IEEE 1900.7 White Space Radio Reference Models and Management Model

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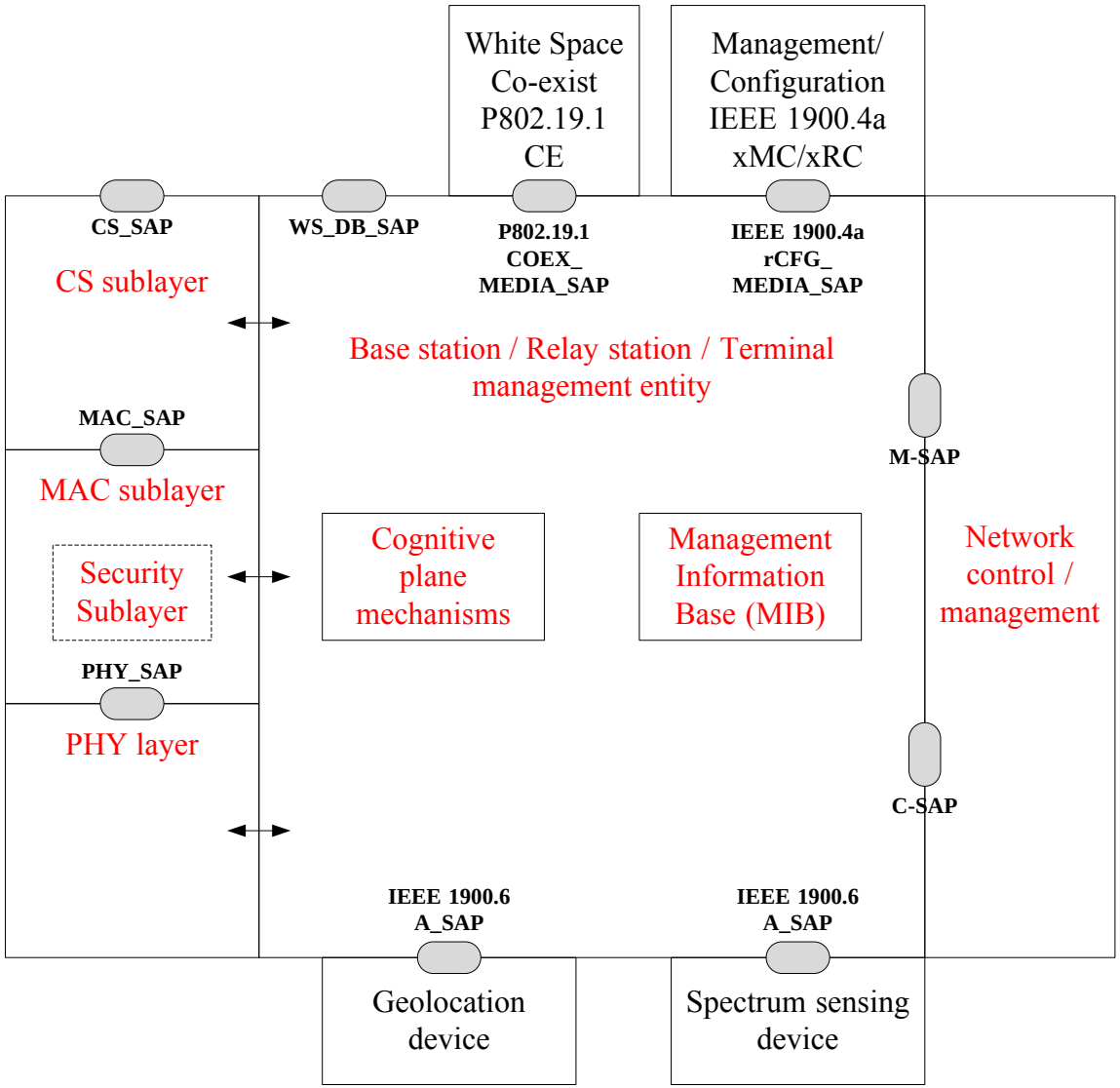
Outlines

- This presentation summarizes:
  - General reference model for WS radio
  - Management model
  - Network reference model

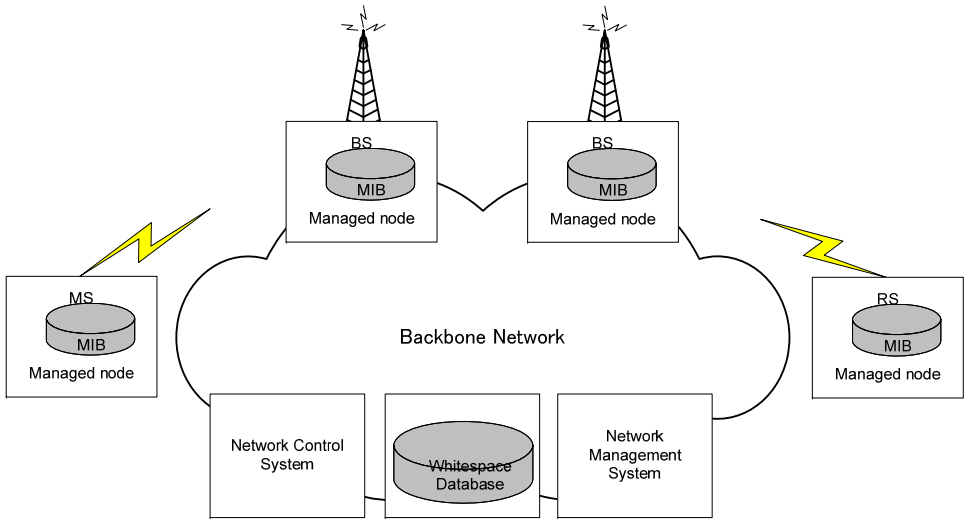
Key elements of the general reference model

- PHY layer
- MAC sublayer
- Convergence sublayer
- Security sublayer
- Interface with TV WS database
- Interface with geolocation device
- Interface with spectrum sensing device (optional)
- Interface with external WS management (optional)
- Interface with WS coexistence system (optional)

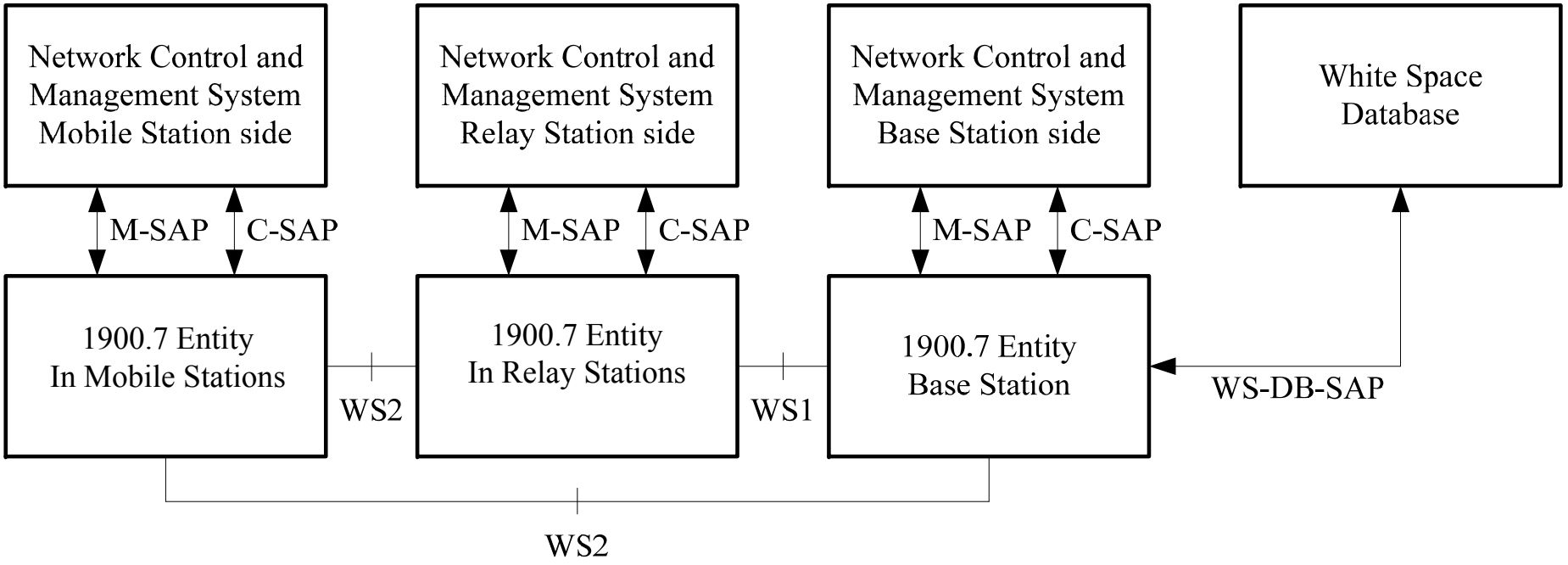
General Reference Model



Management model



Management Model

- Consists of a network management system (NMS), managed nodes, TV White Space Database and a Network Control System.
- Managed nodes, such as BS, MS collect and store the managed objects in the format MIB that are made available to NMSs via management protocols (e.g SNMP).
- TV White Space Database stores available TV WS channels (with time and location) which is made available to BS
- A Network Control System contains the service flow and the associated information when MS enters into a BS network.

Network reference model