Comdasys AG

Comdasys FAQ: Failover/ VRRP Scenario

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Disclaimer

We have taken all possible care to ensure that this manual contains correct, accurate information. However, the manufacturer cannot assume liability for any possible errors. In addition, the manufacturer cannot guarantee that the hardware will meet the purpose you require.

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1. Synopsis

The following document gives some general information about VRRP and the failover scenario that can be set up with products of the Mobile Convergence and Convergence(GW) series. It also describes the necessary steps for the configuration of two redundant (Mobile) Convergences.

2. Background Information

2.1. General

Virtual Router Redundancy Protocol as described in RFC 3768 is used to advertise a “virtual” network device. This virtual network device represents a *group* of other network devices. This group consists of one acting master device and at least one or more slave devices.

Useful links:

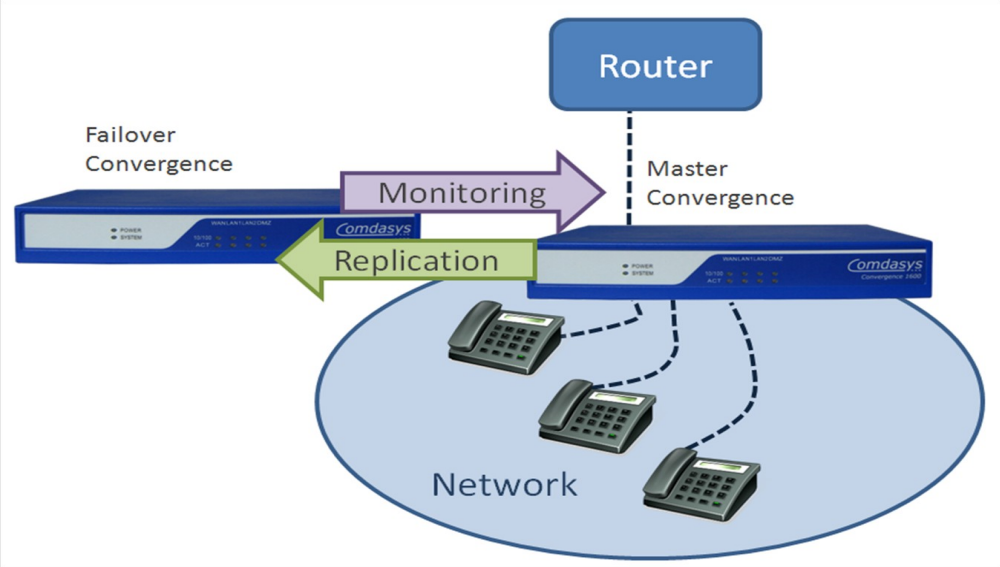
wikipedia:
http://en.wikipedia.org/wiki/Virtual_Router_Redundancy_Protocol

RFC 3768:
http://tools.ietf.org/html/rfc3768

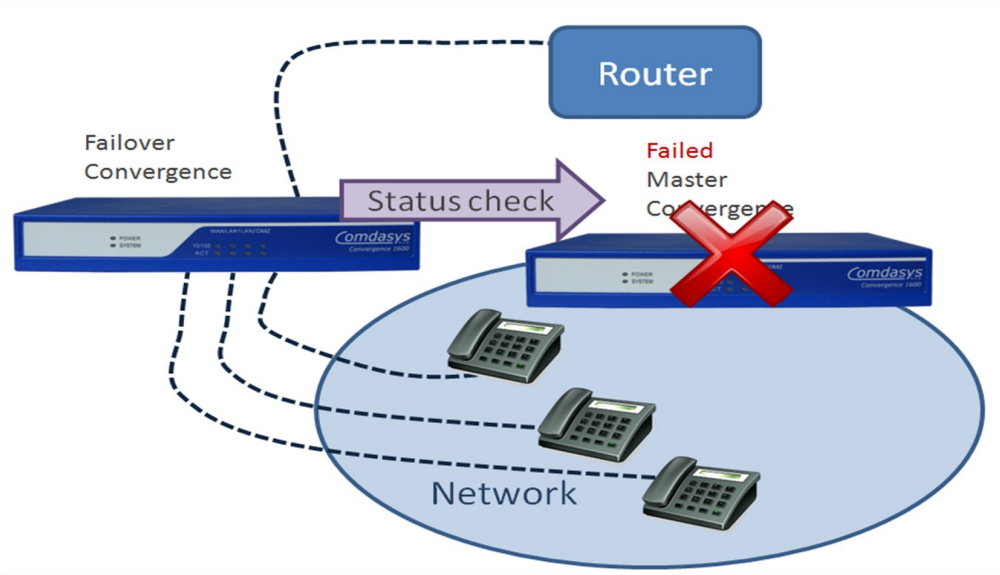
2.2. VRRP on Mobile Convergence and Convergence

All products of the Mobile Convergence and ConvergenceGW series support VRRP, so a failover scenario with a second (Mobile) Convergence of the the same or higher scale can be implemented.

As soon as everything is set up correctly (this will be explained in detail in the next sections), the slave (Mobile) Convergences will monitor its master and synchronize its data and configuration in regular intervals (see illustration below).



The slave will take over all running services, should the master (Mobile) Convergence fail:



In the case of Mobile Convergences database synchronization takes place!

Useful Links:

Administrator Manual FMC Series:
http://ftp.comdasys.com/pub/documentation/FMC_series/

Administrator Manual Convergence Series:
http://ftp.comdasys.com/pub/documentation/Convergence_series/

3. Steps on Mobile Convergence

3.1. Master

----------in the SYSTEM tab----------

1. Open the Synchonize Database menu
2. Set Operating Mode to “Master“
3. Enter Master and Slave IP address (physical addresses)
4. Then click the Save-button

This activates Database synchronization, but it does not give the two Mobile Convergences a common “alias”, i.e. a virtual IP address that they both share.

----------in the NETWORK tab----------

1. Open the VRRP (Configuration) menu
2. Click on the Add-button to configure a Virtual Server
3. Configure the following:

   - Interface: LAN 1
   - VSID: 200
   - Priority: **253** (highest possible)
   - IP address: <IP address that is to assigned to virtual Mobile Convergence>

----------in the SECURITY tab----------

1. Open the menu “Database Security Key”
2. Download the Master Key.
3. Make sure that the Master Key is available when you configure the slave

3.2. Slave

----------in the SYSTEM tab----------

1. Open the Synchonize Database menu
2. Set Operating Mode to “Slave“
3. Enter Master and Slave IP address (physical addresses)
4. Then click the Save-button

----------in the NETWORK tab----------

1. Open the VRRP (Configuration) menu
2. Click on the Add-button to configure a Virtual Server
3. Configure the following:

   - Interface: LAN 1
   - VSID: 200
   - Priority: **30**
   - IP address: <*same* IP address of virtual Mobile Convergence>

----------in the SECURITY tab----------

1. Open the menu “Database Security Key”
2. Upload the Master Key

4. Steps on Convergence or ConvergenceGW

4.1. Master Convergence

----------in the NETWORK tab----------

1. Open the VRRP (Configuration) menu
2. Click on the Add-button to configure a Virtual Server
3. Configure the following:

   - Interface: LAN 1
   - VSID: 200
   - Priority: **253** (highest possible)
   - IP address: <IP address that is to assigned to virtual Mobile Convergence>

4.2. Slave Convergence

----------in the NETWORK tab----------

1. Open the VRRP (Configuration) menu
2. Click on the Add-button to configure a Virtual Server
3. Configure the following:

   - Interface: LAN 1
   - VSID: 200
   - Priority: **30**
   - IP address: <*same* IP address of virtual Mobile Convergence>

----------in the Voice tab----------

1. Open the PBX Addresses mene and enter the physical IP address of the Master as Failover Convergence
2. Click the Save-button

The last step is just a fallback. It ensures that registers that are (falsely) sent to the slave, although the master is active, will be replicated to the master.

4.3. Phones

Configure the assigned virtual IP address as outbound proxy on the phones.

4.4. PBX

Take the following steps on the involved PBX:

1. Configure the Virtual IP Address as an Endpoint IP Address

2. Add an alias for the physical IP address of the master
3. Also add an alias for the physical IP address of the slave
4. Allow the master, slave and virtual IP address on the firewall of the PBX (if applicable)

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