

## **Smart Connections**

#### What is the SIP-IX HUB?

SIP-IX HUB project initiative was created by a task force sponsored by TELCOMP with the purpose of developing a viable and efficient solution to support telephony traffic exchange (interconnection) for interconnections between regulated service providers players holding a of STFC, SCM, and or SMP license. SIP-IX HUB main goals are to reduce complexity and implementation time for a player to interconnect with its peers, simplify ongoing operations, and foster an agile and standardized exchange environment. Additionally, it aims to improve the quality and capacity for offering innovative services provided by participants.

Interconnection between operators is essential to the operational model in Brazil. However, despite the introduction of IP SIP-I technology, the current interconnection model between different networks is still based on legacy (TDM) technology. This results in slow implementation due to bureaucratic complexity and technology-based architecture design, requires extensive internal and interconnection configurations, and the costs involved in network infrastructure, including the acquisition of dedicated links and equipment for direct and reliable connections.

Regulated operators have been facing numerous challenges in this transition, and as a result—despite the significant simplification offered by IP SIP-I technology, little progress has been achieved. In this context, the implementation of the SIP-IX HUB represents a major step forward in this evolution, enabling a more modern, interoperable, and future-ready connection, while also reducing irregular events and operational management costs.

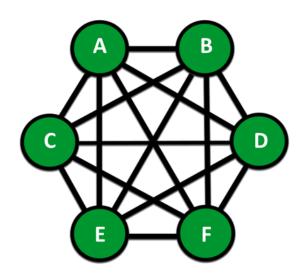
The SIP-IX HUB is a logical centralized connection point that enables voice traffic exchange using the SIP-I protocol over IP, leveraging all the features this technology offers. It provides a single virtual point architecture that facilitates communication between different STFC, SCM, and SMP operators. Thus, when creating traffic exchange routes, participating operators do not need to make specific configurations for each peer operator in every region they operate. In a simple and straightforward manner, upon joining the SIP-IX HUB, internal routing becomes a single process: "own traffic or external traffic." This architecture—with a single traffic exchange point—ensures greater efficiency, security, and quality in service operations.

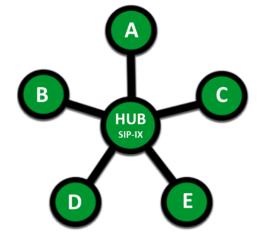
To optimize onboarding and reduce investment costs for participating services providers, SIP-IX HUB leverages existing connectivity between various operators through Internet Exchange Points (PTTs), hosting servers at NIC.br's NIC-JD Data Center, starting operations at the São Paulo IX.br point and expanding to other IX.br points thereafter.

The choice of direct interconnection via IX.br was made to reduce latency (network response time), lower operational costs, and increase network resilience — i.e., the ability to continue operating even in the event of failures.



### **Interconnections Between Operators**





Current

**Proposal** 

### **Goals**



Automate communication through a single portal between operators and the interconnection request process.



Reduce investment and operational costs in interconnection and voice traffic exchange processes. Increase offerings, generating competition.



Simplify the interconnection process and speed up activations of interconnections between operators.



# **Principles**

**Neutral Operator** 

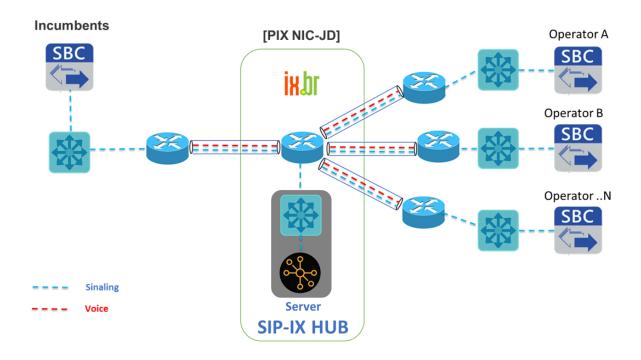
The participant is responsible for managing their routing plan to deliver calls to the HUB SIP-IX destined for the participants.

Calls must be sent with the destination RN1 and other necessary data for forwarding.

Each participant must have their own numbering plan.



## **Interconnections Between Operators SIP-IX HUB at IX.br**





#### Why Participate in the SIP-IX HUB

- Simplified process with reduced interconnection time and cost;
- · Reduced operational complexity and interconnection infrastructure management cost;
- Simplified management of inbound and outbound external traffic and associated processes (DETRAF, DETRAT);
- Improved quality and security of services offered to customers, with less downtime;
- Easier rollout of new Technologies.

### **Usage Conditions**

- Be an authorized operator (STFC, SMP, SCM) with RN1, EOT, and a dedicated numbering plan;
- Have direct access to IX.br (via dedicated connection);
- Validate origin numbers and block invalid ones;
- SIP-IX supports Verified Call.

#### **How to Participate in the SIP-IX HUB Service?**

- Contact the SIP-IX HUB commercial team via email: comercial@sipix.com.br;
- Sign the service participation agreement with the SIP-IX HUB;
- The participant will receive a private IP block defined by the SIP-IX HUB to connect to the platform and exchange signaling with other participants;
- Access the portal meu.ix.br and click on "Join SIP-IX HUB" to begin configuring the specific VLAN assigned by IX.br for voice traffic exchange;
- After VLAN configuration and validation, send an email to: engenharia@sipix.com.br requesting login and password for the SIP-IX HUB Platform;
- Schedule a kick-off meeting for training, start of configuration, and testing;
- The participant will then be ready to exchange traffic with other registered operators on the platform without SIP-IX HUB intervention.

### **Joining**

To join the SIP-IX HUB platform, interested participants may contact the commercial team via email: comercial@sipix.com.br.