
AWS
re:Invent
NOV. 28 – DEC. 2, 2022 | LAS VEGAS, NV

CON401

Run and manage Amazon EKS on premises

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AWS

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AWS

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Agenda

1. Amazon EKS hybrid and edge use cases and product portfolio
2. Product deep dive – Amazon EKS Anywhere
3. Product deep dive – Amazon EKS on AWS Outposts

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Common hybrid cloud use cases



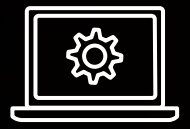
Support low-latency applications



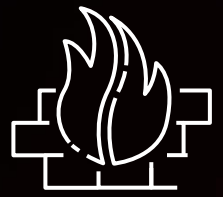
Modernize application architectures and developer operations



Satisfy data residency requirements



Run edge-specific workloads



Enable cloud bursting and disaster recovery



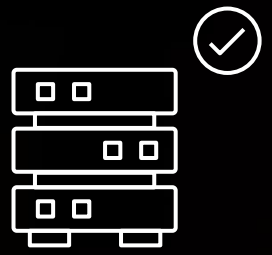
Support 5G and RAN workloads



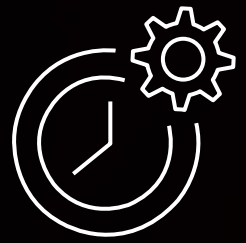
Process data locally

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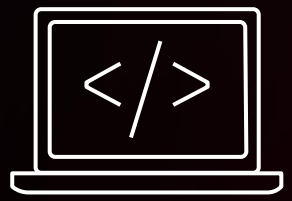
Customers want the same experience across environments



Same reliable, secure, and high-performance application stack



Same operational consistency



Same development tools and APIs



Same tools for automation, deployments, and security controls



Same pace of innovation as in the cloud

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Amazon EKS portfolio

Amazon EKS



Amazon EKS
in Local Zones



Amazon EKS
in Wavelength Zones



Amazon EKS
on AWS Outposts



Amazon EKS Anywhere



Amazon EKS Distro





AWS managed

Customer managed

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Amazon EKS in your data center or edge location

	Amazon EKS on Outposts	Amazon EKS Anywhere
		
Infrastructure	Investing in new infra	Using existing infra
Connectivity to cloud	Fully connected	Flexible connectivity
Cluster management	AWS managed	Customer managed

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Adoption segments



Manufacturing



Financial services



Telco



Healthcare



iGaming

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4G/5G network transformation with EKS Anywhere



Radio Access Network (RAN)

Mobile core

OSS/BSS

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Amazon EKS Anywhere featured partners







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Amazon EKS Anywhere partners

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Amazon EKS Anywhere partners

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Product deep dive – Amazon EKS Anywhere

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Amazon EKS Anywhere – consistent and reliable



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Amazon EKS Anywhere infrastructure options

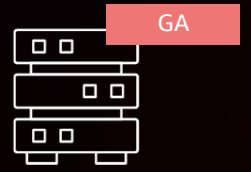
Amazon EKS Anywhere



Cluster API providers



VMWare



bare metal



Apache CloudStack



AWS Snowball Edge



Nutanix

OS

Ubuntu

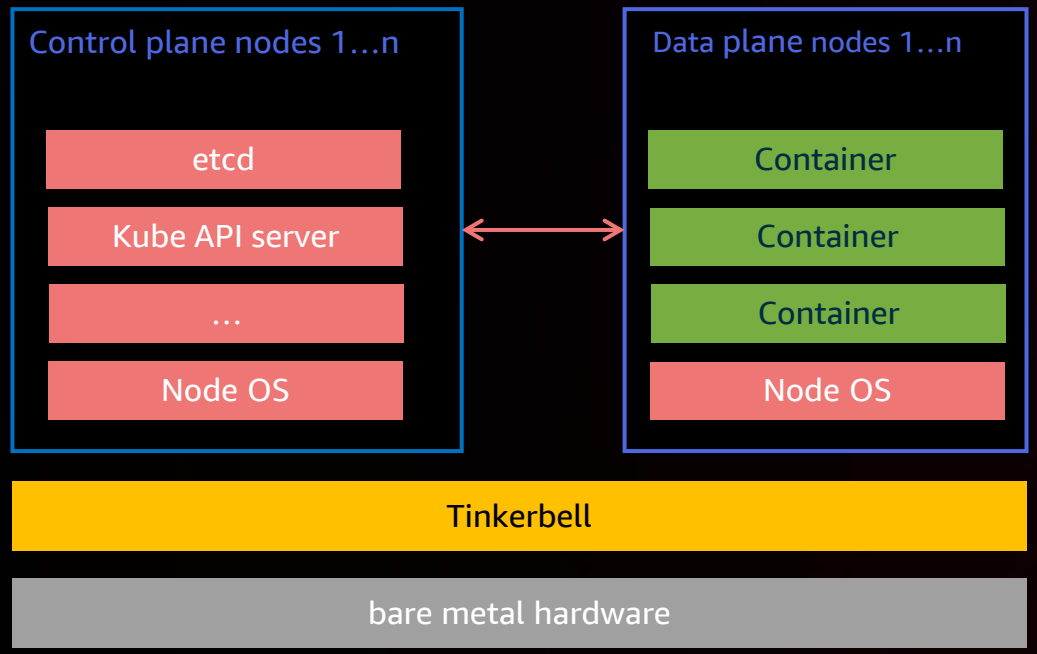
Bottlerocket

RHEL

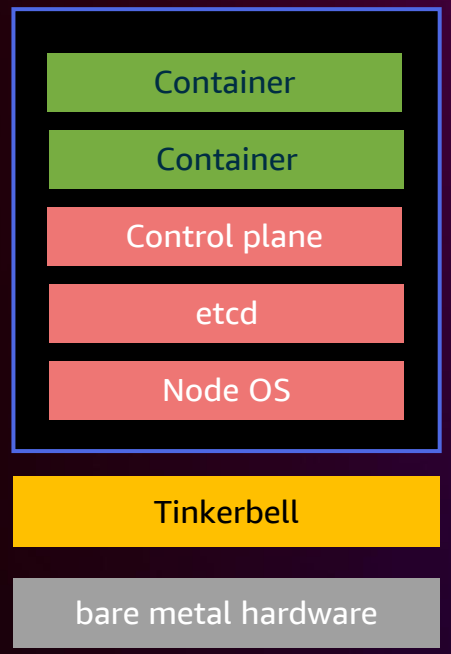
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Amazon EKS Anywhere infrastructure options

Multi-node bare metal cluster



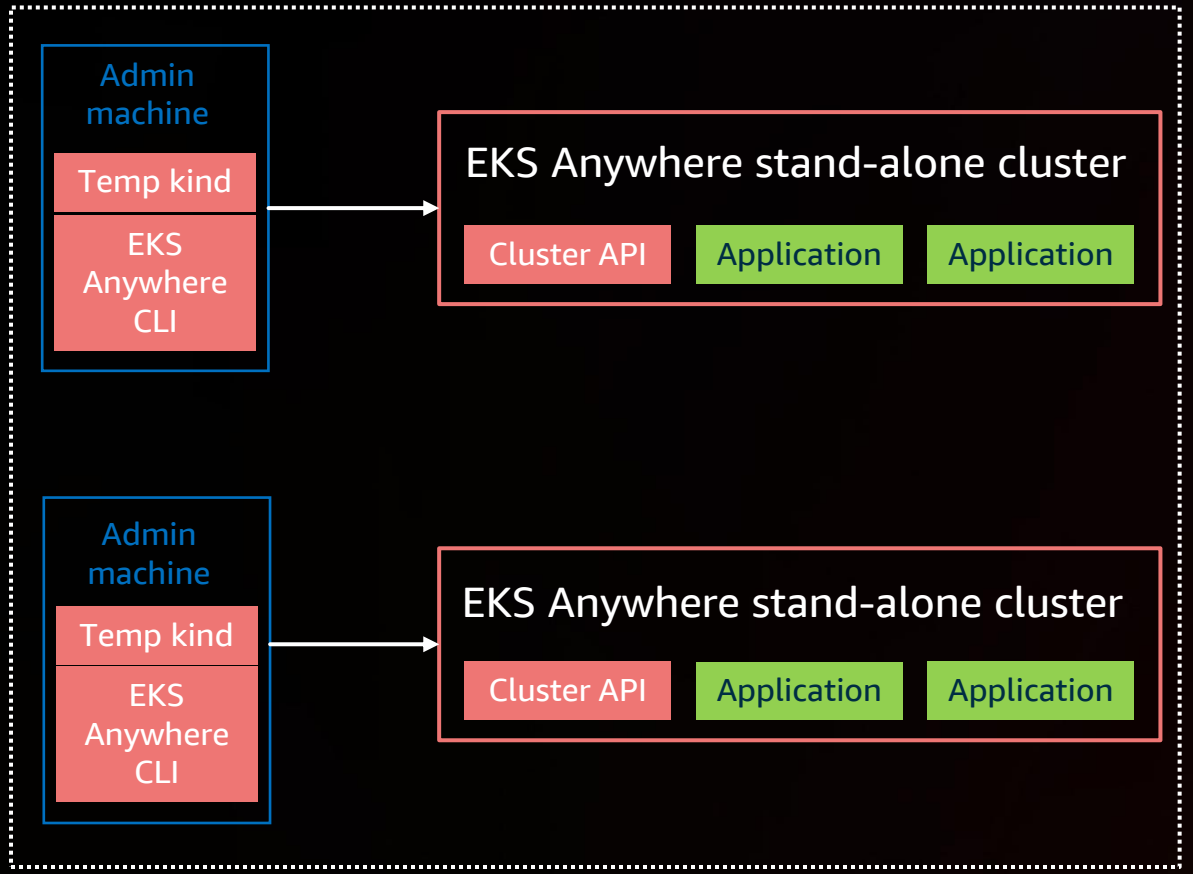
Single-node bare metal cluster



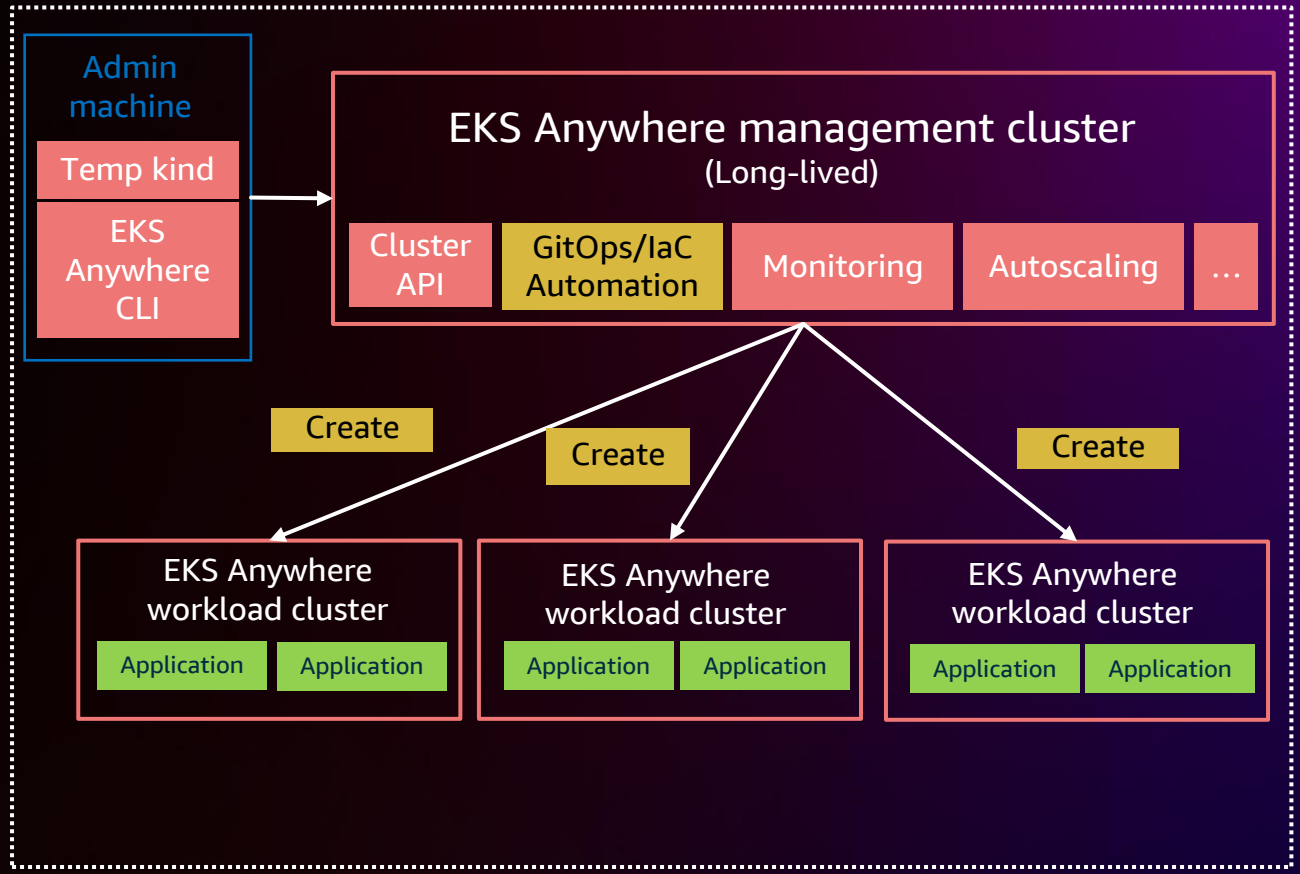
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On-premises multi-cluster management

Self-managed stand-alone cluster



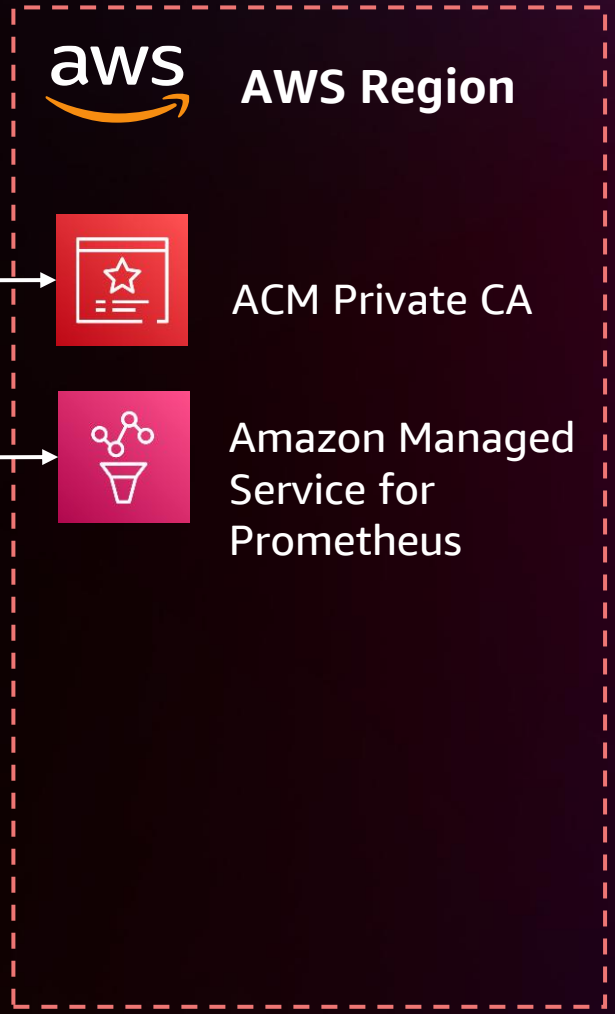
Management/workload cluster

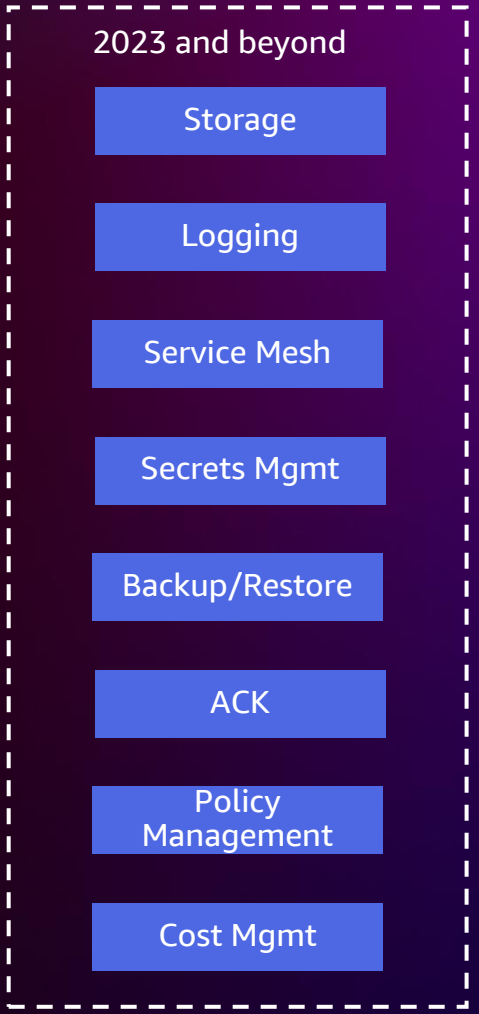


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Integrations







New

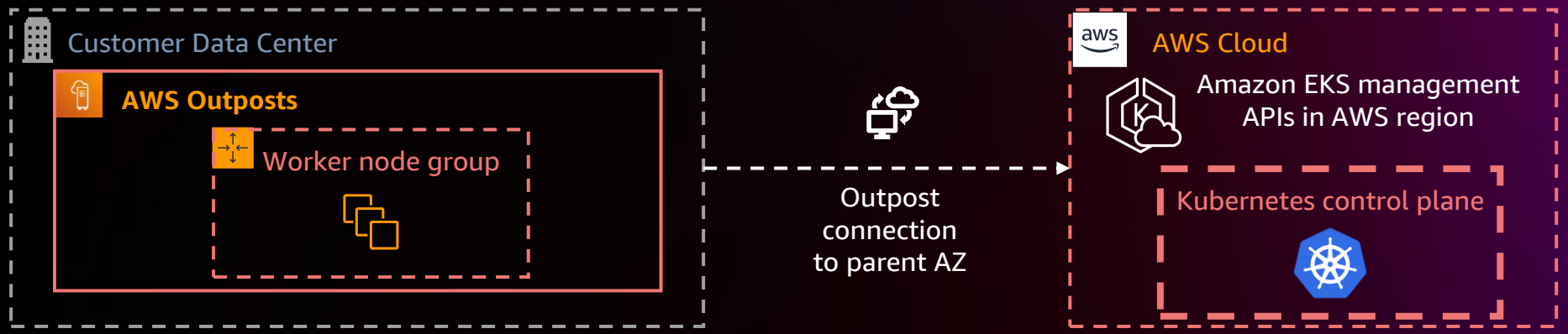
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Product deep dive – Amazon EKS on Outposts

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Amazon EKS on Outposts deployment options

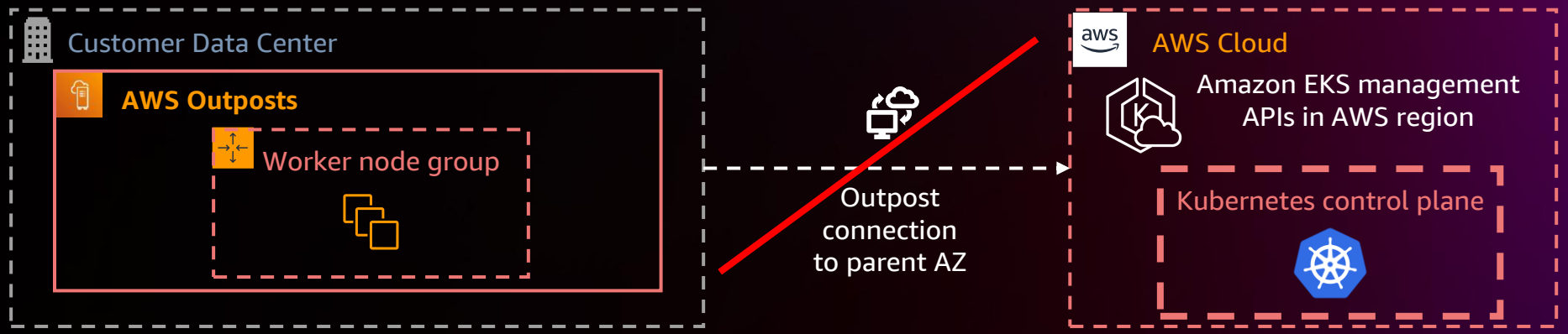
Extended clusters



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Amazon EKS on Outposts deployment options

Extended clusters



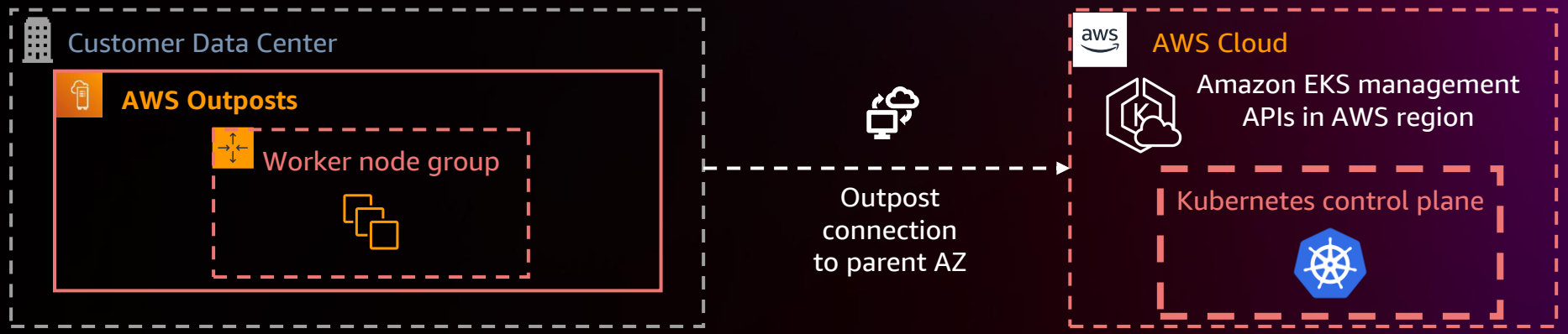
1. node-startup-grace-period: Amount of time we allow starting Node to be unresponsive before marking it unhealthy
2. node-monitor-grace-period: Amount of time we allow running Node to be unresponsive before marking it unhealthy
3. pod-eviction-timeout: The grace period for deleting pods on failed nodes
4. node-eviction-rate: Number of nodes per second on which pods are deleted in case of node failure when a zone is healthy
5. secondary-node-eviction-rate: Number of nodes per second on which pods are deleted in case of node failure when a zone is unhealthy
6. large-cluster-size-threshold: Number of nodes from which NodeController treats the cluster as large for the eviction logic purposes
7. unhealthy-zone-threshold: Fraction of Nodes in a zone which needs to be not Ready (minimum 3) for zone to be treated as unhealthy

https://github.com/kubernetes/kubernetes/blob/v1.21.0/cmd/kube-controller-manager/app/options/nodelifecyclecontroller.go

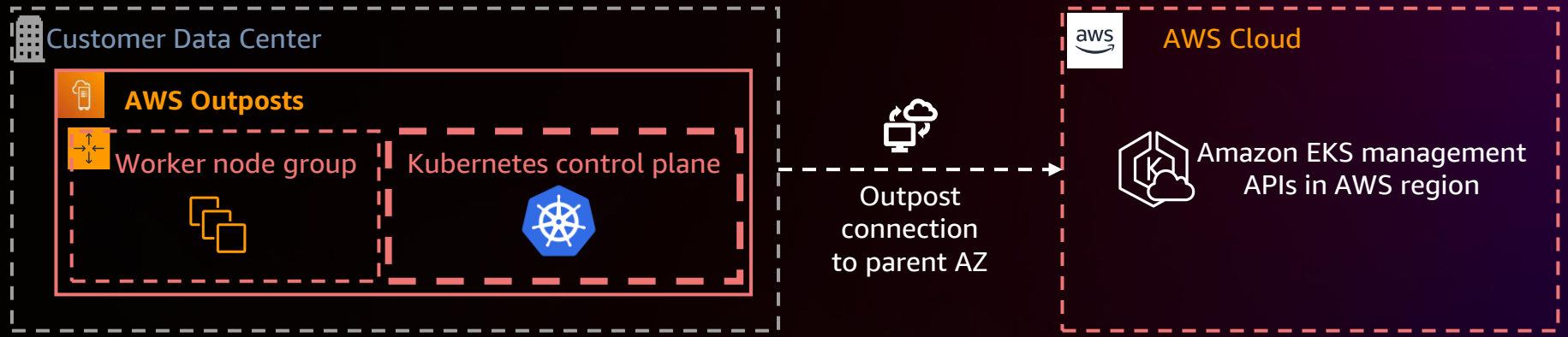
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Amazon EKS on Outposts deployment options

Extended clusters



Local clusters
(New)



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Thank you!

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