

# *Network Innovation Competition Full Submission*

## *Supplementary Answer Form*

Tick if this answer is Confidential: ☐

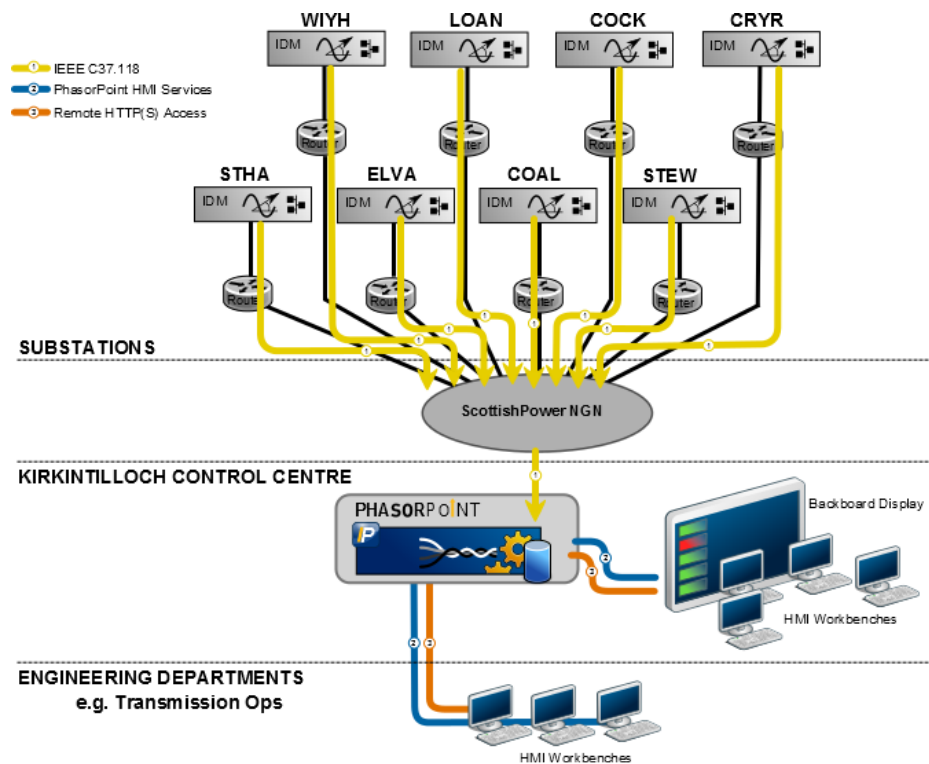
Tick if this answer has been provided verbally: ☐

Project code:	SPTEN01/V0	Question Number	3
Question date	15 August 2013	Answer date	19 August 2013
Submission section question relates to	Section 2.5		
Topic	Technical Description of project		
Question	Can SP explain the operation of their existing WAM server, how the data is used and the benefits it provides?		
Notes on question	N/A		
Answer	<p>The existing SPT Wide Area Monitoring System (WAMS) infrastructure is shown in the figure below. SPT installed the existing WAM server to collect phasor data continuously from a network of disturbance recorders, and process the data to identify the frequency, amplitude and damping of oscillations in the range 0.04 – 4.00Hz. This data is available for longer-term review and baselining of network performance. The system is also a resource for reviewing significant disturbances, and provides a more efficient approach to analysis and visualisation of the wide-area response of the system than the previous manual retrieval, aggregation and analysis of records from disturbance recorders.</p> <p>The system has also been used for reviewing and qualifying the data quality of phasor data received from the disturbance recorders. As a result of PMU tests and review of in-situ performance of the recorders, some changes have been made by the equipment manufacturers to provide data that is fit for purpose for wide area monitoring applications.<sup>1</sup></p> <p>The SPT WAMS system is not at present used for real-time operational purposes, and it is therefore not subject to change control processes applied to mission critical systems. SPT can therefore make the system available for hosting new application developments in the course of the VISOR project</p>		

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<sup>1</sup> “Testing PMU Data Quality for Applicability to Transmission Security and Optimisation Tools”, R. Lira, D. H. Wilson, T. Cumming, D. Cole, PSCC conference, Stockholm, Sweden, August’11

without introducing risk.



Attachments

N/A

Verbal  
Clarifications  
(Consultants  
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