



Interconnection Intents

<draft-contreras-nmrg-interconnection-intents-00>

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Motivation and objectives

Present
Mode of
Operation

Future
Mode of
Operation

- Interconnection today is conceived only as pure IP traffic interchange
- These environments are typically static, requiring long interactions for setting up any inter-provider connection
 - Manual operation of current interconnections prevents any flexibility
- Operators start deploying its own computing capabilities
 - Current model limits the capability of taking advantage of new advances like network virtualization and programmability
 - E.g., to realize composite services by combining cross-domain network, computing and storage resources
- New models for interconnecting SDN/NFV enabled networks are required
 - Automation for both the interconnection sessions and the service deployment on top of that is needed to reach the goal of flexibility
 - E.g., for deploying (or requesting) specific VNFs and service graphs

Summary of the draft

- Target: to leverage on IBN technologies to handle enriched interconnection requests (i.e., traffic interchange and beyond)
- Scenarios of applicability:
 - Interconnection of non-public to public Networks in 5G
 - Multi-domain Network-as-a-Service requests (see e.g. sec.4.4 in RFC8568)
 - Multi-domain Network Virtualization (draft-bernardos-nmrg-multidomain-01)
- Benefits:
 - Establish a common, normalized method among service providers for automated interconnection
 - Simple way of expressing enriched interconnection request further than pure IP traffic interchange

Next steps

- Keep developing IB capabilities for interconnection aspects
- Request comments and inputs for new versions
- Positioning this draft as one potential NMRG intent use case (WI#5)