

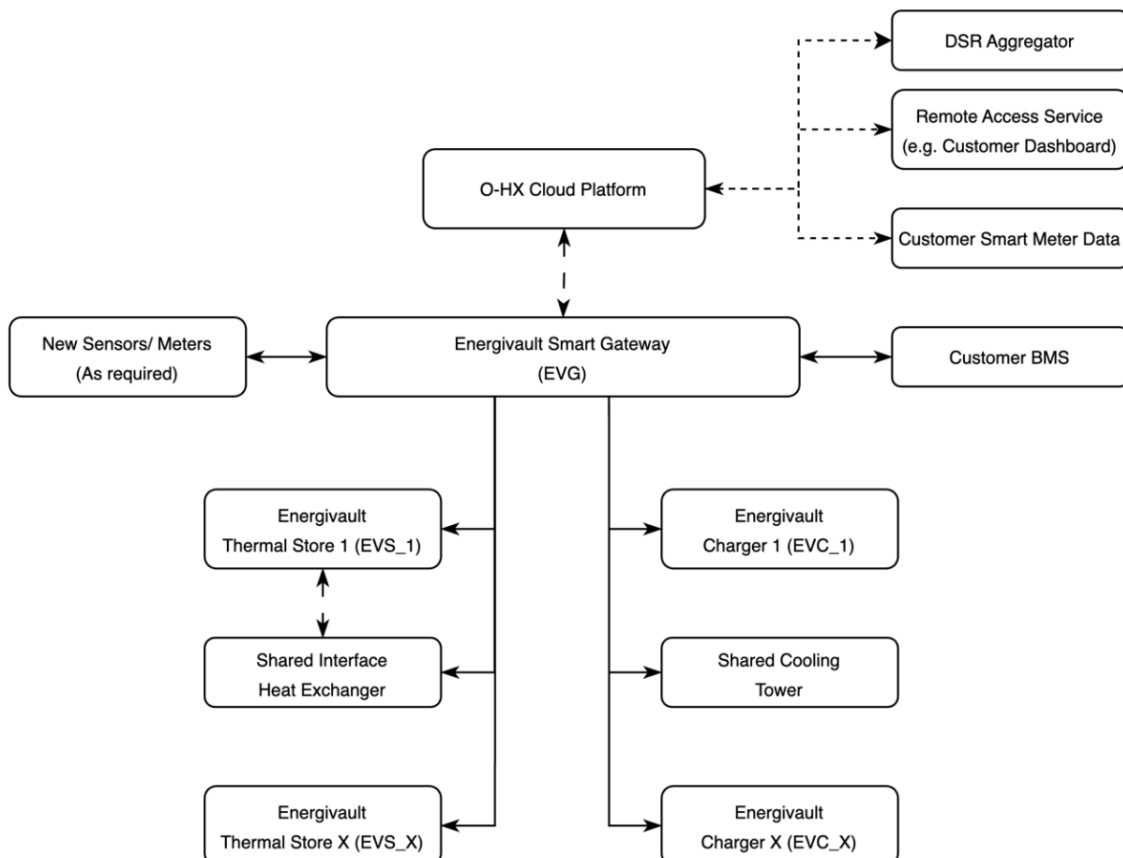
Product Data – Energivault Gateway

The Energivault Gateway allows connection to multiple building energy management systems and control, whilst connecting to the Energivault cloud which provides an optimisation service for charging and discharging.

Energivault Gateway	
Supported electrical/ heat/ cooling meters	Modbus RTU, Modbus TCP; 24VDC Supply available
Supported BMS Protocols	Modbus RTU (over RS485), Modbus TCP (over ethernet)
Supported Internet Access	Integrated 4G/5G, LAN connection over ethernet
User Interface and software functionality	Local touch screen with mimics and schedules; Cloud platform with mimics, schedules, analytics, dashboards, reports and AI optimiser

Energivault Communications and Control Architecture

The diagram below illustrates the communication architecture for The Energivault Gateway.



Standard Local Control

The Energivault charger and battery modules operate together. The standard operation is for the battery to be charged based on a time clock and low cost energy tariffs.

The Energivault battery is called to provide cooling support by the local BMS.

Typically, in a multi-chiller installation the Energivault battery can be set as lead chiller with total demand being met by the Energivault battery, second/ third chiller or back-up only. This sequence configuration enables Energivault to deliver its benefits as local demand requires.

Energivault Cloud (Optional)

Energivault gateway communicates with the local Energivault battery and charger controller and local building BMS. In addition, it can communicate to the Energivault Cloud Platform to provide a real-time operational mimic of the Energivault system and remote monitoring and client access for changing set points and time clocks.

Energivault Optimisation (Optional)

The Energivault optimiser monitors cooling demand patterns for the facility whilst gathering environmental conditions and electricity tariffs. The data is used to forecast the following days Energivault optimal charging and discharging requirements. It can be configured to charge at low cost or low carbon electricity.