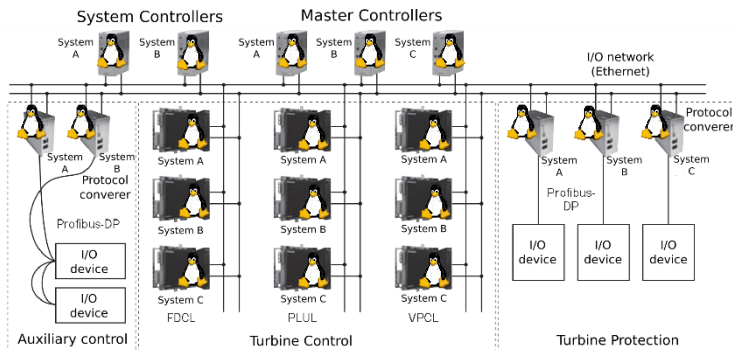# Power Plant runs on Linux

Yoshiyuki Nitta and Yoshitake Kobayashi / TOSHIBA
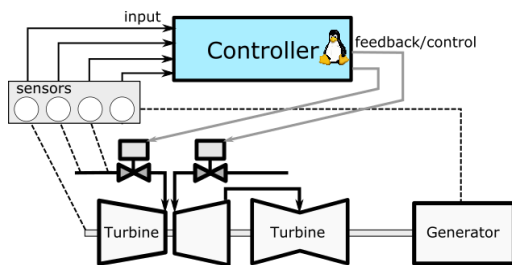
What is demonstrated

A full thermal plant simulator connects to Linux based controllers.

An example system configuration for power plant system

Configuration of EHC system in steam turbine power generation system

Hardware Information
X86 and PowerPC

What was improved

To use the Linux as controller, we have improved..

Reliability

- Created a duplexed system to improve reliability, availability, and serviceability

Real-time capability

- Minimized the system latency
- Ensured the response time for each services

Source code or detail technical information availability

TOSMAP-DS/LX Next-Generation Controller for Thermal Power Plants to Achieve Efficient Operation and Low Environmental Burden
http://www.toshiba.co.jp/tech/review/2013/11/68_11pdf/a08.pdf
TOSMAP-DS/LX EHC Next-Generation Electrohydraulic Control System for Thermal Power Plants Integrating General-Purpose and High-Reliability Control Technologies
https://www.toshiba.co.jp/tech/review/2015/02/70_02pdf/f02.pdf