Cluster de alta disponibilidade SSM On-Prem 8.X em funcionamento

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Introduction

Este documento descreve como a sincronização de Conta On-Prem do Smart Software Manager (SSM) e o registro de Instância de Produto funcionam no servidor SSM On-Prem implantado como um Cluster de alta disponibilidade (HA), no momento de cenários de failover e de rechamada.

Prerequisites

Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- SSM no local
- HA

Componentes Utilizados

As informações neste documento são baseadas no SSM On-Prem 8 e superiores.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. Se a rede estiver

ativa, certifique-se de que você entenda o impacto potencial de qualquer comando.

Informações de Apoio

Estes são os documentos de referência que fornecem informações sobre HA.

- https://www.cisco.com/web/software/286285517/151968/Smart_Software_Manager_On-Prem_8_Console_Guide.pdf
- https://www.cisco.com/web/software/286285517/152313/Smart_Software_Manager_On-Prem_8-202006_Installation_Guide.pdf

Sincronização de conta no local do SSM durante failover e failback

O HA entre dois servidores SSM On-Prem deve ser configurado com a ajuda deste guia:

Implante o cluster HA:

https://www.cisco.com/web/software/286285517/152313/Smart_Software_Manager_On-Prem_8-202006_Installation_Guide.pdf

Nesta demonstração, use:

- .5 Endereço IP do servidor primário
- .10 Endereço IP do servidor secundário
- .12 Endereço IP virtual

Alta Disponibilidade

1. A configuração bem-sucedida do HA mostra o servidor primário (.5) como servidor secundário ativo (.10) como standby e o sd VIP (.12) mostrado na imagem.



2. A sincronização do SSM On-Prem com o Cisco Software Central foi concluída com êxito do servidor Principal/Ativo, como mostrado na imagem.

uluilu cisco									Loggi	ed in Acco	unt Log Ou	
Smart So	oftware M	lanage	er On-Prem				Network			Syste	m Health Good	
Access	High	nchron Acc	ization counts s	Schedules			Ge	ens192 Connected	Network Interf	Server N Version Uptime	Your machi ame Cen 8-2i 1 da	ne is working well tOS 02006 89
Management	Status	Major Name	Minor	Satellite Name	Last Synchronizatio	n Synchr	c	IPv4 Address	s	Reso CPU RAM DISK	I	or Percentage
Accounts	Network	annanr-s	:m-on-prem-8-202006	annanr-ssm-on	2020-Sep-01 14:1	3:44 2020-1	C			Interface 192 Rece	nt Alerts	► 546.8 KB/s 🕹 1
API Tooli	Accounts	S	Account Requests	Event Log								
	New Accou	int					Sear	ch by Account N	Name			
	Account		Requested By	Cisco Smart Acco	unt Cisco Virtual A	Account Ac	count Status	Actions		Conn	ected User	8
	annanr-ssm-c prem-8-2020	on- 06	annanr@cisco.com	i .cou	n Annanr-SSM-0 Prem-8-20200	On-Ac	tive	Actions		dmin		00:06:1
								Sho	owing All 1 Records			

 O status de HA do cluster mostra que o banco de dados do servidor primário (Replication Master) à esquerda é replicado para o banco de dados do servidor secundário (Replication Slave) à direita, conforme esperado, como mostrado na imagem.

posoi active/enabled Last login: Tue Sep 1 14:45:57 UTC 2020 on pts/0	Last login: The Sep 1 14:5/112 UIC 2020 on pts/0
	Database Replication Status:
Database Replication Status:	Database is currently the replication slave - Deplication from primary-mode (5)
Database is currently the replication master - Replicating to secondary-node (.10) Replication to slave:	Replication to slave: Clant_addr backend_start state write_lag flush_lag replay_lag
replay_lag	(0 rows)
192.168.1.5 2020-09-01 07:50:45.628722+00 streaming 0 0	Replication from master: _pg_last_xlog_replay_location
	0/53CD868 (1 row)
Replication from master: pg_last_xlog_replay_location	
(1 row)	

Failover

1. Interrompendo cluster HA no servidor primário como mostrado na imagem.



2. Primário|Secundário como mostrado na imagem.



- 3. Conectado à GUI do SSM On-Prem com o uso de VIP e a GUI primária está inoperante.
- 4. O servidor secundário (.10) é mostrado como um servidor Ativo.
- 5. O ritmo cardíaco está desconectado.
- 6. Servidor primário (.5) movido para o estado Standby.

ululu cisco	•					Loggie in Acco	34 0300
Smart S	oftware Mana	High Availability			8	Syste	m Health
Access Management	Security	Host Event Degraded The cluster is degraded One	Logs of the cluster nodes is offline	Heartbeat Connection status: Disconnect	cted	Server Ni Version Uptime Resoc	Vour machine is working well me CentOS 8-202006 1 day urce Monitor Percentage
Accounts	Settings	VIP .12				RAM DISK	-
Housens	outings	Active Serve public address (*	r .10)	Standby public address	r Server	ens192	
	•	secondary-node (192	.168.1.5)	primary-node ((192.168.1.4)		
API Toolkit	Support Center	and the second s					
		Active		Degra	aded	Conn Ladmin	octed Users 00:00:25
High Availability Status	Synchronization	System Information					
	i	Physical Memory	7.62 GB	Physical Memory			
Network	Users	Disk Space	7.70 GB	Disk Space	-		
		Current Version	8-202006	Current Version			

7. A sincronização da conta no local do SSM com o Cisco Software Central pode ser vista com êxito na GUI do servidor Secundário/Ativo, como mostrado na imagem.

cisco												
Smart S	oftware	Ma	Dagor On Bra	m							System Hea	alth
omarco	ontinuit	Acco	ounts							8	Goo Goo	od
P	9	_	Accounts	Account Requests	Event Log		Network			8	Server Name Version	CentOS 8-202006
Access Management	Security		New Account	B			Ger	oral	Network Interface	Proxy	Uptime	1 day
		- 6	Account	Requested By	Cisco Smart Account	Cisco	••	ens192		PUBLIC ^	Resource M CPU I	fonitor Percentage
			annanr-ssm-on- prem-8-202006	annanr@cisco.com		annar Prem		IPv4 Address	10	Subnet Mask 255.255.255.0	RAM DISK	-
Accounts	Settings					_		IPv6 Addre	55	Prefix	ens192 ¥	↑ 635.6 KB/s ↓ 161 KB
TOOLS		Sy	nchronization Accounts	Schedules				View Interfa	ace		Recent Aler	ts
API Toolkit	Support	-		-								
			O Major O Minor								Connected	Users
	(Name	Satellite Name	Last Synchronizatio	on					admin	00:02:26
High Availability	Synchroniza	ıti	annanr-ssm-on-prem-8	8-202006 annanr-ssm-or	n 2020-Sep-01 14:1	3:44						
Status	•											
Network	Users									h		

8. Iniciando o cluster HA no servidor primário como mostrado na imagem.



9. O status do cluster HA mostra que o banco de dados principal é replicado do banco de dados secundário.

10. Primário|Secundário como mostrado na imagem.



11. A GUI mostra o heartbeat como conectado, Secundário no estado Ativo e Primário no estado Standby, como mostrado na imagem.

cisco	
Smart Software Manager On-Prem	

		ligh Availability					×
P		Host Even	t Logs				
Access Aanagement	Security	Normal		Heartbeat			
		The status of the high availab	bility cluster is normal.	Connection s	status: Connected		
Accounts	Settings	VIP .12					
	(***)	Active Ser	ver		Stan	dby Server	
TOOLS		public address (10)		public add	ress (i.5)	
API Toolkit	Support	secondary-node (1	92.168.1.5)	\wedge	primary-no	ode (192.168.1.4)	
					E com a contract of the second s	tette	-
High Availability Status	Synchroniz	Active				Janoby	
	į	System Information					
Network	Users	Physical Memory	7.62 GB		Physical Memory		
		Disk Space	7.70 GB		Disk Space		
		Current Version	8-202006		Current Version		

- 12. Crie uma nova conta TEST e ative-a no modo de espera ativo. (.10) servidor.
- 13. A GUI principal (.5) não estará acessível neste estágio.

counts					
Accounts	Account Requests	Event Log			
New Account	D			-	Search by Account Name
Account	Requested By	Cisco Smart Account	Cisco Virtual Account	Account Status	Actions
annanr-ssm-on-prem-8- 202006	annanr@cisco.com	.com	annanr-SSM-On-Prem-8- 202006	Active	Actions
TEST	annanr@cisco.com		TEST123	Active	Actions
					Showing All 2 Records

VIP	.12	
	Active Server	Standby Server
	public address (* .10)	public address (5.5)
	secondary-node (192.168.1.5)	primary-node (192.168.1.4)
California (California)		
	Active	Standby

Retorno

1. Parando Ha_cluster em Secundário, como mostrado na imagem.



2. O status atual do banco de dados do servidor primário e do banco de dados do servidor secundário podem ser vistos aqui.



- 3. Conectado à GUI no local do SSM com o uso de VIP e a GUI secundária está inoperante.
- 4. O servidor primário (.5) é mostrado como um servidor ativo.
- 5. O ritmo cardíaco está desconectado.
- 6. Servidor secundário (.5) movido para o estado Standby.



7. A conta TEST recém-criada pode ser vista em estado sincronizado à medida que a replicação ocorreu do banco de dados Secundário para Principal, como mostrado na imagem.

ahaha		High Availability	X Account Log Out
CISCO		Host Event Logs	
Smart Software	Manager On-Prem	Degraded The cluster is degraded One of the cluster nodes is offline Heartbeat Connection status: Disconnected	System Health Good Your machine is working well erver Name CentOS dension 8-202006 Jotime 1 day
Access Security Management		VIP .12	Resource Monitor Percentage
()		Active Server Standby Server public address (* 1.5) public address (* .10)	CPU I RAM DISK
Accounts Settings		primary-node (192.168.1.4) secondary-node (192.168.1.5)	ns192 - 1876.4 KB/s + 371
(11)			Recent Alerts
API Toolkit Support Center		Active	8
e 🚳		Accounts Account Requests Event Log	cted Users 00:01:43
High Synchroniza Availability	ion	New Account B Search by Account Name	
Status		Account Requested By Cisco Smart Account Cisco Virtual Account Status Actions	
🛞 🕕	Ourselandination	annanr-ssm-on- prem-8-202006 annanr@cisco.com com Prem-8-202006 Active Actions	
Network Users	Synchronization	TEST annan@cisco.com com TEST123 Active Actions	
	Accounts	S Showing All 2	Records
	O Major O Minor	Search by Name	
	Name	Satellite Name Last Synchronization Synchronization Due Alerts Ac	
	annanr-ssm-on-prem-8-202006	annanr-ssm-on 2020-Sep-02 07:33:32 2020-Oct-02 07:33:32 Synchronization Successful Acti	
	TEST	TEST 2020-Sep-02 07:35:42 2020-Oct-02 07:35:42 Synchronization Successful Act	

8. A GUI será acessível do endereço VIP (.12) neste estágio e não do endereço IP secundário.

9. Iniciando o cluster HA no servidor secundário como mostrado na imagem.



10. O status de HA do cluster mostra que o banco de dados do servidor primário (Replication Master) à esquerda está sendo replicado para o banco de dados do servidor secundário (Replication Slave) à direita, como esperado na imagem.



11. A GUI mostra Heartbeat conectado entre o servidor Ative Primary e o servidor Standby Secondary.

12. A conta TEST é sincronizada com êxito com o Cisco Software Central.



Registro de instância de produto com SSM VIP no local durante failover e failback

A alta disponibilidade entre dois servidores no local SSM deve ser configurada usando este guia:

Implantação do cluster HA:

https://www.cisco.com/web/software/286285517/152313/Smart_Software_Manager_On-Prem_8-202006_Installation_Guide.pdf

Nesta demonstração, use:

- .11 Endereço IP do servidor primário
- .9 Endereço IP do servidor secundário
- .14 Endereço IP virtual

Alta Disponibilidade

1. Configuração de HA bem-sucedida que mostra o servidor primário (.11) como servidor secundário ativo (.9) como standby e VIP (.14).

cisco								Licensing Workspace		
Smart So	oftware	Manag High Ava	jer On-Prem ailability				8		System	Health Good our machine is working well e annanr-8-202105
Access Management	Security	⊘ '	Normal	» Н	leartbeat				Version Uptime Resource	8-202105 14 days ce Monitor Percentage
Accounts	Settings	VIP	The status of the high availability of the high availability of the high availability of the status of the high availability of the high availability of the status of the status of the status of the status of the high availability of the status of the	cluster is normal.	onnection s	tatus: Connected			CPU RAM DISK Interface ens192 ¥	↑4.1 MB/s ↓ 1.9 MB/s
		VII	Active Server public address (Sta public add	ndby Server tress (.9)		Recent /	Alerts nt Licenses
High	Center Center Synchronia	The second secon	Active			Secondary	1000 (103,254.0.2)		Connect 2admin	ted Users 00:07:26
Status	į	Syst	tem Information							
Network	Users		Active Sen Physical Memory Disk Space Current Version	7.62 GB 7.83 GB 8-202105		Standby Physical Memory Disk Space Current Version	Server			

 O status de HA do cluster mostra que o banco de dados do servidor primário (Replication Master) à esquerda é replicado para o banco de dados do servidor secundário (Replication Slave) à direita, conforme esperado, como mostrado na imagem.

PCSD Status: primty-mode: Online secondary-mode: Online	PCBD Status: sscendsry-node: Online primary-node: Online
Gheemen Status: soronym: active/emabled pscemaker: active/emabled Dodd: active/emabled Last legin: Sun Jun 20 18:12:43 UTC 2021 on pts/0	Daamoo Statuus correspo: octive/enabled pockemaker: active/enabled Desd: active/enabled Lest login: Sun Jun 20 18:11:42 UTC 2021 on pts/0
Database Replication Status:	Database Replication Status:
Database is currently the replication master - Replicating to secondary-node (Database is currently the replication slave - Replicating from primary-mode ('.11)
Replication to slave: client_addr backend_start state write_lag flush_lag replay_lag	Replication to slave: client_addr backend_start state write_lag flush_lag replay_lag
	(0 rows)
	Replication from master: pg_lest_slog_repley_location
Replication from master: pp_last_vlog_replay_location	0/C/L3AF8 (1 row)

3. Quando o SSM On-Prem for implantado como um cluster HA, faça login no SSM On-Prem Administration Workspace, navegue até Security > Certificados e use o Virtual IP Address no Host Common Name. 4. Esse valor deve corresponder ao valor que você planeja usar para a URL de destino do produto. Se estiver implantando pilha dupla (IPv4 e IPv6), esse valor deve ser um FQDN e não um endereço IP.

5. Depois de atualizar o nome comum do host, certifique-se de que seus certificados sejam regenerados com o novo nome comum, sincronizando suas contas locais com o Cisco Smart Software Manager.

6. Você deve sincronizar antes de tentar registrar novamente os produtos com o novo Nome Comum na configuração de URL de destino.

7. A não sincronização pode fazer com que os produtos não se registrem com o novo Host Common Name.

cisco	Licensing Workspace	
Smart Software Manager On-Prem		System Health
Account Password Certificates	Event Log	Your machine is working well Server Name annan-8-202105 Version 8-202105 Uotime 14 days
Access Security Management Product Certificate Host Common Name		Resource Monitor Percentage CPU
Accounts Settings		RAM DISK I Interface ens192 - 1.8 MB/s
NOTE: The Host Common Name is typically composed of Host + Domain N for product communications is specific to the Common Name that has been to configure the Cisco Product when connecting to SSM On-Prem. If you ch issue a new CSR	ame and will look like "www.yoursite.com" or "yoursite.com". The SSL Server Cartificate used I issued at the Host. Therefore, the Common Name must match the Web address you will use ange the Common Name, you must resynchronize your Local Account in order for Cisco to	Recent Alerts O Insufficient Licenses
API Toolkit Support Center Add Generate CSR		Connected Users
High Synchronization Octainost (Default Certificate)	DAPIRATION DATE: 2022-JUN-08 🗸	å admin 00:15:11
Status		
ultulti cisco	Product Registration URL ×	dmin Workspace
Smart Software Manager On-Prem > Smart Licensing Smart Licensing	https://14/Transportgaleway/services/DeviceRequestHandle f Press ctrf + c to copy selected feat to clipboard.	annanr-ssm-on-prem-8-2021 👻
Alerts Inventory Convert to Smart Licensing Reports Pre	Inferences Activity	
Local Virtual Account: Default		
General Licenses Product Instances SL Using Policy	y Event Log	
Local Virtual Account		
Description initial account Yes	created during company addount creation.	
Product Instance Registration Tokens		
The registration tokens below can be used to register new product instances to this Local Virtual Account. For support Smart Licensing Using Policy that use calu as transport, you must configure the Ticense smart transport use the Smart Call Home Registration URL. The recommendant embod is Smart Transport. Please consult you	products that support Smart Transport, you must configure the "iccrease smart un" on the product to use the Smart Transport Ru or cash" to use the CSLU Transport URL. For legancy products that still use Smart Call Home, you must configure the "destination Products Configuration Caulies for setting the destination URL value.	egistration URL. For products that n address http:" on the product to

8. Duas instâncias de produto (annanr-39) e (cucmpub) estão registradas no endereço VIP do SSM On-Prem, conforme visto na guia **Product Instances (Instâncias de produto)**.

9. A licença consumida/solicitada por essas instâncias de produto está refletindo na guia Licença.

CISCO Admin Workspace	
Smart Software Manager On-Prem > Smart Licensing	rem-8-2021 👻
Smart Licensing	
Alerts Inventory Convert to Smart Licensing Reports Preferences Activity	
Local Virtual Account: Default	
General Licenses Product Instances SL Using Policy Event Log	
Search by Name, Product type	
Name Product type Last Contact Atens Actions	
SDNMGMT 2021-Jun-20 18:39:00 Actions	
cuompub UCL 2021-Jun-20 18:36:56 Actions	
10 💌 Showing Page 1 of 1/2 Records) /	
	In Account Log Out
CISCO Admin Workspace	
Smart Software Manager On-Prem > Smart Licensing	em-8-2021 🜩
Smart Licensing	
Alerts Inventory Convert to Smart Licensing Reports Preferences Addvity	
Local Virtual Account: Default	
General Licenses Product Instances SL Using Policy Event Log	
By Name By T	Q
Available Actions * Manage License raga	
License Billing Purchased In Use Substitution Balance Alerts Actions	
Prime Infrastructure 3.x, BASE Lic. Prepaid 0 1 -1 O Insufficient Licenses Actions *	
Prime Infrastructure 3.x, Lifecycle Lic. Prepaid 0 34 -34 O insufficient Licenses Actions +	
UC Manager Enhanced License (12.3) Prepaid 0 3 -3 O Insufficient Licenses Actions •	
U Manager Entanceo Plus Loense (12.x) Prepaid 0 1 -1 U Insufficient Loenses Actions *	

Showing All 5 Records

Failover

1. Interrompendo cluster HA no servidor primário como mostrado na imagem.

PCSD Status; primary-node: Online secondary-node: Online	PCSD Status: secondary-node: Online primary-node: Online
Daemon Status: corosync: active/enabled pacemaker: active/enabled pcsd: active/enabled Last login: Sun Jun 20 10:12:43 UTC 2021 on pts/0	Daemon Status: corosync: active/enabled pscemaker: active/enabled pcsd: active/enabled Last login: Sun Jun 20 18:11:42 UTC 2021 on pts/0
Database Replication Status:	Database Replication Status:
Database is currently the replication master - Replicating to secondary-node ('.9)	Database is currently the replication slave - Replicating from primary-node (.11)
Replication to slave: client_addr backend_start state write_lag flush_lag replay lon	Replication to slave: client_addr backend_start state write_lag flush_lag replay_lag
alpaneneeneeneeneeneeneeneeneeneeneeneeneen	
169.254.0.2 2021-06-18 15:58:57.211121+00 streaming 0 0 0 (1 row)	Replication from master: pg_lsst_xlog_replay_location
Replication from master: pp_last_wleg_replay_location	0/C753AF8 (1 Tow)
(1 row)	by by
>>	
<pre>>> ha_lluster_stop } </pre>	
Stoping Cluster (cacessier)	
Stopping Cluster (corpsync)	
3	b»

- 2. Conectado à GUI do SSM On-Prem com o uso de VIP (.14) e a GUI primária está inoperante.
- 3. O servidor secundário (.9) é mostrado como um servidor ativo.
- 4. O ritmo cardíaco está desconectado.
- 5. O servidor primário (.11) é movido para o estado Standby.

cisco				Licensing Workspace
Smart Software	e Mana	ger On-Prem		System Health
	High Av	vailability	8	Your machine is working well
🔫 测		Host Event Logs		Server Name annanr/2018-05 Varsion 8-202105
Access Security Management		Degraded	Heartbeat	Resource Monitor Percentage
) —	The cluster is degraded One of the cluster nodes is offlin	Connection status: Disconnected	CPU RAM DISK
Accounts Settings	VIP	.14		ens192 v 15.8 MB/s 43.9 MB/s Recent Alerts
		Active Server	Standby Server	Insufficient Licenses
		public address (public address (11)	
API Toolkit Support Center	rt r cal	secondary-node (169.254.0.2)	primary-node (169.254.0.1)	
🛑 🚳	E mar			Connected Users
High Synchronic	ia	Active	Cogradou	
Status				
🛞 🏢	Sys	stem Information		
Network Users		Active Server	Standby Server	
		Physical Memory 7.62 GB	Physical Memory	
		Current Version 8-202105	Current Version	

6. Registrando instâncias de produtos com o uso do SSM On-Prem VIP na URL de registro de produto na configuração do Transport Gateway, como mostrado na imagem.



7. Nome da instância do produto: pi37 foi registrado com êxito com o SSM On-Prem com o uso de um endereço VIP, como mostrado na imagem.

etc.					Q - Application Search	🐥 😣 9	root - ROOT-DOMAIN	٥
Administration / Licenses and Softwar	re Updates / Smart Software Lie	censing 🖈				Licensing Dash	board 🚱 💭 🗭	5
Licensing Settings License Dashboard Setting	8							
Smart Software Licensing								-
To view and manage Smart Licenses for your Cisco Sr	nart Account, go to Smart Software Manager							
Smart Software Licensing Status								
Licensing Mode Smart Software Licens	ina							
Product Name Prime Infrastructure								
Registration Status 🔤 Registered (Jun 20.	2021)							
License Authorization Status 🙁 Out of Compliance	(Jun 20, 2021)							
Smart Account annanr-ssm-on-prem-8	3-202105							
Virtual Account Default								
Product Instance Name pi37								
Transport Settings Transport Galeway vie	w) cat							
 Smart License Usage 								
Choose Licenses			Last updated: Sunday Jun 20, 20	21 at 7:28 PM				
License 🔺	Description	Count	Status					
Prime Infrastructure 3.x, Assurance Lic.	The Assurance license	2	🙁 Out of Compliance	0				
Prime Infrastructure 3.x, BASE Lic.	The Base license	1	😣 Out of Compliance	0				
Prime Infrastructure 3.x, Lifecycle Lic.	The Lifecycle license	14	😣 Out of Compliance	0				
Prime Infrastructure 3.x, UCS Server MGMT Lic.	The Data Center license	0	No Licenses in Use	0				
Prime Infrastructure 3.x, UCS VM	The Data Center Hypervisor license	0	No Licenses in Use	0				
Actions v								

8. Registrando outras instâncias de produto com o uso do SSM On-Prem VIP na URL de registro de produto na configuração do Transport Gateway.

Success Smart agent registered successfully

- Chatura
Status
(1) Transport settings saved successfully.
Configure how the product instance will communicate with Cisco.
O Direct - product communicates directly with Cisco licensing servers.
URL : https://tools.cisco.com/its/service/oddce/services/DDCEService
O Transport Gateway - proxy data via Transport Gateway or Smart Software Manager satellite.
URL : https:// .14/Transportgateway/services/De
O HTTP/HTTPS Proxy - send data via an intermediate HTTP or HTTPS Proxy.
Authentication needed on HTTP or HTTPS proxy
IP Address/Host Name :
Port :
Poit.
User Name :
Password :
Do not share my hostname or IP address with Cisco
Do not share my hostname or IP address with Cisco.

9. O registro do produto foi concluído com êxito com o SSM On-Prem usando um endereço VIP como mostrado na imagem.

- Status
i Registration completed successfully
Smart Software Licensing Product Registration
To register the product for Smart Software Licensing:
Paste the Product Instance Registration Token you generated from Smart Software Manager or your Smart Software Manager satellite

10. Nome da instância do produto: cucm-pub-30 foi registrado com êxito com o SSM On-Prem com o uso de um endereço VIP, como mostrado na imagem.

Cisco Unified CM Administr Cisco Unified Communications Solution	ration ^s		
System • Call Routing • Media Resources • Advanced F	Features - Device - Application - U	ser Management 👻 Bulk Administration 💌 Help 💌	
License Management			
- Status			
Smart Software Licensing: The system is operating w	ith an insufficient number of licenses. Co	onfigure additional licenses in Smart Software Manager within 72 days	to avoid losing the ability to provision users and devices.
Smart Software Licensing			
Registration Status	1	Registered	
License Authorization Status	(Out of Compliance (Sunday, June 20, 2021 10:29:53 PM EEST)	
Smart Account	i	annanr-ssm-on-prem-8-202105	
Virtual Account	1	Default	
Product Instance Name		cucm-pub-30	
Transport Settings	,	Allowed Transport Gateway View/Edit the Licensing Smart Call Home settings	
Licensing Mode		Enterprise	
Below is a summary of current license usage on the st deployment. View All License Type Descriptions And Device Classification Update Usage Details Usage Details Last Updated: 2021 License Requirements by Type	system. Current usage details for each ty 2005 -06-20 22:30:09	rpe are available by pressing "Update Usage Details". Note that collecti	ng these data is a resource intensive process and may take several
License Tune	Current lisson	Chatur	Banart
CUWL	0	No Licenses in Use	Users(0) Unassigned Devices(0)
Enhanced Plus	0	No Licenses in Use	Lisers(0)
Enhanced	44	Out of Compliance	Users(8) Unassigned Devices(36)
Basic	2	3 Out of Compliance	Users(1) Unassigned Devices(1)
Essential	4	3 Out of Compliance	Users(0.) Unassigned Devices(4.)
TelePresence Room	0	No Licenses in Use	Users(0) Unassigned Devices(0)
Users and Unassigned devices			
Users	9	View Usage Report	
Unassigned Devices	41	View Usage Report	

11. Duas novas instâncias de produto (pi37) e (cucm-pub-30) estão registradas no endereço VIP do SSM On-Prem, conforme visto na guia **Product Instances**.

12. A licença consumida/solicitada por essas instâncias de produto está refletindo na guia **Licença**.

h D				Logged in 🏝 Hello, Local Admin 🛛 Admin Workspace
ftware Manager On-Prem > Smart Licensing mart Licensing				ansam-ssm-on-prem-8
Alerts Inventory Convert to	Smart Licensing	Reports Preferences	Activity	
Cal Virtual Account: Default General Licenses	Product Instances	SL Using Policy Ever	nt Log	
				Search by Name, Product Type Q
Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:PI-SOFTWARE;UDI_SN:annanr-39	SDNMGMT	2021-Jun-20 18:39:00		Actions
UDI_PID:PI-SOFTWARE;UDI_SN:pi37:	SDNMGMT	2021-Jun-20 19:26:47		Actions
cuempub	UCL	2021-Jun-20 18:36:56		Actions
cucm-pub-30	UCL	2021-Jun-20 19:28:51		Actions
				10 🐱 Showing Page 1 of 1(4 Records) ((

cisco							📥 Hello, Local Admin	Admin Workspace
Smart Software Manager	On-Prem > Smart Licensing							annanr-ssm-on-prem-8-2
Smart Lice	nsing							
Alerts	Inventory Convert to Smart Uo	ansing Reports	Preferences	Activity				
Local Virtual A	ccount: Default							
General	Licenses Prod	luct Instances SL	Using Policy	Event Log				
Available Actio	ns * Manage Libense Tags	Ð						By Name By Tag Search by License Q
License		Billing	Purchased	In Use	Substitution	Balance	Aierts	Actions
Prime Infr	rastructure 3.x, Assurance Lic.	Prepaid	0	2		-2	Insufficient Licenses	Actions +
Prime infr	astructure 3.x, BASE Lio.	Prepsid	0	2		-2	Insufficient Licenses	Actions +
 Prime Infr 	rastructure 3.x, Lifecycle Lic.	Prepaid	0	48		-48	Insufficient Licenses	Actions +
UC Mana	ger Basic License (12.x)	Prepaid	0	2		-2	Insufficient Licenses	Actions *
	ger Enhanced License (12.x)	Prepaid	0	47		-47	Insufficient Licenses	Actions +
UC Mana								
UC Mana	ger Enhanced Plus License (12.x)	Propaid	0	1		-1	Insufficient Licenses	Actions +
UC Mana UC Mana	ger Enhanced Plus License (12.x) ger Essential License (12.x)	Propaid	0	1		-1 -4	Insufficient Licenses Insufficient Licenses	Actions * Actions *

13. Iniciando o cluster HA no servidor primário.



14. O status do cluster HA mostra que o banco de dados principal é replicado do banco de dados secundário.

15. Primário|Secundário como mostrado na imagem.



16. A GUI mostra o heartbeat como conectado, Secundário no estado Ativo e Primário no estado Standby, como mostrado na imagem.



Retorno

1. Parando Ha_cluster no secundário.

2. O status atual do banco de dados do servidor primário e do banco de dados do servidor secundário inativo podem ser vistos.

Last login: Sun Jun 20 18:58:34 UTC 2021 on pts/0	
Database Replication Status:	<pre>/> ha_cluster_stop Last login: Sun Jun 20 18:45:56 UTC 2021 Stopping Cluster (accemptor)</pre>
Database is currently the replication slave - Replicating from secondary-node (stopping subset (president / / /
Replication to slave: client_addr backend_start state write_leg flush_leg replay_leg	Stopping Cluster (corosync)
(@ rows)	/// >> ha_status Last login: Sun Jun 20 18:47:20 UTC 2021 on pts/0 Error: cluster is not currently running on this node
Replication from master: pg_last_xlog_replay_location	
0/E012F30	Database Replication Status:
	DB service not currently running.

- 3. Conectado à GUI no local do SSM usando VIP (.14) e a GUI secundária está inoperante.
- 4. O servidor primário (.11) é mostrado como um servidor Ativo.
- 5. O ritmo cardíaco está desconectado.
- 6. Servidor secundário (.9) movido para o estado Standby.



- 7. A GUI será acessível do endereço VIP (.14) neste estágio e não do endereço IP secundário.
- 8. Iniciando o cluster HA no servidor secundário.



9. O status de HA do cluster mostra que o banco de dados do servidor primário (Replication Master) à esquerda é replicado para o banco de dados do servidor secundário (Replication Slave) à direita conforme esperado.

PCSD Status: primary-node: Online secondary-mode: Online Daemon Status: corosyne: active/enabled pscs: active/enabled pcsd: active/enabled	PCSD Status: scondary-node: Online primary-node: Online Daemon Status: coresync: active/enabled pscemaker: active/enabled pcsd: active/enabled
Last login: Sun Jun 20 19:05:59 UTC 2021 on pts/0	
Database Replication Status:	Database Replication Status:
Database is currently the replication master - Replicating to secondary-node (.9)	Database is currently the replication slave - Replicating from primary-node (11)
Replication to slave: client_addr backend_start state write_lag flush_lag replay inc	Replication to slave: ddr backend_start state write_lag flush_lag replay_lag
169.254.0.2 2021-06-20 19:01:55.616211+00 streaming 0 0	
(1 ros) ⁰	Replication from master: pg_last_xlog_replay_location
Replication from master: pg_last_rlog_replay_location	6/1000000 (1 rom)
0/E012F30 (1 row)	

10. A GUI mostra Heartbeat conectado entre o servidor Ative Primary e o servidor Standby Secondary.



11. Todas as quatro instâncias de produto registradas no endereço VIP do SSM On-Prem, conforme visto na guia **Product Instances**.

12. A licença consumida/solicitada por essas instâncias de produto está refletindo na guia **Licença**.

•				Lagged in Acc
tware Manager On-Prem > Smart Licensing				annanr-ssm-on-prem 8-20
mart Licensing				
Alerts Inventory Convert	to Smart Licensing	Reports Preferences	Activity	
cal Virtual Account: Default				
General Licenses	Product Instances	SL Using Policy Eve	ent Log	
				Search hu Name Product Tune Q
Name	Product Type	Last Contact	Alerts	Actions
UDI_PID:PI-SOFTWARE;UDI_SN:annanr-39	SDNMGMT	2021-Jun-20 18:39:00		Actions
UDI_PID:PI-SOFTWARE;UDI_SN:pi37:	SDNMGMT	2021-Jun-20 19:26:47		Actions
cuempub	UCL	2021-Jun-20 18:36:56		Actions
cucm-pub-30	UCL	2021-Jun-20 19:28:51		Actions
				10

cisco						📥 Hello, Local Admin	Admin Workspace				
Smart Software Manager On-Prem > Smart Licensing		annanr-ssm-on-prem-8-2021									
Smart Licensing											
Alarts Inventory Convert to Smart Licensing Reports Preferences Activity											
Local Virtual Account: Default											
General Licenses Product Instances SL Using Policy Event Log											
Available Actions * Manage License Tags							By Name By Tag Search by License Q.				
License	Billing	Purchased	In Use	Substitution	Balance	Alerts	Actions				
Prime Infrastructure 3.x, Assurance Lic.	Prepaid	0	2		-2	S Insufficient Licenses	Actions +				
Prime Infrastructure 3.x, BASE Lie.	Prepsid	0	2		-2	Insufficient Licenses	Actions +				
Prime Infrastructure 3.x, Lifecycle Lic.	Prepaid	0	48		-48	Insufficient Licenses	Actions +				
UC Manager Basic License (12.x)	Prepaid	0	2		-2	Insufficient Licenses	Actions *				
UC Manager Enhanced License (12.x)	Prepaid	0	47		-47	Insufficient Licenses	Actions +				
UC Manager Enhanced Plus License (12.x)	Prepaid	0	1		-1	Insufficient Licenses	Actions *				
 UC Manager Essential License (12.x) 	Prepsid	0	4		-4	Insufficient Licenses	Actions +				
UC Manager Telepresence Room License (12.x)	Prepaid	0	1		-1	Insufficient Licenses	Actions +				
							Showing All 8 Records				

Desatualizar um cluster de alta disponibilidade

- 1. Um cluster no local do Cisco Smart Manager pode ser baixado diretamente para um único nó autônomo.
- 2. Use o console local para se conectar ao SSM principal/ativo no local com o uso do comando <ha_teardown>.
- Depois de verificar a operação do SSM On-Prem, o servidor Secundário/Standby deve ser descartado e não pode ser reutilizado.
- 4. Agora você terá um sistema autônomo em vez de um cluster.
- 5. O encerramento foi iniciado conforme mostrado na imagem.



6. Disparo no servidor secundário, como mostrado na imagem.

```
Database Replication Status:
Database is currently the replication slave - Replicating from primary-node (
client_addr | backend_start | state | write_lag | flush_lag | replay_lag
(0 rows)
Replication from master:
pg_last_xlog_replay_location
0/9000D30
Last login: Wed Sep 2 11:12:42 UTC 2020 on pts/0
and convert this service node into stand-alone mode without a cluster.
This script operates on the local service node and will not
Adjusting firewall...
success
The interface is under control of NetworkManager, setting zone to default.
success
Destroying HA cluster...
Stopping Cluster (pacemaker)...
Stopping Cluster (corosync)...
Shutting down pacemaker/corosync services...
Killing any remaining services...
Removing all cluster configuration files...
Disabling HA services.
Removed symlink /etc/systemd/system/multi-user.target.wants/pcsd.service.
Stopping SSH tunnel
Cleaning up...
atlantis_default
rvice.
Deleting SSH tunnel user...
HA cluster has been destroyed. SSMS is now in stand-alone mode.
```

7. O cluster HA foi destruído. O SSMS agora está em um modo independente.



8. A GUI acessada com o uso do endereço IP do servidor secundário não exibe mais o widget Alta disponibilidade.

alialia cisco									Logger	d in Account Log Out	
Smart So	ftware Manage	er On-Prem								System Health Good	
	S	ynchronization			8					Your machin Server Name Cent	e is working well rOS
Access Management	Settings	Accounts	Schedules							Version 8-20 Uptime 1 da	2006 y
		D Major O Minor								CPU	r Percentage
	۲	Name	Satellite Name	Last Synchronization	Synchroniz	Martinet				RAM	8
Accounts	Support	annanr-ssm-on-prem-8-202006	annanr-ssm-on	2020-Sep-02 07:33:32	2020-Oct-	Network			_		3/s ↓ 397.5 KB/s
	Contor	TEST	TEST	2020-Sep-02 07:35:42	2020-Oct-	Gen	eral	Network Interface	Proxy		
TOOLS	2					•••	ens192			PUBLIC	~
API Toolkit	Synchronization				, di		IPv4 Address	0	Subnet Mask 255.255.255.0		
	i						IPv6 Addres	5	Prefix		00:01:17
Network	Users						Edit Interfac	0			

9. Disparo no servidor Primário como mostrado na imagem.



10. HA foi desabilitado com êxito.



11. A GUI acessada com o uso do endereço IP do servidor primário não exibe mais o widget Alta disponibilidade.

ahaha cisco								Logged in Acco	unt Log Out
Smart S	oftware Manager	On-Prem						Syste	m Health Good
Access	Settings	Accounts	Schedules				8	Server Na Version Uptime	Your machine is working well ame CentOS 8-202006 2 days
		🚺 Major 🕕 Mino	or			Search by Name		Resor CPU	arce Monitor Percentage
		Name	Satellite Name	Last Synchronizatio	n Synchronization Due	Alerts	Actions	RAM DISK	
Accounts	Support	annanr-ssm-on-prem	n-8-202006 annanr-ssm-on	2020-Sep-02 07:3	3:32 2020-Oct-02 07:33:32	Synchronization Successful	Actions	interface ens192	
API Toolkit	Synchronization	TEST	Network General	2020-Sep-02 07:3: Network Interface	5:42 2020-Oct-02 07:35:42 Proxy	Synchronization Successful	Actions	Recei	st Alerts
Network	Users		Connected		PUBLIC ^ Subnet Mask 255.255.255.0			Conn. Aadmin	acted Users 00:00:25
Security			Edit Interfac	0	FIGUR				

O que vem a seguir?!

1. Faça login no SSM On-Prem Primary **Administration Workspace**, navegue até **Security > Certificados** e use o Primary server's (endereço IP/nome de host/FQDN) no Host Common Name.

2. Depois de atualizar o Nome Comum do Host, certifique-se de que seus certificados sejam regenerados com o novo Nome Comum, sincronizando suas Contas Locais com o Cisco SSM.

3. Você deve sincronizar antes de tentar registrar novamente os produtos com o novo Nome Comum na configuração de URL de destino.

4. A não sincronização pode fazer com que os produtos não se registrem com o novo Host Common Name.

Informações Relacionadas

- Guia do console: <u>https://www.cisco.com/web/software/286285517/151968/Smart_Software_Manager_On-</u> <u>Prem_8_Console_Guide.pdf</u>
- Guia do usuário:

https://www.cisco.com/web/software/286285517/151968/Smart_Software_Manager_On-Prem_8_User_Guide.pdf

- Guia de instalação: <u>https://www.cisco.com/web/software/286285517/152313/Smart_Software_Manager_On-Prem_8-202006_Installation_Guide.pdf</u>
- <u>Suporte Técnico e Documentação Cisco Systems</u>