CREATIVE
INNOVATION
TECHNOLOGY

SMART TROLLEY
SELF CHECK-in
ROBOT

اصنع في الإمارات
MAKE IT
IN THE EMIRATES

Contents

THE PROBLEM

As the number of passengers increases year after year, airports and airlines are under increasing pressure to provide quick and easy check-in for passengers.

With limited check-in counters, carriers and airports alike must investigate new avenues to make the passenger experience as seamless as possible while keeping costs to a minimum.

For example, Dubai International Airport (DXB) is the busiest airport in the world by passenger traffic, the seventh busiest cargo airport in the world, the busiest airport for Airbus A380 and Boeing 777 movement, and the airport with the highest average number of passengers per flight. . DXB supports over 100 airlines, 409,493 Aircraft Movements, 88 million passengers per year and 270 destinations worldwide.

According to sources from Dubai Airports, since it opened on September 30, 1960, passenger numbers have grown at an annual average growth rate of 13 per cent.

In 2019, before the COVID-19 pandemic, DXB received 86.4 million customers connected through 240 destinations around 6 continents.

DXB installed the largest solar energy system in the region's airports as part of Dubai's goal to reduce 30 percent of the city energy consumption by 2030.

OVERVIEW OF THECURRENT STANDARD TROLLEY

The standard trolleys currently being used all over the world are simple carrying frame with wheels as an added facility. These trolleys do not respond in any way to the user automatically and only serve to be used by people manually.

Trolleys are small traveler-pushed (human-powered) vehicles for transporting individual luggage, mostly suitcases. Trolleys usually have two parts for carrying luggage: a small section (basket) for carrying luggage at the same level as the handle, and a lower, large section for small and large suitcases and bags.

Constructed with traditional drawbars or cables that can bend or stretch, this stainless-steel airport cart is sometimes heavy to handle for busy airport terminals, increasing the risk of collision or injury.

Trolleys are provided at airports, large bus stations, hotels or train stations for luggage transport and may be free of charge. Luggage carts are usually constructed of steel and equipped with three or four wheels. Usually, a handle must be pushed down to move the cart.

OPPORTUNITY

The new self-service check-in concept has been designed from the ground up to solve the issues faced by airports and carriers using common use self-service.

It provides a simpler way for carriers to implement self-service facilities, adopting a modern approach that allows for greater flexibility for carriers and greatly reduced costs.

This concept encompasses both hardware and software in a single configurable package that can give carriers a tailor-made solution for their specific requirements and needs.

One of the most important objectives is to help elderly as well as the handicapped people to move the trolley easily without even needing to push it.

This avoids pushing heavy trolleys around airports.

THE SOLUTION : SMART TROLLEY SELF CHECK-IN ROBOT FOR AIRPORT

Smart Trolley Application simplifies the passenger check-in process by giving

the passenger a clear, simple, and easy touch screen of the podium.

Smart Trolley can be integrated into any departure control system (DCS) with cloud-based middleware which will interface with DCS and host systems. Carriers need only provide access to their existing self-service check-in web services.

Dubai International Airport (DXB)

Is the busiest airport by international passenger traffic. It is also the fourth busiest airport in the world by passenger traffic, the seventh busiest cargo airport in the world, the busiest airport for Airbus A380 and Boeing 777 movement, and the airport with highest average number of passengers per flight.

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2. **409,493** Aircraft Movements
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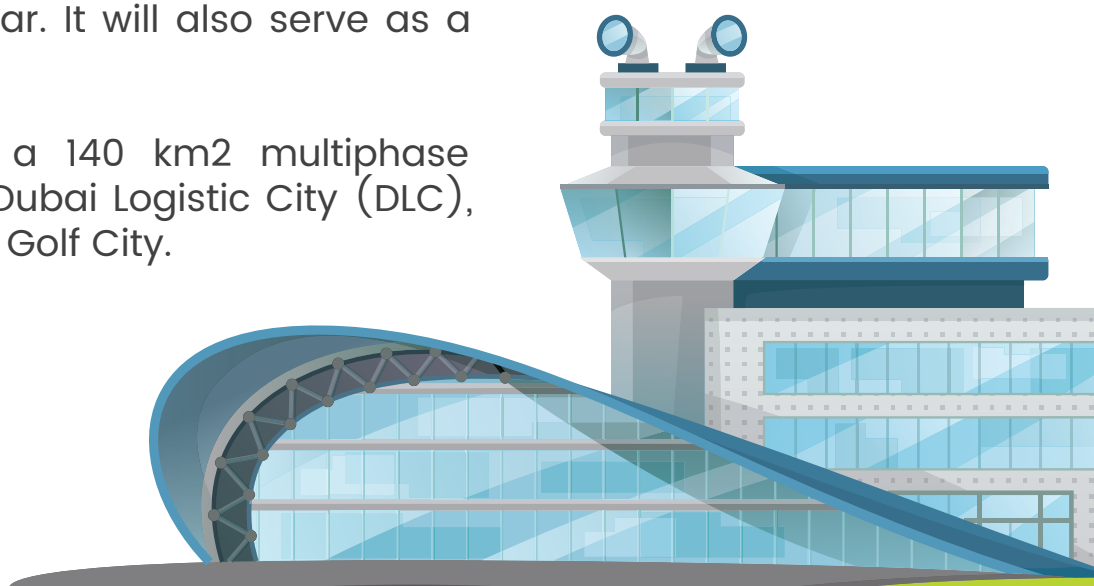
4. **270** destinations worldwide.

Dubai World Central
Al Maktoum International Airport (DWC)

Dubai's government announced the construction of a new airport in Jebel Ali. It is expected to be the second-largest airport in the world by physical size. Main part of Dubai South, a planned residential, commercial and logistics complex.

It is also called Dubai airport of the future, built south of the city, close to the fast-growing areas of "new Dubai", DWC lies at the heart of an entire airport city. Once completed, this airport will be the world's largest global gateway with capacity for more than 160 million passengers per year. It will also serve as a multi-modal logistics hub for 12 million tons of freight.

The airport forms the heart of a greater project, a 140 km2 multiphase development of six clustered zones that includes the Dubai Logistic City (DLC), Commercial City, Residential City, Aviation City and the Golf City.



Masterplan

The UAE is known for its innovative technologies and rapid growth. The United Arab Emirates and Saudi Arabia are at the forefront in this regard, with their Vision 2021, Vision 2030, Make It in Emirates, 50 Years Challenges, and many other initiatives currently taking place in the region, respectively.

Increased preventative safety among people in the manufacturing, industrial and healthcare industries is intended to drive market growth. Increasing consumer awareness about hygiene and efficient consumption and especially personal safety, together with government initiatives, promotes the market to provide prompt solutions to users. The Asia Pacific region is estimated to record the fastest growth rate during the 2020-2025 forecast period. The proximity of the Middle East region gives us an advantage to ensure demand and supply at reasonable prices and adapt the best practices of the Asia Pacific region to be implemented in our key market.

Most of the city's airports are distributed over 10,000 trolleys at the airports to serve passengers.

Maintaining a constant supply of the cart at different locations will be the primary concern for cart reclaimers.

Benefits

01 Fast passenger check-in process for passengers

02 Fully automatic document check

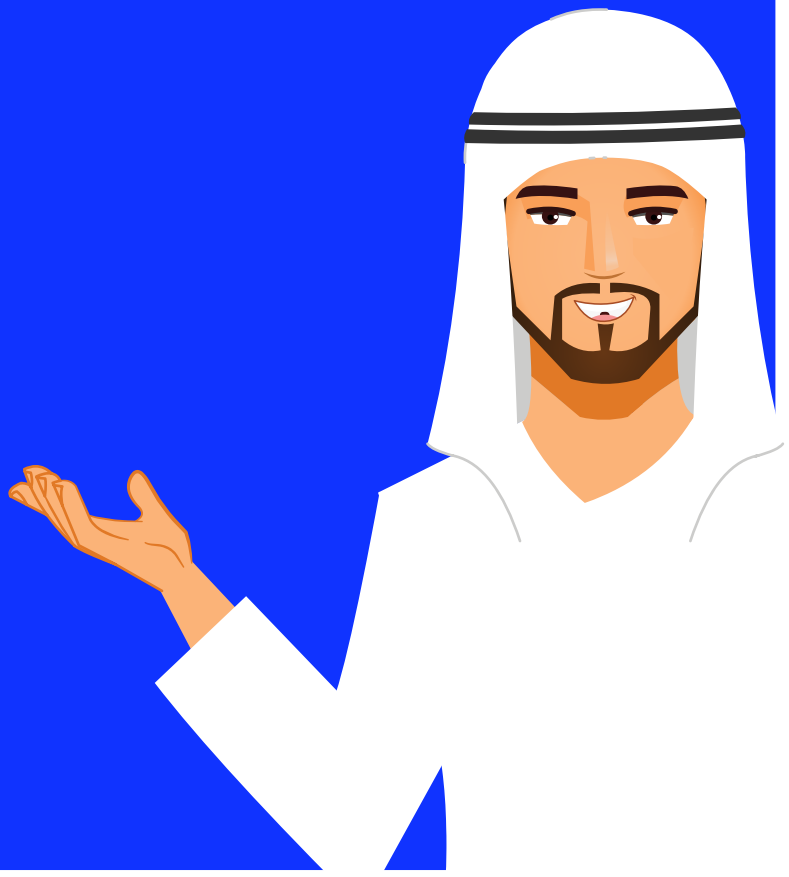
03 Self Service & Agent Assistedmodes

04 Minimal airlines IT effort required to deploy

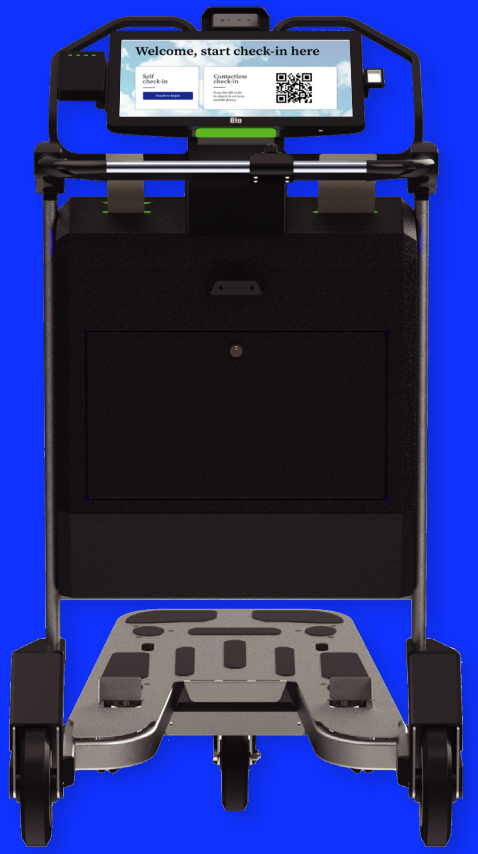
Advantages of Smart Trolley Self Check-In

- Intuitive touchscreen for enhanced passenger interaction.
- Biometric (camera + fingerprint).
- Facial recognition.
- BTP printer baggage tag, printer RFID module optional.
- Multi-support boarding pass (NFC, paper, mobile)
- Non-stop printing with up to 2 bag tag printers.
- Full page passport, barcode, and ID readers.
- Chip & Pin EMV payment, NFC payment.
- Multi configuration options and upgradable for future evolution.

- Common use compatible (CUSS last version).
- Fully synced with baggage handling system (BHS)
- Fully ADA compliant.
- Scales.
- 5G connectivity.
- Remote tracking and monitoring.
- Payment for excess baggage.
- Add value to your business.
- Enable more express check-in points.



- Increase revenue with multiple language and currency options.
- Accept all form of payments 24/7.
- Reduce customer waiting times.
- Data exchange and real time connectivity.
- APIs (Application programming interfaces).
- Allow organizations to expose and share data between different parties.
- Artificial Intelligence (AI) and Internet of Things (IoT).
- Modular build allows for different peripherals to be fitted depending on the specific needs of an airline.
- Can be integrated with any DCS or reservations systems quickly and easily using web-services or direct API integration.
- Long lasting battery life with up to 12 hours of continuous usage and a fast recharge rate.



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