# Liebert<sup>®</sup> ITA2, A Critical Power continuity solution for Public Transportation



A Vertiv™ Case Study



UBBALLI - DHARAWAD

BRTS COMPANY LTD

## **About The Company**

Hubli-Dharwad BRTS is built to connect the two Indian twin cities, located in state of Karnataka. This project is being developed by the Hubli-Dharwad BRTS company, formed and affiliated by the State Government. The operation and maintenance work were being done by Hubli-Dharwad Municipal Corporation in association with Karnataka State Road Transportation Corporation (KSRTC).

The corridor undertakes segregated central bus lanes, bus stops, and bus depots between the two cities.

The BRT supports the twin cities in reducing the carbon footprints through high passenger carrying capacity and reduced congestion.

### Background

In the past decade, growing urbanization of Indian cities has been increasing significantly with a greater uptake in public transportation projects. Most cities are searching sustainable ways of transit system, and one such solution is Bus Rapid Transit (BRT), which helps in easy and quick commuting.

Hubli-Dharwad BRTS in Karnataka operates in a dedicated three-four lane corridor (three lanes within city limits and four on outskirts) to provide fast, safe, comfortable, convenient and affordable public transportation for commuters. The BRTS has been driven by numerous factors which improved the quality of public transportation service under the urban transport project.

To deliver the best quality of public transportation services, BRT infrastructure uses world class digital solutions which require reliable & quality of power supply for ensuring digital continuity.

### **Case Summary**

Location: Hubli-Dharwad, Karnataka, India

Vertiv Solutions: Liebert ITA2 UPS (Total 150 no. of UPS)

#### **Critical Need:**

• Require stable and uninterrupted power at bus terminals to run the automatic fare collection, platform screen door system, CCTV etc. and many more.

- The UPS system should be suitable to operate in harsh and tough outdoor environment.
- To create a power infrastructure with high energy efficiency, significant cost savings, and better ROI.

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### **Business Needs**

The corridor and stations are monitored through security cameras. Smart cards, QR tickets, passenger information display, platform sliding doors, and level boarding make the station accessible, commuter-friendly, and efficient.

Apart from these smart features, the real-time bus movement tracking, automated vehicle locator system enables the citizens to monitor the bus movement to ascertain the exact location of buses on the company's website. The flap gates installed in the bus stops helps to control access to the platform. Each station acts as a reference point for GPS and the LED Displays shows the arrival/departure schedule of buses at the bus station. These technologies ensure that commuters can find next bus information and recharge their smart card from their mobile phones. All the operations of data are monitored centrally with control rooms to ensure timely and smart decision in this green BRTS corridor.

Unexpected power outages can critically impact these loads and affect the ongoing operations. Their implications often hamper the smooth transport system which can cause uncomfortable and inconvenient journey for the passengers, which ultimately tends to potential revenue losses.

Therefore, BRTS demands uninterrupted quality of power supply for operational continuity. UPS should be suitable to work in outdoor environments as the external ambient temperature may exceed 55°C and it should also be capable to operate in dusty environment without any breakdown.





### **Vertiv<sup>™</sup> Solution**

Vertiv solution team thoroughly analyzed each and every concern and provided a tailored solution to the customer. The technical expert team recommended that Liebert<sup>®</sup> ITA2 is the most suitable model for their critical needs.

Liebert ITA2 is one of the most efficient, reliable, compact, and flexible power UPS in the market. It has undergone advanced environment testing in extremely harsh conditions to ensure reliability and adaptability in realtime scenarios.

Furthermore, Liebert ITA2 met with the specialized demands including prolonged battery backup time of up to 2 hrs, rapid battery charging, IT equipment integration with secure access features in offshore environments.

To meet Indian environmental conditions like higher operating temperature, moisture, humidity, dusty environment etc., the technical expert team suggested to install UPS in outdoor IP54 cabinet with proper air inlet and outlet.



The customer representatives visited our factory to witness the performance of the UPS in similar conditions (simulated) and observed the test facility.

All the thorough tests significantly broadened the scope of applications of the UPS. After bagging the project, Vertiv successfully supplied and installed 40 sets of UPS (150 no of UPSs) in a record time to meet the stringent deadlines associated with the project.



#### Outcome

The UPS solution offers the fault-tolerant protection while ensuring process continuity in outdoor application for over two years on field.

With Liebert ITA2 UPS, the operation management between bus station and depots runs smoothly which helps to provide sustainable travel and reliable services for commuters.

The Municipal Corporation also flawlessly monitors bus tracking, online ticketing, CCTV management, avoiding fraud, etc. to bring maximum benefit for all.