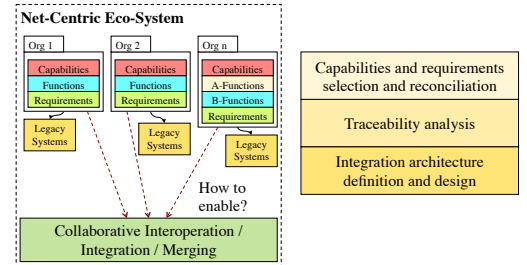


# Requirements Management for Net-Centric Enterprises: An Overview

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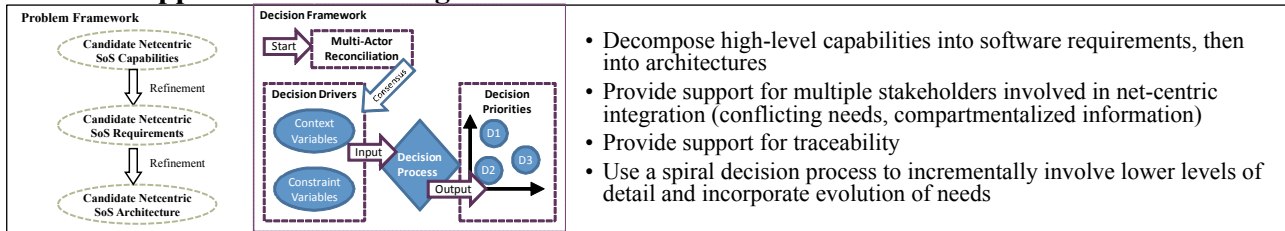
## Background: Problem Statement

- Net-centric enterprises engage semi-autonomous business units, each with its own goals and methods for characterizing “requirements”
- These units often need to collaborate using common IT systems, involving integration or merging
- Missions and unit needs evolve over time
- Legacy systems exist and must be addressed
- How should capabilities and requirements be managed?



**Our goal: Specify a methodological framework for requirements management, identify candidate Methods, Processes and Tools (MPTs), and use case studies to aid in solution development and value articulation**

## Solution Approach: Methodological Framework



## Solution Details: MPTs, Case Studies and Validation

<p><b>Methods, Processes and Tools (generic systems/software)</b></p> <ul style="list-style-type: none"> <li>• <b>Win-Win</b> – MPT for negotiating and resolving multi-stakeholder conflicts regarding IT requirements</li> <li>• <b>System-of-systems toolkit</b> – MPTs for going from capabilities to requirements</li> <li>• <b>Adopt-and-Go</b> – MPT for selecting one system from among multiple</li> <li>• <b>CBSP</b> – MPT for deriving architecture design decisions from IT requirements</li> <li>• <b>COSYSMO for SoS</b> – MPT for estimating cost of software-intensive system-of-systems given size factors and cost parameters</li> </ul>	<p><b>MPT Mapping To Problems</b></p> <p>Next step: Use case studies to adapt MPTs and integrated solution to net-centric domain</p>
<p><b>Case Study Analogy Approach</b></p> <ul style="list-style-type: none"> <li>• Apply the methodology/MPTs: <ul style="list-style-type: none"> <li>Identify issues/challenges</li> <li>Determine MPT adaptations</li> <li>Evaluate methodology</li> </ul> </li> <li>• Expected outputs: <ul style="list-style-type: none"> <li>Manual/tutorial</li> <li>Other research problems</li> </ul> </li> </ul> <ul style="list-style-type: none"> <li>• <b>Regional area crisis response</b></li> <li>• <b>Mergers (HP-Compaq)</b></li> <li>• <b>Back-office IT integration (ISP)</b></li> <li>• <b>Health IT</b></li> </ul>	<p><b>Validation Goals and Approach</b></p> <ul style="list-style-type: none"> <li>• Determine capabilities and gaps with respect to managing requirements IT integration efforts in net-centric-like environments</li> <li>• Determine extent to which our methods and tools address gaps</li> <li>• Determine specific reactions and insights <ul style="list-style-type: none"> <li>Enterprise systems integration</li> <li>Health IT integration</li> </ul> </li> <li>• Surveys and interviews <ul style="list-style-type: none"> <li>Developed generic instrument</li> </ul> </li> <li>• Walk-throughs and usage</li> </ul>

## Conclusions

- Methodology/MPTs
  - Specified generic solution framework
  - Identified candidate MPTs
- Case studies and validation
  - Case studies to adapt MPTs to net-centric domain and demonstrate solution value
  - Validation with third-party systems integrators to identify gaps and independently demonstrate solution value

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## References

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