AMPLY

FLEET CHARGING SIMPLIFIED

AMPLY Power Datasheet - Last updated 10.30.19		
Desktop Operations Dashboard	Single portal and single sign on for all charging depot operations	
	Provides state of charging depot in real-time	Vehicles (SOC, completion time), Charging stations, Staging/Charging/ReadytoGo lanes, depot power monitor, alerts/exceptions monitor
	Vehicle state set automatically	Driving, Connected, Staging, Charging, ReadytoGo, Maintenance, Fault
	Shows Fleet charging schedule	Real-time updates in case of changes (arrival times, faults)
	Customer interaction panel	For (close to) Real-time changes : Override schedule, approve peak rate charging, if required by vehicle availability, reduce power level if required by utility
	Flexible UI design	to represent physical depot design
Fleet configurations / Duty cycles	Multiple transport modes per depot	delivery vehicles, service vehicles, school buses, transport buses, trucks
	Multiple charging strategies	FIFO (First in First out), overnight full SOC charging, charger sharing between different fleets and strategies
Scheduling	Delivers charging SLAs	Ensures lowest possible charging cost and full SOC per duty cycle (eg FIFO, overnight charging) Load balancing of charging stations and adaptive power levels driven by AMPLIFY real-time optimization software Modes: Fully managed (AMPLIFY is master schedule) or slave (Fleet management scheduler is master)
	Arrival /Departure Management	Real time updates of required arrival times, late arrival supported, Expected completion of charging
	Customer interaction	Override schedule, approve peak rate charging, if required, for example due to late vehicle arrival, remove/add vehicles to fleet, View trouble tickets and scheduled service visits

	Change configuration while in operations	Update intervals fully configurable, minimum 1 min
Energy management	Rate schedules	Any utility rate schedule can be provisioned
	Metering and Real-time control	Electric panel meter (AMPLY meter) is revenue grade (ANSI 12.20 compliant) 15 min energy interval control to prevent demand charges
Administration portal	Provisioning and site information	Detailed information on customer/contacts, fleet, site, charging stations, vehicles, panel(s), site controller(s), Customer access: Change site details, power data, add vehicles
	Change / recover incidents	Automated or Conducted by AMPLIFY operations team: Restart/Remove/Add: chargers, controllers, power
Charging stations	OCPP	All major providers (BTC, Delta, ABB, …),
	Non OCPP	Chargepoint, BYD, 2020: overhead chargers
Fleet management / Telematics integrations	Outbound: Amplify to fleet management	Expected time of SOC completion Requested arrival time
	Inbound: Fleet management to Amplify	SOC, Vehicle location, Odometer, battery health Integrations: Geotab, ViriCiti, IO Controls
ERP / asset management integrations	Q1 2020	maintenance / asset management (driver state, battery health)
Grid Services	2020: DR and V2G services	Based on open ADR, DNP3, AMI
Performance, Recovery & Alerts	99.99% availability, ie vehicles charged as per SLA (individual chargers will have lower availabilities)	
	Resilience / redundancy and failover mechanisms built into the infrastructure where possible	charging stations with redundant power blocks / power modules Multiple dispensers, standby charging stations Redundant local site controllers, and meter equipment AMPLIFY runs in multiple AWS regions

	Onsite intervention (notification/ call outs) in case of Sev 1	Amply personnel Service company (chargers, utility meter) under Amply responsibility Customer personnel if needed (site issues not related to AMPLY scope)
Privacy, Data ownership	Customers own their data, provided through customer data API & reports Amply stores anonymous (no PII) data set versions	
Security & Authentication	All AMPLIFY services are exposed via TLS - HTTPS Restful /Evented APIs All applications via the single AMPLIFY API OAUTH 2.0 Authent. with support for federated identity providers Access control limited to tenant specific data	
Reports	Support of multiple utility / fleet program format requirements Vehicle availability and uptime reports	Site, EVSE, Session, power/energy, cost
Customer Billing and Reports	on HQ, region, site, department level	