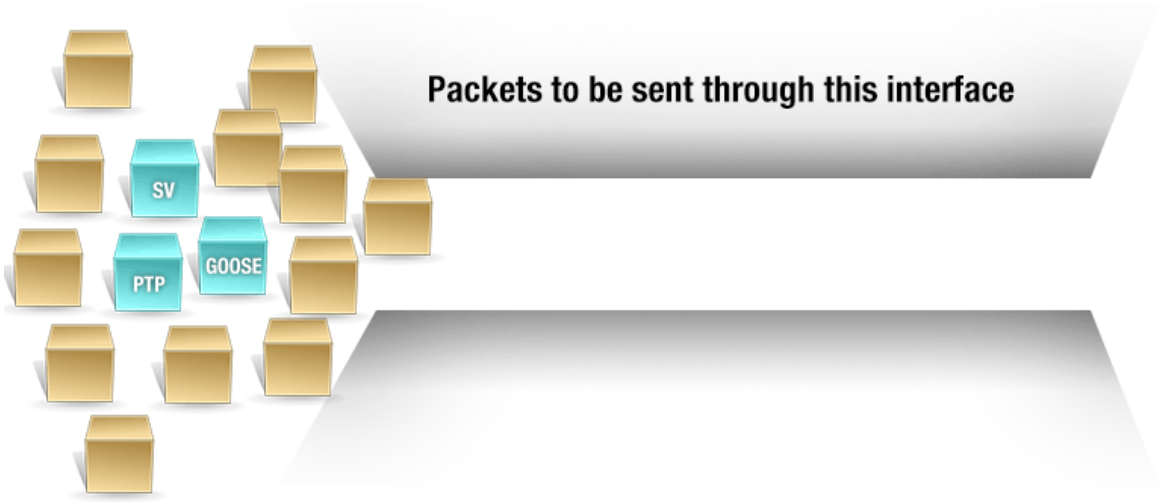
IEC 61850 New Subtations Performance

Communication packets can be assigned different priorities, depending on their importance

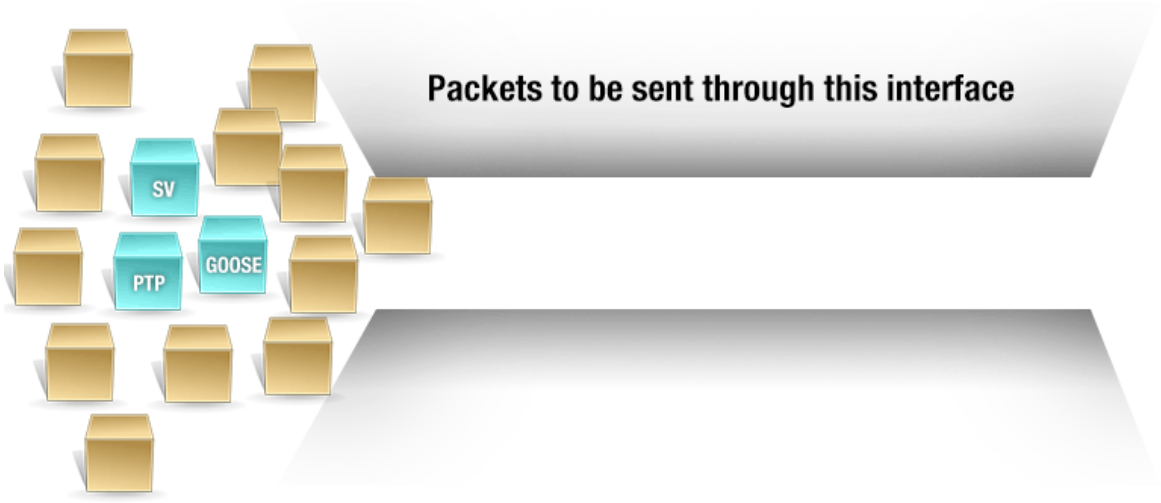


Performance

IEC 61850 QoS

Critical packet prioritization

- Communication packets can be assigned different priorities, depending on their importance
- Packet types: GOOSE, SMV, PTP
- Packet priorities: high, medium, normal, low



VLAN Technology

Enabling efficient and reliable communication

- **Trunk traffic reduction**
  Removing bottlenecks on the trunk links requires a careful analysis to correctly configure the bridges in the network. The traffic can be filtered or restricted to specific domains in the network by VLAN

- **Traffic filtering**
  To segregate traffic flow throughout the network

- **Device performance improvement**
  Reduce the number of messages that end devices need to process

Time Synchronization Technology

Enabling efficient and reliable communication

Time Synchronization Protocol	Typical Accuracy for Substations	Meets IEC 61850 Station bus requirement (1 ms)	Meets IEC 61850 Process bus requirement (1 ?s)
NTP/SNTP	1 to 10 ms	Yes	No
IEEE 1588 V2	10 ?s	Yes	Yes