GRID SOLUTIONS

BlueDevils

VTN-VEN

Demand Response Application

Flow of Demand Response

Utility	Aggregator	Consumers

GRID SOLUTIONS
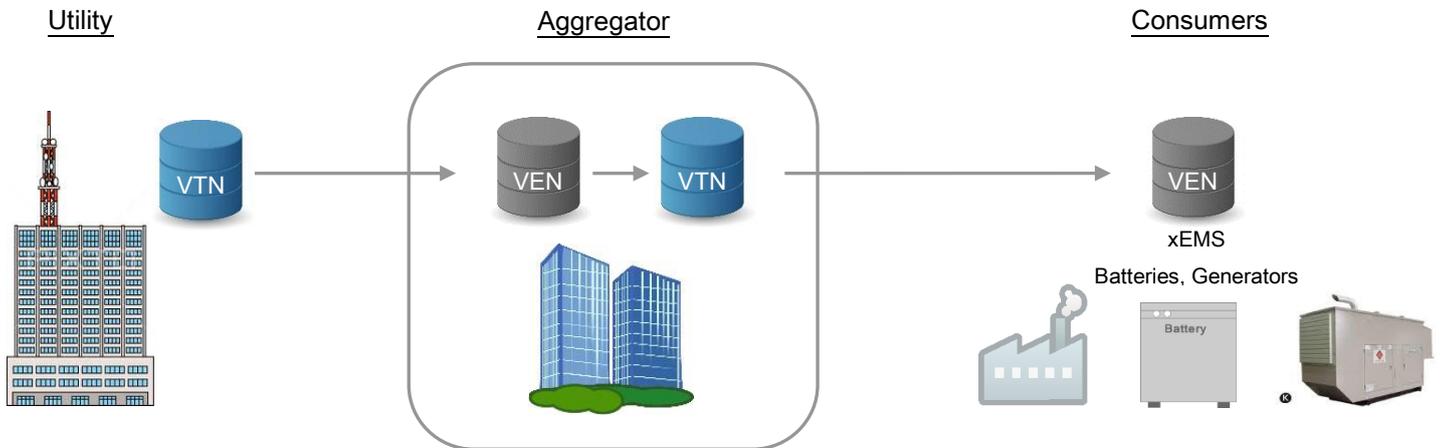
BlueDevils

In the past, utility companies invested in grid capacity to meet the peak hour consumption. Demand Response seeks to adjust the demand for power instead of adjusting the supply. Demand response provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives.

BlueDevils is an OpenADR2.0b certified solutions Virtual Top Node (VTN) and Virtual End Node (VEN) for demand response aggregators.

BlueDevils enables aggregators to receive and distribute DR events dispatched from utilities.

OpenADR

 (Open Automated Demand Response) is an open and standardized way for electricity providers and system operators to communicate DR signals with each other and with their customers using a common language over any existing IP-based communications network, such as the Internet.
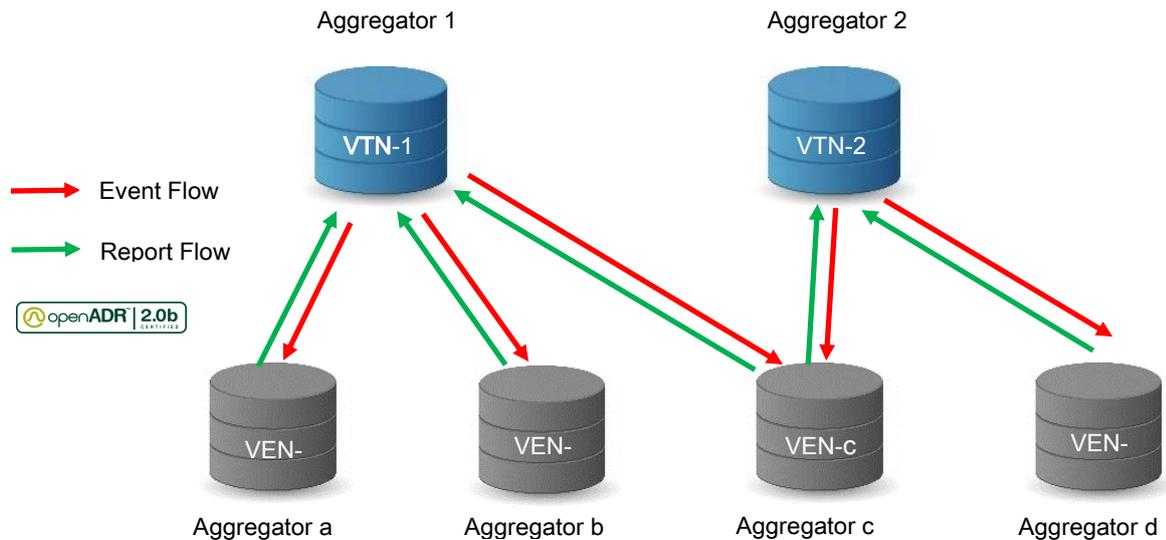
Features of BlueDevils

VTN

- BlueDevils-VTN can send events to VENs and receive reports from VENs. Communication with VEN is done via OpenADR protocol.
  - ✧ VTN1 sends a DR event to VEN-a, VEN-b, and VEN-c.
  - ✧ VTN1 receives a DR report from VEN-a, VEN-b,and VEN-c.
- Collaboration with external software is possible via REST API.

VEN

- BlueDevils-VEN can receive evens from multiple VTNs and send reports to multiple VTNs.
  Communication with VTN is done via OpenADR protocol.
  - ✧ VEN-c is registered with VTN-1 and VTN-2.
  - ✧ VEN-c receives DR events from VTN-1 and VTN-2.
  - ✧ VEN-c sends DR reports to VTN-1 and VTN-2.
- Collaboration with external software is possible via REST API.
- BlueDevils-VEN can connect to an outside server via basic authentication in times of login authentication.
- BlueDevils-VEN can send a DR notification email via external SMTP server and supports both HTML-based emails and text-based emails.

BlueDevils Specification

OpenADR2.0b Certification

VTN

- ✓ OpenADR2.0a+2.0b(standard security)Profile1.1 certified
- ✓ Supports HTTP(pull,push),and XMPP (push)
- ✓ Communication with VEN is done on SSL protocol

VEN

- ✓ OpenADR2.0b(standard security)Profile1.1certified
- ✓ Supports HTTP(pull,push)
- ✓ Communication with VTN is done on SSL protocol

User Interface   (VTN, VEN)

- GUI (via Web browser)
- REST API

Contact

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