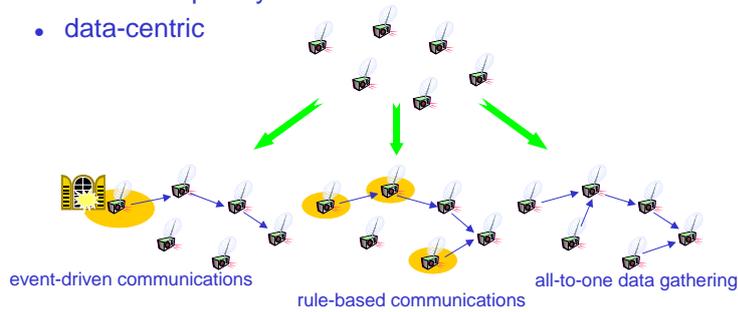


A Biologically-Inspired Data-Centric Communication Protocol for Sensor Networks

PROBLEMS TO BE SOLVED

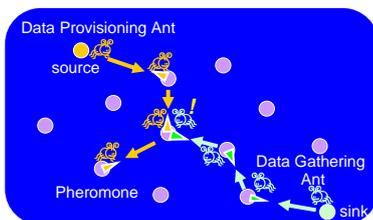
- A communication protocol for sensor networks must be
 - adaptive to diverse and dynamically changing characteristics of applications and networks
 - the area of region and the number of sensor nodes
 - the type of communications
 - one-to-one, one-to-many, many-to-one, many-to-many
 - the frequency of communications
 - data-centric



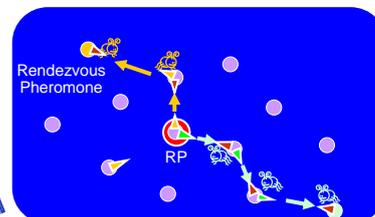
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ARCP: Ant-based Rendezvous Communication Protocol

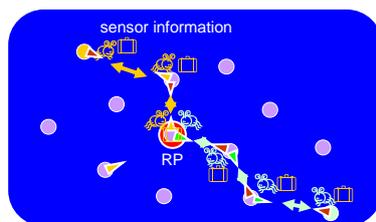
- Taken inspiration from the foraging behavior of ants



1. Ants wander around a network while leaving pheromones
2. When an ant finds a trail of the other, an RP is established



1. Ants go back to their nest while leaving rendezvous pheromones
2. Ants can reach RP by following rendezvous pheromones



1. Sensor information is taken to RP by data provision ants
2. Sensor information is taken from RP by data gathering ants