قعومجم ليغشت SSM زارط مداخلا ىلع SSM قعومجم ليغشت رفوتلا قئاف

تايوتحملا

<u>ةمدقملا</u> <u>ةيساسألا تابلطتملا</u> تابلطتملا <u>ةمدختسملا تانوكملا</u> <u>ةىساساً تامولعم</u> <u>يطايتحالا خسنلاو للطعألا زواجت ءانثاً PREM ةركاذ يلع SSM ةركاذ يلع باسحلا ةنمازم</u> ةىلاعلا ةحاتإلا لشفلا زواجت ىطاىتحا <u>فلخلاو لاطعالا يلع بلغتلاء ءانثاً VIP يلع SSM عم جتنملا ليثم ليجست</u> قىلاعلا قحات ال لشفلا زواجت ىطاىتحا رفوتلا ةىلاء ةعومجم ىوتسم ضفخ !؟دعب اذام <u>ةلص تاذ تامولعم</u>

ەمدقملا

دادعإلاا ىلع (SSM) ةيكذلاا جماربلاا ريدم باسح ةنمازم لمع ةيفيك دنتسملا اذه حضوي هرشن مت يذلا قبسملا دادعإلاا ىلع SSM مداخ ىلع جتنملا ليثم ليجستو قبسملا ةيطايتحالاا خسنلاو لااطعألاا زواجت تاهويرانيس تقو يف ،(HA) رفوتلاا ةيلاع ةعومجمك.

ةيساسألا تابلطتملا

تابلطتملا

:ةيلاتا عيضاوملاب ةفرعم كيدل نوكت نأب Cisco يصوت

- PREM-ىلع SSM
- 000

ةمدختسملا تانوكملا

.هدعب امو SSM on-prem 8 ىلإ دنتسملا اذه يف ةدراولا تامولعملا دنتست

ةصاخ ةيلمعم ةئيب يف ةدوجوملا ةزهجألاا نم دنتسملا اذه يف ةدراولا تامولعملا عاشنإ مت. تناك اذإ .(يضارتفا) حوسمم نيوكتب دنتسملا اذه يف ةمدختسُملا ةزهجألا عيمج تأدب رمأ يأل لمتحملا ريثأتلل كمهف نم دكأتف ،ليغشتلا ديق كتكبش.

ةيساسأ تامولعم

.HA نع تامولعم رفوت يتلا ةيعجرملا قئاثولا يه هذهو

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

زواجت ءانثأ PREM ةركاذ ىلع SSM ةركاذ ىلع باسحلا ةنمازم يطايتحالا خسنلاو لاطعألا

ليلدلا اذه ةدعاسمب PREM ىلع SSM يمداخ نيب HA نيوكت بجي SSM

ةعومجم رشن HA: <u>https://www.cisco.com/web/software/286285517/152313/Smart_Software_Manager_On-Prem_8-</u> 202006_Installation_Guide.pdf

مدختسأ ،ضرعلا اذه يف:

- يسيئرلا مداخلل IP ناونع 5.
- يوناثلا مداخلاب صاخلا IP ناونع 10.
- يرهاظلا IP ناونع 12.

ةيلاعلا ةحاتإلا

يطايتحإ مداخك (10.) طشن يوناث مداخك (5.) يساسألا مداخلا HA ل حجانلاا نيوكتلا رەظي .1 مداخو VIP (.12) SD مداخو.



2. مداخلا نم حاجنب Cisco Software Central عم SSM On-Prem ةنمازم لامكا مت ةروصلا يف حضوم وه امك طشنلا/يساسألا.

uluilu cisco									Logg	ed in Acco	unt Log (Out	
Smart So	oftware N	lanage	er On-Prem				Network			Syste	m Health Good	1	
Access	High Sy	nchron Acc	ization	Schedules			Ger	ens192 Connected	Network Inter	Server N Version Uptime	Your mac ame C 8- 1	chine is working entOS -202006 day	well
Accounts	Availabilit Status	Major Name	Minor m-on-prem-8-202006	Satellite Name	Last Synchronization 2020-Sep-01 14:13:44	Synchro 2020-0		IPv4 Address	3	Reso CPU RAM DISK	urce Mon I	litor Percenta	1ge
	counts Account	S	Account Requests	Event Log						Rece	nt Alerts	↑ 546.8 KB/s	↓ 1
API Tooli	New Accou	unt	B				Searc	h by Account N	lame				
	Account		Requested By	Cisco Smart Accou	Int Cisco Virtual Accou	nt Ace	count Status	Actions		Conn	ected Us	ers	0-06-1
	annanr-ssm- prem-8-2020	on- 06	annanr@cisco.com	i .cou	annanr-SSM-On- Prem-8-202006	Act	tive	Actions		amin		00	J.UO. I
								Sho	wing All 1 Records				

3. يساسألاا مداخلا تانايب ةدعاق نأ ةعومجملاب ةصاخلا HA قلاح رەظت ىلع (Replication Master) يوناثلا مداخلا تانايب ةدعاق ىلإ خسنت راسيلا ىلع ةدوجوملا مىلع (Replication Slave) يوناثلا مداخلا تانايب قدعاق مال خسنت راسيل



لشفلا زواجت

.ةروصلا يف حضوم وه امك يساسألا مداخلا ىلع HA ةعومجم فاقيإ .1



.ةروصلا يف حضوم وه امك يوناث|يساسأ .2



3. متو VIP مادختساب (GUI) ةيموسرلا مدختسملا ةمجاو يف SSM ىلإ لوخدلا ليجست مت قيموسرلا مدختسملا قمجاو فاقيإ (GUI) ،

- .طشن مداخك (10.) يوناثلا مداخلا ضرع متي .4
- . بلقلا تاقد لصفنت.
- .دادعتسالا ةلاح ىلإ (5.) يساسألا مداخلا لقن مت .6

alialia cisco						Loggio in Acc	
Smart S	oftware Mana	High Availability	005		8	Syst	em Health Good
Access Management	Security	Degraded The cluster is degraded One	of the cluster nodes is offline	Heartbeat Connection status: Disconnec	cted	Server N Version Uptime CBU	Your machine is working well kame Cert0S 8-202006 1 day burce Monitor Percentage
Accounts	Settings	VIP .12	_	2 -4	0	RAM DISK	
API Toolkit	Support Center	Active Server public address (* secondary-node (192	.10) 168.1.5)	Standby public address primary-node (Server (5) (192.168.1.4)	ens192 Roce	T COMUNICATION TO USE A DIS
High	Synchronization	Active		Dogra	ded	Con Ladmin	nected Users 00:00:25
Availability		System Information					
**		Physical Memory Disk Space	7.62 GB 7.70 GB	Physical Memory Disk Space			
Network	Users	Current Version	8-202006	Current Version	-		

تم حاجنب Cisco Software Central عم يلوألا مداخلا ىلع SSM باسح ةنمازم ةظحالم نكمي .7 ةروصلا يف حضوم وه امك طشنلا/يوناثلا مداخلاب ةصاخلا (GUI) ةيموسرلا مدختسمل قهجاو.

cisco											
Smart S	oftware	Monagor On Bro						8		System Hea	alth Dd
•		Accounts	Account Requests	Event Log		Network	Natural Interfere	8		Server Name Version	CentOS 8-202006
Access Management	Security	New Account	B			ens192	Network Interface	Proxy		Resource N	Monitor Percentage
Accounts	Settings	Account annan-ssm-on- prem-8-202006	Requested By annanr@cisco.com	Cisco Smart Account	Cisco annar Prem-	Connected IPv4 Address	10	Subnet Mask 255.255.255.0		CPU I RAM DISK I	-
		Synchronization				IPv6 Addre	55	Prefix		Recent Aler	↑ 635.6 KB/s ↓ 161 KB/
API Toolkit	Support Center	Accounts	Schedules			View Interf	300				
		Major O Minor								Connected Ladmin	Users 00:02:26
High Availability	Synchronizat	i annanr-ssm-on-prem-l	Satellite Name	Last Synchronization 2020-Sep-01 14:1	on 13:44						
Status	į										
Network	Users							,	á		

.ةروصلا يف حضوم وه امك يساسألا مداخلا ىلع HA ةعومجم ليغشت ءدب .8



.ةيوناثلا تانايبلا ةدعاق نم ةرركم ةيساسألا تانايبلا ةدعاق نأ HA ةعومجم ةلاح نيبت - 9

.ةروصلا يف حضوم وه امك يوناث|يساسأ .10

rast-iq-cuange= ine seb i totsit4 tata.' dneneo≖aus' axec≂ews	primary-node: Online
9C5D Status: primary-mode: Online Baeeno Status: corosync: active/enabled pscemaker: active/enabled psc4: active/enabled tast login: Wed Sep 2 08:52:24 UTC 2020 on pts/0	Demon Status: corosync: aclive/enabled pscemaker: sctive/enabled pesd: aclive/enabled Last login: Wed Sep 2 09:00:23 UTC 2020 on pts/0 Database Application Status: Database is currently the replication master - Replicating to primary-node (
Database Replication Status:	
Database is currently the replication slave - Replicating from secondary-node (: .10)	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 (8 rows)	
Replication from master: pg_last_klog_replay_location	Replication from master: pg_last_xlog_replay_location
e/7079718 (1 row)	0/53CDC60 (1 rcw)

ةلاحلا يف ةيوناثلاو ،ةلصتم بلقلا تاضبن ةيموسرلا مدختسملا ةهجاو رهظت .11 ةروصلا يف حضوم وه امك دادعتسالا ةلاح يف ةيساسألاو ةطشنلا.

uludu cisco			

Smart Software Manager On-Prem

		High Availability			8
6	M	Host Event L	Logs		
Access Aanagement	Security	Normal	Hear	beat	
		The status of the high availabili	ity cluster is normal.	ection status: Connected	
Accounts	Settings	VIP .12			
	(Šur	Active Server	r	Standby	Server
TCOLS		public address (10)	public address	(:.5)
API Toolkit	Support	secondary-node (192	.168.1.5)	primary-node	(192.168.1.4)
	Center				
High Availability Status	Synchroniz	Active			
	ļ	System Information			
Network	Users	Physical Memory	7.62 GB	Physical Memory	
		Disk Space	7.70 GB	Disk Space	
		Current Version	8-202006	Current Varsion	

.(10) مداخ .طشنلا دادعتسالا عضو ىلع مطيشنتو ديدج رابتخإ باسح ءاشنإب مق .12

.ةلحرملا هذه يف (5.) ةيساسألاا (GUI) ةيموسرلا مدختسملا ةهجاو ىلإ لوصولا نوكي نل - 13

Accounts					
Accounts	Account Requests	Event Log			
New Account	Ľ			5	Search by Account Name
Account	Requested By	Cisco Smart Accou	nt 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 (
	secondary-node (192.168.1.5)	primary-node (192.168.1.4)
Californi (f)		
	Active	Standby

يطايتحإ

.ةروصلا يف حضوم وه امك ةيوناثلا يف HA_CLUSTER فاقيإ .1

[>> ha_cluster_stop Last login: Wed Sep 2 09:03:25 UTC 2020 on pts/0 Stopping Cluster (pacemaker)... Stopping Cluster (corosync)... |>>

يوناثلا مداخلا تانايب ةدعاقو يساسألا مداخلا تانايب ةدعاقل ةيلاحلا ةلاحلا ةيؤر نكمي .2 انه.



3. مادختساب ةجمدملا (GUI) ةيموسرلا مدختسملا ةمجاو يف SSM ىلإ لوخدلا ليجست مت VIP مادختساب ةجمدملا (GUI) مادختساب قيم من الفري متو

.طشن مداخك (5.) يساسألا مداخلا ضرع متي .4

.بلقلا تاقد لصفنت .5

.دادعتسالا ةلاح ىلإ (5.) يوناثلا مداخلا لقن مت .6



7. خسنلا ثدح ثيح ةنمازملا ةلاح يف اثيدح هؤاشنا مت يذلا "رابتخالا باسح" ةيؤر نكمي ةروصلا يف حضوم وه امك "يساسألا" يل "يوناثلا" تانايب ةدعاق نم لثامتملا.

սիսի		igh Availability	Account Log Out			
CISCO		Host Event L	ags			
Smart Software M	anager On-Prem	Degraded	the cluster podes is offline	Heartbeat	connected	System Health Good Your machine is working well
Access Security		The cluster is degraded one of				Jerver Name CentOS fersion 8-202006 Jptime 1 day
Management		VIP 12				Resource Monitor Percentage
		Active Server			Standby Server	CPU RAM
Accounts Settings		public address (*	i.5)	public	address (10)	DISK Interface
						ns192
		Active			Degraded	
API Toolkit Support Center		ccounts				8
📄 🚳		Accounts Account R	equests Event Log			cted Users 00:01:43
High Synchronization	1	New Account			Search by Account Name	
Status		Account Requested I	y Cisco Smart Account	Cisco Virtual Account Acc	count Status Actions	
🛞 🝈 i		annanr-ssm-on- prem-8-202006 annanr@cist	com com	annanr-SSM-On- Prem-8-202006 Act	ive Actions	
Network Users	Synchronization	TEST annanr@cise	com com	TEST123 Act	ive Actions	
	Accounts				Showing All 2 F	Records
	O Major O Minor			Search by Name		lis
	Name	tellite Name Last Synchronization	Synchronization Due Aler	ts Ac		
	annanr-ssm-on-prem-8-202006	nanr-ssm-on 2020-Sep-02 07:33:3	2 2020-Oct-02 07:33:32 Syn	chronization Successful Acti		
	TEST	ST 2020-Sep-02 07:35:4	2 2020-Oct-02 07:35:42 Syn	chronization Successful Acti		

- يف (12.) ةمەملا ةيصخشلا ناونع نم (GUI) ةيموسرلا مدختسملا ةەجاو ىلإ لوصولا نكمي .8 يوناثلا تنرتنإلا لوكوتورب ناونع نم سيلو ةلحرملا ەذە.
- .ةروصلا يف حضوم وه امك يوناثلا مداخلا ىلع HA ةعومجم ليغشت ءدب .9

[>> ha_cluster_start Last login: Wed Sep 2 09:10:52 UTC 2020 on pts/0 Starting Cluster (corosync)... Starting Cluster (pacemaker)...

ال امداخلا تانايب ةدعاق نأ ةعومجملاب ةصاخلا HA قلاح رەظت .10 (Replication Master) يساسألا مداخلا تانايب ةدعاق ن ىلع (Replication Slave) يوناثلا مداخلا تانايب ةدعاق خسنب موقت راسيلا ىلع ةدوجوملا ةروصلا يف عقوتم وه امك نيميلا.



طشنلا يساسألا مداخلا نيب ةلصتم بلق تاقد (GUI) ةيموسرلا مدختسملا ةمجاو رمظت .11 يطايتحالا يوناثلا مداخلاو.

12. عم حاجنب TEST باسح نمازتي Cisco Software Central.



ىلع بلغتلا ءانثأ VIP ىلع SSM عم جتنملا ليثم ليجست فلخلاو لاطعألا

ليلدلا اذه مادختساب PREM ىلع SSM يمداخ نيب يلاعلا رفاوتلا نيوكت بجي:

:HA ةعومجم رشن

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

مدختسأ ،ضرعلا اذه يف:

- يساسألا مداخلل IP ناونع 11.
- يوناثلا مداخلاب صاخلا IP ناونع 9.

يرهاظلا IP ناونع - 14.

ةيلاعلا ةحاتإلا

مداخك (9.) يوناثو طشن مداخك (11.) يساسألا مداخلا رەظي يذلا HA نم حجان نيوكت .1 مەم ةيصخشو يطايتحإ.

cisco							Licensing Workspace	n in Excount Front One
Smart So Access Management	oftware	Mana High Av	Iger On-Prem vailability Host Event Log Normal The status of the high availability of	s Iuster is normal.	rtbeat nection status: Connec	⊗ ted		System Health Cour machine is working well Server Name anan-8-202105 Uptime 14 days Resource Monitor Percentage CPU RAM DISK
Accounts	Settings Support Center Synchroniz		Active Server public address (primary-node (169.254.) Active	11) 0.1)	pub seco	Standby Server Sic address (.9) indary-node (169.254.0.2) main and a standard for the server of		rentice · · · · · · · · · · · · · · · · ·
Status Network	Users	Sys	Stem Information Active Ser Physical Memory Disk Space Current Version	ver 7.62 GB 7.83 GB 8-202105	Sta Physical Memory Disk Space Current Version	ndby Server		

2. يساسألا مداخلا تانايب ةدعاق نأ ةعومجملاب ةصاخلا HA قلاح حضوت (Replication Master) ىلع (Replication Slave) يوناثلا مداخلا تانايب ةدعاق ىلإ خسنت راسيلا ىلع ةدوجوملا قروصلا يف عقوتم وه امك نيميلا.

PCSD Status: primary-mode: Online secondary-mode: Online	PCD Status: secondary-node: Online primary-mode: Online
Deaman Status: soronym: active/amabled pscensker: active/amabled Dodd: active/amabled Last login: Sun Jun 20 18:12:43 UTC 2021 on pts/0	Damon Stitus: coresyn: active/enabled posemaker: active/enabled pose: 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 (Database is currently the replication slave - Replicating from primary-node (.11)
Replication to slave: client_addr backend_start state write_lag flush_lag replay_lag	Replication to slave: client_sddr backend_start state write_leg flush_leg replay_leg
169.254.0.2 2021-06-18 15:58:57.211121+00 streaming 0 0 0 (1 row)	Replication from master: pg_last_slog_replay_location
Replication from master: pp_lest_xlog_replay_location	0/27834F8 (1 row) (>>

ىلع **قرادال لمع قحاسم** ىلإ لوخدلا ليجستب مق ،HA ةعومجمك SSM On-Prem رشن دنع .3 عئاشلا مسالا ىلع يرەاظلا IP ناونع مدختساو **تاداەشلا < نامألا** ىلإ لقتنا مث ،SSM فيضملل. 4. جتنملا ةمجول URL ناونعل اممادختسال ططخت يتلا ةميقلا ةميقلا مذه قباطت نأ بجي. سيلو FQDN ةميقلا هذه نوكت نأ بجي ،(IPv6 و IPv4 نم لكل) جودزملا سدكملا رشن ةلاح يف ناونع IP.

مسالا مادختساب تاداهشلا ءاشنا قداعا نم دكأت ،فيضملل عئاشلا مسالا ثيدحت دعب .5 نم ةيكذلا جماربلا ريدم عم ةيلحملا كتاباسح ةنمازم لالخ نم ديدجلا عئاشلا

6. كرتشملا مسالا مادختساب تاجتنملا ليجست ةداعا ةلواحم لبق ةنمازملا كيلع بجي ةمجولا URL ناونع نيوكت يف ديدجلا.

7. كرتشملا فيضملا مساب ليجستلا يف تاجتنملا لشف ىلاٍ ةنمازملا مدع يدؤي دق ديدجلا.

cisco					Licensing Workspace	na ni i Account i Legiout
Smart Software I	Manager On-Prem					System Health
• •	Security				*	Your machine is working well
	Account	Password Cr	ertificates	Event Log		Server Name annan-8-202105 Version 8-202105 Uptime 14 days
Management	Product Certificate					Resource Monitor Percentage
	Host Common Name .14					CPU I RAM DISK
Accounts Settings	Save					Interface ens192 - 1.8 MB/s 1.8 MB/s
	NOTE: The Host Common Name is for product communications is spe to configure the Cisco Product whe issue a new CSR	typically composed of Host cific to the Common Name th in connecting to SSM On-Pre	+ Domain Name and w hat has been issued at em. If you change the 0	III look like "www.yoursite.com" or "yoursite.com". The SSL Server C. the Host. Therefore, the Common Name must match the Web address Common Name, you must resynchronize your Local Account in order f	artificate used s you will use or Clisco to	Recent Alerts O Insufficient Licenses
API Toolkit Support	Browser Certificate					
Center	Add Generate CSR					Connected Users
	(Default Certificate)			EXPIRATION DATE: 2022-	JUN-06 🗸	Ladmin 00:15:11
Availability Statue	CA Certificates					
						Lopped In Account Log Out
cisco			Pro	oduct Registration URL ×	🚨 Helio, Local Admin 🛛 Adr	in Workspace
Smart Software Manager Or	n-Prem > Smart Licensing		http	.14/Transportgateway/services/DeviceRequestHandle		annanr-ssm-on-prem-8-2021 👻
Smart Licens	sing		Pres	s ctrl + c to copy selected text to clipboard.		
Alerts	Inventory Convert to Smart Lic	ensing Reports	Preferences	Activity		
Local Virtual Acc	ount: Default					
General	Licenses Prod	uct Instances SL U	Jsing Policy	Event Log		
Local Virtual Acc	ount					
Description		This is the default virtu	al account created d	luring company account creation.		
Default Local Vi	irtual Account:	Yes				
Product Instance	Registration Tokens					
The registration toker support Smart Licens use the Smart Call Ho	ns below can be used to register new product sing Using Policy that use csiu as transport, y one Registration URL. The recommended me	instances to this Local Virtual A ou must configure the "license : thod is Smart Transport. Please	Account. For products th smart transport cslu® to a a consult your Products	at support Smart Transport, you must configure the "license smart urt" on t use the CSLU Transport URL. For legacy products that still use Smart Call I Configuration Guide for setting the destination URL value.	he product to use the Smart Transport Regi fome, you must configure the "destination a	atration URL. For products that address http" on the product to

صاخلا SSM ناونع ىلإ (cucmpub)و (anr-39) ،تاجتنملا نم نيتلاح ليجست مت .8 .**جتنملا تاليثم** بيوبتلا ةمالع يف حضوم وه امك ةمهملا تايصخشلاب.

9. ةمالع يف هذه جتنملا تاليثم لبق نم بولطملا/كلهتسملا صيخرتلا نيمضت متي **صيخرتلا** بيوبتلا.

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 Loonse 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 0 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

لشفلا زواجت

.ةروصلا يف حضوم وه امك يساسألا مداخلا ىلع HA ةعومجم فاقيإ .1

PCSD Status: primary-node: Online secondary-node: Online	PCSD Status: secundary-mode: Online primary-mode: Online
Daemon Status: corosync: active/enabled pscemaker: active/enabled pcsd: active/enabled Last login: Sun Jun 20 10:12:43 UTC 2021 on pts/0	Daemon Status: corosync: active/enabled pacemaker: 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 (
Replication to slave: client_sddr backend_start state write_lag flush_lag renlaw lan	Replication to slave: client_addr backend_start state write_lag flush_lag replay_lag
nterenenen 	
169.254.0.2 2021-06-18 15:58:57.211121+00 streaming 0 0 0 (1 row)	Replication from master: pg_last_xlog_replay_location
Replication from master: pp_last_slog_replay_location	9/C743AF5 (1 row)
(1 row)	
>> ha_cluster_stop	
Last login: Sun Jun 20 18:12:45 UTC 2021 on pts/0 Stopping Cluster (pacemaker)	
	þ» þ»
Stopping Cluster (corosync)	

- ةدوجوملا SSM ةركاذب ةصاخلا (GUI) ةيموسرلا مدختسملا ةمجاو ىل لوخدلا ليجست مت .2 ةيساسألا (GUI) ةيموسرلا مدختسملا ةمجاو فاقيا متو (14.) VIP مادختساب مداخلا ىلع.
- .طشن مداخك (9.) يوناثلا مداخلا ضرع متي .3
- . بلقلا تاقد لصفنت.
- .دادعتسالا ةلاح ىل (11.) يساسألا مداخلا لقن متي .5

cisco							Licensing Workspace		
Smart So Access Management	oftware I	Mana High Av	ger On-Prem vailability Host Event Lo Degraded The cluster is degraded One of	gs the cluster nodes is offline	Heartbeat Connection status: Discor	⊗ nnected		System Health Construction of the second se	ei 0
Accounts ACCOUNTS API Toolkit	Settings Support Center	VIP	.14 Active Server public address (secondary-node (169.2	.9) 540.2)	Star public add primary-n	ndby Server ress (11) ode (169.254.0.1)		DISK DISK Stretars ensities ensite Recent Alerts Insufficient Licenses Connected Users	k 3.9 MB/s
High Availability Status Network	Synchroniz Users	Sys	Active Active Stem Information Active Se Physical Memory Disk Space Current Version	rver 7.52 GB 7.56 GB 8-202105	Contraction Contraction Contraction Contraction Contraction Contraction Contraction Contraction Contraction	server		Ladmin 00.0	0:18

6. دادعإ يف تاجتنملا ليجستل URL ناونع يف SSM VIP مادختساب جتنملا تاليثم ليجست. ةروصلا يف حضوم وه امك لقنلا قرابع.



امك VIP ناونع مادختساب مداخلا ىلع SSM عم حاجنب PI37 ليجست مت :جتنملا ليثم مسا .7 ةروصلا يف حضوم وه.

•	ender Prime Infrastructure					Q - Application Search	🐥 😣 9	root - ROOT-DOMAIN
∩ ∣ Ac	dministration / Licenses and Softwa	re Updates / Smart Software Lice	ensing \pm				Licensing Dasl	nboard 🕘 💭 🗭 🔲
Licen	sing Settings License Dashboard Setting	8						
Smar	t Software Licensing							
📵 То	view and manage Smart Licenses for your Cisco Si	mart Account, go to Smart Software Manager						
Smar	t Software Licensing Status							
	Licensing Mode Smart Software Licens	ing						
	Product Name Prime Infrastructure							
	Registration Status 🗹 Registered (Jun 20.	2021)						
Lio	ense Authorization Status 🙁 Out of Compliance	(Jun 20, 2021)						
	Smart Account annanr-ssm-on-prem-	8-202105						
	Virtual Account Default							
	Product Instance Name pi37							
	Transport Settings Transport Galeway Vi	aw / Edit						
*	Smart License Usage							
	Choose Licenses			Last updated: Sunday Jun 20, 202	1 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			
Acti	ons v							

8. تاجتنملا ليجستل URL ناونع يف SSM VIP مادختساب ىرخألاا تاجتنملا تاليثم ليجست. لقنلاا ةباوب دادعإ يف.

Success Smart agent registered successfully

Status	
i Transport settings saved successfully.	
Configure how the product instance will communicate with Cis	sco.
O Direct - product communicates directly with Cisco licensing servers.	
URL :	https://tools.cisco.com/its/service/oddce/services/DDCEService
• Transport Gateway - proxy data via Transport Gateway or Smart Software Ma	anager 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 :	
User Name :	
Password :	
Do not share my hostname or IP address with Cisco.	

9. قبسم لكشب (SSM) ةبلصلا ةلاحلا ةرادا مادختساب حاجنب تاجتنملا ليجست لمتكا ةروصلا يف حضوم وه امك VIP ناونع مادختساب.

Status 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

مادختساب مداخلا ىلع SSM عم CUCM-PUB-30 ليجست حاجنب مت :جتنملا ليثم مسا .10 ةروصلا يف حضوم وه امك VIP ناونع.

Cisco Unified CM Administr Cisco Unified Communications Solution	ration ^s		
System - Call Routing - Media Resources - Advanced F	eatures - Device - Application -	User Management 👻 Bulk Administration 👻 Help 💌	
License Management			
- Status			
Smart Software Licensing: The system is operating w	ith an insufficient number of licenses.	Configure additional licenses in Smart Software Manager with	in 72 days to avoid losing the ability to provision users and devices.
Smart Software Licensing			
Registration Status		Registered	
License Authorization Status		Out of Compliance (Sunday, June 20, 2021 10:29:53 PM	EEST)
Smart Account		annanr-ssm-on-prem-8-202105	
Virtual Account		Default	
Product Instance Name		cucm-pub-30	
Export-Controlled Functionality		Transport Gateway View/Edit the Licensing Smart Call Home	eattinge
Licensing Mode		Enterprise	and the second se
Decking is a summary of current license usage on the s deployment. View All License Type Descriptions And Device Classificatio (Update Usage Details) Usage Details Last Updated: 2021 License Requirements by Type	ystem. Current Usage betails for each	cype are available by pressing. Opdate Usage Details', Note t	nat collecting these data is a resource intensive process and may take several
License Tune	Current Usage	Status	Pasart
CUWL	0	No Licenses in Use	Users(0) Unassigned Devices(0)
Enhanced Plus	0	No Licenses in Use	Users(0)
Enhanced	44	Out of Compliance	Users(.8.) Unassigned Devices(.36.)
Basic	2	🙆 Out of Compliance	Users(1) Unassigned Devices(1)
Essential	4	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	

ب صاخلا VIP ناونع ىلإ (cucm-pub-30)و (pi37) ،تاجتنملا نم نيتديدج نيتلاح ليجست مت .11 SSM بصاخلا عالي بي من الع يوبتلا قمال عيف من من من يتديد في من الع عن من الع ي من من SSM بي من المن من المن من

ةمالع يف هذه جتنملا تاليثم لبق نم بولطملا/كلهتسملا صيخرتلا نيمضت متي .12 **صيخرتلا** بيوبتلا.

·				📥 Hello, Local Admin Admin Workspace
ware Manager On-Prem > Smart Licensin	ng			annan-ssm-on-prem-8-202
Alerts Inventory Corr	vert to Smart Licensing Re	aports Preferences	Activity	
al Virtual Account: Default				
General Licenses	Product Instances	SL Using Policy Event	t Log	
				Search by Name, Product Type Q
Name	Product Type	Last Contact	Alerts	Search by Name, Product Type Q Actions
Name UDL/PID-PI-SOFTWARE;UDL_SN:annan-39	Product Type SDNMGMT	Last Contact 2021-Jun-20 18:39:00	Alerts	Search by Name, Product Type Q. Actions Actions
Name UDL.PID.PI-SOFTWARE.UDL.SN:annam-39 UDL.PID.PI-SOFTWARE.UDL.SN:pi37:	Product Type SDNMGMT SDNMGMT	Last Contact 2021-Jun-20 18:39:00 2021-Jun-20 18:26:47	Alerts	Search by Name, Product Type Q. Actions Actions Actions
Name UDL.PID:PI-SOFTWARE;UDL_SN:annan-39 UDL.PID:PI-SOFTWARE;UDL_SN:pi37: cvcmpub	Product Type SDNMGMT SDNMGMT UCL	Last Contact 2021-Jun-20 18:39:00 2021-Jun-20 18:26:47 2021-Jun-20 18:36:56	Alets	Search by Name, Product Type Q Actions Actions Actions Actions Actions

cisco							🐣 Hello, Local Admin	Logget Is Accour Admin Workspace
Smart Softwar	re Manager On-Prem > Smart Licensing							annanr-ssm-on-prem-8-2021.
Sma	art Licensing							
A	lerts Inventory Convert to Smart Ucensin	g Reports	Preferences	Activity				
Local	Virtual Account: Default							
	General Licenses Product I	nstances SL	Using Policy E	Event Log				
Ave	silable Actions * Manage License Tags							By Name By Tag Search by License Q
	License	Billing	Purchased	In Use	Substitution	Balance	Alerts	Actiona
0	Prime Infrastructure 3.x, Assurance Lic.	Prepaid	0	2		-2	Insufficient Licenses	Actions +
	Prime infrastructure 3.x, BASE Lie.	Prepsid	0	2		-2	Insufficient Licenses	Actions +
0	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)	Propaid	0	1		-1	Insufficient Licenses	Actions +
	UC Manager Essential License (12.x)	Prepsid	0	4		-4	Insufficient Licenses	Actions +
0	UC Manager Telepresence Room License (12.x)	Prepaid	0	1		-1	O Insufficient Licenses	Actions +
								Showing All 8 Records

.يسيئرلا مداخلا ىلع HA ةعومجم ليغشت ءدب .13



.ةيوناثلا تانايبلا ةدعاق نم ةرركم ةيساسألا تانايبلا ةدعاق نأ HA ةعومجم ةلاح نيبت - 14

.ةروصلا يف حضوم وه امك يوناث|يساسأ .15

ACSD Status: primary-mode: Online secondary-mode: Online Gaemon Status: cofceync: active/anabled price ac	PCSD Status: secondary-mode: Online primary-mode: Online Deemon Status: corcupyo: artivitand corcupyo: artivitand
Database Replication Status:	Database Publication Status:
Database is currently the replication slave - Replicating from secondary-node (
Replication to slave: dlent_addr backend_start state write_lag flush_lag replay_lag	Database is currently the replication slave - Replicating from primary-node / .11) Replication to slave: Cilent_addr backend_start state write_lag flush_lag replay_lag
(0 rows)	(0 rows)
Application from master: pg_last_xlog_replay_location	Replication from master: pg_last_viog_replay_location
(1 row)	9/C7A3020 (1 row)

ةلاحلا يف ةيوناثلاو ،ةلصتم بلقلا تاقد (GUI) ةيموسرلا مدختسملا ةهجاو رهظت .16 ةروصلا يف حضوم وه امك دادعتسالا ةلاح يف ةيساسألاو ةطشنلا.



يطايتحإ

.ةيوناثلا ةلحرملا يف HA_CLUSTER فاقيإ .1

يوناثلا مداخلا تانايب ةدعاقو يساسألا مداخلا تانايب ةدعاقل ةيلاحلا ةلاحلا ةيؤر نكمي .2 ةلطعم.



ةدوجوملا SSM ةركاذب ةصاخلا (GUI) ةيموسرلا مدختسملا ةمجاو ىلا لوخدلا ليجست مت .3 ةيوناثلا (GUI) ةيموسرلا مدختسملا ةمجاو فاقيا متو (14.) VIP مادختساب مداخلا ىلع.

- . طشن مداخك (11.) يساسألا مداخلا ضرع متي.
- .بلقلا تاقد لصفنت .5
- .دادعتسالا ةلاح ىلإ (9.) يوناثلا مداخلا لقن مت .6



يف (14.) ةمەملا ةيصخشلا ناونع نم (GUI) ةيموسرلا مدختسملا ةەجاو ىلإ لوصولا نكمي .7 يوناثلا تنرتنإلا لوكوتورب ناونع نم سيلو ةلحرملا ەذە.

.يوناثلا مداخلا ىلع HA ةعومجم ليغشت ءدب .8



9. يساسألاا مداخلا تانايب ةدعاق نأ ةعومجملاب ةصاخلا HA قلاح حضوت (Replication Master) ىلع (Replication Slave) يوناثلا مداخلا تانايب ةدعاق ىلإ خسنت راسيلا ىلع ةدوجوملا عقوتم وه امك نيميلا



طشنلا يساسألا مداخلا نيب ةلصتم بلق تاقد (GUI) ةيموسرلا مدختسملا ةهجاو رهظت .10 يطايتحالا يوناثلا مداخلاو.



ا تالي عام عيمج 11. تالي عام العامي العام **جتنملا تالي ثم** بيوبتل

ا قمالع يف هذه جتنملا تاليثم لبق نم بولطملا/كلهتسملا صيخرتلا نيمضت متي .12 **صيخرتلا** بيوبتلا.

					Logged In Admin Workspace
oftware Manager On-Prem > Sn	art Licensing				annan-ssm-on-prem-8
mart Licensing					
Alerts Inventory	Convert	to Smart Licensing Re	ports Preferences	Activity	
ocal Virtual Account: Defa	ault				
General	Licenses	Product Instances	SL Using Policy Ev	ent Log	
6					Gaarch hu Name Devid ut Tuna Q
Name		Product Type	Last Contact	Alerts	Actions
UDI_PID:PI-SOFTWARE;UDI_SN	tannanr-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) (ᡧ)))

Aivite Manager On-Pr Smart Licensir Aivite Im Cocal Virtual Accour General Available Actions * License	em > Smart Licensing IQ antory Converte Smart Uc nt: Default Licenses Prod Manage License Tags	zensing Reports	Preferences Using Policy	Activity Event Log				By Name By Tog Search by License Q
Alarta Inne Alarta Inne Scal Virtual Accour General Available Actions *	entery Convertee Smart Lie nt: Default Licenses Prod Manage License Tags	Denning Reports	Preferences	Activity Event Log				By Name By Tag Search by License Q
Alaris Im Occal Virtual Accour General Available Actions * License	Antiony Convert to Smart Licenses Prod	duct Instances SL	Preferences	Activity Event Log				By Name By Tag Search by License Q
General Available Actions * License	ht: Default Licenses Prod Manage License Tags	duct Instances SL	. Using Policy	Event Log				By Name By Tag Search by License Q
General Available Actions *	Licenses Prod	luct Instances SL	Using Policy	Event Log				By Name By Tog Search by License Q
Available Actions =	Manage License Tags	Đ						By Name By Tag Search by License Q
License								
-		Billing	Purchased	In Use	Substitution	Balance	Aierts	Actions
Prime infrastructi	ure 3.x, Assurance Lic.	Prepaid	0	2		-2	S Insufficient Licenses	Actions +
Prime infrastruct	ure 3.x, BASE Lic.	Prepsid	0	2		-2	Insufficient Licenses	Actions *
Prime Infrastruct	ure 3.x, Lifecycle Lic.	Prepaid	0	48		-48	O Insufficient Licenses	Actions +
UC Manager Bas	ic License (12.x)	Prepaid	0	2		-2	Insufficient Licenses	Actions *
UC Manager Enh	anced License (12.x)	Prepaid	0	47		-47	Insufficient Licenses	Actions +
UC Manager Enh	ranced Plus License (12.x)	Prepaid	0	1		-1	S Insufficient Licenses	Actions *
UC Manager Ess	ential License (12.x)	Prepsid	0	4		-4	Insufficient Licenses	Actions +
UC Manager Tele	presence Room License (12.x)	Prepaid	0	1		-1	Insufficient Licenses	Actions +

رفوتلا ةيلاع ةعومجم ىوتسم ضفخ

- 1. ةرشابم ةزهاجلا ةعومجملا ماظن ىلع Cisco Smart Manager ماظن فينصت ضفخ نكمي لقتسم لكشب ةدحاو ةدقع ىلإ.
- 2. لصومب لـاصتالل (On-Prem) ةتقۇملا ةركاذلا يف مكحتلا ةدحو مدختساً .2 مألا مادختساب ةتقۇملا ةركاذلا ىلع طشنلا/يساسألا .
- 3. الو يطايتحال|/يوناثل| مداخل| ل٥اجت بجي ،PREM ىلع SSM ليغشت نم ققحتل| دعب ممادختس| قداع| نكمي.
- . ةعومجملا ماظن نم الدب ەتاذب مئاق ماظن نآلا كيدل نوكيس.
- ةروصلا يف حضوم وه امك تاثاعبنالا ضفخ ةيلمع ليغشت ءدب مت .5.



6. ةروصلا يف حضوم وه امك يوناثلا مداخلا ىلع ليغشتلا عدب.

```
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
(1 row)
>> ha_teardown
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
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
Removed symlink /etc/systemd/system/multi-user.target.wants/tunha.service.
Cleaning up...
atlantis_default
Enabling SSMS stand-alone mode...
Created symlink from /etc/systemd/system/multi-user.target.wants/satellite.service to /etc/systemd/system/satellite.se
rvice.
Deleting SSH tunnel user...
HA cluster has been destroyed. SSMS is now in stand-alone mode.
```

.لقتسملا عضولا يف نآلا SSMS دجوت .HA ةعومجم ترمدو - 7



8. ان اونع مادختساب اهيلٍ لوصول مت يتلا (GUI) ةيموسرلا مدختسملا قمجاو دعت مل ا رفوتلا يلع ضرعلا رصنع نم ولخت يوناثلا مداخلل.

uluilu cisco									Logge	d in Account Log Out	
Smart So	oftware Manag	er On-Prem								System Health Good	
Access	Settings	Synchronization Accounts	Schedules		8					Your machine is Server Name CentOS Version 8-202000 Uptime 1 day	working well
Management		Major Minor	Satellite Name	Last Synchronization	Synchroniz					Resource Monitor Po CPU RAM	prcentage
Accounts	Support Center	annanr-ssm-on-prem-8-202006 TEST	annanr-ssm-on TEST	2020-Sep-02 07:33:32 2020-Sep-02 07:35:42	2020-Oct-	Network Gen	eral	Network Interface	Proxy		3/s ↓ 397.5 KB/
API Toolkit	Synchronization					•••	ens192 Connected IPv4 Address	0	Subnet Mask 255.255.255.0	PUBLIC ^	
Network	Users						IPv6 Addres	s •	Prefix		00:01:17

.ةروصلا يف حضوم وه امك يساسألا مداخلا ىلع ليغشتلا عدب.9



.حاجنب HA ليطعت مت - 10



11. ناونع مادختساب اهيلإ لوصولا مت يتلا (GUI) ةيموسرلا مدختسملا ةهجاو دعت مل رفوتلا ةيلاع (GUI) ةيموسرلا مدختسملا ةهجاو قرتخت يساسألا مداخلاب صاخل.

ahah										Logger	f in Account	Log Out
cisco												
Smart So	oftware Manage	er On-Prem									System H	ealth
-	_	Supebranizat	lion						8		You Go	DOC ar machine is working well
		Synchroniza	uon						Ť		Server Name	CentOS
		Account	5	Schedules							Version	8-202006
Access	Settings										Openne	2 oays
Management			Mary					a sector beautions			Resource	Monitor Percentage
		integor C	MILLOR					Search by Name	_		CPU	
	L a	Name		Satellite Name	Last Synchronizat	tion Synchronization	n Due Ale	erts	Actions		DISK	
Accounts	Support	annanr-ssm-on-prem-8-2020		2006 annanr-ssm-on 2020-Sep-02 07:33		3:32 2020-Oct-02 07:33:32)7:33:32 Sy	Synchronization Successful	Actions		Interface	
	Center	TEST		TEST	2020-Sep-02 07	:35:42 2020-Oct-02 0	07:35:42 Sy	mchronization Successful	Actions		ens192 *	↑ 943.5 KB/s ↓ 429 KB/s
											Recent Al	erts
TCOLS			Networ	ĸ			8			6		
				General	Network Interface	Proxy						
AP1 TOOIKIT	Synchronization			_								
				ens192		PUBL	ic ^				Connecte	d Users
				Connected						ad		00:00:25
V	•					255.255.255.0						
Network	Users											
				IPv6 Addres	8	Prefix						
				Edit Interface	0							
Security												

!؟دعب اذام

تا الما الحالي الحالي الحالي الحالي الما تعام الحالي الما عن الما الحالي المع الما الما الحالي الما الحالي الم الما الما عن المال المالي ال

مسالا مادختساب تاداهشلا ءاشنا قداعا نم دكأت ،فيضملل عئاشلا مسالا ثيدحت دعب .2 عم قيلحملا كتاباسح قنمازم لالخ نم ديدجلا عئاشلا

3. كرتشملا مسالا مادختساب تاجتنملا ليجست ةداعا ةلواحم لبق ةنمازملا كيلع بجي ةەجولا URL ناونع نيوكت يف ديدجلا.

4. كرتشملا فيضملا مساب ليجستلا يف تاجتنملا لشف ىلاٍ ةنمازملا مدع يدؤي دق ديدجلا.

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- مەڭحتارا قدجو لېل. https://www.cisco.com/web/software/286285517/151968/Smart_Software_Manager_On-Prem_8_Console_Guide.pdf
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ةمجرتاا مذه لوح

تمجرت Cisco تايان تايانق تال نم قعومجم مادختساب دنتسمل اذه Cisco تمجرت ملاعل العامي عيمج يف نيم دختسمل لمعد يوتحم ميدقت لقيرشبل و امك ققيقد نوكت نل قيل قمجرت لضفاً نأ قظعالم يجرُي .قصاخل امهتغلب Cisco ياخت .فرتحم مجرتم اممدقي يتل القيفارت عال قمجرت اعم ل احل اوه يل إ أم اد عوجرل اب يصوُتو تامجرت الاذة ققد نع اهتي لوئسم Systems الما يا إ أم الا عنه يل الان الانتيام الال الانتيال الانت الما