

Ati

SHERPA TUG

HEAVY DUTY | EFFICIENT | SAFE



SHERPA TUG

Sherpa Tug is ideal for moving trolley payloads up to one metric ton between precise points in a manufacturing workflow or in a warehouse. It has an array of advanced sensors that keep material moving swiftly, safely, reliably, and autonomously. The robot is built tough to handle typical industrial situations, both indoor and outdoor. The Sherpa Tug can operate on its own and manage brownfield application with most legacy system.

Features

Light Conditions

Can even handle twilight and dark mode operations

Natural Navigation

No infrastructure changes needed

Swappable Battery

Enables Multiple shifts with low down time

Industry 4.0 Ready

Can be integrated with Factory MIS, WMS

OTA Updates

Sherpa is constantly updated to its latest software

Outdoor Operation

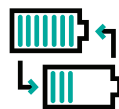
Works Indoor & Outdoor



Auto Parking



Get working under 2 hrs



Swappable battery



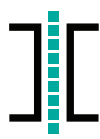
3D Awareness



Suspension



Handles Versatile Trolley



Electro Mechanical Brakes



Customisable Hitch



IPX4 Rating

Upgrades

➤ Auto Hitch / Un-hitch

➤ Additional Solutions

➤ Custom Hitch

➤ Additional Battery

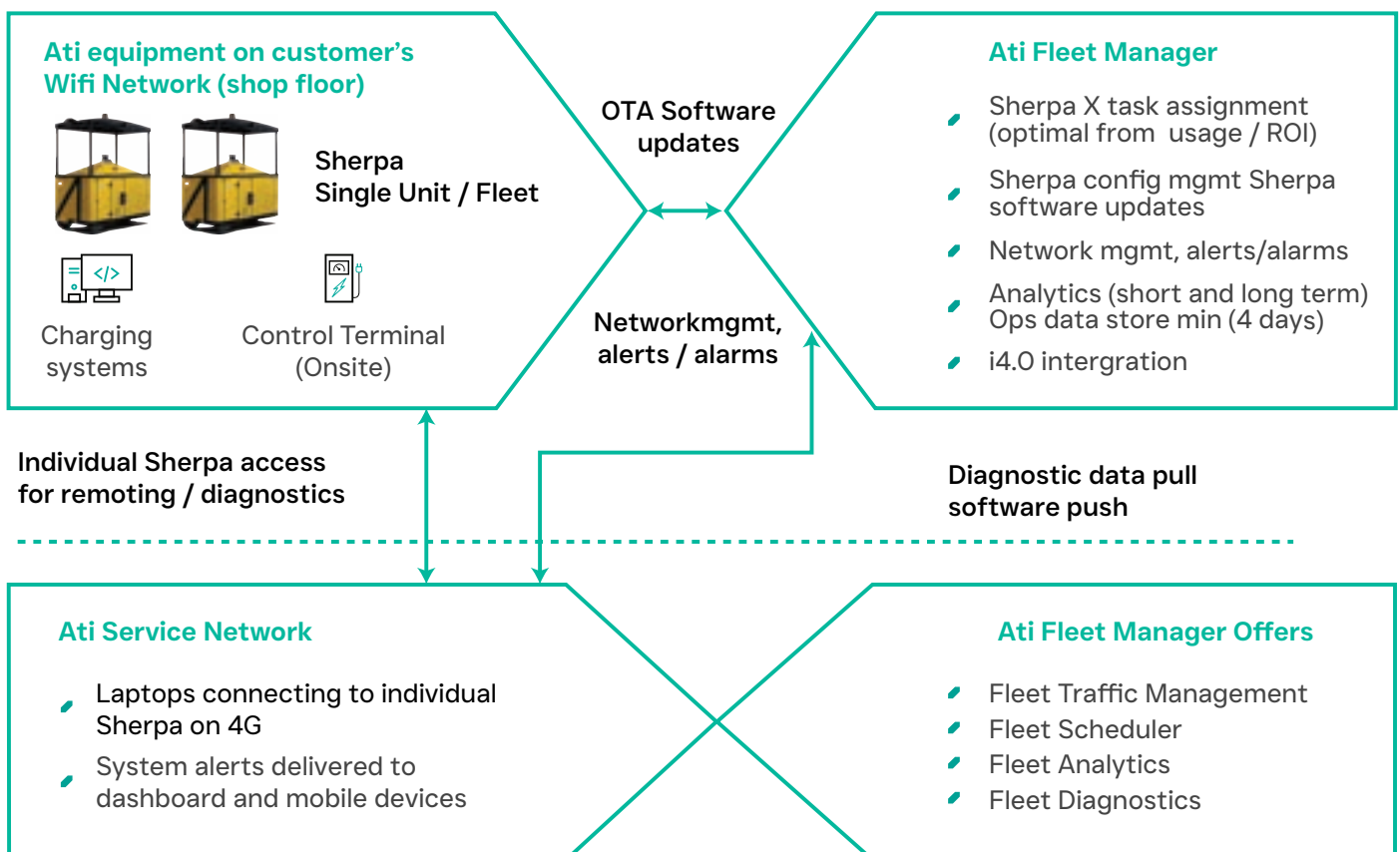
➤ Custom Trolley Design

➤ ERP Integration

Sherpa Specifications

Sherpa	Dimension	1274 x 612 x 1400 mm
	Weight	220 kg
	Ground Clearance	100 mm
Operation	Rated Pulling Capacity	1000 kg
	Max Speed	1.5 m/s
	Turning Radius	2.2 m
	Gradient	Upto 2%
	Trolley Train	3 Carts
	Duty Cycle	80%
Battery	Type	48V NMC Lithium-Ion
	Weight	15 Kg
	Run Time	8 hrs
	Charging Time	2 hrs

Sherpa Fleet Managed On Ati Fleet Manager



Operating Environment

FLOOR CONDITION

Smooth concrete, epoxy, tile, asphalt

Wi-Fi & VPN

Indoor and within campus outdoor

AISLE WIDTH

> 1.5 m

ENVIRONMENT

Temp +5 °C to +45°C
Humidity (5% - 90% non-condensing)

CHARGER BAY

Charger Area : 1m x 1m
Power : 230V AC, 15 Amp Socket

AUTONOMY SAFETY

ISO-3691-4 Compliant



Autonomy Safety Compliance ISO 3691-4:2020



Ati Motors, 19/A, 2nd Stage, Outer Ring Rd,
Goraguntepalya, Bengaluru, Karnataka - 560022

DESIGNATION : AUTONOMOUS MOBILE ROBOT
MODEL : SHERPA TUG
YEAR : 2022
SERIAL : T30812HCM
RATED PULLING CAPACITY : 1000 KG

NOMINAL : 800 KG
PULLING CAPACITY
VEHICLE MASS : 220 KG
BATTERY DETAILS : 44 V DC, 15 KG
NOMINAL POWER : 900 W



India | USA | Thailand

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Fail-Safe Brake

Activates in emergencies, crucial on slopes or when battery dies

Integrated Pull Force Meter

Gives visibility on load, maximises tug loading efficiency

HMI (Human-Machine Interface)

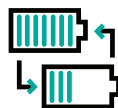
Gives the User a seamless interaction with Tug , ensuring optimal usage



Auto Parking



Get working under 2 hrs



Swappable battery



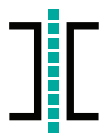
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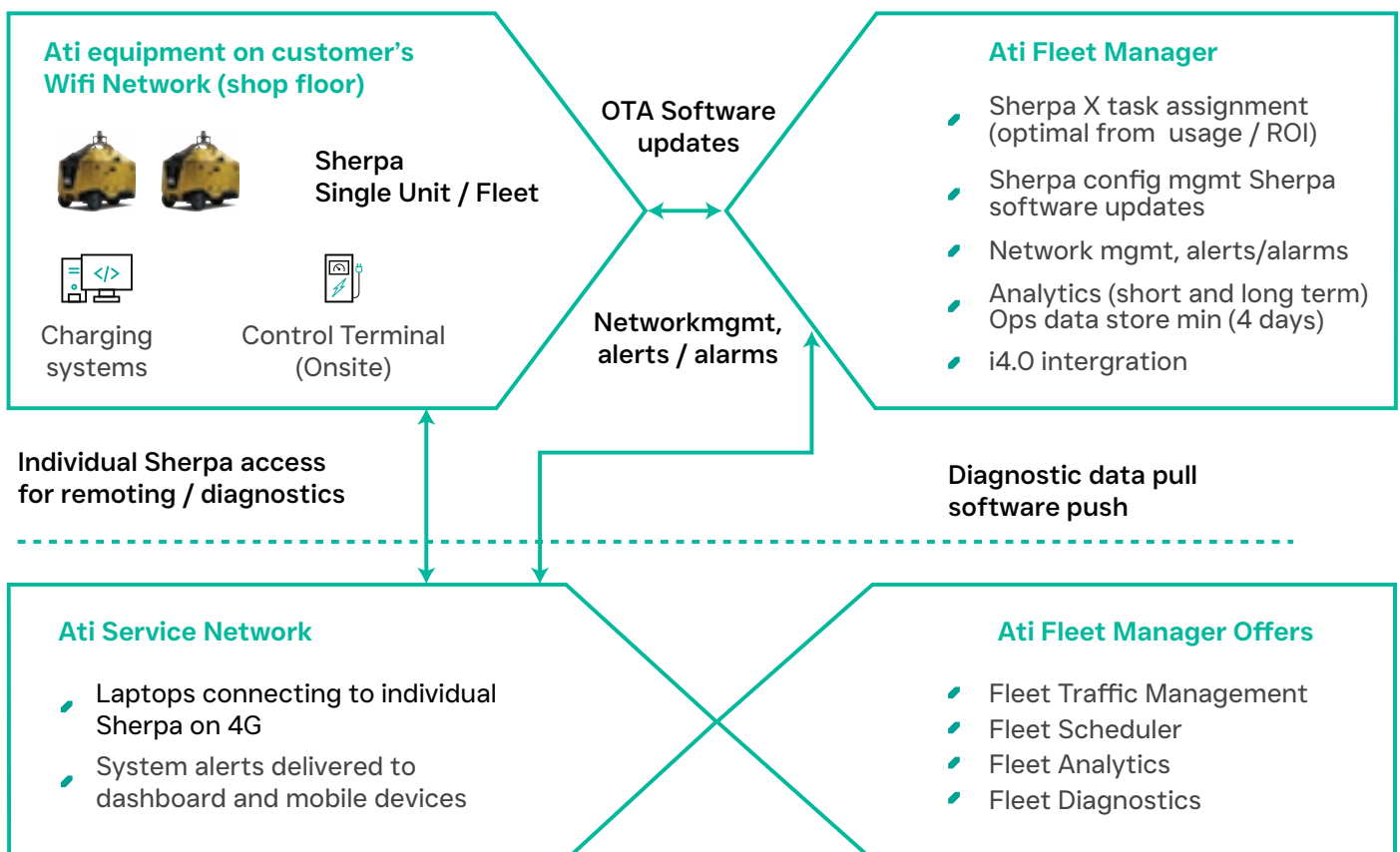
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SHERPA LITE

COMPACT | NIMBLE | PRACTICAL



Sherpa Lite is a tug designed to move trolleys with payloads up to 200 kilograms along relatively compact aisle spaces. It currently has three variants suited for different applications: Tug, Top Tray and Roller Top.

Its 3D LiDAR and low-light camera allows it to operate safely, precisely and continuously in highly dynamic environments for up to 8 hours. Even then, its unique swappable battery lets the Sherpa Lite re-enter the workflow in mere minutes.

Ati Fleet Manager (Software) : Manages a Fleet of Sherpa AMR's

Sherpa AMRs connected via WiFi can be managed via Ati FM. Primary objectives are to:

- 1

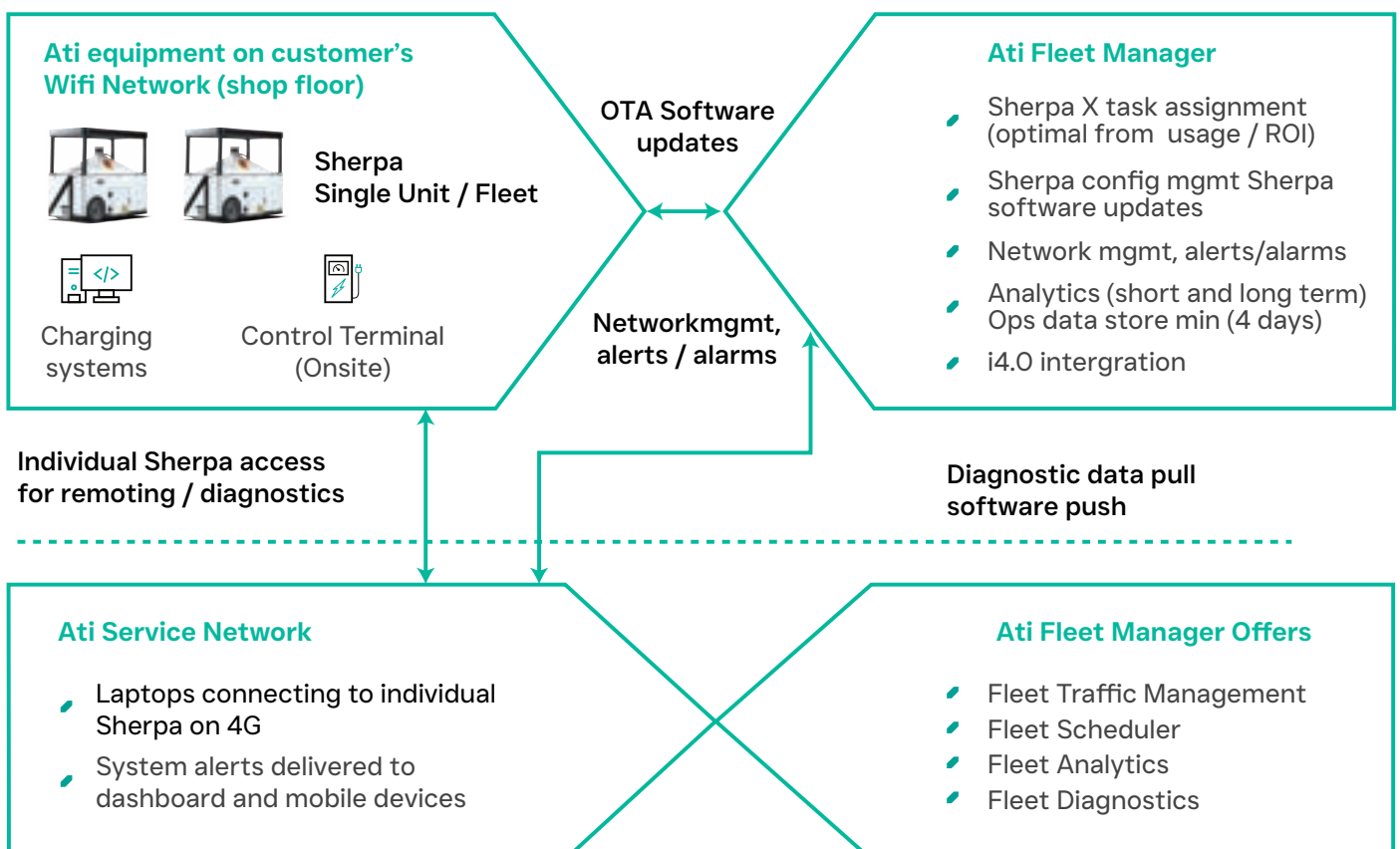
Schedule the AMRs (can be interfaced to ERP system and plan for optimal routing)
- 2

Manage the Traffic such as to avoid dead-lock, etc as well as track the AMRs
- 3

Software update and Remote diagnostic through OTA
- 3

Fleet Analytics for better route management

Sherpa Fleet Managed On Ati Fleet Manager



SHERPA LITE CARRYING **CARTON BOX** PAYLOAD



SHERPA ROLLERTOP **SMART CONVEYOR**



Autonomy Safety Compliance **ISO 3691-4:2020**



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