

Calnex Paragon - X



# Software Release 27X Patch#1 (X.10.41.xx)

NEW FUNCTIONALITY AND ENHANCEMENTS




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## 1 Software Release Overview

Release 27X (X.10.41) adds the following features and fixes to Paragon-X, and CAT

CSS (Customer Support Service)



Enhancements to CAT	Base product enhancements
ITU-T G.8271.2 Pk-Pk Time Error limit	Key Defect Fix: Improved Packet Stability during SyncE test  General Defect Fixes

 To check the current software version installed, select Help > About Paragon Remote Client on the Paragon-X GUI.

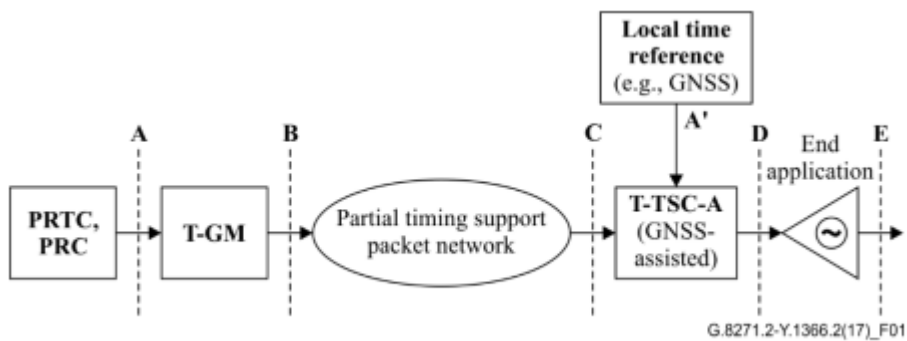
## 2 Features and Benefits

Feature	Benefit
<b>CAT:</b> ITU-T G.8271.2 Pk-Pk Time Error limit	Apply the appropriate network test metric/limit for Partial Timing Support Scenarios
Cable Compensation range increased to 5000ns	Allow adjustment for cable delays in test systems, with extra allowance for devices such as media converters, if required
Improved Packet Stability during SyncE test	Corrects performance issue arising on PTP packet transmission under certain SyncE wander conditions

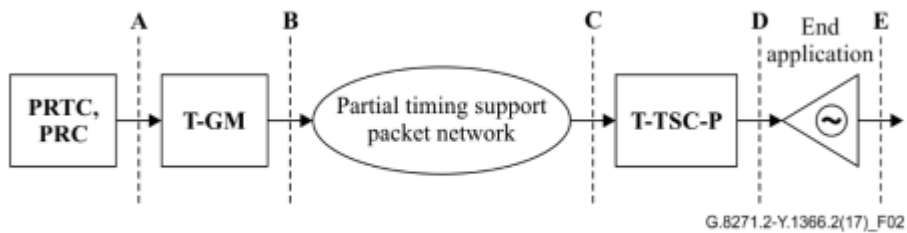
### 3 Enhancements to CAT

#### 3.1 ITU-T G.8271.2 Pk-Pk Time Error limit

ITU-T Recommendation G,8271.2 addresses the distribution of time and phase across a network, using the packet-based method with partial timing support to the protocol level from the network: i.e. not every node in a path is PTP-aware. As such, the test scenarios, metrics and limits are specific and different to those for fully PTP-aware networks.



**Figure 1 – Reference model for network limits for assisted partial timing support**



**Figure 2 – Reference model for network limits for partial timing support**

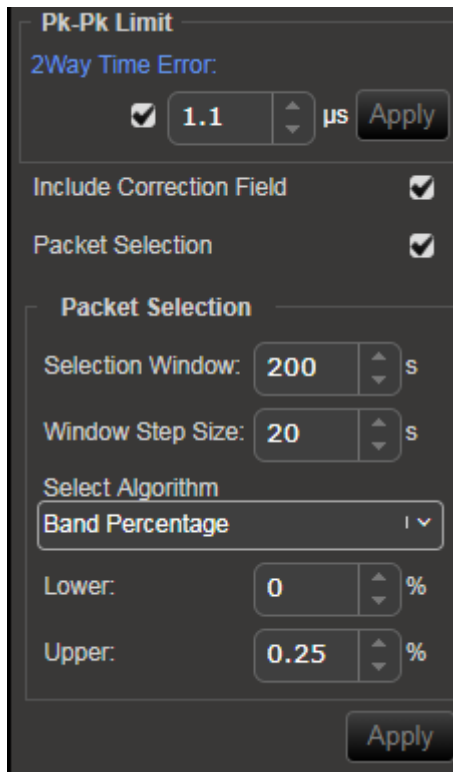
In this release, CAT has been enhanced to include the Pk-Pk Time Error metric with pass/fail capability, as required for testing parameters such as below:

##### 7.3.1.1 Type I network limit

The network limit value and the metric processing parameters that apply for a type I network are as follows:

- Peak-to-peak pktSelected2wayTE <1 100 ns
- Selection window = 200 s
- Selection percentage = 0.25%

To perform this measurement, select the 2wayTE metric and tab, and make the desired window and percentage settings in the **Packet Selection** section in the lower right of the window (Selection Window 200s, band percentage – upper 0.25%), and enable the **Pk-Pk limit** of **1.1us**. Ensure **Apply** has been pressed after all selections are made.



Pass/Fail will be displayed in the upper right of the CAT window.

## **4 Key Defect Fixes**

### **4.1 Improved Packet Stability during SyncE test**

In the previous release, an issue was detected which could lead to PTP packets being dropped in the presence of certain parameters of SyncE wander being generated by the Paragon-X,

This Patch release resolves this issue, and the full expected range of PTP packet generation and application of SyncE wander stress signals can be applied simultaneously.

## 5 Appendix A: Software Advisory Notes

- There are fixes in this release for several customer reported issues – for the full list of resolved customer issues, please see the Paragon-X section on the Calnex Product FAQ page: <https://calnexsolutions.atlassian.net/wiki/spaces/KB/overview>



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Calnex Solutions Ltd  
Oracle Campus  
Linlithgow  
West Lothian  
EH49 7LR  
United Kingdom

tel: +44 (0) 1506 671 416  
email: [info@calnexsol.com](mailto:info@calnexsol.com)

**[calnexsol.com](http://calnexsol.com)**

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