



# **HP-UX High Availability Using Serviceguard v18**

Version: 5.0

[ Total Questions: 60 ]



## Topic 0, A

Α

## Question No : 1 - (Topic 0)

In a Serviceguard implementation for concurrent instances of an Oracle RAC Database, which type of shared storage management can be used on all nodes in the cluster? (Select three.)

- A. Cluster File System (CFS)
- **B.** Veritas Volume Manager (VxVM)
- C. Network Attached Storage (NAS)
- **D.** Shared Logical Volume Manager (SLVM)
- E. Standard Logical Volume Manager (LVM)
- F. Enterprise Logical Volume Manager (ELVM)
- G. Oracle Automatic Storage Management (ASM)

Answer: A,D,G

## Question No : 2 - (Topic 0)

Which statements are correct regarding a Serviceguard cluster with SGeRAC and Oracle RAC? (Select two.)

- A. If CFS is used then RAW devices are not allowed.
- **B.** Each Oracle instance must have its own unique database.
- **C.** SGeRAC cannot be configured together with Cluster File System (CFS).
- **D.** The shared disk devices can be a SLVM raw device, CFS, or Oracle ASM raw device.
- **E.** You can have more than one Oracle instance accessing the same database at the same time.

Answer: D,E

#### Question No: 3 - (Topic 0)

Which application templates are included in the Enterprise Cluster Master Toolkit (ECMT)? (Select four.)

- A. NFS
- B. SAP
- C. SAPDB



- D. HP Tomcat
- E. HP Apache
- **F.** HP CIFS/9000
- G. Oracle 9i and 10g

Answer: D,E,F,G

## Question No : 4 - (Topic 0)

Following is an excerpt from a legacy package control script:

SERVICE\_NAME[0]="MON\_MON"

SERVICE\_CMD[0]="/etc/cmcluster/MON/MON\_MON.sh monitor"

SERVICE\_RESTART[0]="-r 2"

What does the "-r 2" mean? (Select two.)

- **A.** The service MON\_MON is restarted 2 seconds after failure.
- B. The service MON\_MON is restarted 2 times before the package fails over.
- **C.** The monitoring script MON\_MON.sh monitors its processes every 2 minutes.
- **D.** The monitoring script MON\_MON.sh restarts the clustered application 2 times before the node fails.
- **E.** The package will fail over to the adoptive node if the monitoring script MON\_MON.sh gets restarted more than 2 times.

Answer: B,E

### Question No: 5 - (Topic 0)

Which key benefits can the Distributed Systems Administration Utilities (DSAU) provide in a Serviceguard environment? (Select three.)

- A. command fan-out
- **B.** log file consolidation
- C. cluster configuration
- **D.** configuration synchronization
- E. Serviceguard cluster event notification
- **F.** Serviceguard shared storage configuration



Answer: A,B,D

## Question No: 6 - (Topic 0)

Which statements are true regarding Serviceguard Manager version B.01.01, a web-based SMH (HP System Management Homepage) plug-in application? (Select three.)

- **A.** With Serviceguard Manager you can monitor, create, modify, run and halt a cluster.
- **B.** With Serviceguard Manager you can create and modify failover and multi-node packages.
- **C.** With Serviceguard Manager you can run a multi-node cluster which consists of both HP-UX and Linux nodes.
- **D.** With Serviceguard Manager you can display and configure shared storage (e.g. volume groups) for failover and multi-node packages.
- **E.** With Serviceguard Manager you can configure package dependencies, change package-switching and node-switching flags for failover packages.

Answer: A,B,E

## Question No: 7 - (Topic 0)

In Serviceguard, which tasks can be done during a rolling upgrade? (Select two.)

- A. add a standby LAN
- B. migrate to new disk storage
- **C.** apply operating system patches
- D. reconfigure cluster volume groups
- **E.** upgrade to a new operating system revision

Answer: C,E

#### Question No:8 - (Topic 0)

Which Serviceguard add-on product decreases the failover time in a 2-node cluster?

- A. NFS Toolkit
- **B.** Serviceguard Extension for SAP (SGeSAP)
- C. Serviceguard Extension for RAC (SGeRAC)
- **D.** Serviceguard Extension for Faster Failover (SGeFF)



Answer: D

## Question No: 9 - (Topic 0)

An application that is configured as a Serviceguard package in a 2-node cluster is performing badly.

A consultant inspects the application and recommends changing an application parameter. This application parameter can effect a static kernel parameter under certain conditions. The customer has a standalone test system running the same application.

Given this situation, how should application changes be handled in regards to Serviceguard?

- **A.** Any application change should be implemented on all cluster nodes at the same time to ensure a consistent state of the cluster.
- **B.** Any application change should be tested outside the cluster to see if it might effect the OS and in further consequence all nodes that are running this package.
- **C.** Any application change should only be done on the node that is running the application package. If a problem occurs the package can failover to the second node and run without a problem.
- **D.** Any application change should only be done on the second node that is not running the application package, so the application can failover to this node to test if the changes have any negative effect.

**Answer: B** 

#### Question No : 10 - (Topic 0)

Click the Exhibit button.

Which actions can be done without interruption to pkg1? (Select two.)



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CLUSTER STATUS TCR-SG-CFS up

NODE STATUS STATE heatc01 up running

Cluster Lock LVM;

VOLUME GROUP PHYSICAL VOLUME STATUS /dev/vg01 /dev/dsk/c4t1d0 up

Network Parameters:

NAME INTERFACE STATUS PATH 0/4/1/0/4/0 PRIMARY lan3 up 0/3/1/0 PRIMARY lan2 up 0/0/3/0 land STANDBY up STANDBY 0/4/1/0/6/0 lan5 up STANDBY 0/4/1/0/7/0 lans up

PACKAGE STATUS STATE AUTO\_RUN NODE pkg1 up running enabled haatc01

Policy Parameters:

POLICY\_NAME CONFIGURED\_VALUE Pailover configured\_node

Failback manual

Script\_Parameters:

ITEM STATUS MAX\_RESTARTS RESTARTS NAME

 Service
 up
 15
 0
 pkgl-clock-monitor

 Service
 up
 0
 pkgl-load-monitor

 Service
 up
 Unlimited
 0
 CFS-primary-monitor

Node Switching Parameters:

NODE TYPE STATUS SWITCHING NAME

Primary up enabled haatc01 (current)

Alternate up enabled haatc02

Dependency\_Parameters:

DEPENDENCY\_NAME NODE\_NAME SATISFIED SG-CFS-MP-2 haatc01 yes

SG-CPS-MP-2 haatc02 yes

NODE STATUS STATE heatc02 up running

Cluster Lock LVM:

VOLUME\_GROUP PHYSICAL\_VOLUME STATUS /dev/vg01 /dev/dsk/c4t1d0 up

Network\_Parameters:

INTERFACE STATUS PATH NAME
PRIMARY up 0/1/2/0 1an1
PRIMARY up 0/0/3/0 1an0

MULTI\_NODE\_PACKAGES

Service

PACKAGE STATUS STATE AUTO\_RUN SYSTEM SG-CFS-pkg up running enabled yes

NODE\_NAME STATUS SWITCHING heatCO1 up enabled

Script Parameters:

STATUS MAX RESTARTS RESTARTS 0 SG-CFS-vxconfigd Service up Service 5 0 SG-CFS-agevmd up Service 5 0 SG-CPS-vxfsckd up Service 0 0 SG-CFS-cmvxd

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NODE\_NAME STATUS SWITCHING



- A. cmhaltcl -f
- B. cmrunpkg -v ws1
- C. cfsumount /cfspkg1
- D. cmhaltnode haatc01
- E. cmhaltnode haatc02

Answer: B,E

## Question No : 11 - (Topic 0)

You have an application package pkg1 configured that has a dependency on the CFS mount point package SG-CFS-MP-webdata that represents the mountpoint /cfs/web\_data. Currently the package is running on nodeA and the /cfs/web\_data CFS is only mounted on nodeA. Which command sequences can be executed on nodeA to move pkg1 to nodeB. (Select two.)

- A. cmhaltpkg pkg1; cmrunpkg pkg1
- B. cmhaltpkg pkg1; cmrunpkg -n nodeB pkg1
- C. cfsmount /dev/web\_data nodeB; cmmovepkg -n nodeB pkg1
- D. cmhaltpkg pkg1; cmrunpkg -n nodeB SG-CFS-MP-webdata pkg1
- E. cmhaltpkg pkg1; cfsmount /cfs/web\_data; cmrunpkg -n nodeB pkg1
- F. cmhaltpkg pkg1; cfsmount /cfs/web\_data nodeB; cmrunpkg -n nodeB pkg1

Answer: E,F

#### Question No: 12 - (Topic 0)

After implementing a highly available Oracle database instance utilizing a template from the Enterprise Cluster Master Toolkit, a DBA wants to perform offline maintenance while keeping all filesystems mounted and the relocatable IP address available. What is the best method to accomplish this?

- **A.** Enable the maintenance flag and perform database maintenance.
- **B.** Shutdown the database instance and set the maintenance flag variable.
- **C.** Pause database instance monitoring and move the package over to the adoptive node.
- **D.** Halt the package, activate the volume group in exclusive mode and mount the file systems.

**Answer: A** 



## Question No: 13 DRAG DROP - (Topic 0)

Click the Task and Exhibit buttons.

Place the appropriate options into the excerpt from the /etc/cmcluster/toystory/toystory.cntl file. Use the exhibit to find the solution.

The package has the following characteristics:

The package will be called toystory and will have an IP address of 15.31.54.64 with a subnet mask of 255.255.255.0. A failure of this network will affect the package running on the node. The package will run on woody as the primary node and failback from buzz manually.

A service called andy\_room\_mon will be used to monitor the health of the package and can be restarted 2 times before causing package failover. The script to monitor, start or stop the application is called /etc/cmcluster/toystory/toystory.sh.

	/etc/cmcluster	/toystory/toystory.cntl
IP[0]=15.31.54.64		
SUBNET[0]="255.255.255.0"		
SERVICE_NAME[0]=	place here	/etc/cmcluster/toystory/toystory.sh monitor
The second secon	A: 4:	toystory
SERVICE_CMD[0]=	place here	"-r 2"
SERVICE_RESTART[0]=	place here	toystory monitor
function customer_defined_run_commands {		/etc/cmcluster/toystory/toystory.sh stop
# ADD customer defined run co	A CONTRACTOR OF THE PARTY OF TH	%r.1%
test_return 51	place here	andy_room_mon
} function customer_defined_halt_commands {		/etc/cmcluster/toystory/toystory.cntl stop
# ADD customer defined halt co		/etc/cmcluster/toystory/toystory.cntl
	place here	/etc/cmcluster/toystory/toystory.cntl start
test_return 52 }		/etc/cmcluster/loystory/loystory.sh start