

4.6.3.1 Isochronous

A type of IA time-aware stream traffic. This type of traffic is transmitted cyclically using time-triggered transmission. Listeners have individual deadline requirements. Cycle times are typically in the range of microseconds to tens of milliseconds. Frame size is typically below 500 octets. Talker-listener pairs are synchronized to the working clock. The network is engineered to provide zero congestion loss for this traffic type. This type of traffic is normally used in control loop tasks.

4.6.3.2 Cyclic-synchronous

A type of IA time-aware stream traffic. This type of traffic is transmitted cyclically using time-triggered transmission. Talker-Listeners pair have individual latency requirements. Cycle times are typically in the range of hundreds of microseconds to hundreds of milliseconds. Frame size is not constrained. Talker-listener pairs are synchronized to the working clock. The network is engineered to provide zero congestion loss for this traffic type.

4.6.3.3 Cyclic-Asynchronous

A type of IA stream traffic. This type of traffic is transmitted cyclically and bounded by the application clock. Talker-Listeners pair have individual latency requirements. Cycle times are typically in the range of milliseconds to seconds. Frame size is not constrained. Data exchanges between Talker-listener pairs are typically not dependent on the working clock. This traffic type typically tolerates congestion loss. The network is engineered to handle this traffic type without loss, up to a certain number of frames or data size.

4.6.3.4 Alarms and Events

A type of IA traffic engineered non-stream. This type of traffic is transmitted acyclically. This traffic expects bounded latency including time for retransmission in the range of milliseconds to hundreds of milliseconds. The source of the alarm or event typically limits the bandwidth allocated to this traffic. Frame size is not constrained. Retransmission to mitigate frame loss is expected. The network is engineered to handle these frames, including bursts of frames, up to a certain number of frames or data size over a defined period.

4.6.3.5 Configuration and diagnostics

A type of IA traffic engineered non-stream. This type of traffic is transmitted acyclically. This traffic expects bounded latency, up to seconds, including time for retransmission. The source of configuration or diagnostics frames typically limits the bandwidth allocated to this traffic. Frame size is not constrained. Retransmission to mitigate frame loss is expected. The network is engineered to handle these frames, including bursts of frames, up to a certain number of frames or data size over a defined period.

4.6.3.6 Network control

A type of IA traffic engineered non-stream. This type of traffic can be transmitted cyclically or acyclically. This traffic expects bounded latency including time for retransmission. Frame size is not constrained. The network is engineered to handle these frames, including bursts of frames, up to a certain number of frames or data size over a defined period. This type contains network control frames. Examples include time synchronization, loop prevention, and topology detection.

4.6.3.7 Best Effort

A type of IA non-stream. The network is engineered to ensure that these frames do not interfere with other traffic types.

4.6.3.8 Video

Delete this type. Add an explanation or example in the clause introduction that indicates that video applications can be served by one or more traffic types.

4.6.3.9 Audio/Voice

Delete this type. Add an explanation or example in the clause introduction that indicates that audio applications can be served by one or more traffic types.