

Paris Session 2022



Extension of Periodic Inspection Interval of Existing Switchgear by Installation of IoT Technology

SC A3

PS3 / Q.16

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Question and our contribution

Question PS3.16

- A general question to utilities: Which is the expected maintenance interval extension by applying condition-based approach in comparison to a time-based one?

Answer

- The periodic inspection interval of the switchgear has successfully extended from once every six years to once every 24 years by utilizing the IoT technology to the existing switchgear.

Condition-Based Approach for Existing Switchgear

- The monitoring system has been integrated into the existing switchgear to realize the condition-based approach.
- This system enables the real-time condition monitoring of the switchgear by browsing the DC control and operating current.

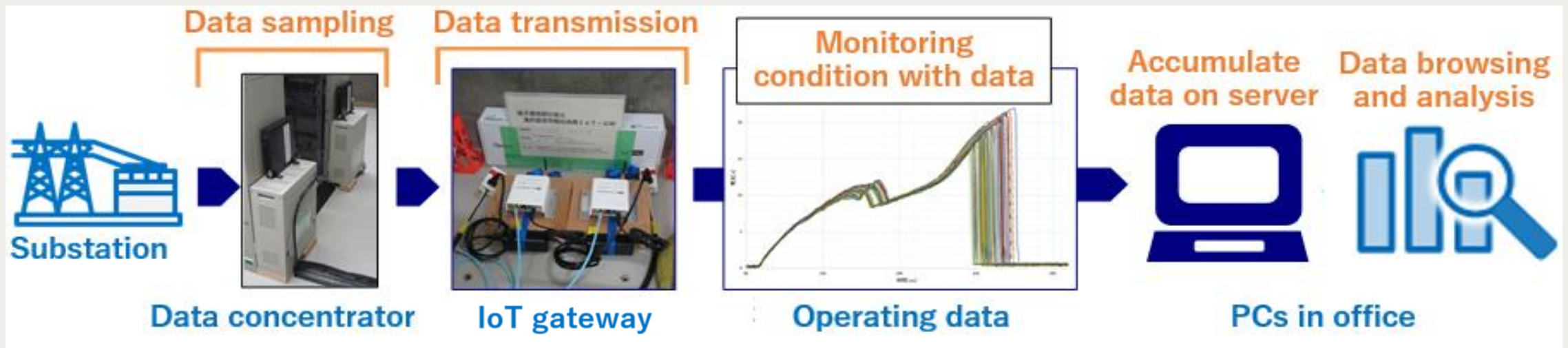


Fig.1 Image of our monitoring system

Extension of Periodic Inspection Interval

- The periodic inspection interval of switchgear was improved from 1 time / 6 years to 1 time / 24 years by IoT technology.

- 1 time/ 24 years inspection is necessary to replace some of the electrical component of the switchgear based on our experiences.

- The maintenance hasn't been totally replaced to CBM. It is a combination of the TBM and CBM.

Group Discussion Meeting

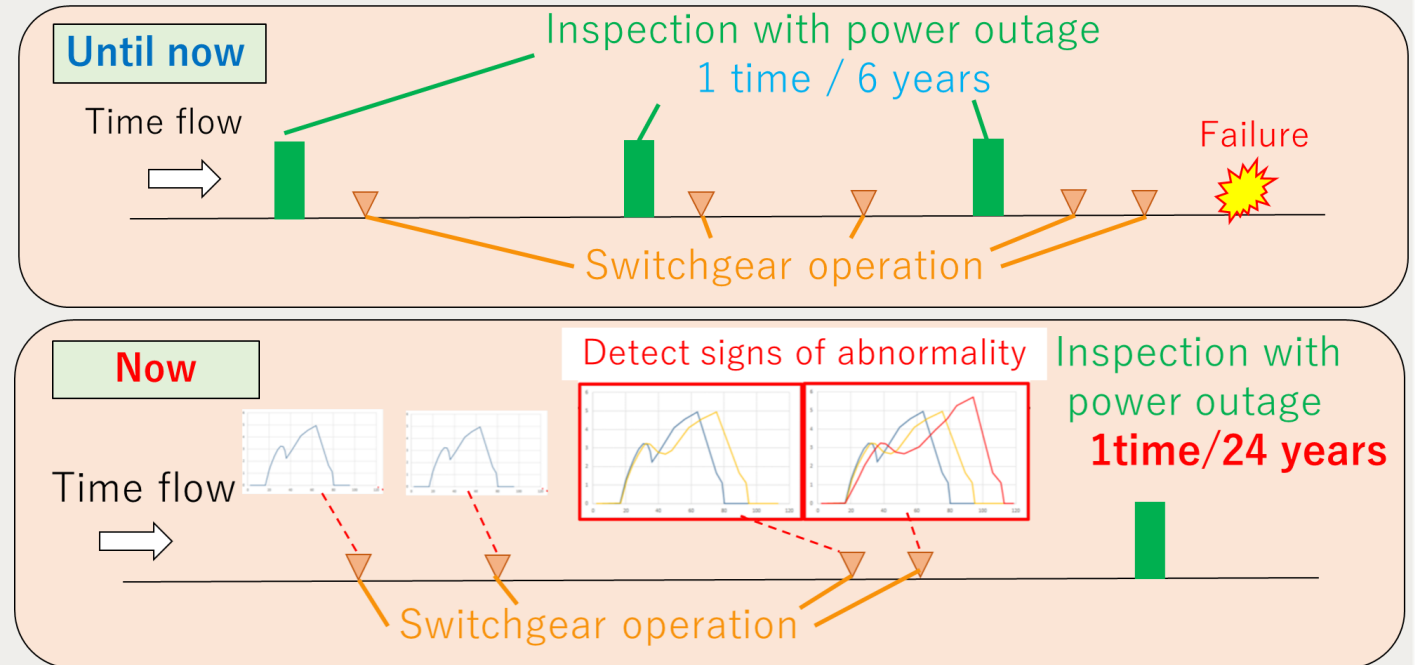


Fig3. Image of extension periodic interval

Thank you for your attention !!