

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

NOKIA OF AMERICA CORPORATION

Petitioner,

v.

SPADA INNOVATIONS, INC.

Patent Owner.

Case No. IPR2025-01442

U.S. Patent No. 11,589,142

**PATENT OWNER'S SUR-REPLY TO PETITIONER'S REPLY TO THE
PRELIMINARY RESPONSE**

I. Nokia's Declaration Is Both Improper And Unavailing

Nokia's Reply does not cure the Petition's core deficiencies under 35 U.S.C. § 314(a) and 37 C.F.R. § 42.104(b)(4). It still identifies no disclosure in the cited references of an OLT receiving VRF-separated data streams and aggregating those same data streams into a common data feed, and it does not overcome the prosecution history (Response pp.25-30; Ex1006 pp.173-74; Ex1005 p.105; Ex1004 p.18).

Nokia's timing argument regarding the July 31, 2025 Director Memorandum fails because the prohibition against relying on material other than patents or printed publications is statutory (35 U.S.C. § 311(b)), confirmed by the Federal Circuit (*Qualcomm Inc. v. Apple Inc.*, 134 F.4th 1355, 1364-65 (Fed. Cir. 2025)), and has appeared in Rule 42.104(b)(4) since 2012, *i.e.*, the Memorandum merely restates longstanding law.

Neither the Petition nor the Reply identifies any disclosure of an OLT receiving VRF-separated data streams and aggregating those same data streams into a common data feed. Nokia's statement that the art "explicitly discloses an OLT that receives VRF-separated private data streams from an edge router device" (Reply p.2) is unsupported and incorrect. The cited references do not show this limitation. G.984.1/G.984.3 address Layer-2 GPON and say **nothing** about VRF-separated, Layer-3 data streams. RFC 4364 describes PE-router VRF/MPLS, but says **nothing**

about PON/OLTs. Nokia's reliance on Ahn Figure 4 is misplaced; that figure is a generic depiction that does not address PONs or OLTs. Ahn's Figure 5 shows the OLT performing VRF **after** receiving data streams at the service-provider edge. Thus, the OLT does **not** receive a data stream that "has been" virtually separated for aggregation into the common PON feed. Ahn's architecture assigns VRF to the OLT and keeps ONUs Layer-2 only, confirming **the OLT** performs VRF separation rather than receiving already-separated streams. Ravindran addresses content-oriented networking and virtual private groups; it says ***nothing*** about an OLT receiving VRF-separated data streams. The cited references do not disclose the claimed OLT steps—receipt of streams that "have been" VRF-separated and aggregation of those same streams. Silence in Layer-2 GPON standards cannot supply Layer-3 VRF handling at the OLT, and **nothing** shows an OLT receiving and aggregating a VRF-separated stream as claimed.

37 C.F.R. § 42.104(b)(4) requires Nokia to specify where each claim limitation is found in the prior art, which it has not done. Expert opinion or "general knowledge" cannot supply a missing limitation. Nokia's Declaration is therefore improper and entitled to no weight. Moreover, it does not—and cannot—disclose a limitation absent from the prior art.

II. The Secondary Considerations Here Are Compelling

The secondary considerations—particularly skepticism—are compelling. The claims require a Layer-2 OLT to receive and aggregate a VRF-separated Layer-3 data stream—an approach the industry doubted. Ahn reflects this skepticism by teaching that the OLT must perform VRF separation rather than receive VRF-separated data streams.

Evidence of secondary considerations was submitted during prosecution of the ‘629, ‘898, and ‘142 patents (Response 30-33). The Examiner (1) allowed the ‘629 claims because the art failed to teach sending VRF-separated data to an OLT (Ex1006 p.173); (2) allowed the ‘898 claims because “[t]he closest prior art fails to disclose, teach or even suggest ‘receiving ... at a PON optical line terminal (OLT) ... [a] private data stream ... virtually separated using [VRF]; aggregating within said OLT ... into a common data feed; [and] distributing said common data feed’” (Ex1005 p.105); and (3) allowed the ‘142 claims for the same reason (Ex1004 p.18). In all three applications, the Examiner concluded it was not obvious for a Layer-2 OLT to receive Layer-3 VRF-separated data streams, consistent with that skepticism.

This ground for allowance aligns with the evidence of skepticism, counterintuitive results, and unexpected success. Ahn confirms this by teaching that an OLT must itself perform VRF separation, rather than receiving data streams that “have been” virtually separated.

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