

**OLF**  
NETWORKING

LFN Developer & Testing Forum

# Introduction To ODIM

**A Community Overview**



**ODIM**

OPEN DISTRIBUTED  
INFRASTRUCTURE MANAGEMENT

# ODIM Community

## Open Distributed Infrastructure Management (ODIM)



- A Linux Foundation Project
- Part of LF Networking (pending)
- Formed in July 2020
- First release – January 2021

# Manageability Challenges

## MANAGEMENT OF EDGE-TO-CORE DISTRIBUTED, DECENTRALIZED INFRASTRUCTURE

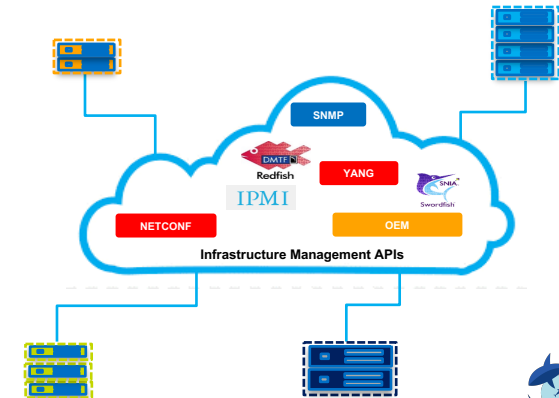
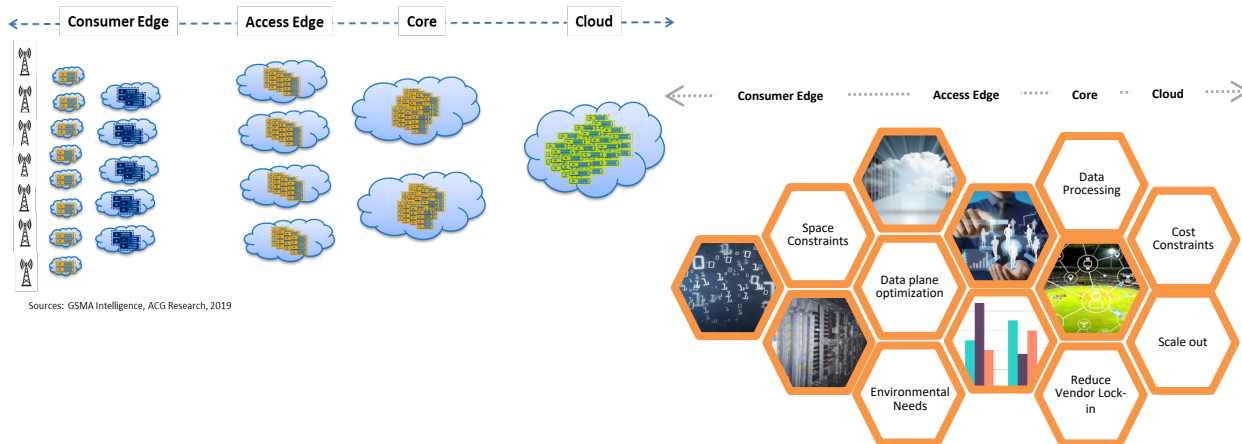
- Aggregation
- Composition
- Scaled operation
- Heterogeneity
- Vendor Neutrality

## PHYSICAL INFRASTRUCTURE REQUIREMENT DIVERSITY

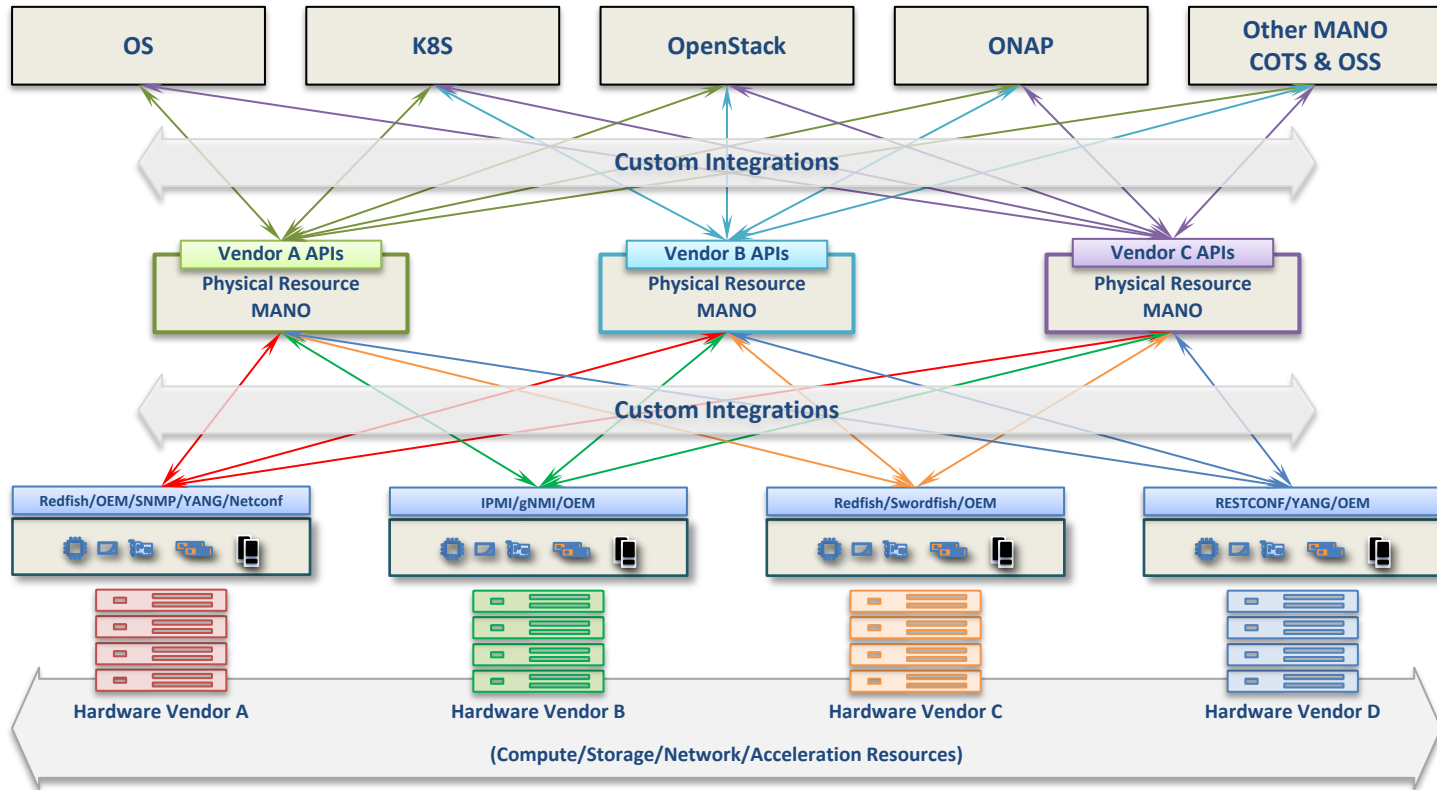
- Facilities
- Cost
- Scale
- Performance
- Security
- RAS

## MINIMAL ALIGNMENT ACROSS DIVERSE, VENDOR-SPECIFIC INFRASTRUCTURE MANAGEMENT APIS

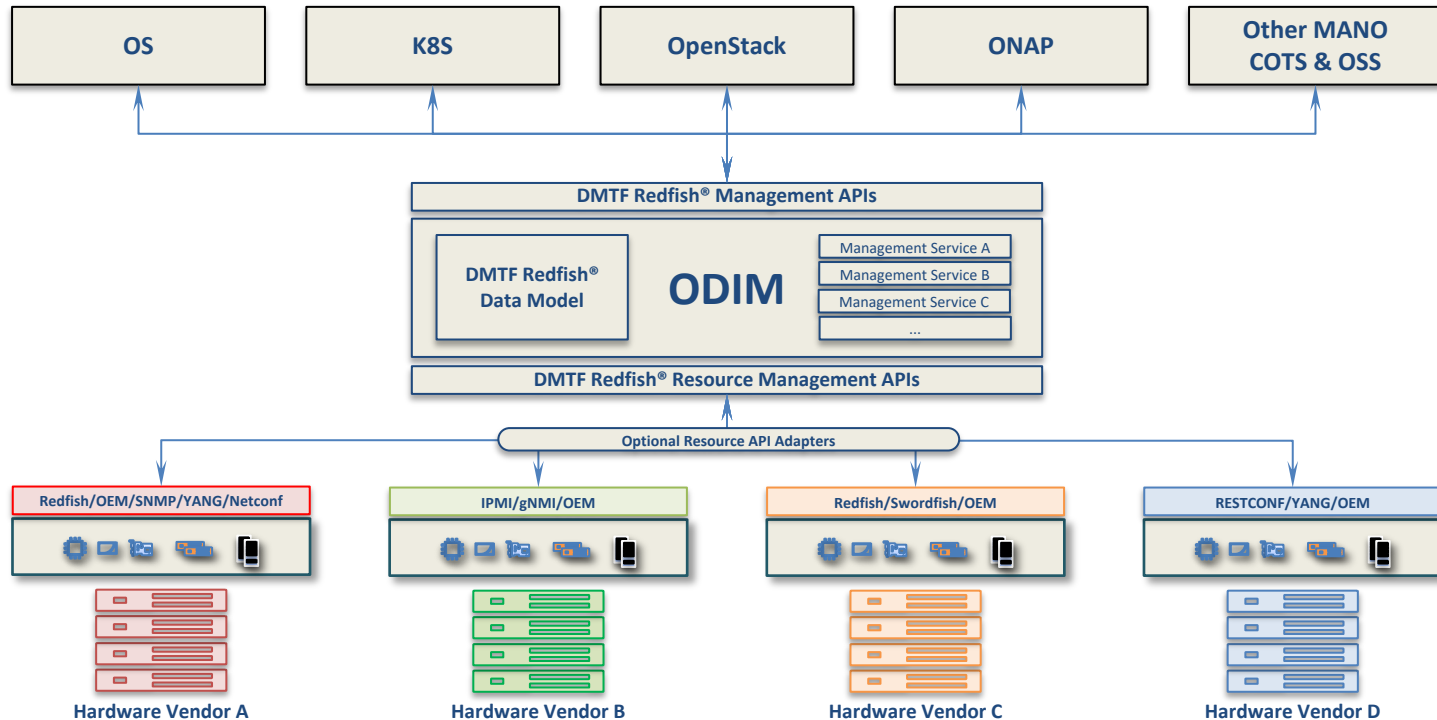
- Inconsistent interface implementations
- Inconsistent models
- Vendor centricity
- API proliferation



# Today's Physical Resource Management Landscape

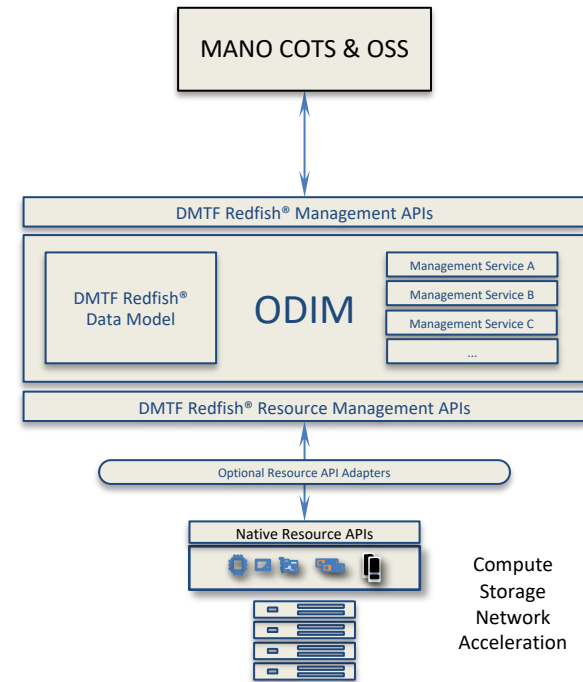


# ODIM Simplifies Physical Resource Management...



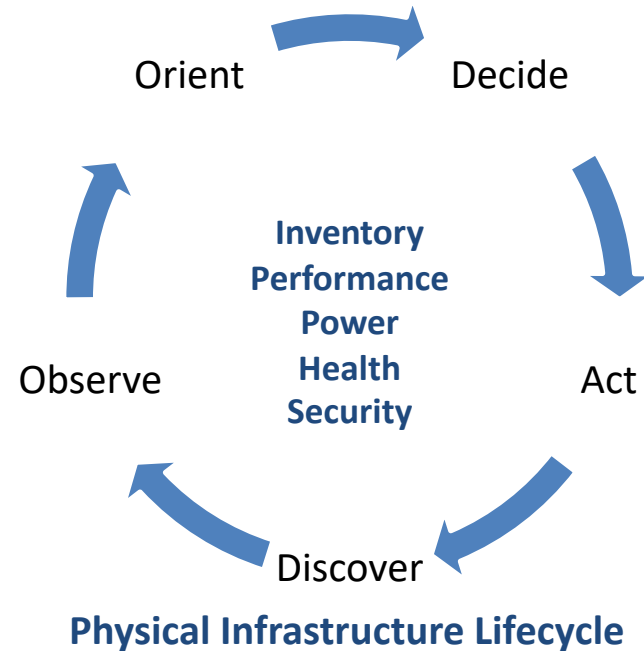
# ODIM Goals

- **Enable wide adoption** across Enterprise, Telecom, Cloud and other markets
- **Deliver a reference implementation** of DMTF Redfish® APIs
- **Create an ecosystem** of hardware platform management and MANO plug-ins/adapters
- **Facilitate integration** with upstream MANO solutions
- **Enable management API interoperability** between vendors of distributed, heterogeneous physical infrastructure

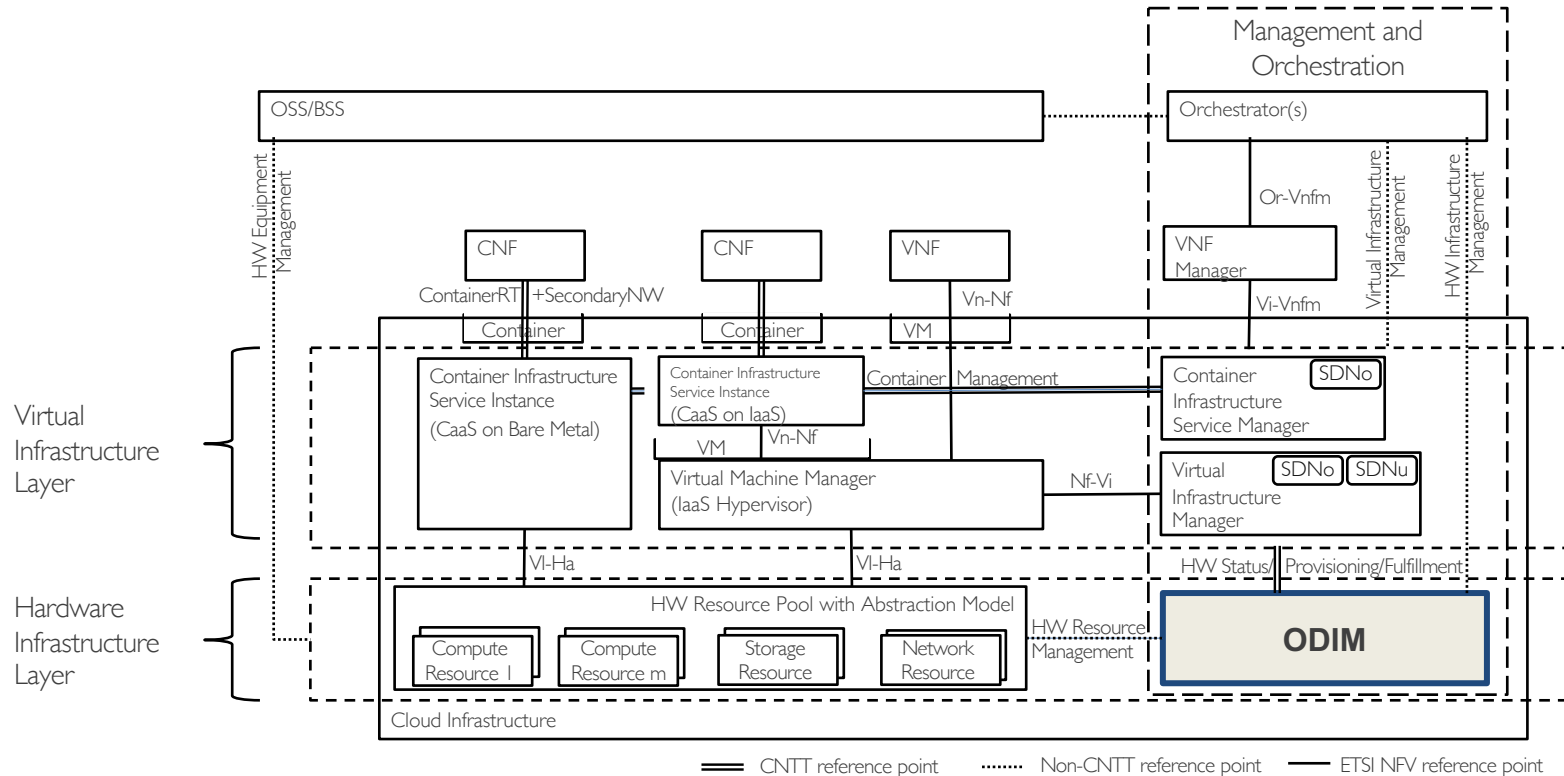


# Key Use Cases

- Multi-site, multi-vendor physical infrastructure lifecycle management from edge to core
- End-to-end remote, distributed management across multiple locations
- Vendor-neutral discovery, exposure/visibility and control of infrastructure resources and their capabilities
- Closed loop automation of the physical infrastructure lifecycle management (OODA, MAPI, etc.)
- Batching and grouping of distributed management operations



# ODIM and MANO Ecosystem

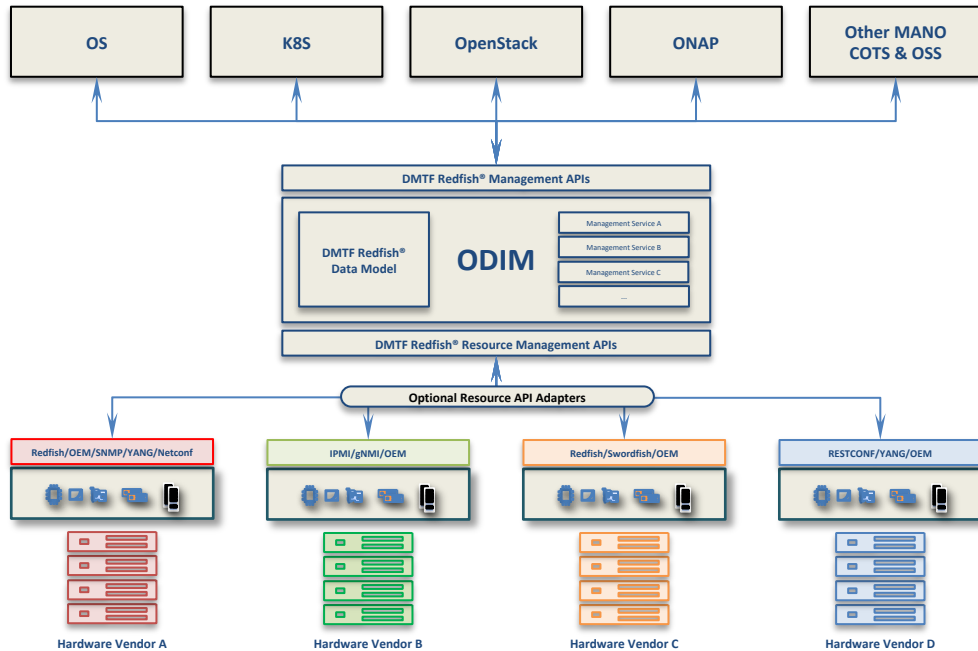




## **DMTF Redfish® APIs and data model are foundational to ODIM**

- ODIM-exposed interfaces are based on DMTF Redfish® specification
- ODIM abstracts downstream physical infrastructure that is not DMTF Redfish® aligned
- Initial focus is on Compute, Storage, Acceleration and Fabrics APIs

# ODIM Synergies



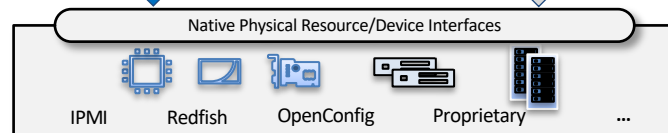
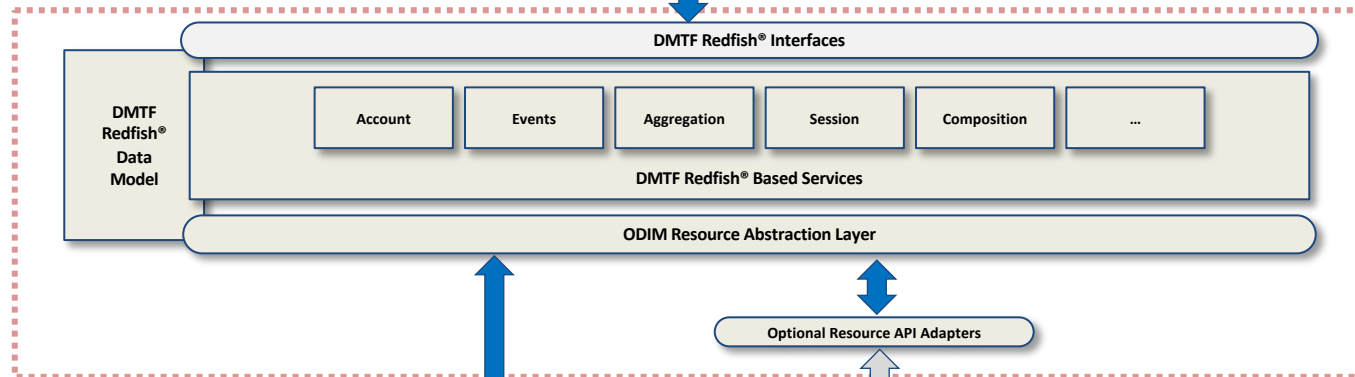
# ODIM Architecture

**CAUTION**  
WORK  
IN PROGRESS

Upstream  
COTS/OSS Management  
Clients/Users



**ODIM**  
Presents consistent  
on/off-premises  
HWaaS interfaces for  
physical infrastructure  
management

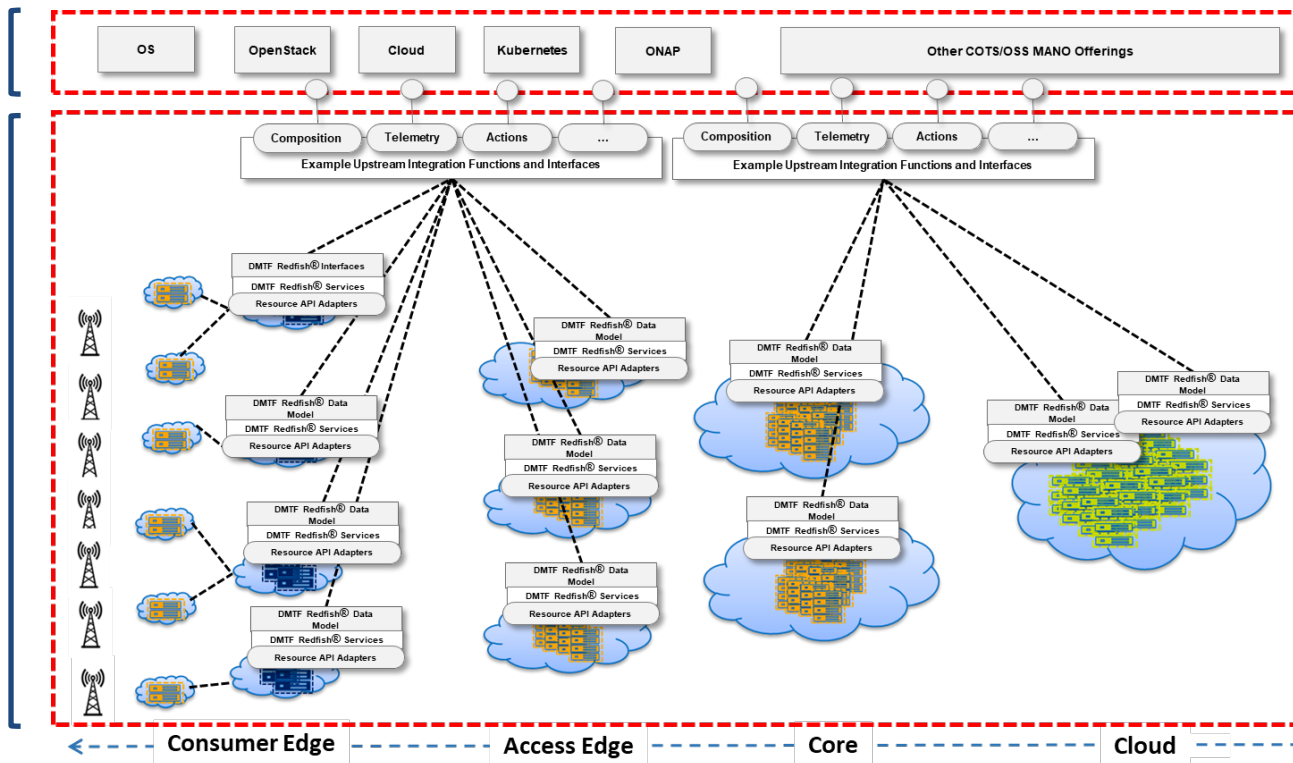


 DMTF Redfish® APIs  
 Native Interfaces

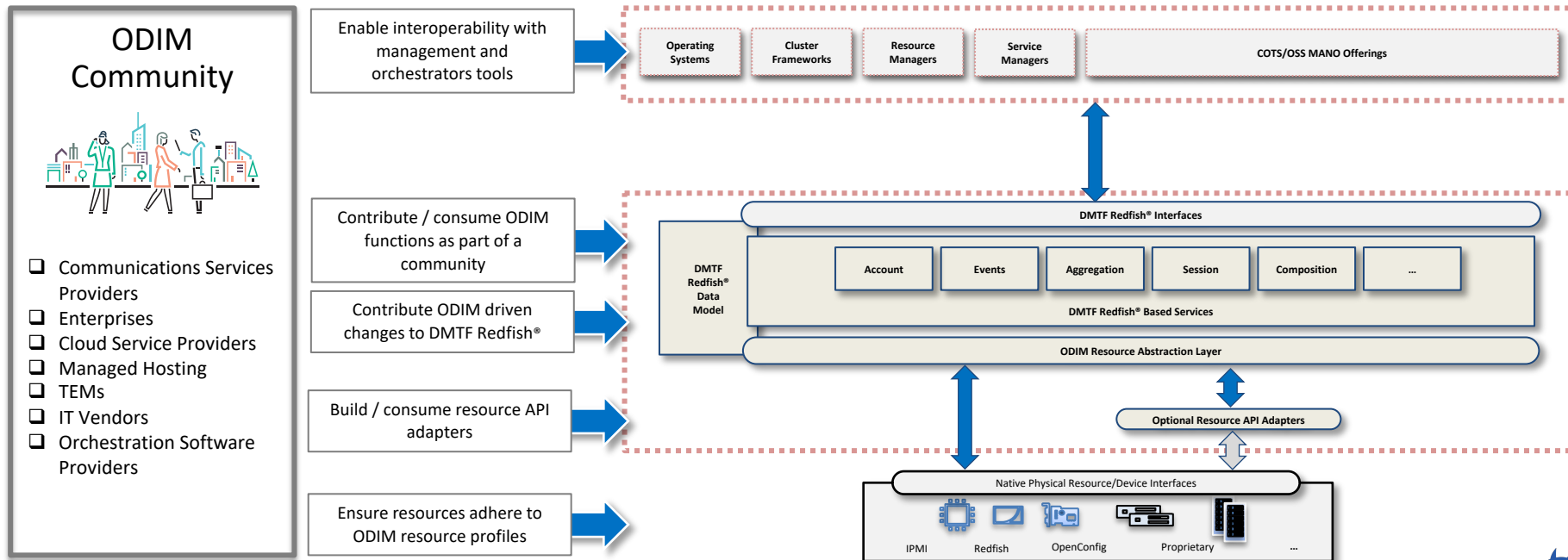
# Distributed ODIM At Scale

Upstream  
COTS/OSS Management  
Clients/Users

ODIM management  
functions and interfaces  
distributed for open,  
standards-based scalability



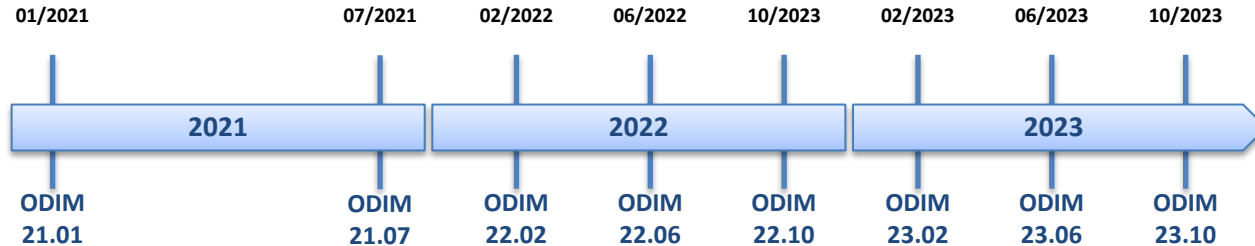
# ODIM Contribution Areas



# Release Plan



- Major releases only, no maintenance releases
- Two releases a year for 2021, three releases starting in 2022
- First release completed in January 2021



# Would You Like To Know More?

- Attend additional LFN DTF ODIM-related sessions...
  - [ODIM Build & Run](#)
  - [ODIM Release 1](#)
  - [ODIM Use Cases For ONAP](#)
- We invite community and TSC participation
  - Website: <https://odim.io/>
  - WIKI: <https://wiki.odim.io>
  - Mailing list: <https://lists.odim.io/g/odim-general>

# OLF NETWORKING

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