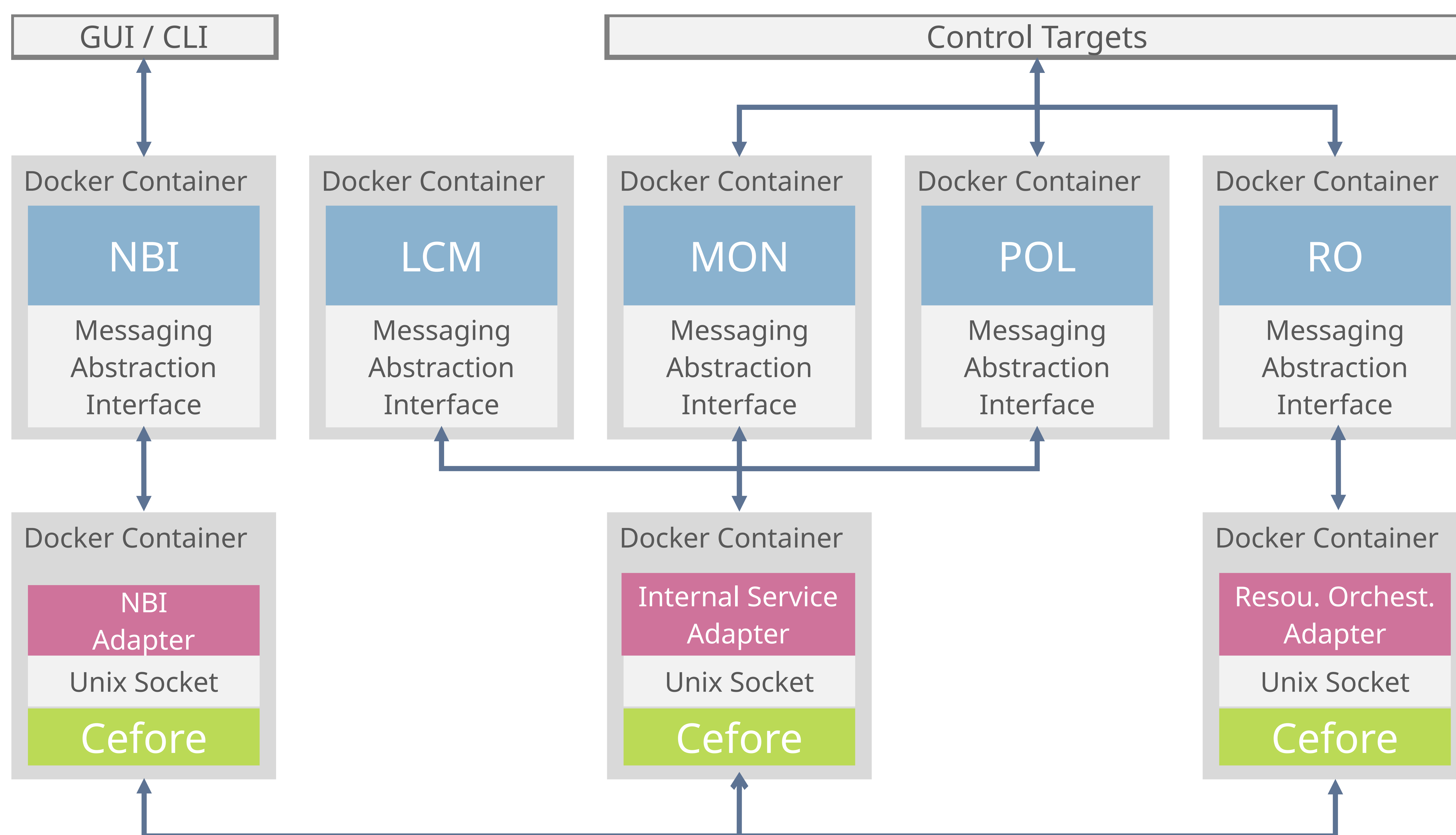


**B5G:** Beyond 5G Network Services  
**OSM:** Open Source MANO, an ETSI specification  
**OSDM:** Open Source Distributed MANO (by NICT)  
**ICN:** Information Centric Networking, transmits and caches content by name efficiently  
**Cefore:** Implementation of an ICN architecture

**Control Targets:** Use AI/ML to process telemetry data and make OSM to change the network service  
**Message Abstraction Interface (MAI):** Connects a component of OSM to its corresponding adapter  
**Adapters:** Connect MAIs and Cefore engines to build a communication bus based on ICN

## Managing Beyond 5G Network Services With Open Source Distributed MANO



- ▶ Control of network services beyond 5G requires a high amount of telemetry data, increasing bandwidth usage in the control plane. If OSM is not adapted for the transmission of high amount of telemetry data, the control performance is largely diminished.
- ▶ OSDM has a comm. bus based on Cefore (ICN) named KanriBUS that improves the efficiency of transmitting high amount of telemetry data.
- ▶ Newly designed and impl. adapters connect the message abstraction interfaces and the bus implemented with Cefore.
- ▶ Cefore engines cache data in the intermediate network elements and deliver them efficiently to all requesters, such as the OSM modules.
- ▶ Used bandwidth is highly reduced (see Fig.)

