

Agile, Multi-Domain C2 with Imperfect Partners

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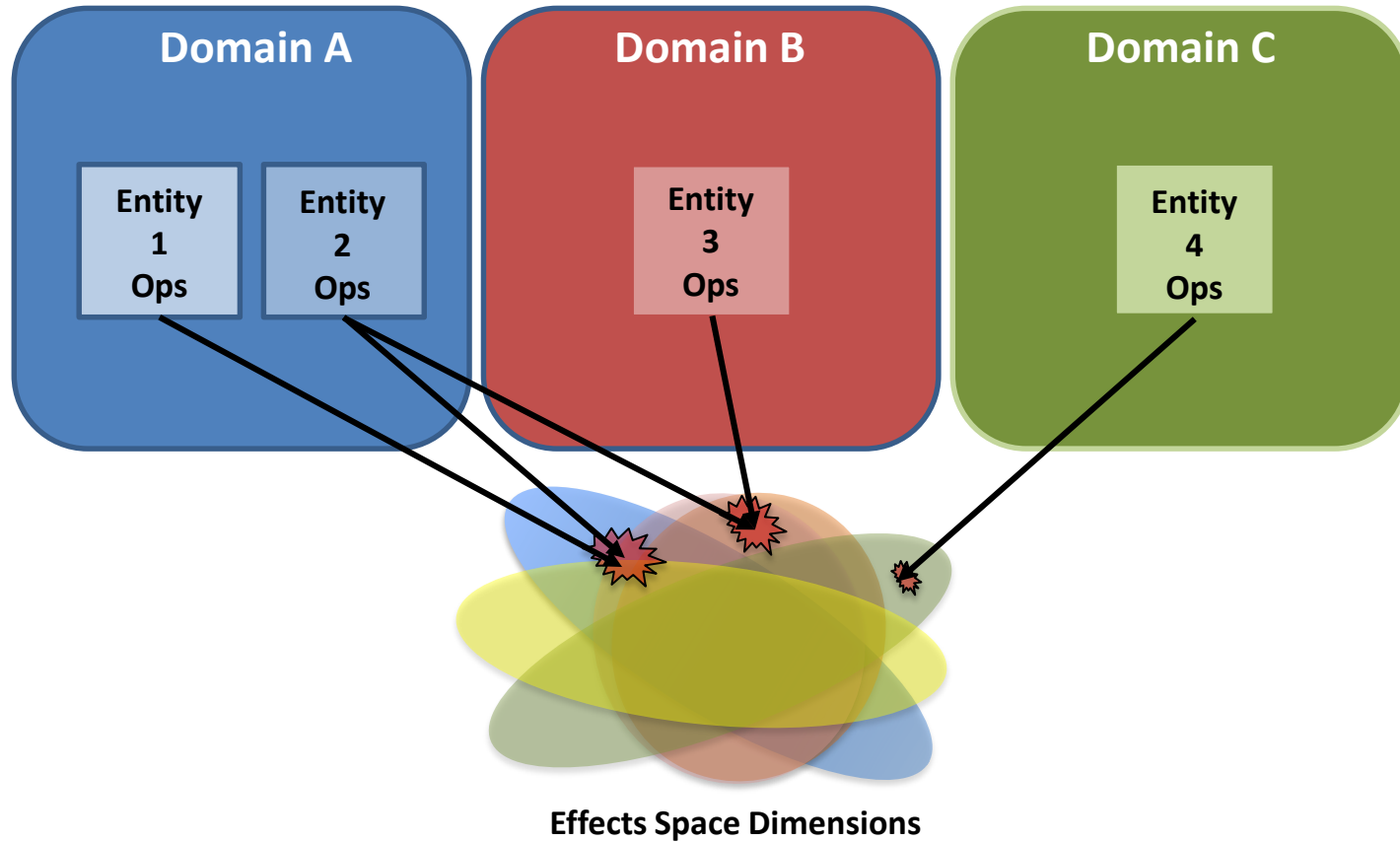
Motivation

- 21st Century Multi-Domain Operations involves sets of heterogeneous mission partners
- Success will depend upon the ability of partners to work effectively and efficiently together
- Given the dynamics of these missions and the domains in which they take place, the ability to manifest agility will also be critical
- Included in the set of partners will be those with whom militaries have not traditionally worked well in the past.
- Understanding what makes a partner “imperfect” and how to work with imperfect partners is a prerequisite for success in 21st Century MDO

MDO C2-H

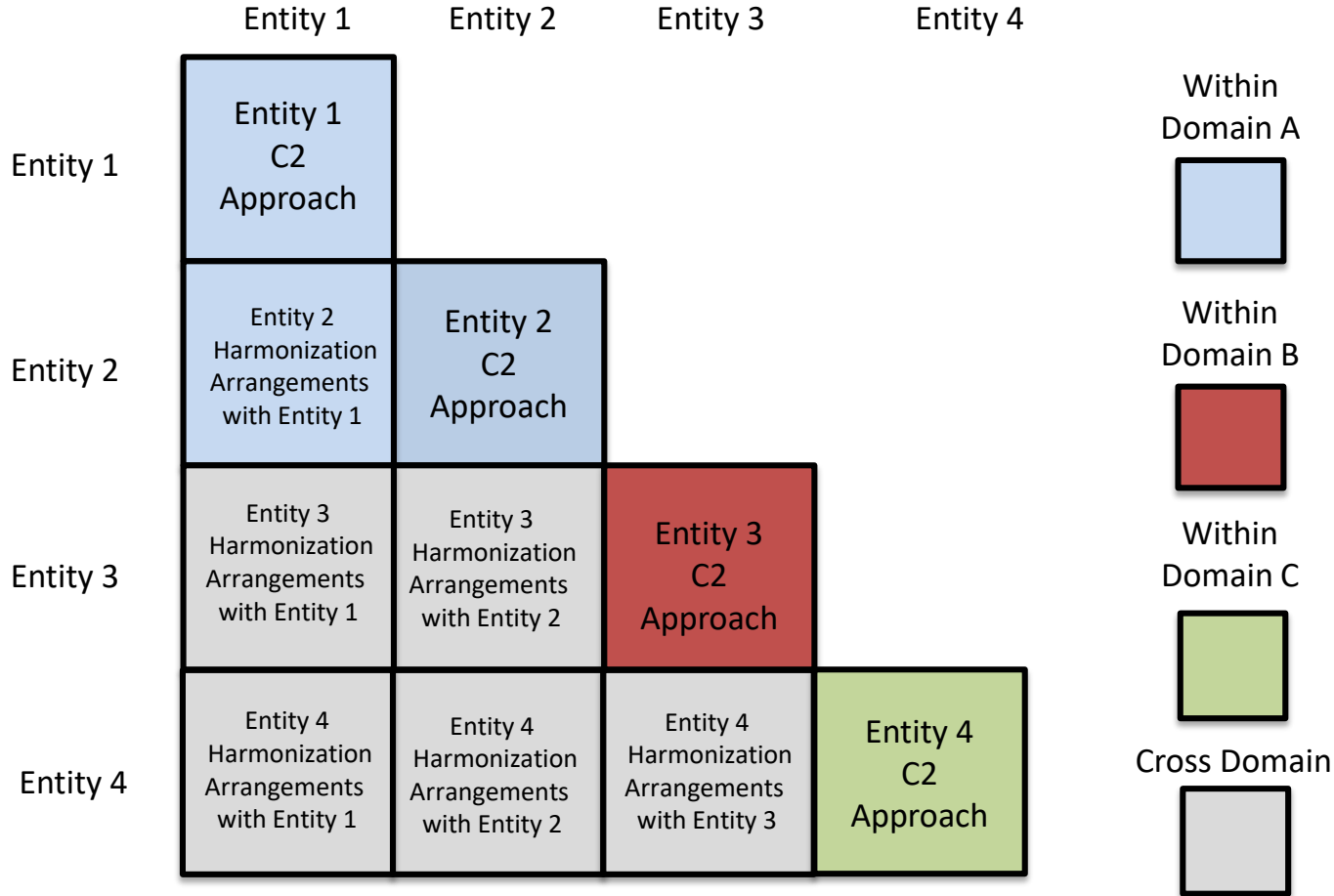
- A term better suited to describing working arrangements between entities where a chain of command does not exist or apply is Harmonization
- SAS-143, a NATO Research Group focused on MDC2, has adopted the term MDC2–H to refer to the full set of working arrangements between and among MDO mission partners
- MDC2-H seeks to avoid conflicts and enable synergies within, between, and among entities conducting operations within and across multiple domains and synchronize the effects these operations create
- A MDC2-H Approach consists of both entity domain C2- Management approaches and the harmonization arrangements between and among the entities within and cross domains

Three Domain MDO with 4 Entities
Operating in 3 Operational Domains
with some Effects Space Interdependencies



MDC2 Approach with 4 Entities Operating in 3 Domains

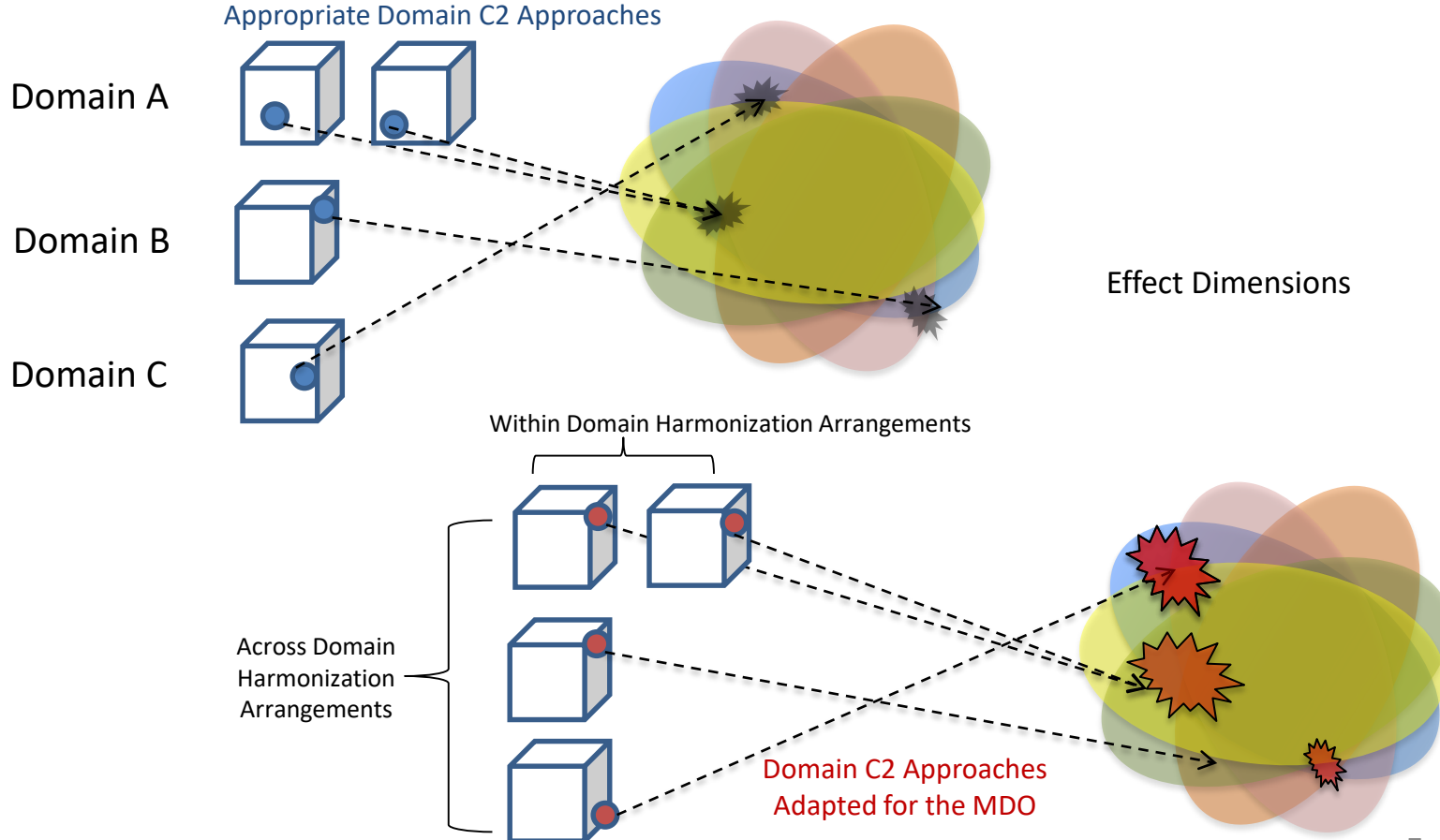
With Symmetrical Cross Domain C2 Arrangements



MDO and Imperfect Partners

- MDC2 relationships are driven by the nature of the dependencies between and among domain operations and/or the effects that these operations create
- Cost of partnering is the impact of the constraints imposed on entity operations by a need to work together
- From a C2 perspective, the major costs are 1) a need to adopt a different approach to C2, or in the case of civilian organizations, management, and 2) the added effort to work with others.

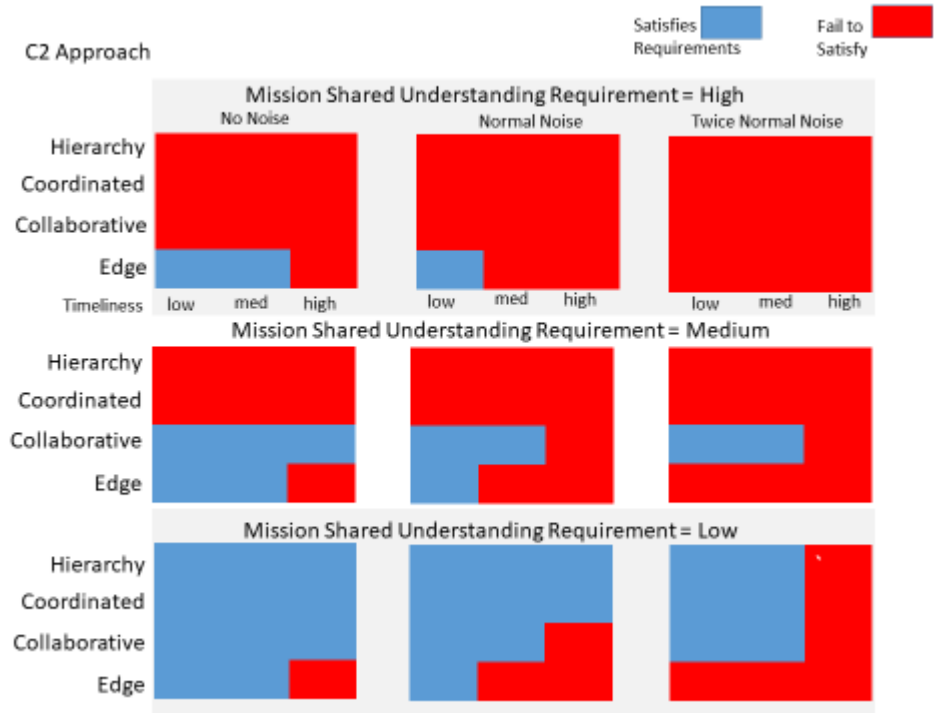
Domain v. Multi-Domain C2



Selecting a C2 Approach

illustrative

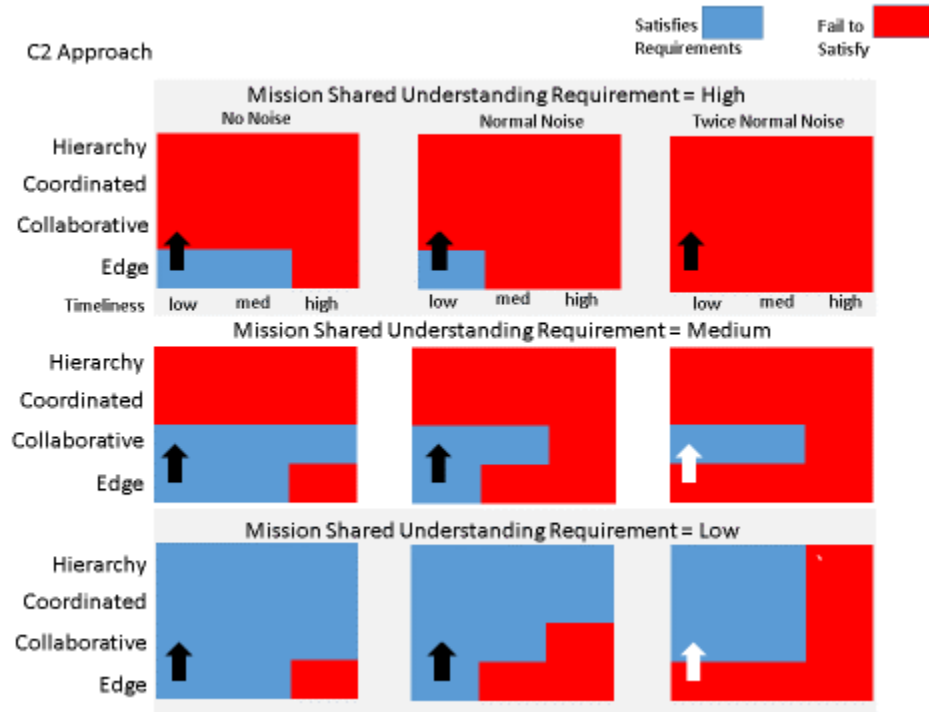
- Participating in an MDO when domain operations are not independent requires a level of shared awareness.
- In this example, the appropriateness of C2 Approach is a function of
 - level of shared understanding required by the MDO
 - timeliness required by the MDO
 - 'noise' in the information



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illustrative

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The arrows depict the impact of changing an entity's domain C2 Approach

Imperfect Partners

- There are many other factors that can impact the ability of partners to work together (aside from their ability to adopt a given C2 approach). Among these are the following capabilities:
 - Communications (express ideas and explain them)
 - Trustworthiness (honest, dependable)
 - Empathy (understand and respect another's perspective)
 - Patience with others (keep calm)
- These apply to human and non-human partners

Summary

- Partnering, particularly with those operating in different domains has become an essential 'skill'
- From a MDC2-H perspective, 'perfect' partners do not constraint the other entity's adoption of a domain C2 Approach and can adopt a harmonization arrangement that do not require another entity to incur significant costs
- In dynamic situations, 'perfect' partners do not adversely impact the ability of others to manifest agility.