



# Enabling Resilience in the IoT



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**Resilient Communications** – geo-aware resilient overlay sends messages over multiple diverse paths to improve data delivery during mass failure events (e.g. natural disasters)

**Resilient Data Exchange** – multi-protocol decentralized architecture and middleware supports local and cloud-based brokers as well as P2P-based data exchange for local analysis, aggregation, etc.

**Resilient Service Execution** – decoupled data analysis applications can migrate as *mobile agents* between devices, accounting for physical location to improve resilience

