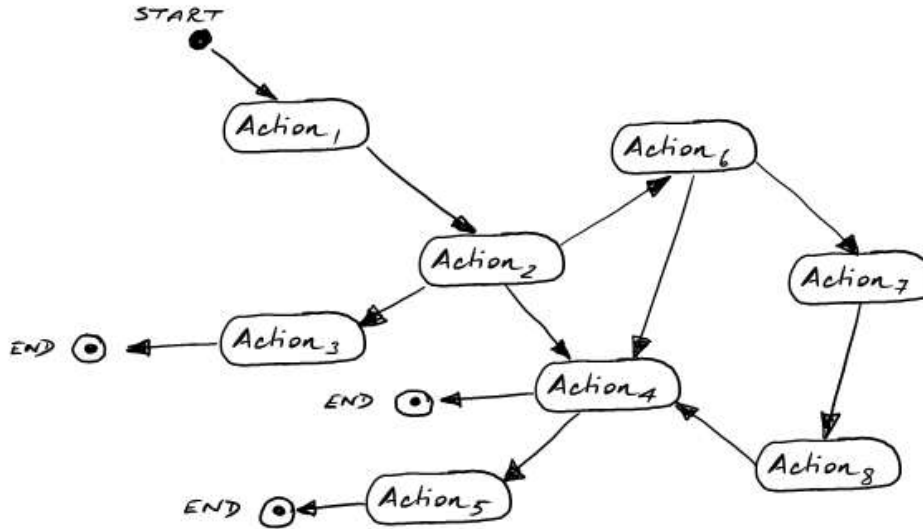1

3.2.3 Activity, Action, Communication and Joint Action

In general terms, entities act in order to achieve their goals. More precisely, they generate Activity. An Activity is made up of specific Actions or other Activities and is formally defined in **[ISO/IEC 10746]** as "a single-headed directed acyclic graph of actions…". It is most clearly understood diagrammatically:
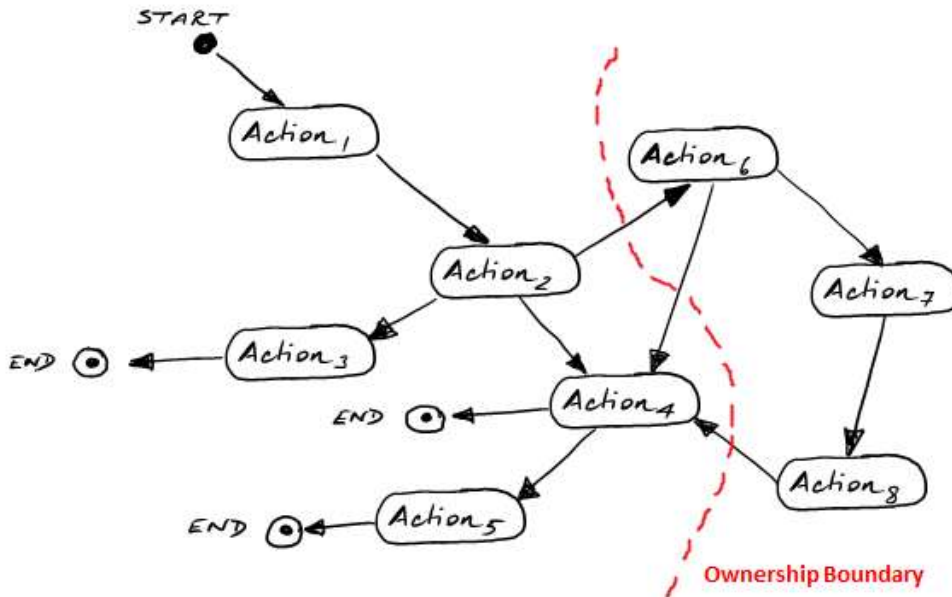

Figure 1: An Activity, expressed informally as a graph of Actions, with a single Start point and alternative End points

In UML, both Actions and Activities are modeled using the same rounded rectangle symbol. What constitutes an Action or an Activity will be a matter of context. For the RAF, an Action represents the smallest and most discrete activity that needs to be modeled for a given Viewpoint.

The form of Activity that is of most interest within a SOA ecosystem is that involving Actions as defined in the next section and their interaction across ownership boundaries:

Figure 2: Activity involving Actions across an ownership boundary

When an Activity involves a series of Actions across one or more ownership boundaries (and thus involves interaction between more than one actor) – we call this **joint action.**