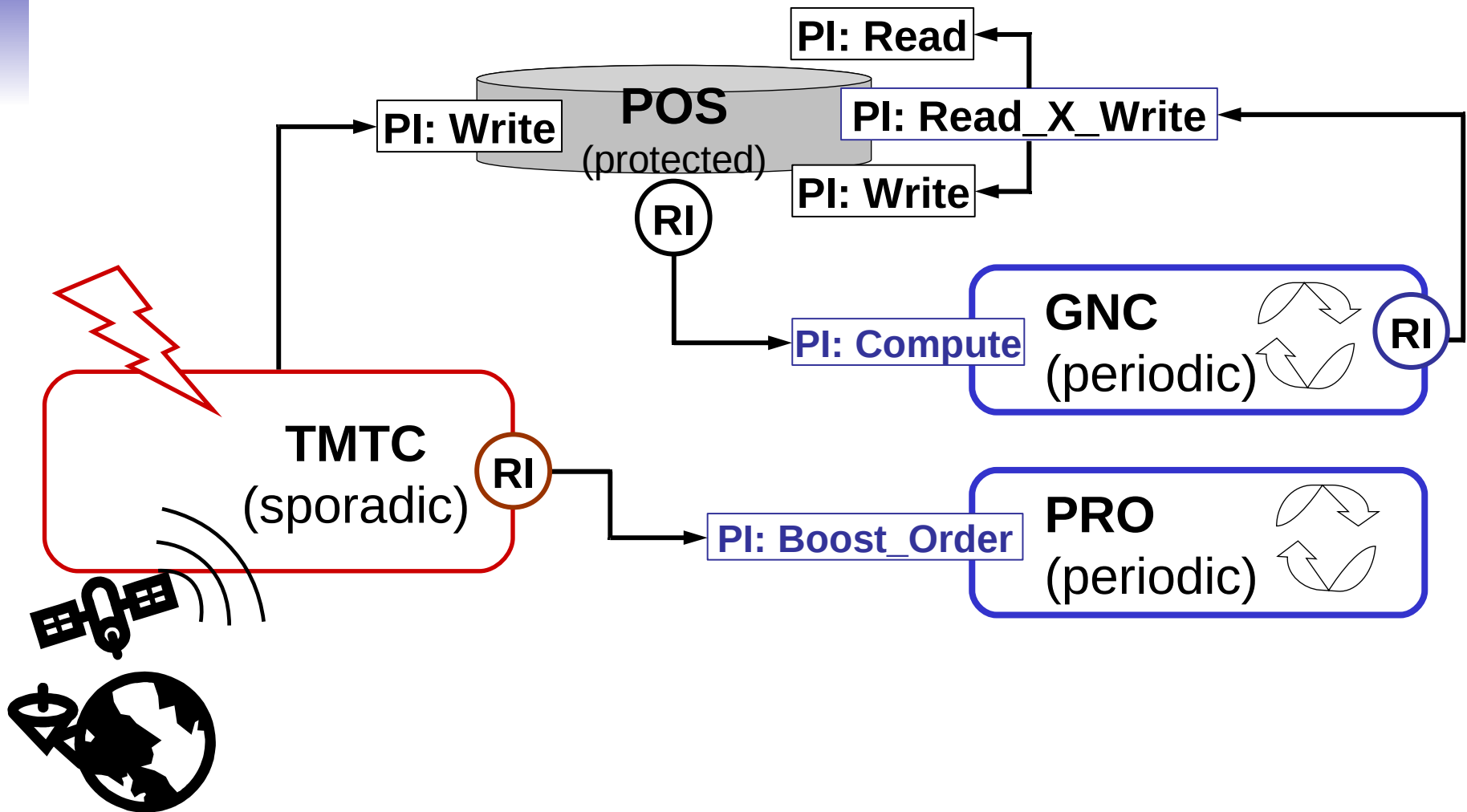


# System description



# System requirements

- **TMTC**
  - Interarrival time = 10 s
  - Urgency = highest
- **GNC**
  - Period = 8 s
  - Urgency = lowest
  - GNC operation on POS must be **atomic** with respect to other operations on POS
  - GNC.Compute is **private** to POS.Read\_X\_Write
    - X = GNC.Compute
- **PRO**
  - Period = 12 s
  - Urgency = medium
  - PRO.Boost\_Order is a modifier operation

# System design

- **TMTC** is a sporadic component
  - MIAT = 10 s, Priority = 6, WCET = <n1>
- **GNC** is a cyclic *composite* component
  - Cyclic component with nominal operation
    - Period = 8 s, Priority = 2, WCET = <n2>
  - Passive component with Compute operation
- **PRO** is a cyclic component with a modifier
  - Period = 12 s, Priority = 5, WCET = <n3>
- **POS** is a protected component
  - With an explicit Read\_X\_Write *composite* operation

# System timeline (example)

