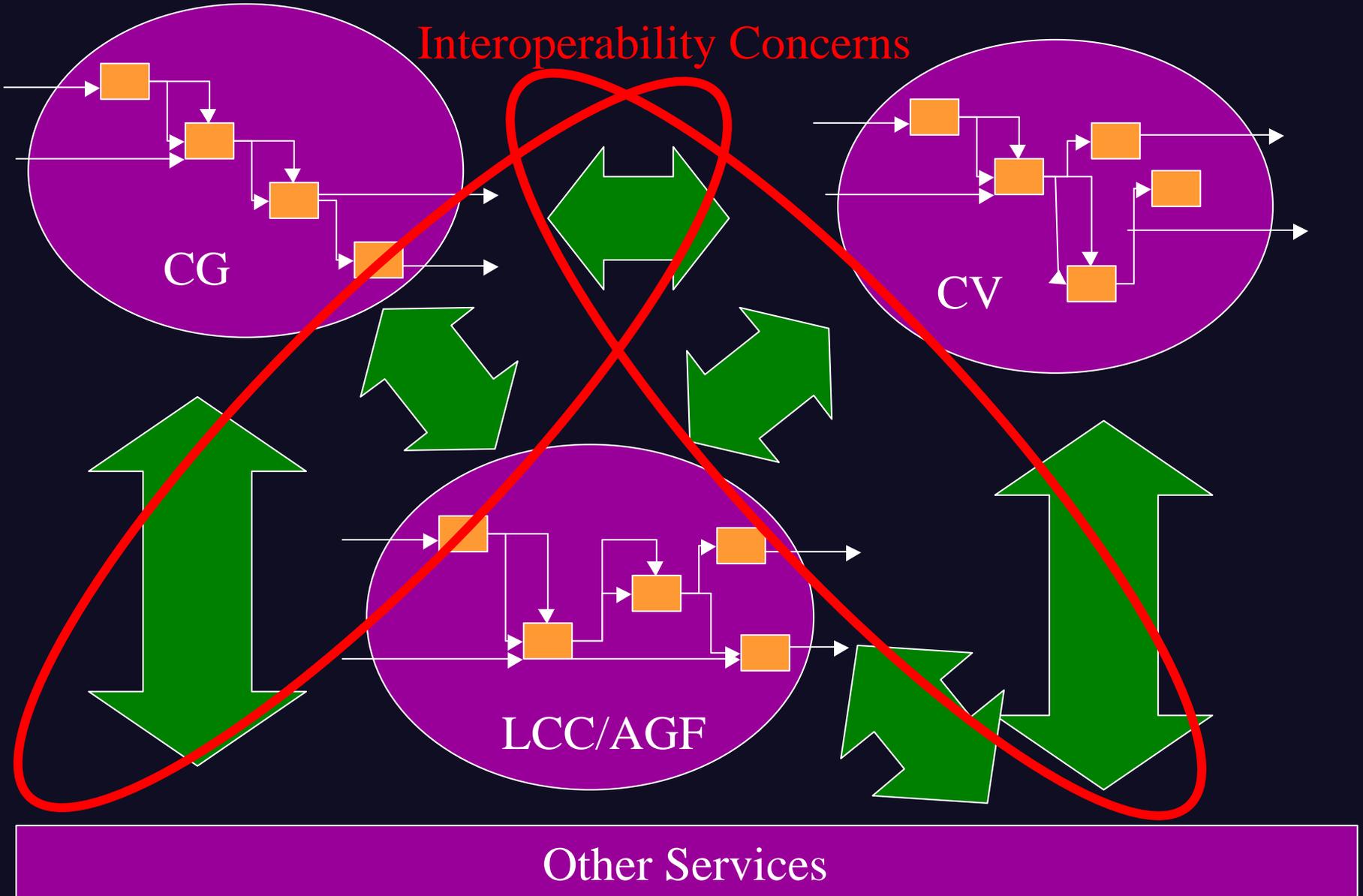
The Operational View drives the Architecture

- Examples of Options
 - Full JFACC aboard
 - TST Cell Aboard
 - Execution Cell Aboard
- Each approach has different functions/activities
 - Different manning and training
 - Different comms
 - Different Systems
- There are underlying functions that must be performed
 - 6 Step Targeting Process (JP3-09/JP3-60)
 - 5 Step ISR Support to Targeting (JP2-01.1)
 - The key question is **WHERE** since this drives the architecture

Complex Functions with more interfaces

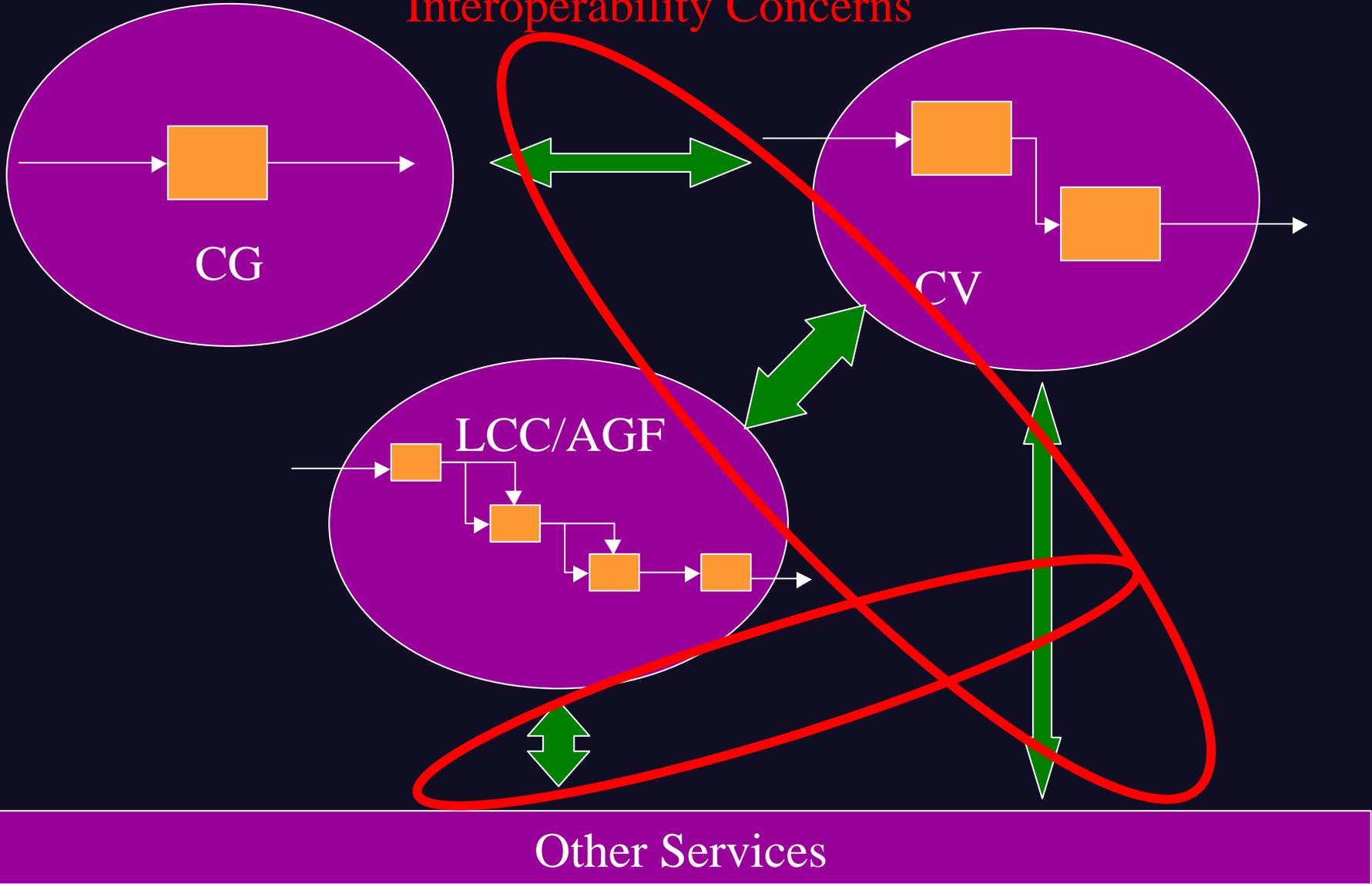
BAE SYSTEMS

Interoperability Concerns

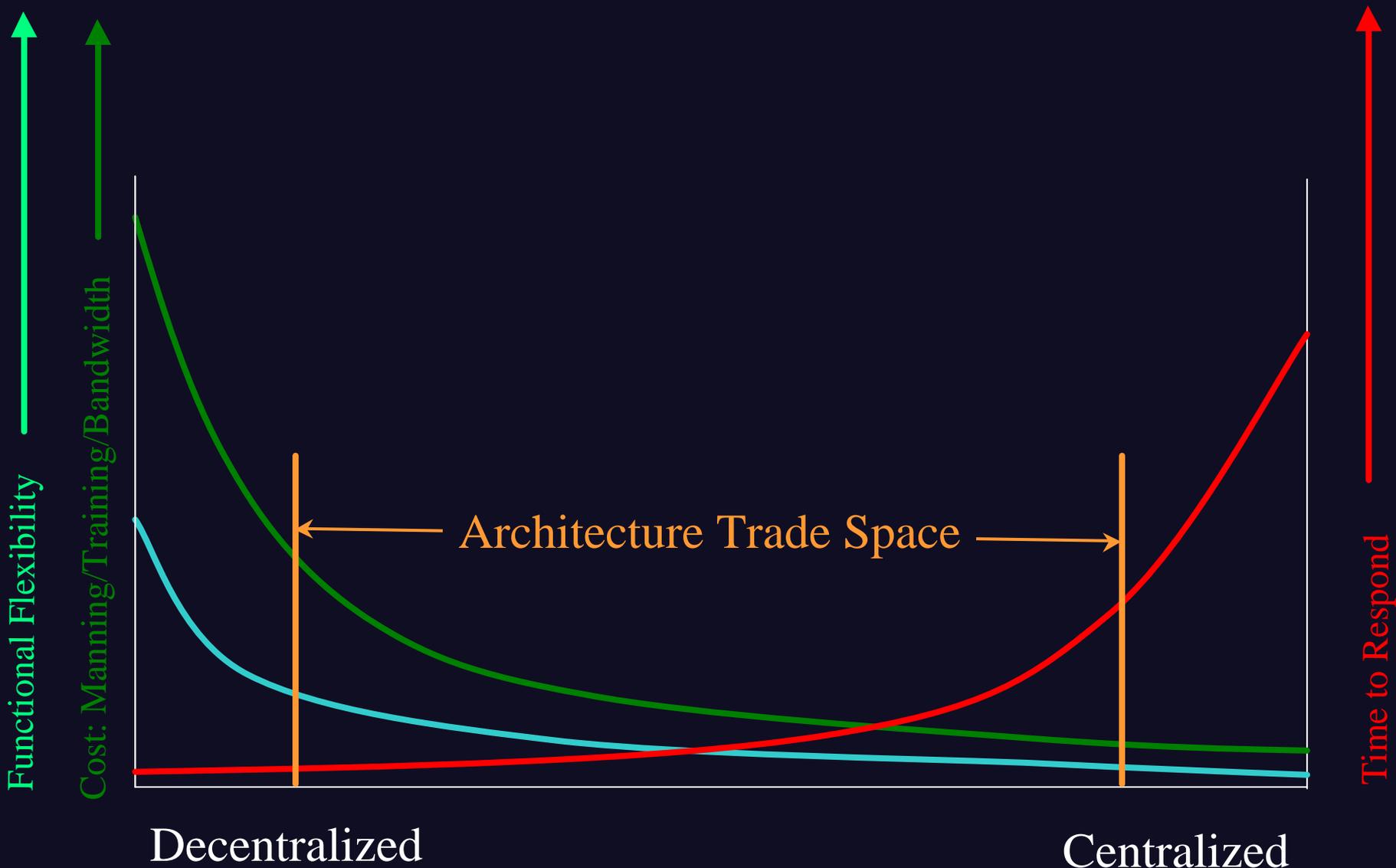


Simpler Functions with fewer interfaces

Interoperability Concerns



Considering the Possibilities: Architectures



The Architecture Trade

- What is the range of operations that should be supported?
 - For the fleet to decide limits
- Cost per function then to be considered (High Level Systems/Technical Views)
 - Manning/Training
 - Infrastructure: Communications
 - Interoperability
- Finally Detailed Systems View
 - New vs Evolution
 - Impact
 - interoperability

Key Operational Considerations

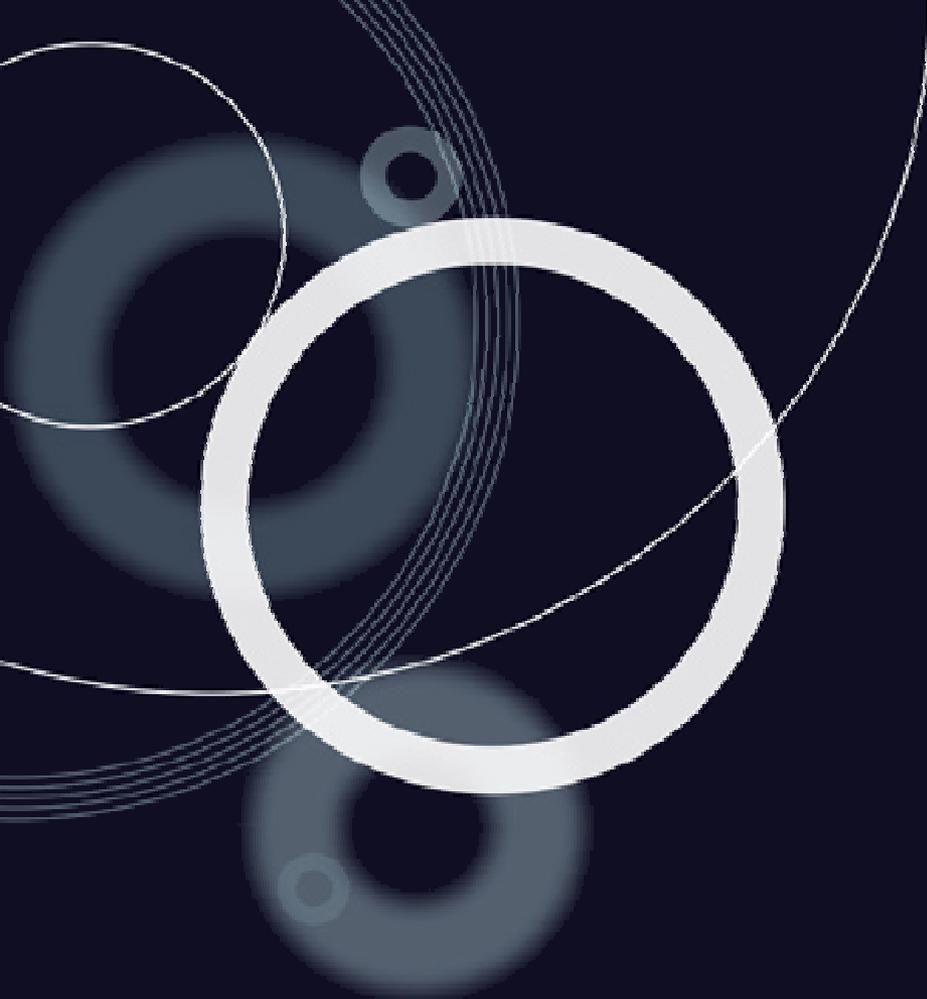
- TCS as a Strike Subset and IPB/ISR Plan/ Prepositioned Data
 - TCS is NOT a separate process but more data must be pre-positioned to support TCS than normal strike
 - AND it is not just ISR/IPB
- 4-D Deconfliction
 - The concept of crossing and controlling weapons across multiple AORs is daunting
- Command & Control Issues and TCS Cell Location
 - Release authority location and associated functionality is a complex operational problem
 - Network trends have had an adverse effect on lowering the release authority
- TCS Timeline Start & End
 - What is in and out for functionality has a profound effect on who, how and what systems are needed
- Screening
 - The Amount of data to be looked at can be massive and require many more resources than we imagine

Key Operational vs Interoperability Considerations

- TCS as a Strike Subset and IPB/ISR Plan/ Prepositioned Data
 - The ability to share “production data” from other locations/services will go a long way toward making this possible
- 4-D Deconfliction
 - The ability for everyone to effectively understand a “Single Integrated Picture” would resolve many of the worst TST issues.
- Command & Control Issues and TCS Cell Location
 - Coming to grips with this problem will have a large impact on what functions are performed at what locations by what personnel
 - This is a major driver of Interoperability needs
- TCS Timeline Start & End
 - Earlier and Later start times start to impact interaction with other locations and services
 - This expansion of the process will drive additional Interoperability considerations
- Screening
 - If this problem is be addressed remotely with a larger resource pool, interoperability enters as a consideration in information (not data) distribution

Summary

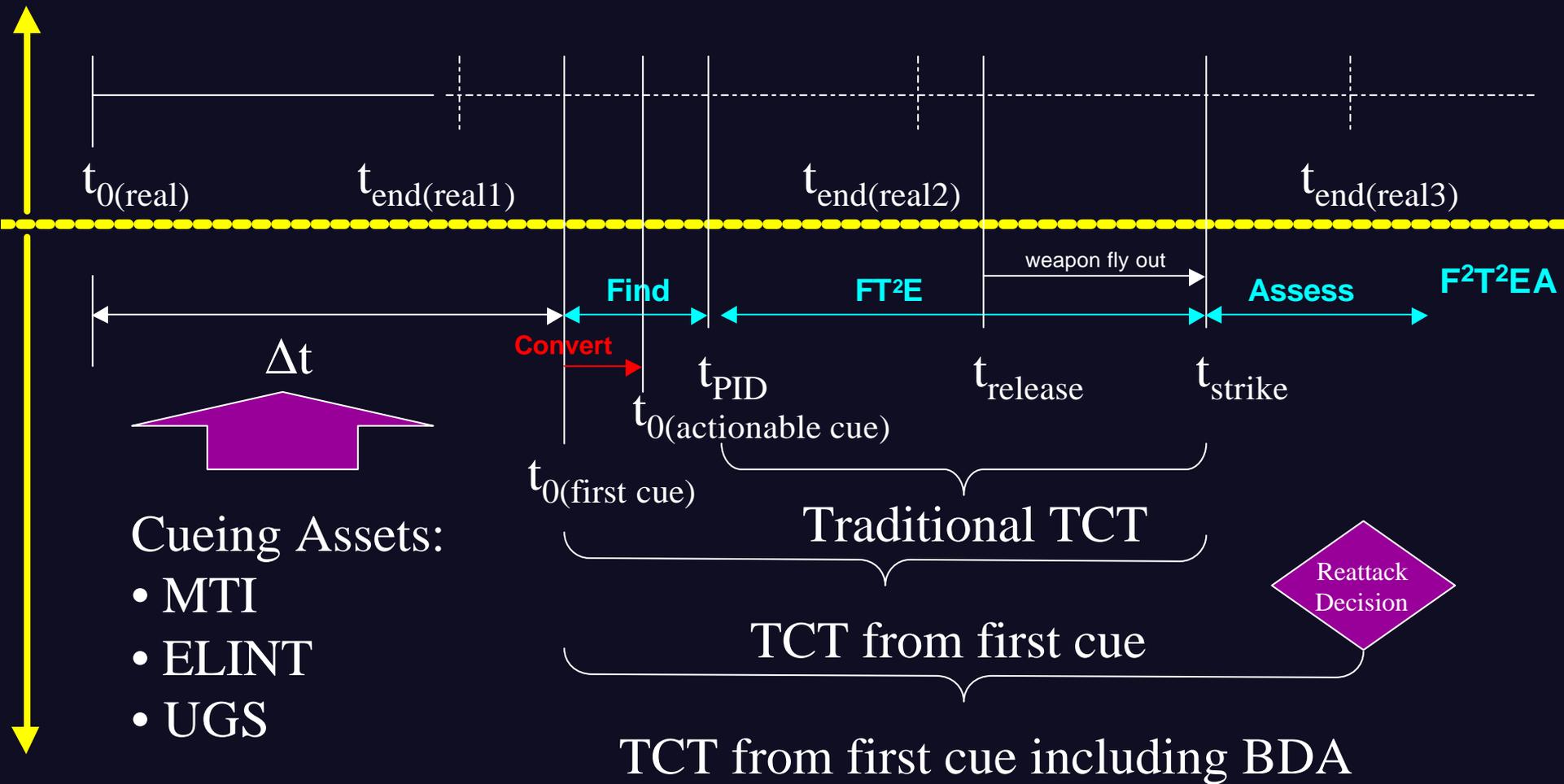
- Looking at Technical Views and Interoperability without understanding the Operational View can be Premature
- We need to understand how we are going to fight:
 - Where
 - Who
 - How
- With Functionality Parsed, we can more realistically assess our Interoperability Needs

An abstract graphic on the left side of the slide features several overlapping circles and arcs. A prominent white circle is in the center, with other circles in shades of light blue and white around it. Thin white lines and arcs intersect the circles, creating a complex, layered geometric pattern.

Backup Slides

First Cue - some of the problems

Beyond our Control (enemy timeline)



Within our Control (our timeline)