

# The Enterprise Neurosystem

Climate Mission Summary

The Enterprise Neurosystem

Executive Summary

Climate change is a rapidly becoming a threat to human existence. And concurrently, AI model development is evolving at a rapid pace. Thousands of AI models could be deployed across multinational boundaries to help gather and cross-correlate climate data in real time. This can lead to new discoveries and more accurate solutions, but also creates a larger issue - what global-scale framework could be used to integrate all these AI instances, look for deeper patterns in the data, and relay these findings?

We propose the next stage of AI evolution - the Enterprise Neurosystem. A single AI instance connected to every area of climate monitoring, with millions of real-time and historical data points for reference. This framework will autonomously analyze and quantify this data, while providing guidance on current climate conditions and course correction.

* **The Enterprise Neurosystem -** A collective intelligence framework to connect and cross-correlate all AI models and data sources on a multinational scale. It can act autonomously to manage lower-level operations, and provide guidance for higher-order decisions.
* **Open Source Community Project** – Building an open community around the Enterprise Neurosystem is imperative for its success. Using Open Source principles and ethics guidelines, we achieve the requisite accountability and transparency for this global endeavor.
* **Brings experts together from Academia, Industry and Government** – Founding partners include representatives from America Movil, Dell, Equinix, Facebook/Meta, Fiducia AI, IBM Research, Intel, Harvard Analytics, Kove, PerceptiLabs, Reliance Jio, Rivian, Stanford SLAC, UC Berkeley, Verizon and Yahoo!. This diversity of backgrounds allows us to create the best production architecture for a large scale AI framework.
* **Integration of all AI models -** An open framework to achieve the following objectives:
  + Cross-correlation and pattern identification across all models and data sources to assist with deeper insights and accurate course correction.
  + Leverage existing investments - brings order to separate models and data silos, and collectively delivers a single overarching intelligence.
  + Leads to advances in intelligent networking and middleware with autonomous capabilities, and a higher degree of performance and security.
* **Cross-Vertical Solution** - This AI framework can be repurposed across a wide variety of industries and government organizations.
* **Large-Scale AI Infrastructure** – The architecture can be utilized for large-scale national and global AI use cases – resource and crop management, climate change, disaster mitigation, smart cities and states, multinational corporations, etc.
* **Use Case Engineering** – Proof of concept activity includes the following:
  + Bee Population Monitoring: AI Acoustics software to monitor hive health, free of charge
  + Stanford SLAC: AI development project for the LCLS Cookiebox Detector
  + Stanford SLAC: AI Secure Integration Fabric use case

**Community Leadership**

Governing Board:

Chair:  Bill Wright, Head of AI/ML and Intelligent Edge, Global Verticals, Red Hat

Vice Chair : John Overton, CEO of Kove

Technical Committee Lead:  Dinesh Verma, CTO Edge at IBM Research

Government Representative:  Ryan Coffee, Sr Scientist, Stanford National Accelerator Lab

Financial Services Representative:  Vishnu Hari, PM at Meta AI

IT Vendor Representative: Ganesh Harinath, CEO of Fiducia AI

Telco Industry Representative: Tong Zhang, Principal R&D Engineer at Intel, Network AI

Working Groups:

AI-based Signal Processing Working Group – Chair:  David Wood, Software Engineering, IBM Research

Core Intelligence Working Group – Chair:  Dinesh Verma, CTO Edge, IBM Research

Physical Image Analytics Group – Chair: Ryan Coffee, Sr Scientist, Stanford National Accelerator Lab

Secure AI Connectivity Fabric Group – Chair:  Sanjay Aiyagari, Principal Architect, Red Hat

Telco Working Group – Chair:  Ravi Sinha, Director of Technology and Solutions, Reliance Jio