

Central Saxon Flood Information Office: Information and Communication Platform



Central Saxon Flood Information Office (LHWZ)

Saxony's Flood Information Office (LHWZ) located in Dresden is an institute of the Saxon Office for Environment and Geology (LfUG).

The LHWZ continuously monitors the water levels and water gauges of the waters flowing through the countrywide hydrographical measuring network as well as the data transmitted by neighbouring countries and states.

In conjunction with rain and/or thawing forecasts by the German Weather Service (Deutscher Wetterdienst) these data are evaluated as to the likelihood of flooding.

The Situation

In summer of 2002 large parts of Saxony were flooded. In Dresden the famous Semper Opera was threatened. Frequently alerts did not reach the responsible local persons in time. The volume of water flooded away all measuring instruments at some river sections. Measurements and forecasts were solely based on the information by part-time gauge reporters who read the level markers and telephoned the water levels in.

The Tasks - The Targets

Therefore, reconstruction could not be limited to buildings and streets. New level measuring devices including data

telecommunication techniques were required. Regionally allocated responsibilities were bundled and a new Central Saxon Flood Office was founded in Dresden. Here "all the wires" meet around the clock. At the LHWZ all measured values may be accessed, reports received and evaluations and forecasts be made. Thus the persons in charge in the communities and districts (potentially) concerned can be informed and alerted on time in case of emergency.

PSI's Contribution

PSI supported this project by

- the design,
- the configuration and adaptation as well as
- the taking into service

an integrated Flood Water Monitoring System.

The system is based on PSI's tried and tested control systems technology and enables fail-safe operation in real-time. It is therefore possible to access water levels and rainfall information all over Saxony within a few minutes and automatically feed the data into the system. This data is complemented by an interactive voice system which gauge reporters may not only use to capture measured values but also to report "plain" remarks to the Central Office as well as to receive news from it.

All data are checked for plausibility and filed in archives. Alert thresholds are automatically monitored.

The great volume of data requires a monitoring system which is easy to operate in times of crisis and enables the survey of whole river regions (particularly where many value limits are violated) as well as detailed presentations and evaluations of data as time series.

The information on rising water levels and flood alerts is transmitted to the local people in charge by the communication platform. Where value limits are crossed it automatically raises alarm via fax, e-mail, SMS or telephone call. To prevent that important information is being lost, there is a mechanism to confirm messages by the recipient. Messages not confirmed will lead to an escalation.

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