🛖 / rancher / install-kubernetes-cluster-with-rke2

Rancher v2.7.0 Üzerinde RKE 2 Kubernetes Cluster Kurulumu

Nedir?

Bu dökümantasyon üzerinde Rancher aracılığıyla RKE 2 kubernetes cluster kurulumu yapacağız. Bu dökümantasyon üzerinde 7 node üzerinden işlem sağlayacağız.



Gereksinimler

Bu dökümantasyon üzerindeki adımları uygulamak için aşağıdaki makinelere sahip olmalısınız:

- Rnc01 (Ubuntu Server 20.04 LTS)
- k8s01 (Ubuntu Server 20.04 LTS)
- k8s02 (Ubuntu Server 20.04 LTS)
- k8s03 (Ubuntu Server 20.04 LTS)
- k8sw01 (Ubuntu Server 20.04 LTS)
- k8sw02 (Ubuntu Server 20.04 LTS)
- k8sw03 (Ubuntu Server 20.04 LTS)

Makinelerin Hazırlanması

ADD 🗸 💣 LOCAL 🖤 SERIAL Grid V Arrange by: Date Hosts SFTP All hosts > Digital Ocean Port Forwarding Hosts {} Snippets k8sw03 0 k8s03 k8sw02 >_ rnc01 k8s01 k8s02 k8s01 k8s02 k8s03 k8sw01 k8sw02 k8sw03 History Q

Kubernetes node'larımı hazırladıktan sonra tek tek SSH işlemi gerçekleştiriyorum.

Aşağıdaki komutla öncelikle tüm sunucularımızı güncelleyelim ve docker kuralım. Bu beraberinde containerd'yi de kuracaktır.

1 | sudo apt-get update && apt-get upgrade -y; curl -fsSL https://get.docker.com -(

Ardından tüm makinelerimizde iscsi ayarlaması sağlıyoruz. Aşağıdaki komutla tüm makinelere iscsi kurulumu sağlayın ve aktif edin.

1 sudo apt-get update;sudo apt-get install open-iscsi;sudo systemctl enable --nov

Yukarıdaki komut çıktısı olarak tüm sunucularda aşağıdaki çıktıyı almalısınız: Bu, iscsi'nin çalıştığını gösterir.

1	iscsi_tcp	24576	0
2	libiscsi_tcp	32768	1 iscsi_tcp
3	libiscsi	57344	2 libiscsi_tcp,iscsi_tcp
4	scsi_transport_iscsi	110592	<pre>4 libiscsi_tcp,iscsi_tcp,libiscsi</pre>

rnc01

Rancher'i volume olarak bağlamak için aşağıdaki dizinleri oluşturun. (Sadece Rancher Makinesinde girin)

- 1 mkdir -p /opt/rancher/var/lib/rancher
 2 mkdir -p /opt/rancher/var/log
- 2 mkdir -p /opt/rancher/var/log
- 3 mkdir -p /opt/rancher/var/lib/cni
- 4 | mkdir -p /opt/rancher/var/lib/kubelet

Rancher'i kaldırın (Sadece rancher makinesinde girin)

```
docker run -d --restart=unless-stopped \
1
2
     --name=rancher \
     -v /opt/rancher/var/lib/rancher:/var/lib/rancher \
3
4
     -v /opt/rancher/var/log:/var/log \
     -v /opt/rancher/var/lib/cni:/var/lib/cni \
5
     -v /opt/rancher/var/lib/kubelet:/var/lib/kubelet \
6
7
     -p 80:80 -p 443:443 \
     --privileged \
8
9
     rancher/rancher:v2.7.0
```

Üstteki komuttan sonra belirli bir süre bekleyin ve tarayıcıdan sunucunuzun IP adresinin 443 portuna gidin.

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Wel t looks like this is your first time visiting f here. Otherwise a random one has been g For a "docker run" installation: Find your container ID with dock docker logs <u>container-id</u> For a Helm installation, run: kubect1 get secretnamespac templates '{.data.bootstrapPa	Howdy! come to Rancher ancher; if you pre-set your own bootstrap passe enerated for you. To find it: ar ps, then run: 2>&1 grep "Bootstrap Password:" b cattle-system bootstrap-secret ssword base64decode}) { ({ ", n "}) '	word, enter it		
Password English ~	Log in with Local User		*	P P

Aşağıdaki komutla password'u alabilirsiniz.

```
1 docker logs rancher 2>&1 | grep "Bootstrap Password:"
```

Şifrenizi de ayarladıktan sonra cluster oluşturmaya başlayabilirsiniz.

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THE RA	NCHER						
				Welcome to R	ancher		
					P	9	est est.
					_		
Learn mor	e about the impro	vements and new capa	bilities in this version.				
You can ch	ange what you se	e when you login via pr	eferences				Links
-							Docs
Clusters				Import Existing	Filter		
State 0	Name 🗘	Provider 🔇	Kubernetes Version	CPU 🗘	Memory 🗘	Pods 🗘	Slack File an Issue
Active		Local K3s	v1.24.4+k3s1	4 cores	7.77 GiB	10/110	
							Commercial Support

Rke2 ile devam edin.





ilgili seçenekleri ve kutucukları ayarlayın.



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Cluster Management				÷ -				
Clusters 1	Cluster Name *	Cluster Description						
Cloud Credentials	secops	Any text you want that better describes this cluster						
Drivers	Cluster Configuration							
Pod Security Policies	Basics							
RKE1 Configuration ~ Advanced ~	Member Roles	Kubernetes Version v1.24.8+rke2r1	Cloud Provider (None)	~				
	Add-On Config	Show deprecated Kubernetes patch versions O	•					
	Agent Environment Vars etcd Labels & Annotations Networking Se Registries Upgrade Strategy	Container Network multus,calico						
		Security						
		Default Pod Security Policy RKE2 Default	Worker CIS Profile (None)	~				
	Advanced	Project Network Isolation						
		System Services CoreDNS NGINX Ingress Metrics Server						
				cel Edit as YAML Create				

ilgili seçenekleri ayarlayın.

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E Cluster Managemen	nt			: 🔛		
⊖ Clusters	1 secops					
 Cloud Credentials Drivers 	Cluster Configuration	1				
Pod Security Policies	Basics					
RKE1 Configuration	Vember Roles	By default, pods using emptyDir volumes will be deleted on upgrad	de. Operations reliant on emptyDir volumes persisting th	rough the pod's		
Advanced	 Add-On Config 	lifecycle may be impacted.				
	Agent Environment Vars	Control Plane	Worker Nodes			
		Control Plane Concurrency O 1	Worker Concurrency 1			
	Labels & Annotations					
	Networking					
	Registries					
	Upgrade Strategy	Yes	• Yes			
	Advanced	 ☑ Delete pods using emptyDir volumes ○ □ Delete standalone pods ○ □ Override pod termination grace periods 	 Delete pods using emptyDir volumes 0 Delete standalone pods 0 Override pod termination grace periods 			

	Drain Timeout 120	Seconds	Drain Timeout 120	Seconds
			Cancel Edit as YA	ML Create

pod sayısını ayarlayın.

Cluster Management			: 🎴
 Clusters 2 Cloud Credentials Deiners 		Cluster Description Any text you want that better describes this cluster	
Pod Security Policies KE1 Configuration v	Cluster Configuration Basics Member Roles	Additional Kubelet Args	
	Add-On Config Agent Environment Vars etcd Labels & Annotations Networking	For all machines, use the Kubelet args: max-pods=250 Add Argument Add Machine Selector	
	Upgrade Strategy Advanced	Additional Controller Manager Args © Add Additional API Server Args © Add	
			Cancel Edit as YAML Save

edit as yaml butonuna tıkladıktan sonra yaml içeriğinde aşağıdaki gibi görmelisiniz.

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Cluster Manage	ment					: 🞴
Clusters			chartValues:			
Cloud Credentials			<pre>rke2-calico: {} etcd:</pre>			
			disableSnapshots:	true		
Drivers			snapshotRetention			
			snapshotScheduleCr	ron: 0 */5 * * *		
Pod Security Policies			machineGlobalConfig:			
			cni: calico			
KE1 Configuration	Ý		disable			
4		108	 rke2-ingress-ngi 	LINX		
uvanceu			disable-kube-proxy	false		
			etca-expose-metric:	is: Talse		
			machineSelectorConfi			
			- confine			
			kubelet-ara			
			- max-pods=250			
			registries: {}			
			upgradeStrategy:			
			controlPlaneConcur	rency: "1"		
			controlPlaneDrain0	Dptions:		
			deleteEmptyDirDa	ata: true		
			disableEviction:			
			enabled: true			
			force: true			
			gracePeriod: -1			
			ignoreDaemonSets	true		
			postDrainHooks	null		
			preprainhooks: n			
			timoout, 120	ter medu (seconds: 0		
			workerConcurrency.			
			workerDrainOntions			
			deleteEmptyDirDa	ta: true		
			disableEviction:	false		
			enabled: true			



Çıkan komutta, sadece worker seçin ve komutu kopyalayın. Sonra worker makinelerinizde girin.

=		
 Cluster Managerr 	nent :	
Clusters		
Cloud Credentials Drivers	Provisioner: RKE2	
Pod Security Policies	Machines Provisioning Log Registration Snapshots Conditions Related Resources	
KE1 Configuration dvanced	~ Step 1	
	Node Role	
	Choose what roles the node will have in the cluster. The cluster needs to have at least one node with each role. etcd Control Plane Worker	
	Show Advanced	
	Step 2	
	Registration Command	
	Run this command on each of the existing Linux machines you want to register.	
	curlinsecure -fL https://164.92.253.196/system-agent-install.sh sudo sh -sserver https://164.92.253.196 label 'cattle.io/os=linux'token lkvvf991s4654qv464cqlzdzgxw8mdrgqqp181bhqq8gc5h2q4dq5bca-checksum 06537d685ade9265c7f448e2a46ab1a3863247e88df909878d47e058c889c323worker	
	Insecure: Select this to skip TLS verification if your server has a self-signed certificate.	

Ardından etcd ve control panel seçerek yalnızca komutu master makinelerinizde girin.

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E Cluster Manager	ment				: 😐
Clusters		waiting for viable init node			
© Cloud Credentials © Drivers		Provisioner: RKE2			
Pod Security Policies		Machines Provisioning Log Reg	istration Snapshots Conditions (1)	Related Resources	
RKE1 Configuration Advanced		Step 1 Node Role			
		Choose what roles the node will ha	ve in the cluster. The cluster needs to have a	t least one node with each role.	
		Show Advanced			
		Step 2			



Ardından makinelerinizin sync olmasını bekleyin.

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E Cluster Management								:	
Clusters 2	Cluster: seco	DS Updating					Detail Config	;	
Cloud Credentials Drivers Configuring bootstrap node(s) custom-2f043ba81640: waiting for probes: etcd, kube-apiserver, kube-controller-manager, kube-scheduler, kubelet									
Pod Security Policies	Provisioner: RKE2								
vanced	, <u>Machines</u> Pro	visioning Log Registration	Snapshots Conditio	ns 🕕 🛛 Relate	d Resources				
	State 🗘	Name 🗘	Node 🗘	IP Address	OS ႏ	Roles 🗘	Age 🗘		
	Reconciling Waiting for p	custom-2f043ba81640	—	-	Linux	Control Plane, Etcd	1 mins		
	Waiting for t	custom-23fa69de4f5a	-	-	Linux	Worker	1.3 mins		
	Waiting for I	custom-468b000d5beb			Linux	Control Plane, Etcd	1 mins		
	Waiting for 1	to) custom-132910886d7c			Linux	Worker	1.2 mins		
	Waiting for I	lo custom-a510b00bd934			Linux	Worker	1.2 mins		
	Waiting for I	lo custom-ac10a4f4e60f			Linux	Control Plane, Etcd	1 mins		
7.0									

Makineleriniz aktif olduğunda kubernetes cluster'ınızı aktif olarak kullanabilirsiniz.

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