

Dear VNOAI Members,

Subject: Proposed VNOAI Representation to DoT for LSA-Wide Wireline Call Routing, Centralised Network Infrastructure and Implementation of Fixed-line Location Routing Numbers (FLRN)

VNOAI wishes to draw the attention of all its members, particularly existing UL-VNO Category-B licensees and Wireline Access VNOs, to an important technical and regulatory issue arising from the introduction of the **Telecommunications (Authorisation for Provision of Principal Telecommunication Services) Rules, 2026**, notified by DoT on 23 June 2026.

Under the new authorisation framework, Wireline Access VNOs are authorised at the **Telecom Circle/Metro Service Area (LSA) level**, as against the earlier Category-B authorisation framework based on smaller geographical areas, including Short Distance Charging Areas (SDCAs).

However, the existing fixed-line numbering and legacy call-routing architecture continues to be largely SDCA-based, creating significant operational and financial challenges for VNOs intending to offer wireline services throughout an LSA.

1. Major Technical and Financial Concerns

An LSA comprises multiple SDCAs, each associated with its existing fixed-line numbering and routing arrangements.

In the absence of suitable LSA-level interconnection and centralised call-routing facilities from parent Network Service Operators (NSOs), VNOs may face the following difficulties:

1. Requirement for multiple Points of Presence (PoPs), gateways, network links or other infrastructure across different SDCAs for routing and terminating wireline calls.
2. Substantial additional expenditure on network equipment, interconnection, transmission, maintenance and technical operations.
3. Difficulties in managing multiple SDCA-based numbering series through a centralised SIP/softswitch platform.
4. Increased dependency on parent NSOs for call routing, number provisioning and interconnection arrangements.
5. Higher operational costs, rendering wireline services commercially unviable, particularly for small and medium VNOs.
6. Unnecessary duplication of network infrastructure, contrary to the fundamental objectives of the VNO framework.

Modern IP-based telecom networks are technically capable of supporting subscribers across an entire LSA through centralised softswitches and SIP platforms. Therefore,

requiring geographically distributed network infrastructure solely because of legacy SDCA-based routing arrangements would impose an avoidable financial burden on VNOs.

2. Proposed Solution – LSA-Level Centralised Routing and FLRN

TRAI, in its recommendations dated **6 February 2025 on Revision of the National Numbering Plan**, has already recommended migration towards LSA-based fixed-line numbering and the subsequent introduction of a **Fixed-line Location Routing Number (FLRN)** framework.

In view of these recommendations, VNOAI proposes to request DoT to consider the following measures:

(a) Centralised LSA-Level Call Routing

Permit Wireline Access VNOs to operate a centralised softswitch/SIP platform for handling calls across all SDCAs within their authorised LSA, using their parent NSO's network facilities.

(b) LSA-Level Interconnection through Parent NSOs

Require parent NSOs to provide suitable LSA-level IP gateways and routing arrangements so that VNOs are not compelled to establish separate switching infrastructure in every SDCA.

(c) Introduction of FLRN or Equivalent Routing Identification

Develop an appropriate routing-code mechanism for identifying the serving operator and routing wireline calls across the LSA without depending solely on the legacy SDCA-based routing structure.

(d) Interim Routing Arrangement

Pending implementation of the revised numbering plan and FLRN framework, permit routing of existing SDCA-based numbering ranges through a centralised VNO platform with suitable number mapping and routing facilities provided by the parent NSO.

(e) Non-Discriminatory NSO–VNO Framework

Ensure that parent NSOs provide routing, interconnection, numbering and related technical facilities to authorised VNOs on fair, reasonable and non-discriminatory terms.

3. Proposed Action by VNOAI

VNOAI proposes to submit a detailed technical and regulatory representation to:

- **Secretary (Telecommunications), DoT**
- **Member (Technology), Digital Communications Commission, DoT**

With copies to:

- Member (Finance), Digital Communications Commission, DoT.
- Concerned DDG responsible for Numbering Resources/National Numbering Plan.
- DDG (Access Services), DoT.
- Telecommunication Engineering Centre (TEC).

Through this representation, VNOAI will seek:

1. Immediate clarification permitting centralised LSA-wide call routing for Wireline Access VNOs.
2. Early implementation of TRAI's recommendations on LSA-based fixed-line numbering.
3. Introduction of an appropriate FLRN or equivalent routing-code framework for VNOs.
4. Mandatory LSA-level IP interconnection and number-routing facilities through parent NSOs.
5. Protection against disproportionate infrastructure and interconnection costs.
6. Formation of a joint technical working group comprising DoT, TRAI, TEC, NSOs and VNO representatives to develop a practical implementation framework.

4. Inputs Requested from VNOAI Members

Before finalising the representation, VNOAI invites all members, particularly those providing SIP/PRI, DID, fixed-line voice and enterprise connectivity services, to share their technical observations and practical difficulties, including:

- Current difficulties in obtaining and managing SDCA-wise numbering resources.
- Restrictions imposed by parent NSOs on centralised softswitches, SIP routing and LSA-wide operations.
- Requirements for additional PoPs, connectivity or network infrastructure across SDCAs.
- Estimated capital and operational cost implications of the existing arrangements.
- Suggestions regarding LSA-level gateways, FLRN-based routing or other technically feasible alternatives.

Members are requested to forward their observations and recommendations to the VNOAI Secretariat at the earliest so that the industry's collective concerns can be suitably incorporated in the proposed representation.

5. Conclusion

The introduction of LSA-based Wireline Access VNO Authorisations must be supported by corresponding modernisation of numbering, interconnection and call-routing arrangements.

Unless the existing SDCA-based limitations are suitably addressed, VNOs may face substantial infrastructure costs and operational difficulties, defeating the objective of promoting competition, efficient infrastructure utilisation and affordable telecom services under the new authorisation regime.

VNOAI will pursue this matter with DoT and other concerned authorities in the collective interest of its members and the wider VNO industry.

We look forward to active participation and constructive suggestions from all members.

**With regards,
Virtual Network Operators Association of India (VNOAI)**

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