Linux namespaces are a relatively new kernel feature which is essential for implementation of containers. A namespace wraps a global system resource into an abstraction which will be bound only to processes within the namespace, providing resource isolation. With network namespaces, we can have different and separate instances of network interfaces and routing tables that operate independent of each other.

Docker connects the new container network to default linux bridge **docker0** using a *veth pair*. This also enables container be connected to the host network and other container networks in the same bridge.

Defining *network namespace*, *veth pair* and *linux bridge* in one sentence:

A "**linux network namespace**" is virtual network barrier encapsulating a process to isolate its network connectivity(in/out) and resources (i.e. network interfaces, route tables and rules) from linux core and other processes.

A "**veth pair**" is basically a virtual network cable which have a virtual network interface device (NIC) on each end.

A "**linux bridge**" is switch like virtual device that enables communication between network devices connected to the bridge, creating something like LAN.

Below diagram may visualize and understand container networking better: