Criteria and Terms for Identifying Architecture Elements in Posts

The table below shows the inclusion criteria and the terms employed for identifying architecture elements in posts of mailing lists based on our understanding of the ISO 42010:2011 standard. If an element satisfies the inclusion criterion of a certain architecture element, it can be identified as the architecture element. The identification terms are used to identify potential architecture elements, and are iteratively added during the identification process. Note that an element that contains an identification term is not necessarily an architecture element, but is further judged by human experts based on the inclusion criteria.

Element	Inclusion criterion	Identification terms
System of Interest	● A description of the system whose archietcture is under consideraraton in the preparation of an architecture.	system; subsystem; structure; architecture; framework; module; component
Stakeholder	● An indivudual, team, or organization that has interests in a system, e.g., developers and users of a system.	developer; user; tester; architect; evaluator; team; individual; who; you; he; she; they; stakeholder
Concern	● Concerns arise from system needs and requirements (i.e., missions). A concern could be manifest in many forms, such as stakeholder needs, goals, expectations, responsibilities, requirements, design constraints, assumptions, dependencies, quality attributes, architecture decisions, risks or other issues pertaining to the system.	concern; requirement; function/functionality; behavior; can; should; may; limitation; suitablilty; completeness; correctness; maintainability; effieciency; complexity; evolvability; openness; concurrency; autonomy; cost; consistency; understandability; modularity; extensible; alternative; compatiblility; customization; reusability; flexibility; usability; accessibility; reliability; maturity; availability; recoverability; security; confidentiality; integnity; analysability; testability; adaptability; installability; replaceability; modifiability; changability; interoperability; privacy; compliance; mission; handle; feature; support; achieve; purpose; goal; objective; environment; use; setting; configure/configuration; deploy/deployment; operate/operation
Architecture Model	● A description of the design of (part of) a system or subsystem.	architecture; model; pattern; framework; module; component; structure; layer; tier
Architecture Rationale	● A description about the explanation or reasons of design decisions that have been made or design (i.e., models) that has been provided in a system or subsystem.	rationale; decision; reason; problem; philosophy; mechanism; assume; the idea of; benefit; drawback; advantange/disadvantage; good/bad; limitation; cost; effort; imply; propose; consider; explain/explanation; suggest/suggestion; mean
Architecture View	● A representation of a whole system from the perspective of a related set of concerns.	N/A
Architecture Viewpoint	● A specification of the conventions for constructing and using a view.	N/A
Correspondence Rule	● A rule used to express, record, enforce, and analyze consistency between models, views, and other elements.	N/A
Correspondence	● A defined relation between above architecture elements, and correspondences are used to express consistency, traceability, dependencies, obligations, or other types of relations pertaining to the architecture being expressed.	N/A
Model Kind	● A convention for one type of modelling, such as data flow diagrams.	N/A