

ITU-T Q13/15 Updates

TICTOC / IETF-81

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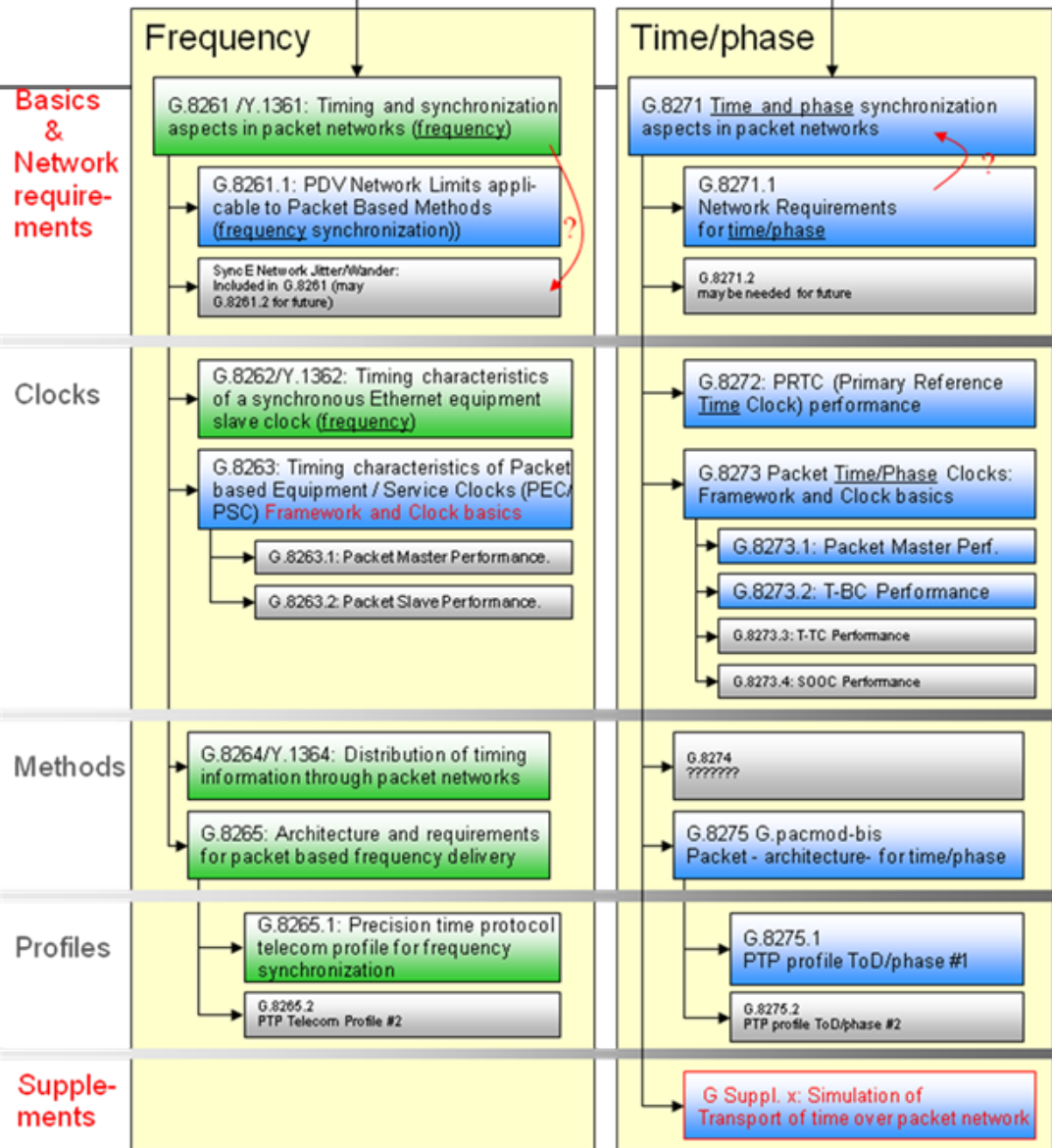
Introduction

- › Q13/15 held an Interim meeting in May 2011 hosted by ATIS (Indianapolis)
- › Two main topics of interest for TICTOC:
 - Packet timing performance aspects for frequency (G.826x series)
 - › PDV metrics
 - › Network limits
 - › Packet clock specification
 - Time Sync in packet networks (G.827x series)
 - › Network Limits
 - › Clocks
 - › Architecture and Telecom Profiles

Current Doc. Structure

Definitions / terminology

G.8260: Definitions and terminology for synchronization in packet networks



agreed ongoing Options

Modifications in red

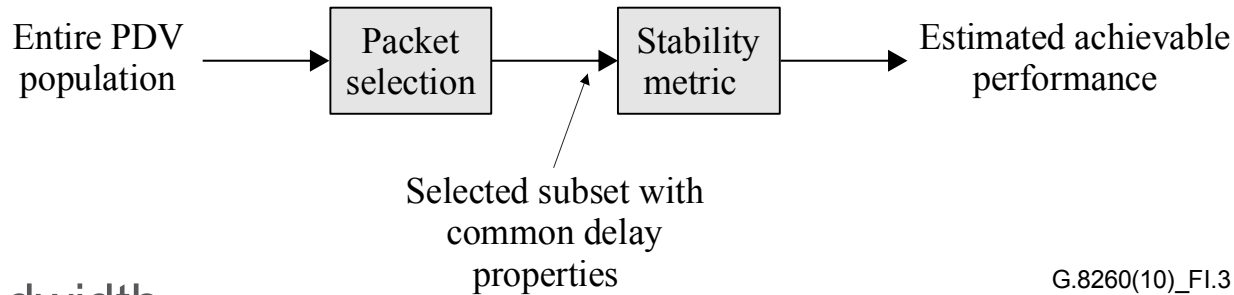
Status 2011-05-06 (Indianapolis Meeting)

Frequency SYnc Updates

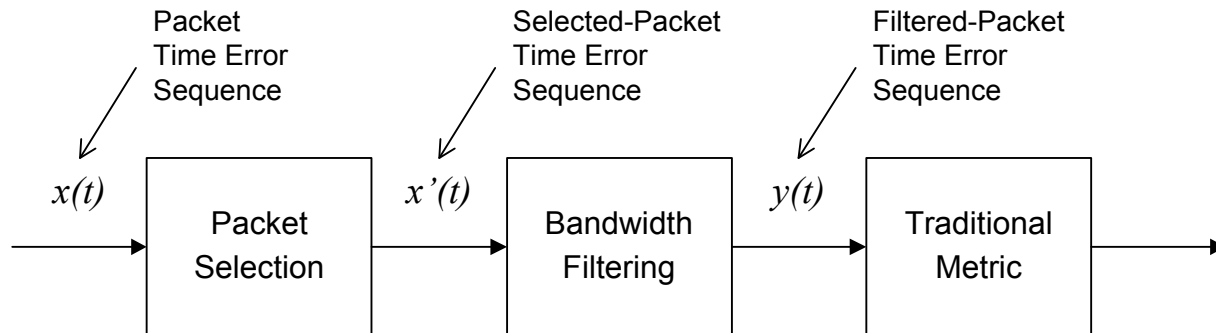
- › G.8260
 - Appendix on PDV Metrics updated at last Q13/15 Interim meeting
 - Several agreements reached on the PDV metrics:
 - › Metrics to be used for normative requirements should have a fixed bandwidth and should have packet pre-selection; under discussion the use of MAFE (packet selection details under discussion)
 - › Delay jumps and start up are out of scope for now
 - Confirmed plans to consent the Amendment in December 2011
- › Ongoing discussions on the packet clock (G.8263);
 - Draft G.8263 has been updated at last Q13/15 Interim meeting
 - Focus on mobile application; Packet clock external to the Base Station for now.
 - PDV Tolerance mask aligned with the G.8260 normative metrics
 - Noise Transfer as a combination of the “target requirements” and of the PDV tolerance characteristics
 - The time constant is among aspects under discussion
 - Confirmed plans to consent the recommendation in December 2011
- › Ongoing discussions on the network limits (G.8261.1)
 - Draft G.8261.1 has been updated at last Q13/15 Interim meeting
 - Focus on mobile application
 - Network Limits based on the G.8260 normative metric
 - The packet selection details are among aspects under discussion
 - Confirmed plans to consent the recommendation in December 2011

PDV Metrics for network limits

Pre-Processing



Fixed Bandwidth



Exception: MAFE, unless calculated in a single value corresponding to the “fixed bandwidth”

Time Sync Updates

- › G.8271 (Time sync requirements)
 - Draft G.8271 has been updated at last Q13/15 Interim meeting
 - Improved section on the time sync error sources and simulation model
 - Information on GNSS-based solutions has been added
 - Class of time sync requirement in the 500 ns -1 microsecond range has been added
 - Confirmed plans to consent the recommendation in December 2011
- › Time Sync Architecture and PTP Profile (G.8275 and G.8275.1)
 - Ongoing discussions
 - Confirmed priority for a reference network with only BCs; TC still under discussion
 - Recommendations planned to be consented in 2012
- › Time Sync Clocks (G.8272, G.8273.x)
 - Ongoing discussions on the PRTC and Telecom BC characteristics
 - No draft updated at last meeting