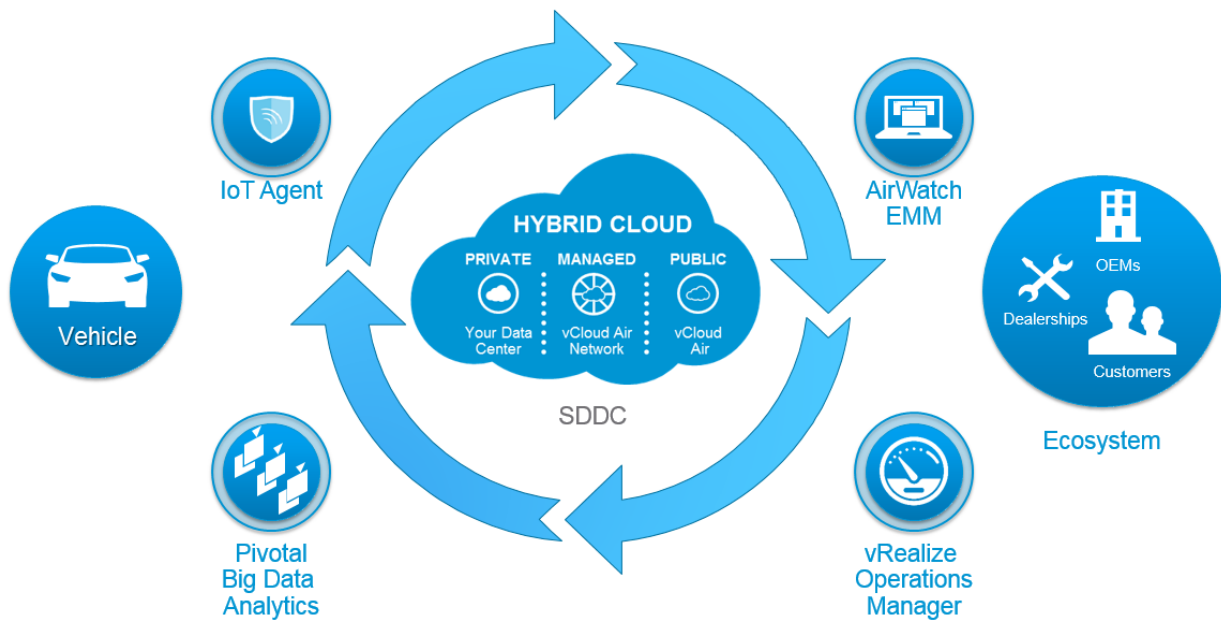


## 5. The Software-Defined Data Center as Backbone

In conjunction with the VMware hybrid cloud—vCloud Air—the software-defined data center (SDDC) provides a limitless, dynamic, and scalable vehicle back end. All systems within the SDDC are created automatically with only minimal human intervention, using pre-defined blue prints that contain all information about compute, network, security, and storage and therefore make it easy to create and re-create systems, while being fully auditable. Built-in high availability and fault tolerance enable 24/7 operations without downtime. The hybrid cloud approach provides “breathing space” to accommodate load created by stochastic user behavior, and it scales on demand, for example, for the launch of new product features. The operations management system within the SDDC continuously analyzes thousands of system parameters to provide predictive maintenance information. The following diagram pictures the high-level end-to-end solution built on top of the VMware technology stack for the connected car ecosystem.

**Figure 6. Data Flow from Car to Ecosystem and Back**



**Key Takeaway 5:** The massive amount of data created by connected devices cannot be handled in a traditional hardware-defined data center approach. A software-defined approach with hybrid cloud option can scale quickly to meet these data requirements.