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## **Design and Implementation of Extensible Framework for Management and Control Information System of Power Grid Maintenance**

**BAI Yichuan, WU Meng, BSHI Kang, Cao Qi, Luo Liming**  
Deputy General Manager, INFORMATION & COMMUNICATION TECHNOLOGY  
COMPANY, NARI GROUP CORPORATION  
Nanjing, China

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### **Abstract**

This paper briefly described the current situation of intelligent maintenance of power grid, and the demand for maintenance of extra-large power grid. Besides, the technical trends and challenges of the management and control information system was analyzed in our research. This paper focused on the new technical solution of the extensible framework, including the overall design of extensible framework and microservices, as well as the key technologies of microservice-based business model, application deployment, cluster management, security isolation. Furthermore, the performance optimization that adapted to the hierarchical deployment mode was also discussed in our paper with the practical application. This paper also reckoned the impact of new energy access, and energy internet on intelligent maintenance of power grid, and discussed the improvement direction of related technologies.