Gallagher Command Centre

DHCP Support – Controller 6000

Technical Information Paper

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Document History

Edition	Date	Author	Comment
1.0	20/11/2017	Vishnu	First Release
1.1	16/07/2018	Vishnu	Template change, added additional info
1.2	27/02/2020	Vishnu	Updated section 3

1 Background

Controllers are assigned an IP address from Command Centre server via the **BootP** protocol using the Command Centre **FT Bootstrap Protocol** service, or statically assigned an IP address via web browsing directly to the Controller 6000. With the implementation of **DHCP**, sites can use their own **DHCP** servers to assign IP addresses, **DNS** and Command Centre name to their Controllers. Supported **DHCP** Servers can be Microsoft Windows or Linux based and Command Centre supports IPv4 and IPv6.

2 Compatibility

- Gallagher Command Centre vEL7.80.843 (or later release).
- Gallagher Controller 6000 vGR7.80.210 (or later release).

3 Controller Serial Numbers with DHCP Support out of box

Controller Variants	**Serial Numbers**	**Firmware Version**
Controller 6000 Standard	18190xxxxx or later	vGR7.10.413
Controller 6000 High Spec	18190xxxxx or later	vGR7.10.413
Controller 6000 Starter Kit	18060xxxxx or later	vGR7.30.403
Controller 6000 2 Door Variant	18060xxxxx or later	vGR7.30.403
Controller 6000 PIV	18060xxxxx or later	vGR7.21.22

Note: All C6000s that are upgraded to Controller firmware vGR7.80.210 (or later release) will support DHCP despite its serial number or manufacture date

4 DHCP Server Configuration

Refer to **DHCP Server Configuration** document provided with the Command Centre installation media.

5 Controller 6000 Configuration

Refer to **Configuring a Controller 6000 for DHCP** section in the Command Centre user guide provided with the Command Centre installation media.

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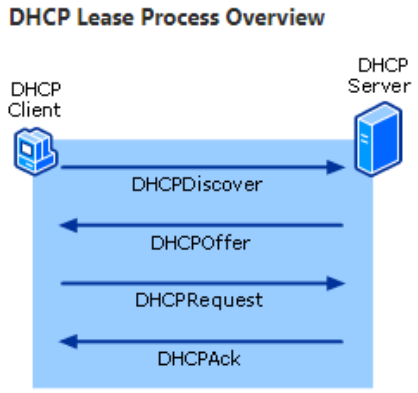
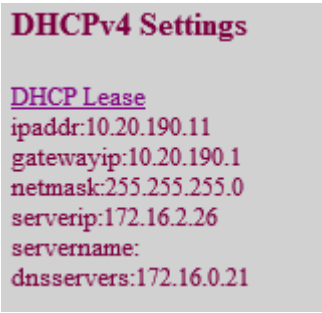
6 DHCP Lease Process



1. The Client (Controller 6000) requests an IP address by broadcasting a **DHCPDISCOVER** message to the local subnet.
2. The server (DHCP server) responds to the client by sending a **DHCPOFFER** message which contains the configuration parameters which will be sent.
3. The client indicates acceptance of the offer by a sending a **DHCPREQUEST** message in response.
4. The server will then send the client a **DHCPACK** which contains the address and configuration information.

Figure 2 shows the configuration parameters that a DHCP server is configured to issue to a controller 6000.

Figure 2:



Note: A Controller 6000 only accepts the DHCP lease if it contains the Command Centre server's IP address, or its domain name and one or more DNS server addresses. If the DNS Server has both Host (Server) name and IP, the Controller will prefer Host name and if it fails for any reason then it will try using Host IP.

If using both IPv4 and IPv6, the Command Centre IP address or a domain name and one or more domain name server/s must be specified in both config files. Refer to the **DHCP Server Configuration** documentation provided with the Command Centre installation media.

Figure 3 found on the following page demonstrates how the DHCP auto lease renewal process works under the hood.

Note: If you hit "Renew DHCP setting" on Controller status and overrides at any stage, the Controller will try to renew its lease with DHCP Server.

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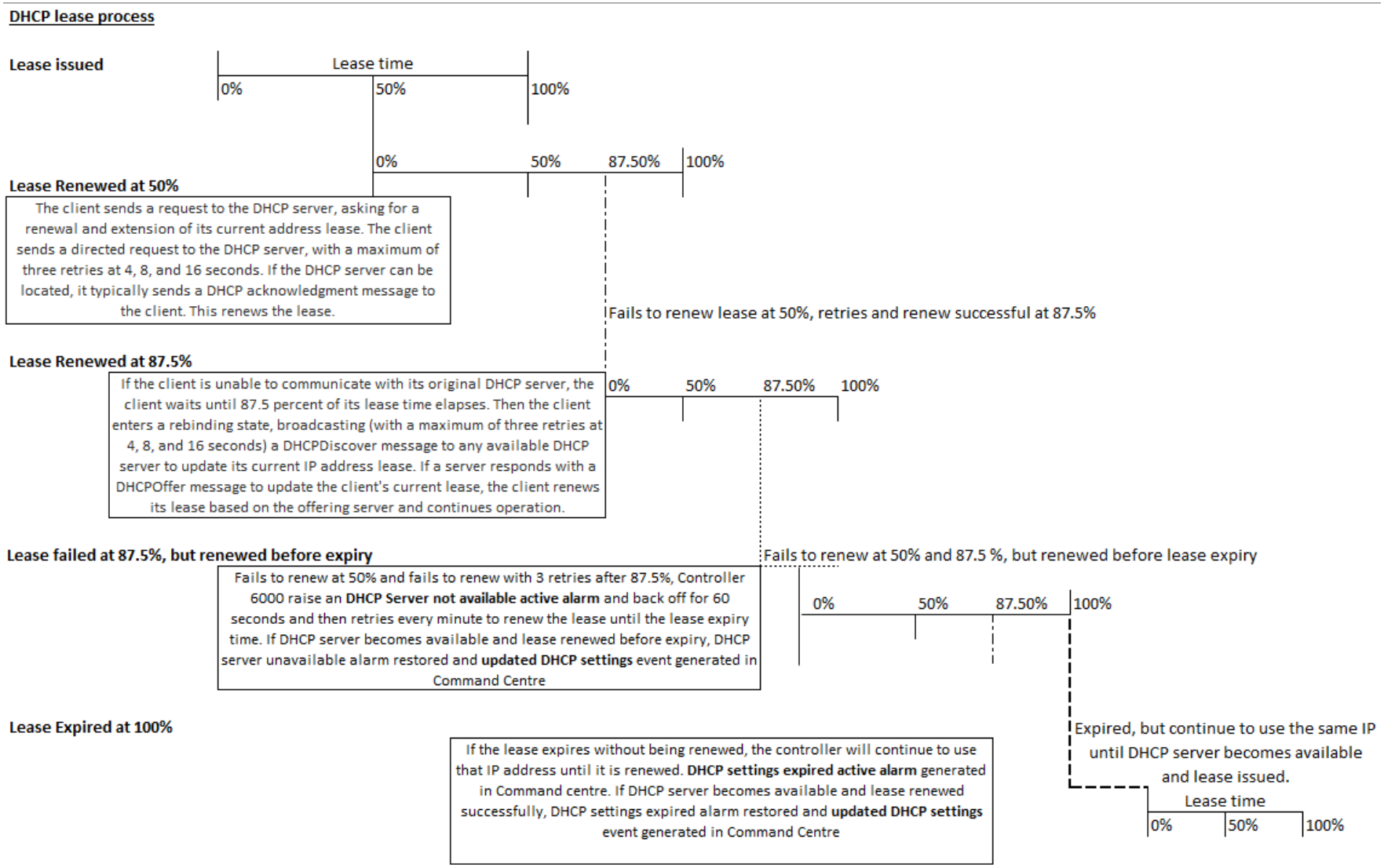
Figure 3:



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7 References

https://tools.ietf.org/html/rfc3942

https://tools.ietf.org/html/rfc951

https://technet.microsoft.com/en-us/library/cc780760(v=ws.10).aspx

https://technet.microsoft.com/en-us/library/cc958919.aspx

http://www.thegeekstuff.com/2013/03/dhcp-basics/

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