

工程与应用

## 分布式设备远程监控系统研究

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**摘要** 针对现有设备远程监控系统不能真正有效地支持分布式网络化生产和管理模式, 提出一种基于中间件技术的分布式工业设备远程维护系统, 该系统不依赖于具体的硬件和软件平台, 设备能方便地加入或退出系统。阐述了系统总体结构和系统安全性设计, 重点分析了实现分布式结构的关键技术—查询服务器的4个机制及其实现技术方案, 并讨论了系统的总体通讯方案, 为分布式设备远程服务系统的实现提供了很好的参考价值。该系统有效地提升了企业关键设备的维护效能, 为设备远程监控系统的应用推广奠定了基础。

**关键词** [分布式体系结构](#) [设备远程监控](#) [Web服务](#) [查询服务](#) [数据通讯](#)

分类号

## Research on distributed equipment remote monitoring system

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### Abstract

Aimed to the current remote monitoring system doesn't effectively support the production and management modes in distributed network architecture, a distributed remote monitoring system based on middleware is proposed. This system doesn't depend on specific hardware and software platform and the mechanical equipments can dynamically entry or exit the system. Firstly, the framework and safety design of remote monitoring system are introduced. Specially, the four mechanisms and realization technologies of lookup server which is the key for realizing distributed architecture are proposed. Moreover, the communication scheme of this system is discussed. This system can improve the maintenance efficiency and lay a foundation for application and population of remote monitoring system.

**Key words** [distributed architecture](#) [equipment remote monitor](#) [web service](#) [lookup server](#) [data communication](#)

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