SR 3-12939317871 : Oracle Active DataGuard setup over replication IP

Severity	2-Significant	Status	Close Initiated
Escalation Status	Never Escalated	Opened	29-Jun-2016 16:02 (14 days ago)
Last Updated	12-Jul-2016 11:46 (Tuesday)		
Bug Reference	No Related Bugs	Attachments	Host_and_IP_Details.txt, Schematic_Diagram.pdf
Related Articles	No Related Articles	Related SRs	No Related SRs
Support Identifier	18221619		
Account Name	SREI Infrastructure Finance LTD.		
Primary Contact	Oracle Support	Alternate Contact	
System		Host	No Related Hosts
Product	Oracle Database - Enterprise Edition		
		Product Version	11.2.0.4
Operating System	Linux x86-64	OS Version	Red Hat Enterprise 6

Problem Description

We have a 11GR2 EE 2 Node RAC database (ASM) in Primary Data Center on RHEL 6.4 Virtual Machine for Oracle E-Business Suite 12.1

We have 11GR2 EE Single Node ASM database in DR Data Center on RHEL 6.4 Virtual Machine for Oracle E-Business Suite 12.1

Primary Data Center is in Delhi; DR Data Center is in Bangalore. But all VMs (Primary and Secondary) are on same subnet. That is to say that Delhi-Bangalore N/w though physically different but on same subnet. As a result it is not possible for us to perform SSH, SCP from Primary site to DR Site and vice versa over the public IP

To establish P2P connection infrastructure provider created replication IPs to each VM with different subnet through which we can perform SSH, SCP.

Now we have already created the RAC environment in Primary site using the Public IPs and Private IPs provided to us earlier. We also created the single node database in DR site with earlier supplied public IPs.

We would like to have a documentation from you so that we can create a Physical standby database using the Replication IPs (different subnet) provided to us by infrastructure provider and what are the pre-requisites.

Please see schematic diagram attached.

regards,

DB Support Team

History

Update from Customer   L1.ORACLESUPPORT@SREI.COM- 01-Jul-2016 14:46 (12 days ago)

Hi

We are working on it.we will update on this.

thanks and regards
Sayantan Chakraborty

Update from Customer   L1.ORACLESUPPORT@SREI.COM- 30-Jun-2016 14:35 (13 days ago)

Abhishek,

We already have a listener configured for RAC DB along with scan listener in place. Are you referring to the point that we create another separate listener entity in primary and standby with replication IP through which Log shipping will happen. Why do we need a separate listener at all, can only a tns entry with the replication ip resolve the issue?
If that is the case then any autoconfig run in primary node will replace the file.
Also can you ensure that failover/switchover will happen using the replication IP when dataguard will be enabled. Whole point is we require a workable DR to DC connectivity and not any workaround.

Notes   **Oracle Support**- 30-Jun-2016 14:22 (13 days ago)

Hi,

There is no specific document for you requirement.

I did not understand what issues you have with the suggested approach:

"But these replication IPs are not resolving to HOST Names"

Ans: How does this matter with the suggested approach ? The listener is being created with I/P and tnsnames.ora is pointing to I/P

"Primary site is in RAC configuration and communication happens over SCAN IP"

Ans: This is irrelevant to standby configuration

"we do not see in your process the listeners being added to the cluster"

Ans: why do you want to do that ?

"our query was for Oracle e-Business Suite 12.1 where everything is resolv   TNAME"

Ans: Again the suggested action plan is for dataguard setup. I'm not suggesting any change in your existing listener / network setup which is being used by scan or for ebiz to connect to database.

Regards,
Abhishek
Oracle Global Customer Support - High Availability
Working Hours: Mon-Fri 07:00am-03:30pm IST | 01:30am-10:00am GMT | 09:30pm-06:00am EST

Update from Customer   L1.ORACLESUPPORT@SREI.COM- 30-Jun-2016 09:25 (14 days ago)

Dear Sir:

Many thanks. The VMs on Primary site and VMs on DR/Secondary site are on same subnet but on different geographical locations So if any Primary VM wants to send anything to DR VM the router is confused as it has no idea how to transmit packages to Bangalore.

Yu have guided us to create listeners on the replications IPs. But these replication IPs are not resolving to HOST Names. Moreover, the Primary site is in RAC configuration and communication happens over SCAN IP.

We can certainly give this a try for simple RAC database (in Primary) and 1 standalone database in Secondary though we do not see in your process the listeners being added to the cluster.

But our query was for Oracle e-Business Suite 12.1 where everything is resolved by HOSTNAME.

Please clarify and let us have document and we would again request you to go through our problem description once again and also the schematic diagram.

Notes   Oracle Support- 29-Jun-2016 20:21 (14 days ago)

Hi,

You mentioned that all primary and dr VMs are on same subnet. In such case, I cannot understand why you should not be able to ping/ssh/scp between the machines on same subnet.

Anyway, as per my understanding you are able to ping/ssh/scp between the machines on their replication IP's. If this is true, all you need for standby setup is to create specific listeners on replication IP's on each node and use them for log shipping.

For example:

Primary Node 1 listener.ora
======================
LISTENER_DG =
(DESCRIP ION =
(ADDRESS = (PROTOCOL = TCP)(HOST = 10.34.10.200)(PORT = 1526))
)

SID_LIS _LISTENER_DG =
(SID_LIST =
(SID_DESC =
(GLOBAL_DBNAME = PRIMDB)
(OR   LE_HOME = /u01/app/oracle/product/11.2.0/dbhome_1)
(SID_NAME = PRIMDB1)
)
)

Primary Node 2 listener.ora
======================
LISTENER_DG =
(DESCRIPTION =
(ADDRESS = (PROTOCOL = TCP)(HOST = 10.34.10.201)(PORT = 1526))
)

SID_LIST_L TENER_DG =
(SID_LIST =
(SID_DESC =
(GLOBAL_DBNAME = PRIMDB)

```
(OR      E_HOME = /u01/app/oracle/product/11.2.0/dbhome_1)
(SID_NAME = PRIMDB2)
)
)
```

Standby Node listener.ora
=======================
```
LISTENER_DG =
(DESCRIP ION =
(ADDRESS = (PROTOCOL = TCP)(HOST = 10.209.89.19)(PORT = 1526))
)

SID_LIST_LISTENER_DG =
(SID_LIST =
(SID_DESC =
(GLOBAL_DBNAME = SBYDB)
(OR      E_HOME = /u01/app/oracle/product/11.2.0/dbhome_1)
(SID_NAME = SBYDB)
)
)
```

With above listeners set and running, your both primary node tnsnames.ora should have connection string for standby:

```
SBYDB =
(DESCRIPTION =
(ADDRESS = (PROTOCOL = TCP)(HOST = 10.209.89.19)(PORT = 1526))
(CONNECT_DATA =
(SER  ICE_NAME = SBYDB)
)
)
```

And your standby node tnsnames.ora should have connect string for primary:

```
PRIMDB =
(DESCRIPTION=
(ADDRESS_LIST=
(FAILOVER=ON)
(ADDRESS=(PROTOCOL=tcp)(HOST=10.34.10.200)(PORT=1526))
(ADDRESS=(PROTOCOL=tcp)(HOST=10.34.10.201)(PORT=1526)))
(CONNECT_DATA=(SERVICE_NAME=PRIMDB)))
```

With above listener.ora and tnsnames.ora in place you should check if sql*plus connection from primary to standby and vice-v
                                        .ora

Now, the next step is to setup dataguard related parameters using above configuration:

Primary instance# 1
log_archive_dest_2 = 'SER ICE=SBYDB LGWR ASYNC VALID_FOR=(ONLINE_LOGFILES,PRIMARY_ROLE) DB_UNIQUE_NAME=SBYDB'

Primary instance# 2
log_archive_dest_2 = 'SERVICE=SBYDB LGWR ASYNC VALID_FOR=(ONLINE_L   ILES,PRIMARY_ROLE) DB_UNIQUE_NAME=SBYDB'

Standby instance
log_archive_dest_2 = 'SER ICE=PRIMDB LGWR ASYNC VALID_FOR=(ONLINE_LOGFILES,PRIMARY_ROLE) DB_UNIQUE_NAME=PRIMDB'
fal_server = PRIMDB

Regards,
Abhishek
Oracle Global Customer Support - High Availability
Working Hours: Mon-Fri 07:00am-03:30pm IST | 01:30am-10:00am GMT | 09:30pm-06:00am EST

Update from Customer	**L1.ORACLESUPPORT@SREI.COM**- 29-Jun-2016 18:53 (14 days ago)

Kindly note that we have not yet setup a Dataguard. But we have provided you a scenario and asking for documents on how to setup a dataguard under such scenarion

---

ODM Action Plan	**Oracle Support**- 29-Jun-2016 17:26 (14 days ago)

(The message below is from Automatic File Validation - See Note:1929376.1 for information about this feature)

We have processed the following attachments:
- Host_and_IP_Details.txt
- Schematic_Diagram.pdf

We have not recognized any of the following item/s in the attachment/s:
- "Alert log"
- "RDA"
- "TNSNAMES.ORA File"
- "LISTENER.ORA File"
- "Script to Collect Data Guard Primary Site Diagnostic Information for Version 10g and Above (Including RAC). (Doc ID 1577401.1)"
- "Script to Collect Data Guard Physical and Active Standby Diagnostic Information for Version 10g and above (Including RAC) (Doc ID 1577406.1)"

**
** In order to begin analy   lem type the following diagnostic data is required:
** "Alert log"
**
** As of now the file/s supplied have not been recognized as those needed.
**
** Please provide the missing diagnostic data as described in Note:1910064.1 "Collect Physical Standby Database Information"
** Do not rename files or we may not recognize them.
**

(Hint: The following rules are used to recognize missing items:
- "Alert log"
---> Filename like *alert* or *alrt*
)

Update from Customer   **L1.ORACLESUPPORT@SREI.COM**- 29-Jun-2016 17:17 (14 days ago)

Upload to TDS successful for the file Schematic_Diagram.pdf.

ODM Action Plan   **Oracle Support**- 29-Jun-2016 17:16 (14 days ago)
(The message below is from Automatic File Validation - See Note:1929376.1 for information about this feature)

We have processed the following attachments:
- Host_and_IP_Details.txt

We have not recognized any of the following item/s in the attachment/s:
- "Alert log"
- "RDA"
- "TNSNAMES.ORA File"
- "LISTENER.ORA File"
- "Script to Collect Data Guard Primary Site Diagnostic Information for Version 10g and Above (Including RAC). (Doc ID 1577401.1)"
- "Script to Collect Data Guard Physical and Active Standby Diagnostic Information for Version 10g and above (Including RAC) (Doc ID 1577406.1)"

**
** In order to begin analysis of this problem type the following diagnostic data is required:
** "Alert log"
**
** As of now the file/s supplied have not been recognized as those needed.
**
** Please provide the missing diagnostic data as described in Note:1910064.1 "Collect Physical Standby Database Information"
** Do not rename files or we may not recognize them.
**

(Hint: The following rules are used to recognize missing items:
- "Alert log"
---> Filename like *alert* or *alrt*
)

Update from Customer   **L1.ORACLESUPPORT@SREI.COM**- 29-Jun-2016 17:09 (14 days ago)

Upload to TDS successful for the file Host_and_IP_Details.txt.

Notes   **Oracle Support**- 29-Jun-2016 16:07 (14 days ago)
Email To
----
l1.oraclesupport@srei.com

Email Subject

SR #3-12939317871: Oracle Active DataGuard setup over replication IP

Email B

Hello Oracle,

We have processed your Service Request (SR) and have identified that additional data is needed for troubleshooting.

Please upload the data collected as a result of the action plan provided in your SR by using the "Add Attachment" link in the My Oracle Support portal..

If this data was already provided at SR creation, please ignore this message as our workflow automatically monitors file uploads and will process it as soon as the file is provided.

Notes   **Oracle Support**- 29-Jun-2016 16:07 (14 days ago)
Your Service Request has been submitted as a physical standby issue based on the options chosen when logging the SR. Diagnostic data is needed for troubleshooting the issue.

Execute the action plan described in [Doc ID 1910064.1] "SRDC - Collect Physical Standby Database Information" and upload the information collected to ensure rapid resolution.

(If this information has already been provided please ignore this action request).

This SR will go through some automatic checks (See [Doc ID 1929376.1]) to:
- verify that the required data has been attached to the SR
- look for potential solutions

Customer Problem Description   **L1.ORACLESUPPORT@SREI.COM**- 29-Jun-2016 16:02 (14 days ago)

Customer Problem Description

Problem Summary

Oracle Active DataGuard setup over replication IP

Problem Description

We have a 11GR2 EE 2 Node RAC database (ASM) in Primary Data Center on RHEL 6.4 Virtual Machine for Oracle E-Business Suite 12.1

We have 11GR2 EE Single Node ASM database in DR Data Center on RHEL 6.4 Virtual Machine for Oracle E-Business Suite 12.1

Primary Data Center is in Delhi; DR Data Center is in Bangalore. But all VMs (Primary and Secondary) are on same subnet. That is to say that Delhi-B   lore N/w though physically different but on same subnet. As a result it is not possible for us to perform SSH, SCP from Primary site to DR Site and vice versa over the public IP

To establish P2P connection infrastructure provider created replication IPs to each VM with different subnet through which we can perform SSH, SCP.

Now we have already created the RAC environment in Primary site using the Public IPs and Private IPs provided to us earlier. We also created the single node database in DR site with earlier supplied public IPs.

We would like to have a documentation from you so that we can create a Physical standby database using the Replication IPs (different subnet) provided to us by infrastructure provider and what are the pre-requisites.

Please see schematic diagram attached.

regards,

DB Support Team

Error Codes

Not Applicable

Problem Category/Subcategory

Database Backup/Recovery and RMAN, Duplicate and DataGuard StandBy setup, GDS, OSB/Data Guard (Create Standby, Redo Transport & Apply   le Changes, Broker, etc)

Uploaded Files

File: Host_and_IP_Details.txt
File: Schematic_Diagram.pdf

Global Problem Definition Details

Question: In which area of Oracle Data Guard do you have a problem or question ?
Answer: Physical standby database

Question: My issue with physical standby is in
Answer: Physical standby database creation

Diagnosis: Review the following documents to troubleshoot this issue:

Read Note:1475344.1 Creating a Physical Standby Database

Read Note:1617946.1 Creating a Standby using RMAN Duplicate (RAC or Non-RAC)

If the above solution does not resolv   llow the steps detailed in the document below:

Read Note:1910064.1 SRDC - Collect Physical Standby Database Information

We recommend saving this session as a draft Service Request (SR). Once data gathering is complete, proceed with the next step to upload requested data and submit SR.