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## Model-driven Audit Trail Logs Infrastructure for Telco VNFs

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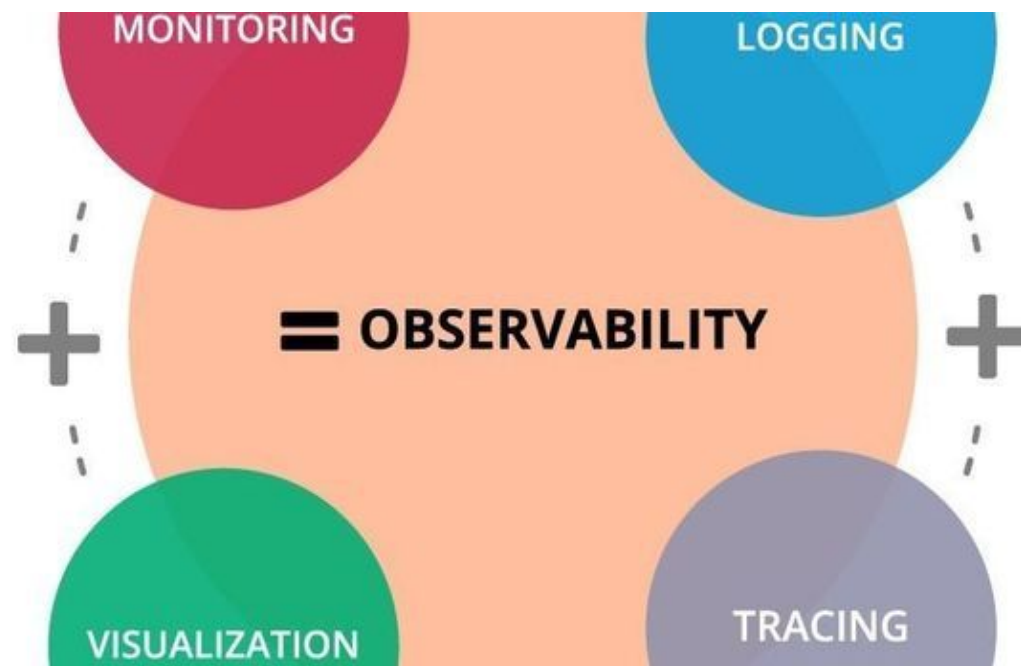


# Network function is not alone

# \*NF's non functional requirements

- Monitoring
- Logging
- Audit
- Security controls
- KPIs
- Visualization...

# Observability



# Monitoring



# Logging, tracing, chaos engineering

## Logging



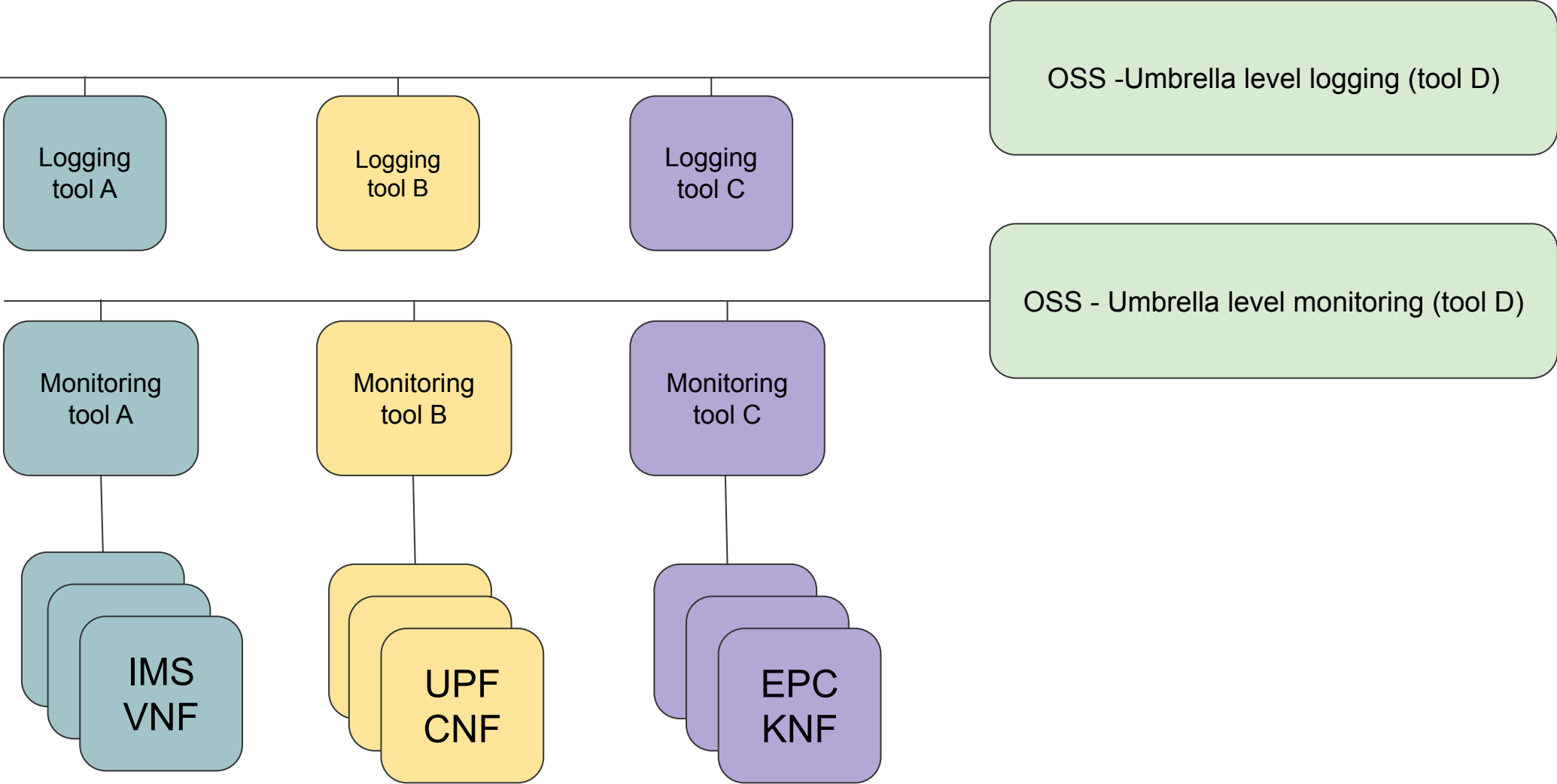
## Tracing



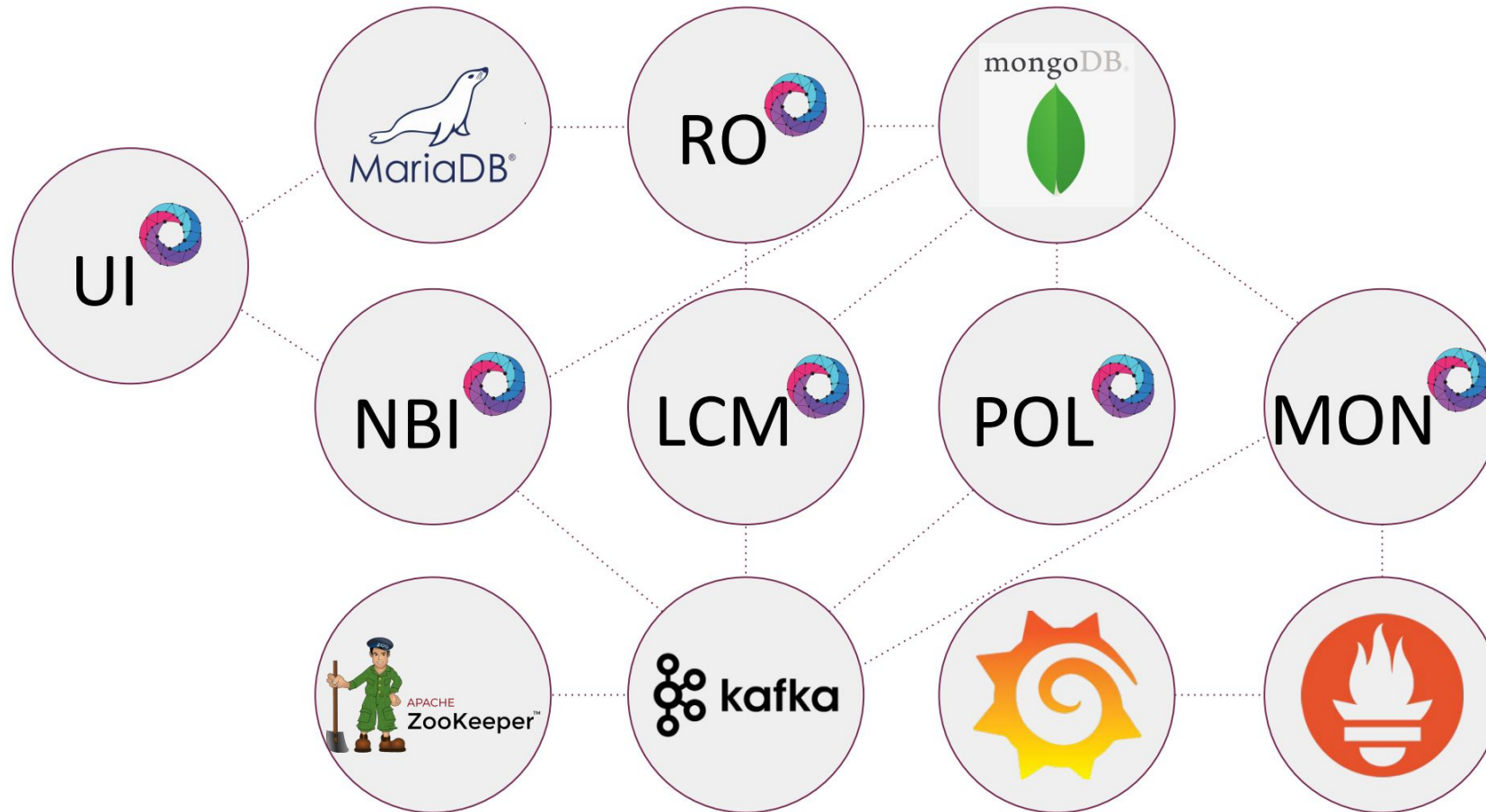
## Chaos Engineering



# Individual approach vs single pane of glass



# How OSM deployment works





# Network Function Charm

"I can use a MySQL database"

"I can send my audit logs"



"I can send my KPIs every minute"

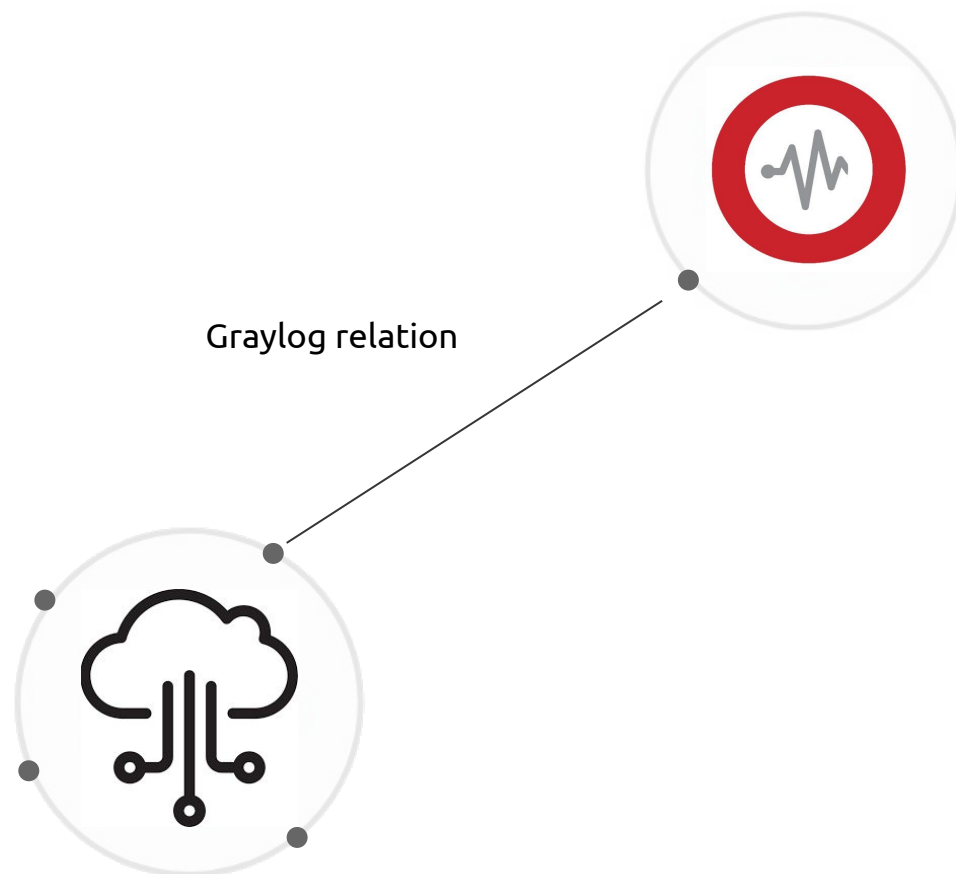
"I can collect audit logs"

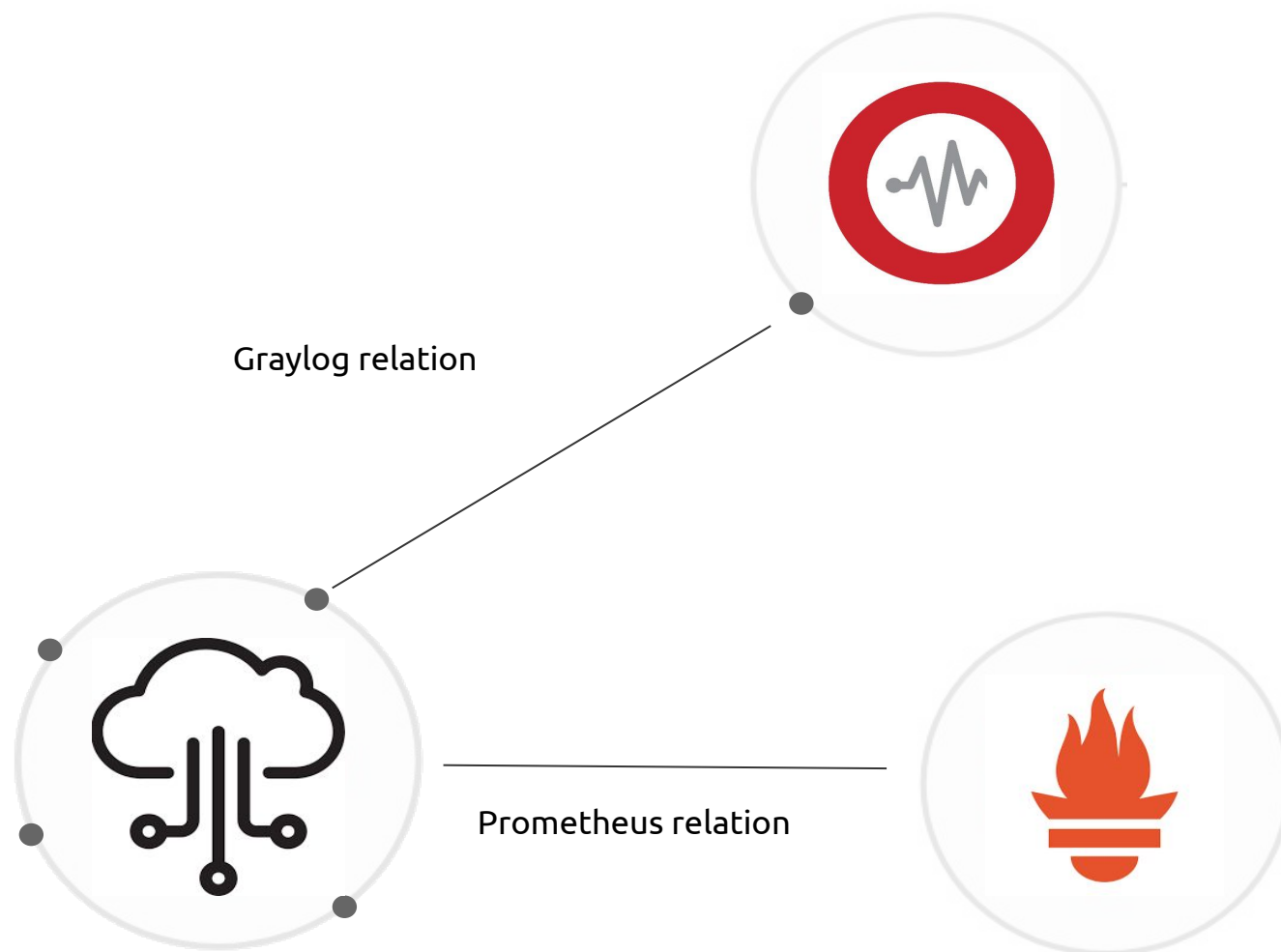


"I can send my audit logs"

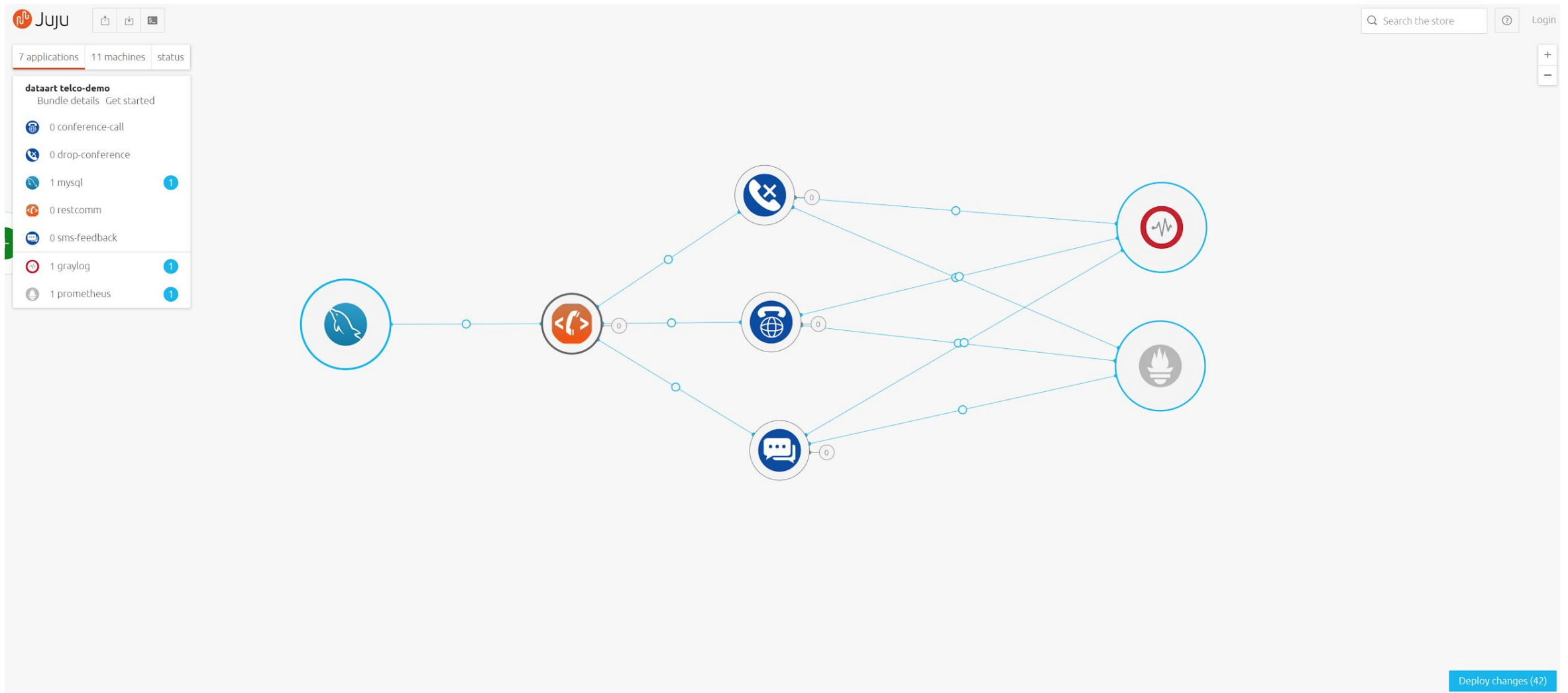


# NF Charm Relations



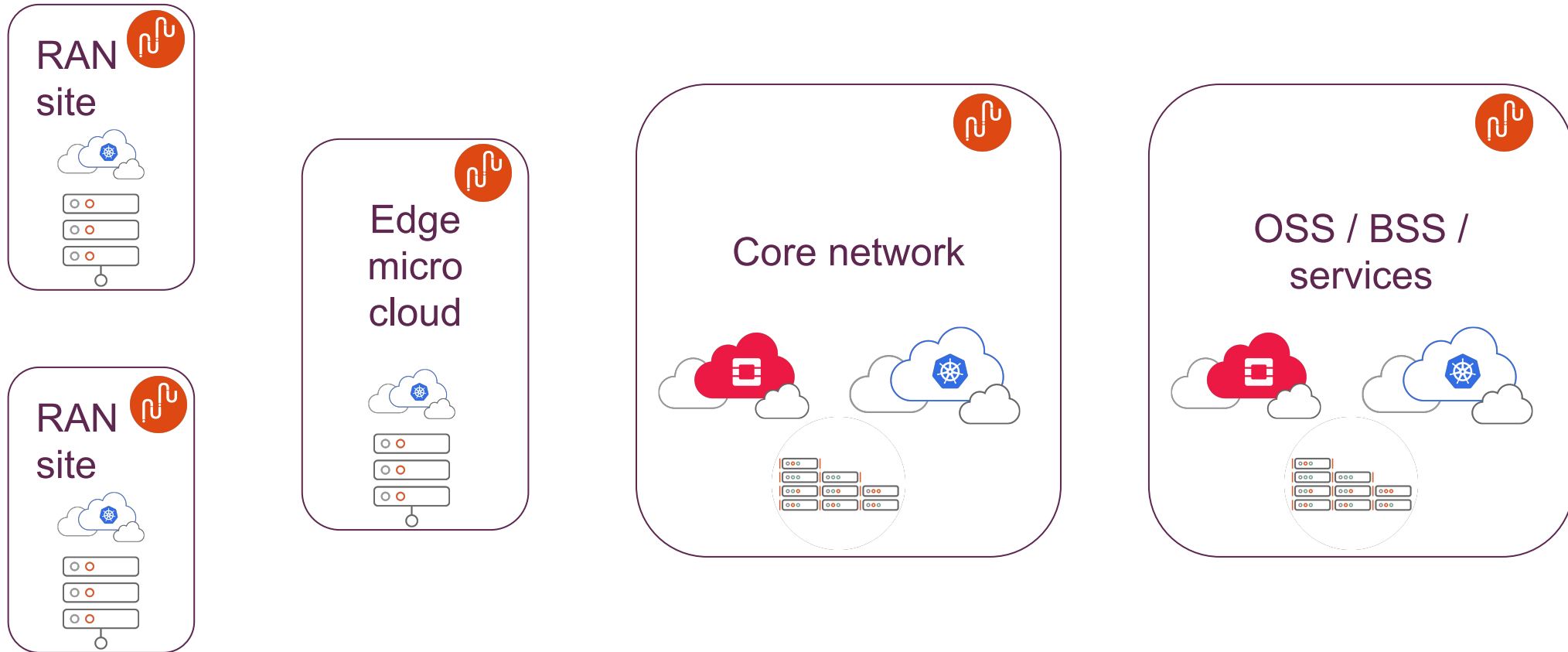


# Juju UI





# Enable NFRs across entire ecosystem



- Easier and faster to build new network functions
- Pick and choose your LMA tools
- Faster troubleshooting
- No lock-in, free to change your setup

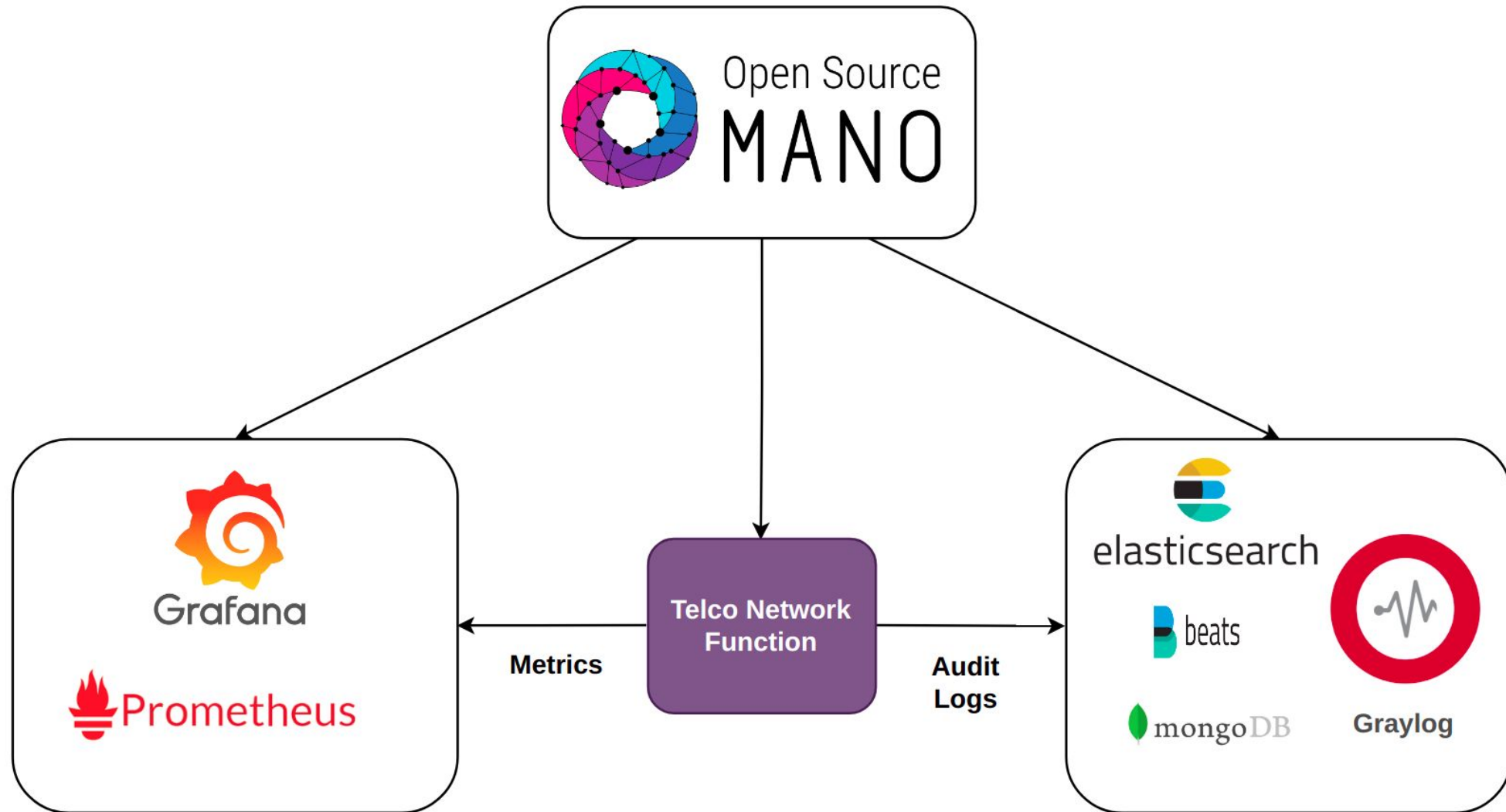




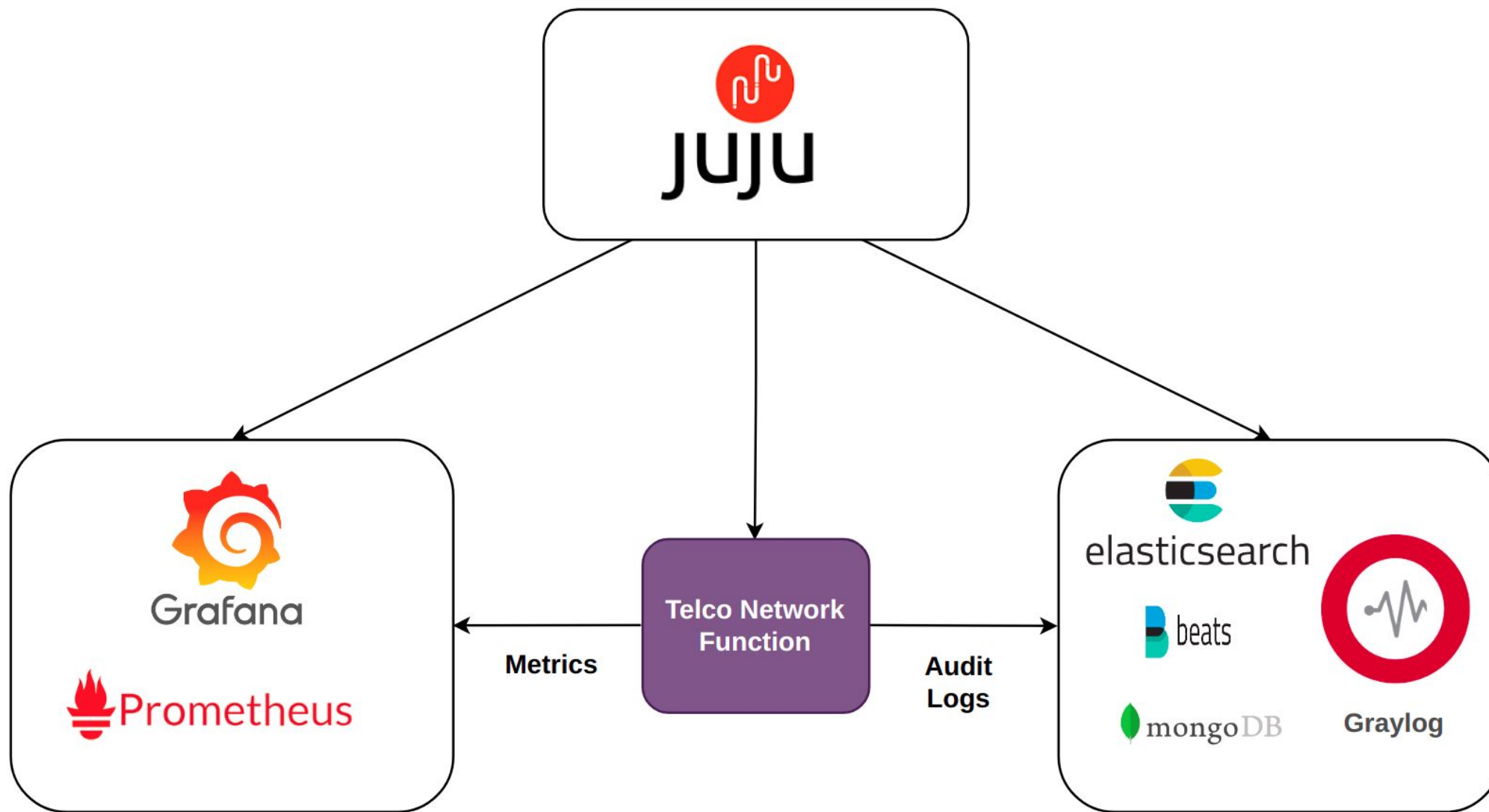
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# Demo

# Demo setup



# Demo setup



# Demo Steps

- Deploy LMA Charms
- Deploy KNF
- Relate KNF to LMA with charms
- Scaling KNF
- Upgrade of LMA component
- Audit Logs in Graylog



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# Thank you Questions?