

Gartner on the Enterprise Drone Opportunity

Written by Marco Attard
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According to Gartner, global Internet of Things (IoT) enterprise drone shipments are set to total 526000 units in 2020-- a 50% increase over 2019, before reaching 1.3 million units by 2023.

**Table 1: Top 5 IoT Enterprise Drone Use Cases by Shipments, Worldwide, 2019-2023
(Thousands of Endpoints)**

Use Case	2019	2020	2021	2022	2023
Construction monitoring	141.1	209.8	294.2	394.3	509.5
Fire services monitoring	32.7	48.5	58.2	63.7	67.0
Insurance investigation	31.8	46.4	67.2	96.3	135.8
Police evidence gathering	26.8	45.1	60.4	72.0	80.7
Retail fulfillment	12.9	24.9	44.4	75.1	122.0
Other use cases	106.2	150.8	206.5	275.3	356.5
Total	351.5	525.6	730.9	976.7	1,271.6

Notes: Gartner forecasts enterprise drones in over 25 use cases in its Internet of Things Forecast database. Totals may not sum due to rounding.

Source: Gartner (December 2019)

“The construction sector is an early adopter of drones, which causes construction monitoring to be the largest use case by shipments worldwide across the forecast,” the analyst says.

“Shipments are estimated to reach 210000 drones in 2020, and more than double by 2023.

Drones are taking over tasks such as site surveying and earthworks management as they are faster and safer to carry out with a drone than on foot.”

In terms of site surveying costs, the number of global construction employees per drone should drop from 2400 to 640 between 2018 and 2020.

In the short term, most drone use cases are based around surveillance and monitoring due to the technical complexity of other applications. In 2020, the 2nd and 3rd use cases by drone shipments are fire services monitoring and insurance investigation. The insurance industry is the 2nd largest use case by shipments, with 2020 shipments set to reach 46000 units before nearly tripling by 2023 to 13600. Furthermore, in order to survey claim areas at a lower cost insurance drones will grow from one per 152000 people in 2018 to one per 72000 globally in 2020.

“Drones are used to carry out inspections on buildings and structures after a claim has been made, to assess the extent and cause of the damage. They can also be used to evaluate the type and condition of the building when providing an insurance quote,” Gartner adds. “Their benefits are valuable. For example, they reduce the cost of scaffolding, ladders and employee time and provide a comprehensive photographic record of the building condition.”

Meanwhile police and firefighting agencies use drones in public safety operations, wildfire management, crime scene investigation and search and rescue operations. Gartner estimates the number of drones used by police and firefighters will grow from one per 210000 people to one per 47000 people between 2018 and 2020.

Drones also find use for retail deliveries in order to provide rapid service, as well as access customers in remote areas. However, regulatory restrictions and the logistical challenges involved in coordinating flight paths, managing airspace and managing various payloads mean retail is a longer-term drone opportunity. Thus, drone shipments for the segment will total 25000 in 2020 and rise to 122000 units in 2023.

The biggest opportunity for retail should come after 2023, Gartner says. In addition, the number of employees per drone is to decrease from 73000 global retail employees in 2018 to 18000 in 2020.

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