




Discovering, managing and meta-orchestrating resources

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Resources in the Continuum

	2018		2025
 Connected devices*	23 billion	x3	75 billion
 Created Data**	33 Zetabytes	x5	175 Zetabytes
 Enterprise Data created & processed outside DCs & Cloud***	~10%	x8	>80%

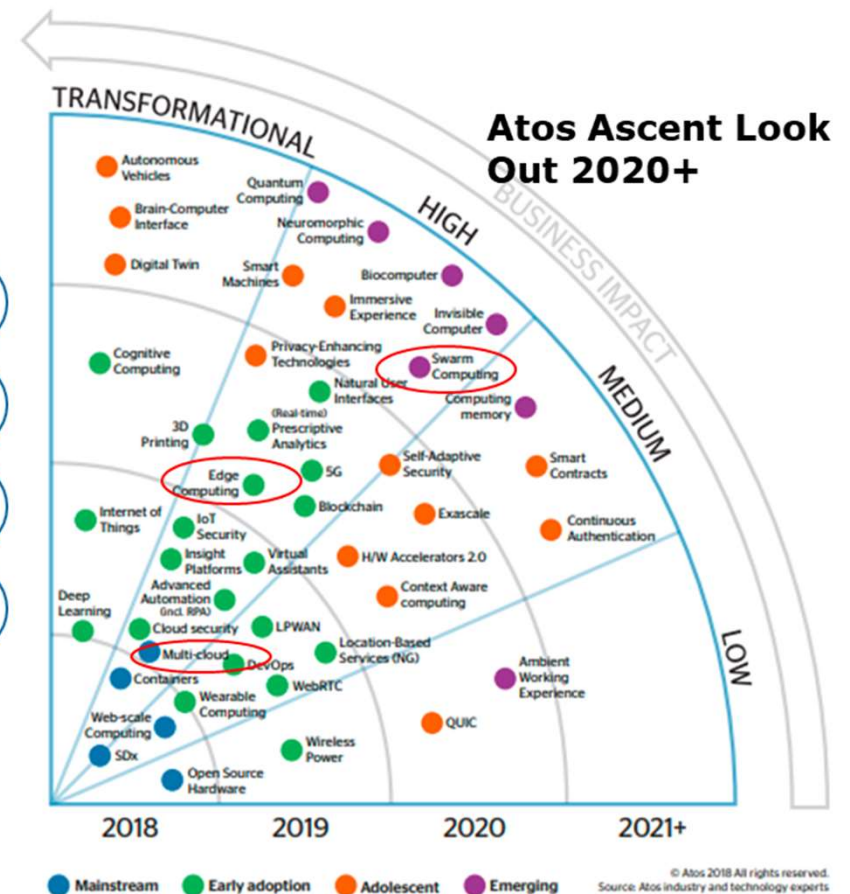
**Radical results
require radical
transformation"**

"Digital transformation is not about the evolution of devices, it is about the integration of intelligent data into everything that we do" (IDC)



Convergence of Edge, IoT and Network Connectivity

- 1 Edge computing is a key technology for IoT and 5G
- 2 Effort to find technical synergies and converge to avoid fragmentation
- 3 Challenges: decentralized management, heterogeneity and volatility of resources
- 4 Solution: combine connectivity, edge and multi-cloud



So, what's the future?

Swarm management among IoT, Edge and Cloud

- ▶ Dynamic eco-systems of clouds, each adding to the collective capability
- ▶ Allows operations and interactions to adapt according to context
- ▶ Improved efficiency and reliability of service provision through:
 - Enabling ad-hoc collaborations, which help built service networks
 - Optimizing delivery schemes which enable information and services to be shared and exchanged
 - Seamless management of multi-cloud, edge, IoT elements and complete service orchestration
- ▶ Provides a significant step toward massively distributed computing models

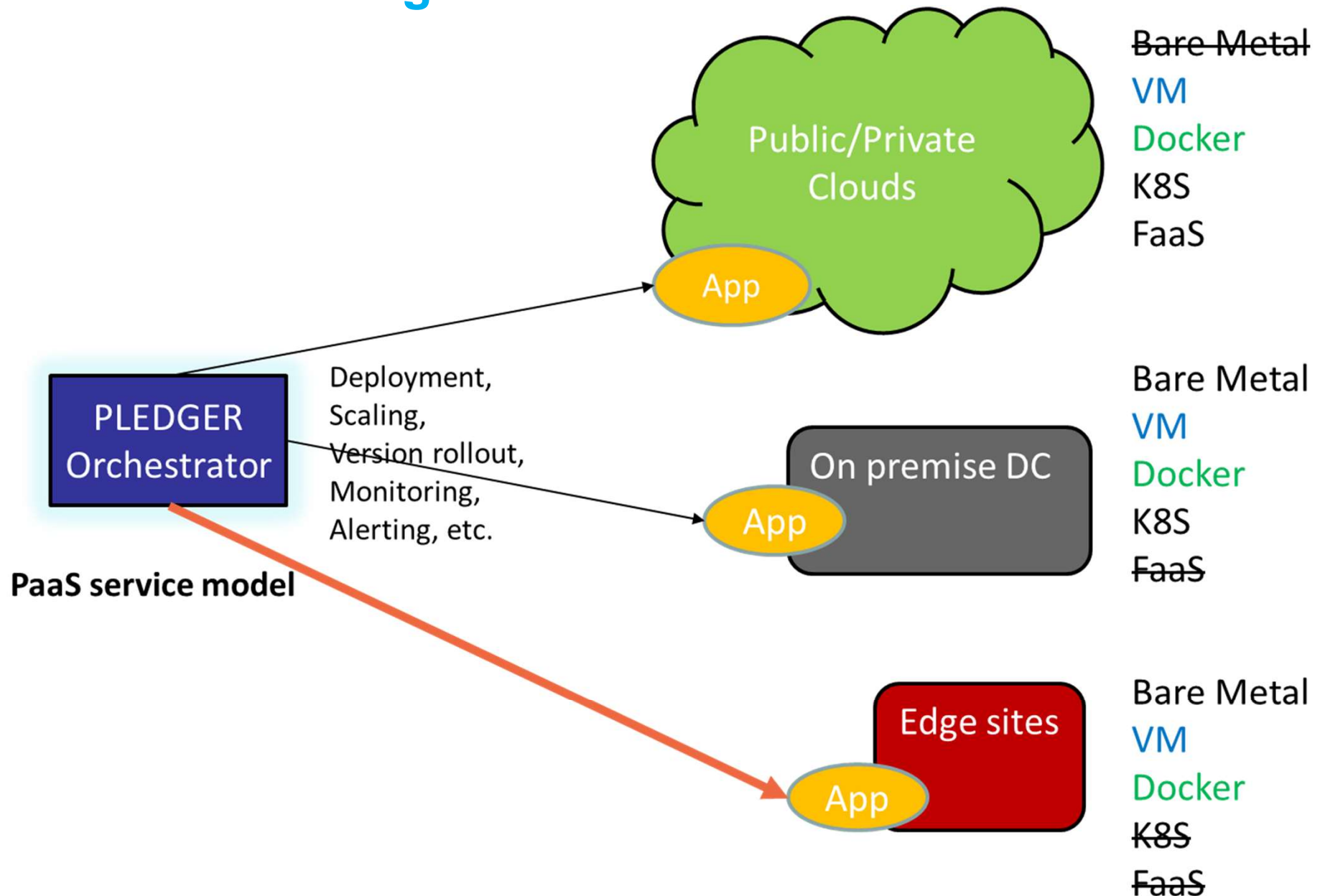


Advent of fully distributed, opportunistic collaborative environments encompassing complex IoT devices, cyber-physical systems, edge and clouds, each of these adding to the collective capability and insight.

And what can be done?



Meta-Orchestrating resources

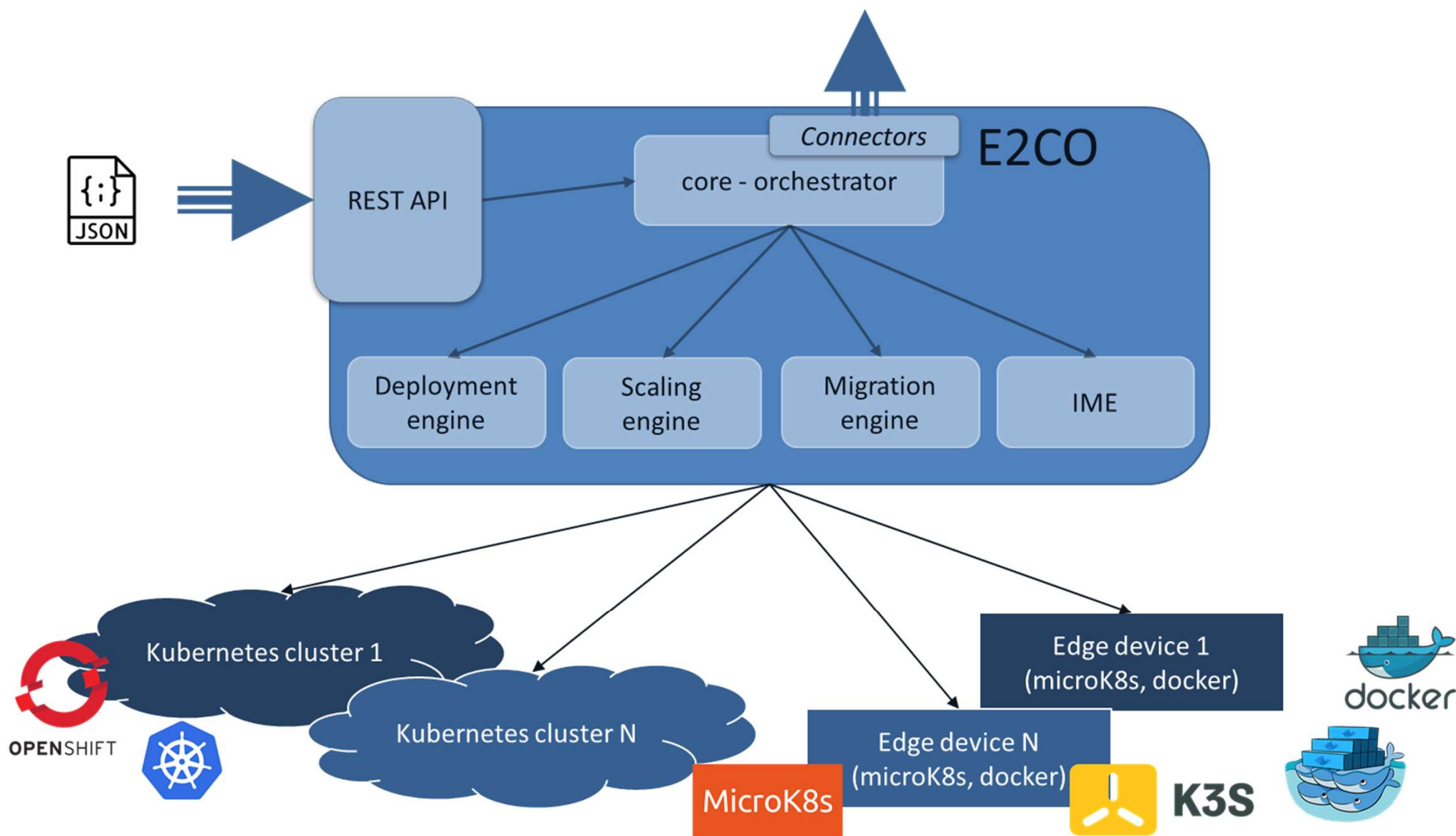


PLEDGER Orchestrator

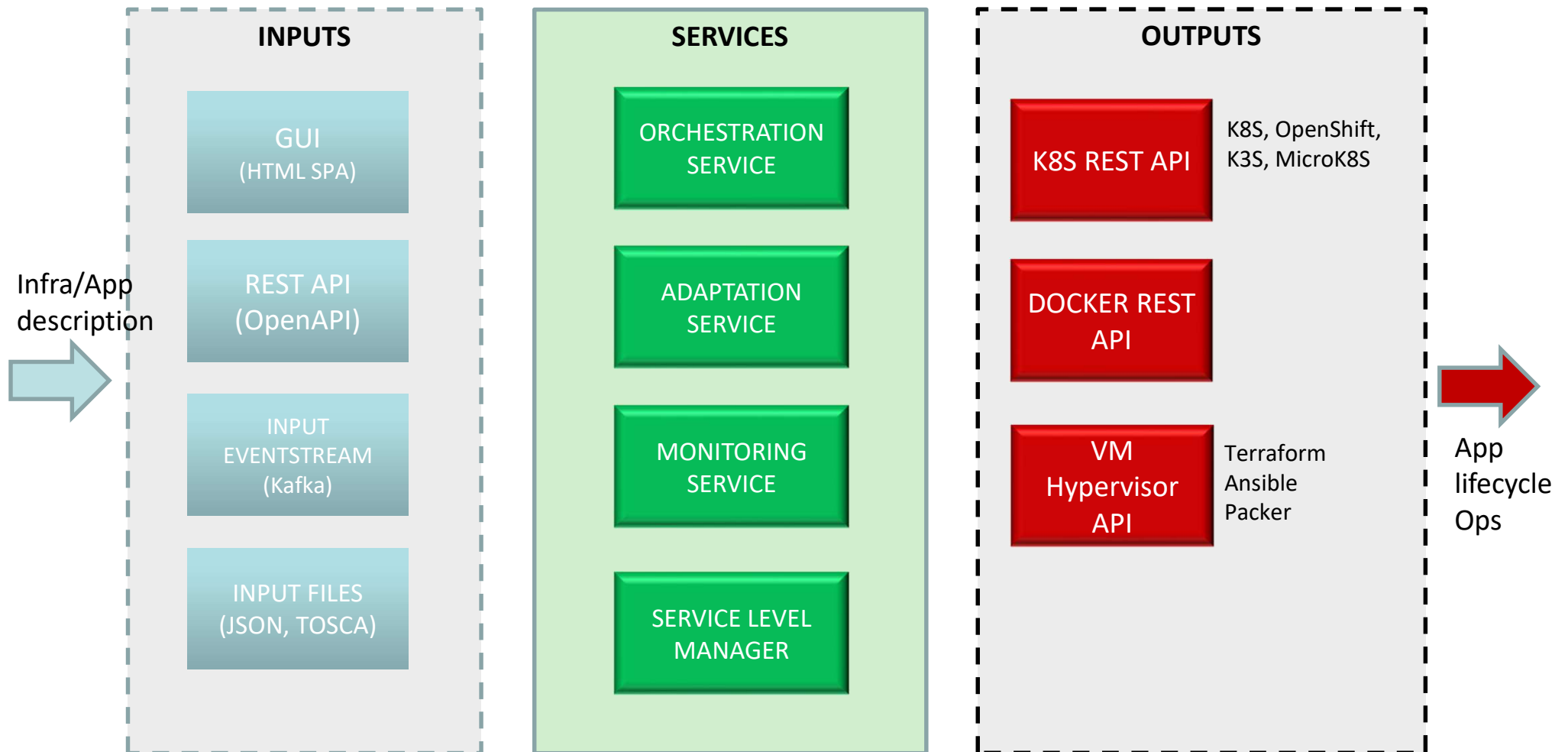
- Tool for managing composed services lifecycle in multiple environments.
 - Manages services requests.
 - Orchestrates the search of best resources for executing services.
 - Manages multiple cloud/edge clusters and devices.



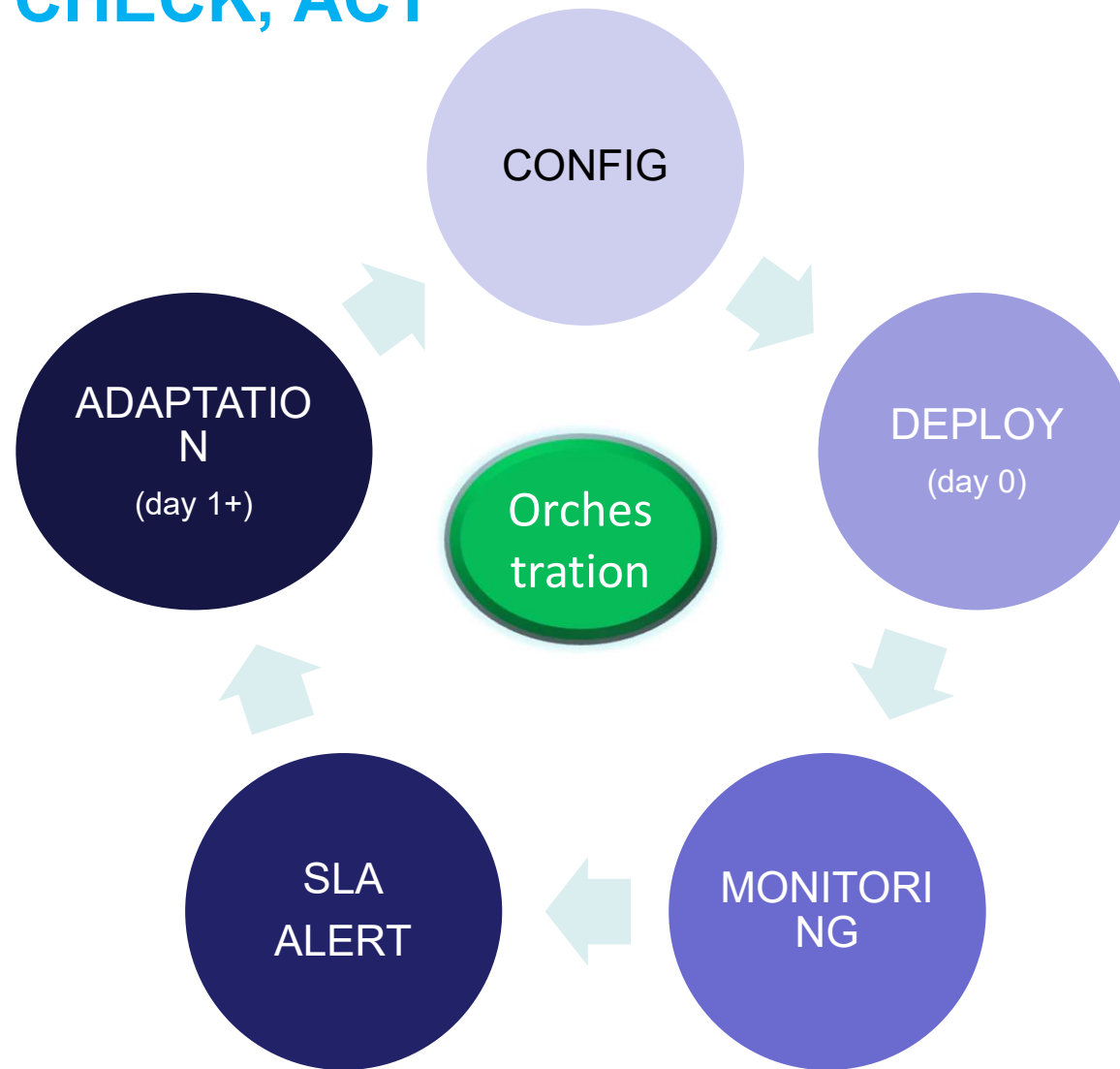
Architecture



CONTINUUM ORCHESTRATOR Components



PLAN, DO, CHECK, ACT



Thank you!



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