How to manage national resources to fight COVID-19 in the cloud?

Case Study

C&F

Industry

Pharmaceutical

Client

Global pharmaceutical leader

Challenges

The first wave of the COVID-19 pandemic in Germany showed that limited access to resources (e.g. oxygen, ventilators), local "bottlenecks" in hospitals and no central information support systems for the operational management could be one of the main causes of high mortality rates.

- Lack of effective communication between doctors in order to consult diagnostic methods and adopted treatment strategies

- No reliable, aggregated data on the number of infections and the level of utilization of intensive care beds

- No data-driven control of local, regional and federal measures and resource decisions to distribute the patients to be treated among available care options

Solution

Taking responsibility for maintaining the system, including a quite sophisticated security audit, we joined the ICU-M project that provides a real-time data acquisition and analysis environment in the cloud for intensive care bed (ICU) capacities and aggregated case numbers.

- Real-time information and predictions of the availability of Intensive Care Units (ICUs) at various organizational levels

- Information on the expected availability of ICUs (based on analytical forecasts)

- Ability to manage the mass transportation of COVID patients in order to relieve the bottlenecks and/or prevent their formation.

- Information on the availability of medical personnel, nominal and current status – physicians and other medical personnel available/not available (due to quarantine or illnesses).

- Data visualization as charts, maps, trends, to facilitate quick operational decisions

Benefits

- 1298 hospitals covered

- Real-time information on available COVID-19 resources on all organizational levels

- Germany considered to be one of the most successful European countries in managing the COVID-19 pandemic