

GAO Highlights

Highlights of [GAO-19-514](#), a report to the Ranking Member, Committee on Commerce, Science, and Transportation, United States Senate

Why GAO Did This Study

In recent years, the airline industry experienced several well-publicized IT system outages to reservation, check-in, flight planning, and other systems. Such outages can result in widespread disruption to air travel, inconveniencing passengers, who may be delayed or face out-of-pocket costs, and can also affect airlines' revenue and operations. Airlines are responsible for operating and maintaining their IT systems.

GAO was asked to review airline IT outages. GAO examined: (1) DOT's and FAA's roles related to airline IT outages and (2) what is known about these outages and their effects on passengers. GAO identified relevant federal laws and responsibilities and interviewed DOT and FAA officials. In the absence of DOT and FAA data to identify airline IT outages, GAO identified outages using open source documents for the 12 airlines reporting to BTS from 2015 through 2017 and validated these outages using a multi-step process with publicly available airline information, interviews with airline representatives, and FAA and DOT data. GAO also reviewed airlines' contracts of carriage, which are legally binding contracts between airlines and passengers, to understand how airlines accommodate passengers inconvenienced by IT outages, as well as 140 consumer complaints related to airline IT outages received by DOT from 2015 through June 2018.

View [GAO-19-514](#). For more information, contact Heather Krause at (202) 512-2834 or KrauseH@gao.gov.

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COMMERCIAL AVIATION

Information on Airline IT Outages

What GAO Found

The Department of Transportation (DOT) and, within it, the Federal Aviation Administration (FAA) have limited roles overseeing or addressing the effects of outages from information technology (IT) systems that airlines rely on to schedule and transport passengers (e.g., reservation or flight planning systems).

- **FAA's operations and oversight.** At an airline's request, FAA may halt the operation of all or part of that airline's flights during an outage and work with the airline to reintegrate flights upon recovery. FAA does not directly oversee airline IT systems but works with airlines to ensure that airline data interfaces correctly with FAA's operational systems.
- **DOT's consumer protection.** Airline IT outages are not specifically addressed in DOT's consumer protections for passengers, although other protections may apply, such as restrictions on tarmac delays if a passenger is held on a flight during an outage. DOT oversees airlines' adherence to their contracts with passengers. These may include specific provisions such as refund procedures and responsibility for delayed flights, among other things. DOT also receives consumer complaints and uses complaint data to initiate investigations that may result in fines or enforcement actions.
- **DOT's data collection.** DOT requires large airlines to report information about on-time performance to the Bureau of Transportation Statistics (BTS), including the causes of flight delays and cancellations in several broad categories (e.g., airline caused, weather, and late-arriving aircraft).

Using multiple sources, GAO identified 34 IT outages from 2015 through 2017, affecting 11 of 12 selected airlines. No government data were available to identify IT outages or determine how many flights or passengers were affected by such outages. BTS data provide information to consumers about airline performance broadly but are not designed to identify the effects of individual events, such as the number of flight delays and cancellations resulting from IT outages. According to GAO's validation of multiple sources, however, about 85 percent of the identified outages resulted in some flight delays or cancellations. Because of limited data, information about how passengers have been inconvenienced from outages is largely anecdotal (see figure for examples of inconveniences). Further, airlines vary in what they provide to these passengers (e.g., food, hotel, or rebooking on another airline) when IT outages occur. Consumer complaints stemming from IT outages accounted for less than one percent of all complaints received by DOT from 2015 through June 2018, and according to agency officials, these complaints raised concerns similar to complaints resulting from other causes of flight disruption. Complaints reviewed by GAO included the lack of food, a hotel, or compensation, among other things.

Potential Passenger Inconveniences from Outages in Airline Information Technology



Source: GAO analysis of information from the airlines and media reporting. | GAO-19-514