Standards for ADS

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Background

As the autonomous decentralized system (ADS) philosophy is meeting increasing acceptance by the system engineering community, the type and number of highly autonomous subsystems will grow rapidly. Standardization of the methods and protocols by which autonomous subsystems interconnect or interact among themselves is an important issue with respect to further enhancing the economic advantages of the ADS and enabling broader acceptance of the ADS approach.

Such standardization is a political challenge as well as a technological challenge. Not only a sound and concrete form of the ADS philosophy but also various proven and promising ADS architectures must be reflected in the standardization process. The trends in the requirements imposed by the system customers must also be reflected. Already a number of major standardization efforts dealing with various building-blocks of ADS’s are under way. The two ADS application communities which have been the most active in such standardization efforts are the telecommunication application community and the computer-based control application community.

A team of distinguished panelists will review those major standardization efforts under way and discuss some major issues not yet resolved as well as near-term prospects.

Discussion Topics:

1. Emerging ADS architectures
2. Needs and targets for standardization:
   Needs created by new user requirements
   Interaction protocols at various levels: WAN, LAN, device networks, blackplane
3. Emerging standards:
   WAN for information services
   LAN for control applications
   Device networks for control applications, etc.