RSA

NetWitness Suite

Decoder RAID 0 Reconfiguration

RSA

Purpose

The purpose of this document is to provide instructions for customers on how to manually convert a `decodersmall` array from a RAID 0 to RAID 1 configuration. You only need to change the configuration on Packet Decoders. You do not need to make this change to any other NetWitness Suite appliance. If there are any questions about anything within this document, please contact NetWitness Customer Support.

Task 1. Determine If Packet Decoder Has RAID0 Configuration

Complete the following steps to determine if have a RAID0 configuration on a Packet Decoder.

1. SSH to the Decoder host.
2. Execute the `MegaCLI` command to get the current RAID configuration on the session, meta and index databases.

   In the following example of the `MegaCLI` command and its output:
   - **−a1** represents the RAID Adaptor number (PERC H830). All RSA appliances have an internal RAID Adaptor (a0) and could have one or more adaptors for external storage configuration.
   - RAID Level **`Primary-0`** identifies the RAID configuration as RAID 0.
   - Size **`7.276 TB`** represents a Virtual Drive size.
   - Size **`5.457 TB`** represents a Virtual Drive size.

```
[root@104R0R1PD ~]# /opt/MegaRAID/MegaCli/MegaCli64 -LDInfo -Lall -a1 |
egrep '(RAID|Virtual|Size)'

Adapter 1 -- Virtual Drive Information:
Virtual Drive: 0 (Target Id: 0)
RAID Level          : Primary-0, Secondary-0, RAID Level Qualifier-0
Size                : 7.276 TB
Parity Size         : 0
Strip Size          : 128 KB
Virtual Drive: 1 (Target Id: 1)
RAID Level          : Primary-5, Secondary-0, RAID Level Qualifier-3
Size                : 40.019 TB
Parity Size         : 3.637 TB
Strip Size          : 128 KB
Virtual Drive: 2 (Target Id: 2)
RAID Level          : Primary-0, Secondary-0, RAID Level Qualifier-0
Size                : 5.457 TB
Parity Size         : 0
Strip Size          : 128 KB
Virtual Drive: 3 (Target Id: 3)
RAID Level          : Primary-5, Secondary-0, RAID Level Qualifier-3
Size                : 30.013 TB
Parity Size         : 2.728 TB
Strip Size          : 128 KB
[root@104R0R1PD ~]#
```
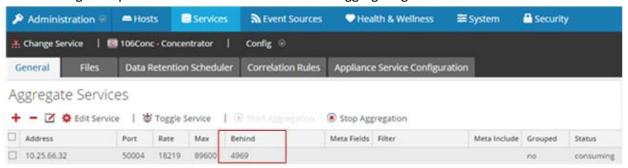
Task 2. Make Sure Concentrator Completes Aggregation Before Reconfiguring RAID 0 to RAID 1

Complete the following steps to determine if the Concentrator associated with the Packet Decoder has completed aggregating.
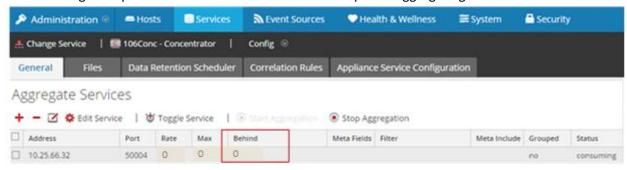
1. In Security Analytics, go to **Administration** > **Services** and select the Concentrator associated with the Packet Decoder for which you want to reconfigure RAID0 to RAID1.

2. Click **Actions** > **View** > **Config**.

3. Make sure that the value of the **Behind** column is zero.

   If the **Behind** column is not zero, that means the Concentrator is still aggregating. Wait until the Concentrator completes aggregating (that is, the **Behind** column is zero) before you start the RAID0 to RAID1 conversion process.

   The following example shows a Concentrator that is still aggregating.

   The following example shows a Concentrator that has completed aggregating.

Task 3. Reconfigure Decoder with RAID 0 to RAID 1

Complete the following steps to reconfigure a working Packet Decoder decodersmall from a RAID 0 (stripped) configuration to a RAID 1 (mirrored) configuration.

1. SSH to the Decoder host.

2. Download the `reconfig_raid0-1.sh.zip` file from RSA Link.

3. Extract the `reconfig_raid0-1.sh` from the zip file to the root directory.

4. Run script from the root directory.
    a. `./reconfig_raid0-1.sh -p `*`username password`*
        `username` and *`password`* are valid NetWitness credentials.

        ```
        Do you want to convert RAID) \disk arrays to RAIOD1? (y/n)
        ```

    b. `y`
        The script stops data capture and reconfigures all the RAID 0 arrays to RAID 1 arrays.

5. Execute the `MegaCLI` command to make sure that the Decoder RAID array is now RAID 1.

    ```
    [root@104R0R1PD ~]# /opt/MegaRAID/MegaCli/MegaCli64 -LDInfo -Lall -a1 |
    egrep '(RAID|Virtual|Size)
    ```

    The following information is an example of the output of the `MegaCLI` command.
    - −a1 represents the RAID Adaptor number (PERC H830). All RSA appliances have an internal RAID Adaptor (a0) and could have one or more adaptors for external storage configuration.
    - RAID Level **`Primary-1`** identifies the RAID configuration as RAID 1.
    - Size **`7.276 TB`** represents a Virtual Drive size.
    - Size **`5.457 TB`** represents a Virtual Drive size.

    ```
    Adapter 1 -- Virtual Drive Information:
    Virtual Drive: 0 (Target Id: 0)
    RAID Level          : Primary-1, Secondary-0, RAID Level Qualifier-0
    Size                : 7.276 TB
    Parity Size         : 0
    Strip Size          : 128 KB
    Virtual Drive: 1 (Target Id: 1)
    RAID Level          : Primary-5, Secondary-0, RAID Level Qualifier-3
    Size                : 40.019 TB
    Parity Size         : 3.637 TB
    Strip Size          : 128 KB
    Virtual Drive: 2 (Target Id: 2)
    RAID Level          : Primary-1, Secondary-0, RAID Level Qualifier-0
    Size                : 5.457 TB
    Parity Size         : 0
    ```

```
Strip Size          : 128 KB
Virtual Drive: 3 (Target Id: 3)
RAID Level          : Primary-5, Secondary-0, RAID Level Qualifier-3
Size                : 30.013 TB
Parity Size         : 2.728 TB
Strip Size          : 128 KB
```