Building A Knowledge Base of IEEE/EIA 12207 And CMMI With Ontology

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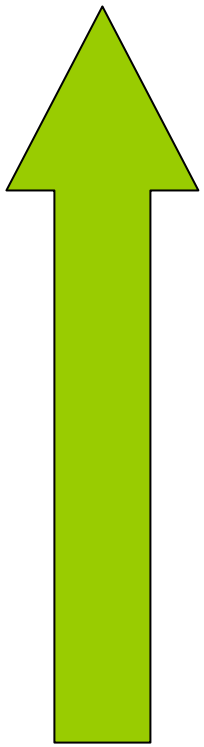
outline

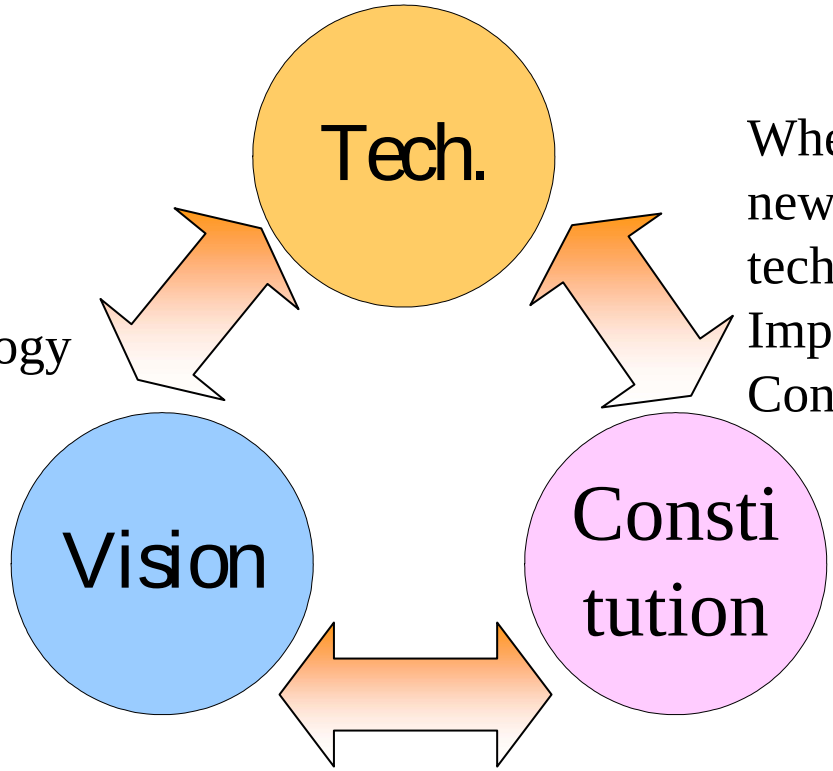
- Motivation
- Approach
- CMMI
- IEEE/EIA12207
- Integration of CMMI & IEEE/EIA 12207
- Conclusion and future work

Motivation



Whether the new technology

help the organization make proper vision

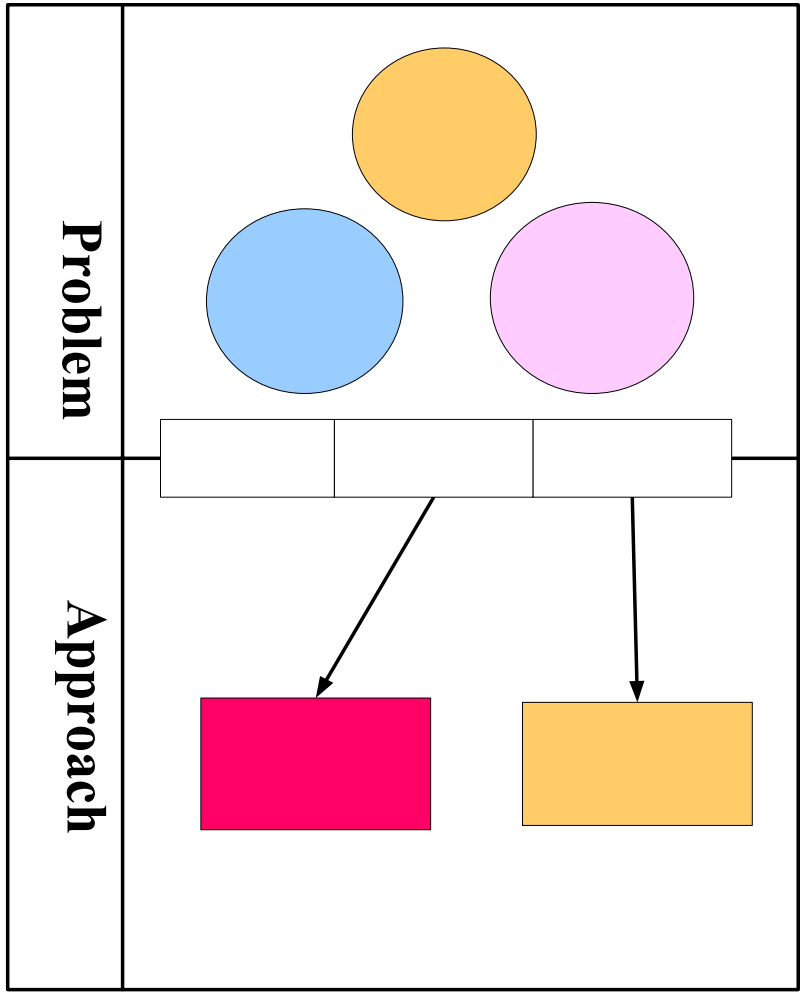


Whether the new technology Improve the Constitution

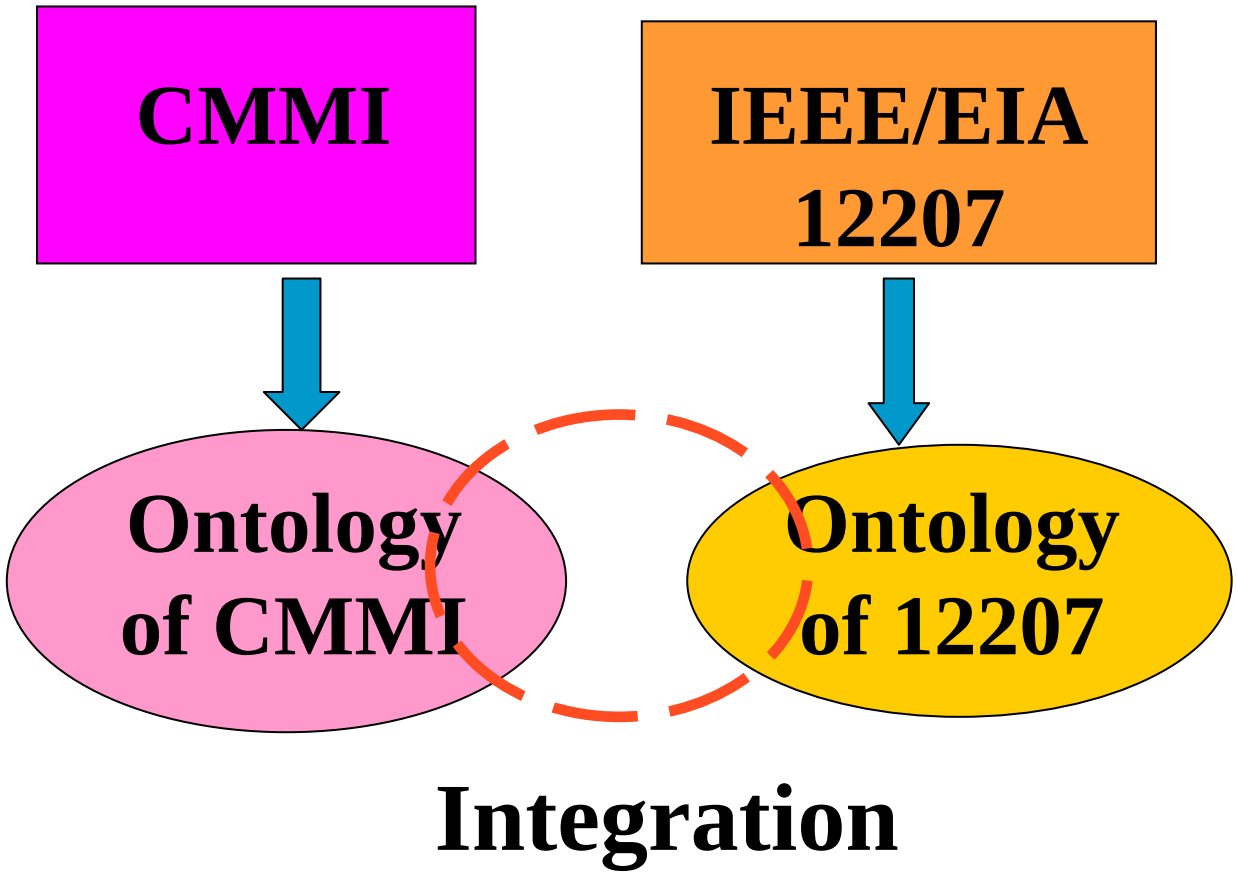
Competitive Advantage

- Whether the vision of organization improve the constitution
- How to measure the degree of constitution

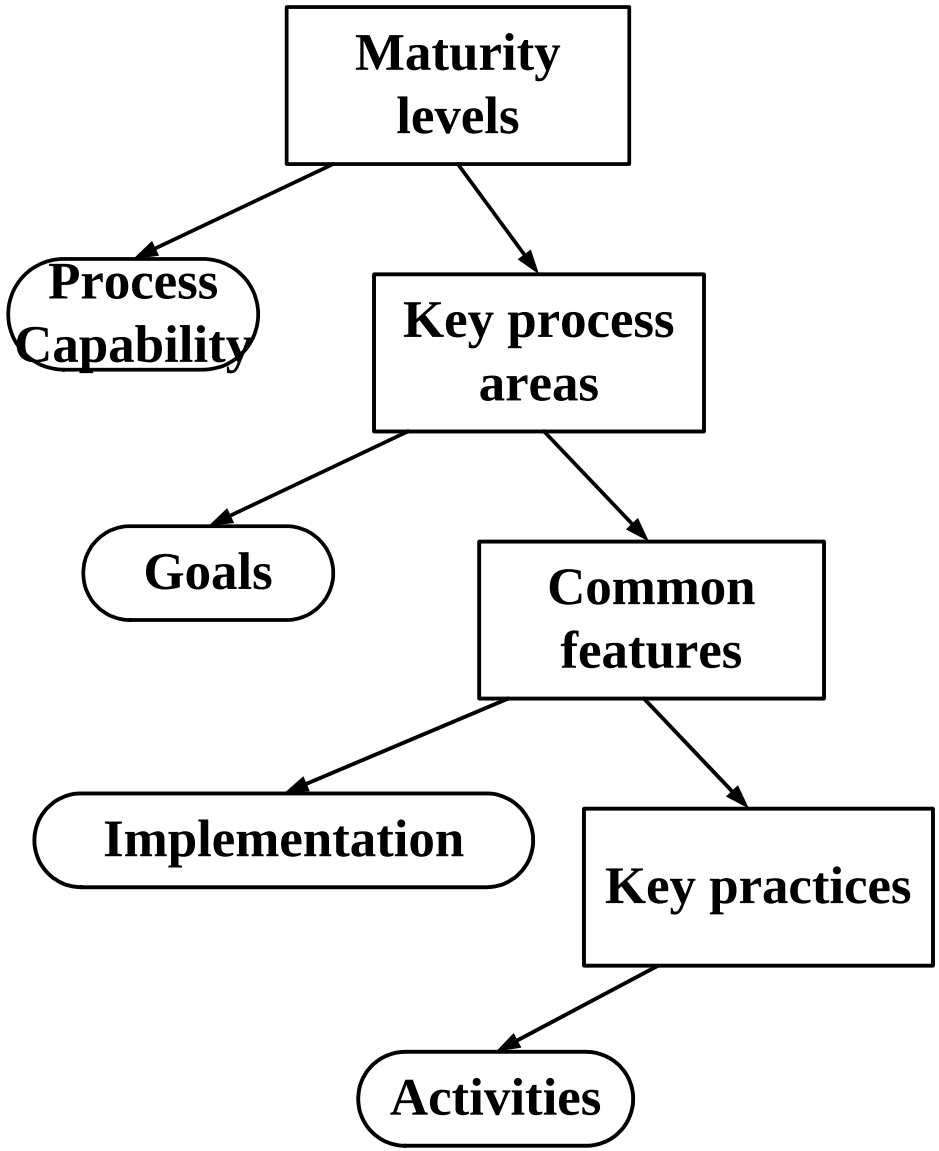
Approach(1/2)



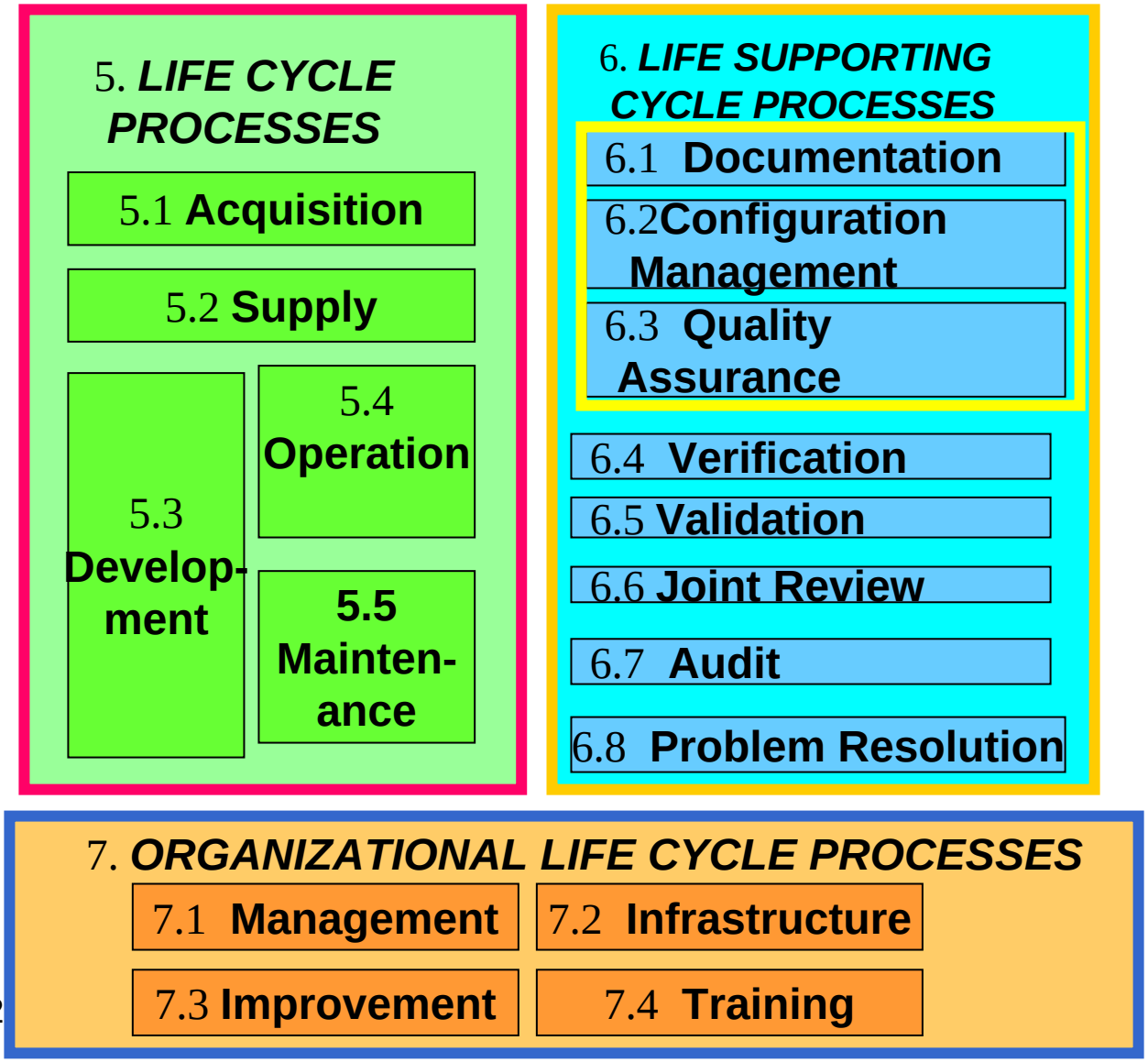
Approach (2/2)


CMMI
IEEE/EIA 12207
Ontology of CMMI
Ontology of 12207
Integration

What is CMMI

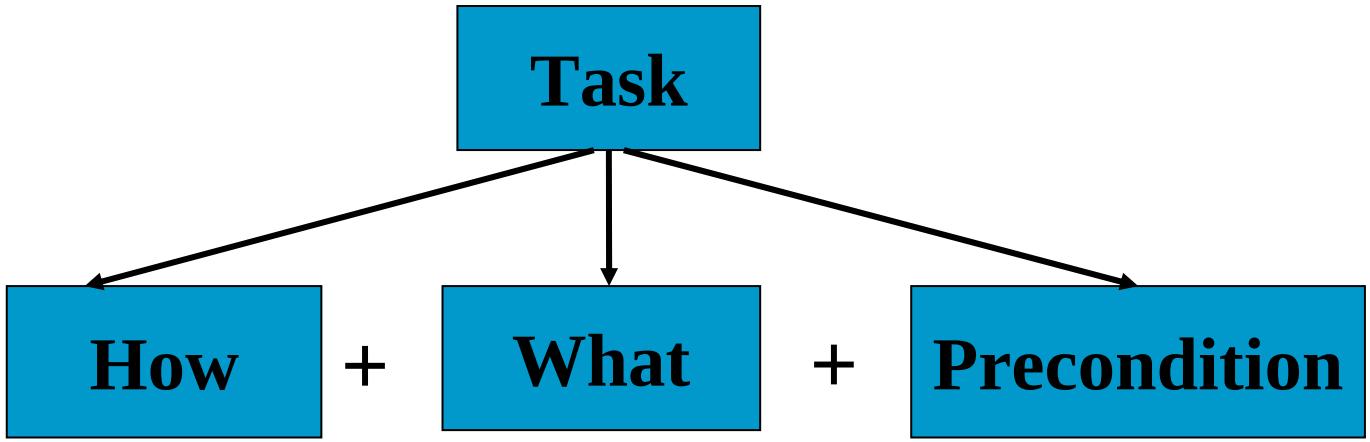

Maturity levels
Process Capability
Key process areas
Goals
Common features
Implementation
Key practices
Activities

What is IEEE/EIA 12207



Integration of CMMI & IEEE/EIA 12207

- 1.Building mapping criteria



- 2. Building mapping relation
- 3. Analyze the relation
  - Included , Excluded , overlap
- 4.Join the second criteria

CMMI KPA	SP	12207 activity
Requirements Management	Sp 1.1 Obtain an Understanding of Requirements	5.3.2 System requirements analysis
How	1.Establish criteria for distinguishing appropriate requirements providers. 2. Analyze requirements to ensure that the established criteria are met	5.3.2.1 The specific intended use of the system to be developed shall be analyzed to specify system Requirements

CMMI KPA	SP	12207 activity
Requirements Management	Sp 1.1 Obtain an Under-standing of Requirements	5.3.2 System requirements analysis
What	2.Establish objective criteria a. Clearly and properly stated Complete b.Consistent with each other c.Uniquely identified d.Verifiable (testable) e.Traceable	5.3.2.2 The system requirements shall be evaluated considering the criteria a) Traceability to acquisition b) b) Consistency with acquisition needs; c) c) Testability; d) d) Feasibility of system architectural design; e) e) Feasibility of operation and maintenance

Conclusion & future work

- 1.help organization understand what to do for meeting its vision
- 2. Building the knowledge base for research or use
- 3. We find some problem to be solved - how to find the criteria for integration
  - By self : easy to understand, but maybe not complete
  - By standard: complete, but cost another effort to understand the standard additionally