Development Proposal

Factory Monitoring Dashboard System

Client: Daikibo Corporation
Project: Private Factory Health Monitoring Dashboard
Date: July 27, 2025
Prepared by: [Your Development Team]

---

1. Overview

Project Introduction

This proposal outlines the development of a comprehensive factory monitoring dashboard for Daikibo Corporation. The system will provide real-time visibility into the operational health status of 36 industrial machines across four manufacturing facilities.

High-Level Description

The proposed solution is a web-based dashboard application that consolidates telemetry data from all monitored devices into a single, intuitive interface. The system will enable facility managers and technical staff to quickly assess equipment status, identify potential issues, and access historical performance data to support proactive maintenance decisions.

The dashboard will be deployed within Daikibo's secure intranet environment, ensuring data security while providing seamless access to authorized personnel through existing company authentication systems. The interface will feature a hierarchical view allowing users to drill down from factory-level overview to individual machine details and historical trends.

---

2. Scope

Core Functionality

The Factory Monitoring Dashboard will deliver the following key features:

Authentication & Access Control

- Integration with Daikibo's internal authentication server
- Single sign-on (SSO) capability using existing company accounts
- Role-based access control for different user types
- Secure session management within the intranet environment

Dashboard Interface

- Single-page application displaying all 36 machines across 4 factories
- Real-time status indicators for each monitored device
- Color-coded visual system for immediate health assessment
- Responsive design optimized for desktop and tablet viewing

Hierarchical Data Organization

- Factory-level grouping with expandable/collapsible sections
- Individual machine status within each factory group
- Drill-down capability from overview to detailed device information
- Historical status tracking and trend visualization

Data Management

- Real-time telemetry data processing and display
- Historical data storage and retrieval
- Status change logging and alerting
- Data export functionality for reporting purposes

System Architecture

The solution will consist of:

- Frontend web application (React.js with responsive UI components)
- Backend API service (Node.js/Express for data processing)
- Database layer (PostgreSQL for historical data storage)
- Authentication integration module
- Real-time data streaming service (WebSocket connections)

User Experience Features

- Intuitive factory overview with immediate status visibility
- Expandable factory sections revealing individual machine details
- Historical status timeline for each device
- Quick filtering and search capabilities
- Customizable view preferences per user

- Mobile-responsive design for on-the-go monitoring

---

3. Estimate

Development Effort Breakdown

Total Project Estimate: 320 Man-Hours

Development Phase: 240 Hours

- **Frontend Development:** 120 hours
  - Dashboard UI components and layout (40 hours)
  - Data visualization and status indicators (35 hours)
  - Collapsible/expandable interface logic (25 hours)
  - Responsive design implementation (20 hours)
- **Backend Development:** 80 hours
  - API development and data processing (35 hours)
  - Authentication integration (25 hours)
  - Real-time data streaming setup (20 hours)
- **Database Design & Implementation:** 40 hours
  - Schema design and optimization (20 hours)
  - Data migration and historical data setup (20 hours)

Testing Phase: 50 Hours

- **Unit Testing:** 20 hours
  - Frontend component testing
  - Backend API testing
- **Integration Testing:** 20 hours
  - Authentication system integration
  - Real-time data flow testing
- **User Acceptance Testing:** 10 hours
  - End-to-end functionality testing
  - Performance and usability validation

Integration & Deployment: 30 Hours

- **System Integration:** 15 hours
  - Intranet deployment configuration
  - Authentication server connection
- **Production Deployment:** 10 hours
  - Server setup and configuration
  - Security hardening and monitoring setup
- **Documentation & Training:** 5 hours
  - User documentation creation
  - Basic user training materials

---

4. Timeline

Project Milestones

Phase 1: Project Initiation (Week 1)

- Requirements finalization and technical specification review
- Development environment setup
- Authentication system integration planning

Phase 2: Core Development (Weeks 2-6)

- Backend API development and database implementation
- Frontend dashboard interface development
- Authentication integration completion

Phase 3: Advanced Features (Weeks 7-8)

- Collapsible/expandable interface implementation
- Historical data visualization features
- Real-time data streaming integration

Phase 4: Testing & Quality Assurance (Weeks 9-10)

- Comprehensive testing across all components
- Performance optimization and security validation
- User acceptance testing coordination

Phase 5: Deployment & Go-Live (Week 11)

- Production environment deployment
- Final system integration and validation
- User training and documentation delivery

Total Timeline: 11 Weeks

Key Deliverables Schedule

- **Week 3:** Backend API and database schema completion
- **Week 5:** Core dashboard interface functional prototype
- **Week 7:** Authentication integration and user access controls
- **Week 9:** Feature-complete system ready for testing
- **Week 11:** Production deployment and project handover

---

5. Support

Continuous Product Support Commitment

Daikibo Corporation can rely on comprehensive ongoing support to ensure optimal system performance and continuous improvement:

Maintenance & Bug Fixes

- 24/7 system monitoring and issue detection
- Priority bug fix response within 4 business hours
- Regular security updates and patch management
- Performance optimization and system health monitoring

Technical Support Services

- Dedicated support ticket system for issue tracking
- Email and phone support during business hours
- Remote system diagnostics and troubleshooting
- User support for dashboard navigation and feature usage

Enhancement & Evolution

- Quarterly system review and improvement recommendations
- New feature development based on user feedback

- Integration support for additional monitoring devices
- Scalability planning for factory expansion

Documentation & Training

- Comprehensive user documentation maintenance
- Video tutorials and knowledge base updates
- On-site training sessions for new users
- Best practices guidance for system optimization

Service Level Agreement

- 99.5% system uptime guarantee
- Maximum 2-hour response time for critical issues
- Monthly performance and usage reports
- Proactive system health assessments

Long-term Partnership

Our commitment extends beyond initial delivery to ensure Daikibo's monitoring dashboard continues to evolve with your operational needs. We provide scalable solutions that can accommodate future factory expansions, additional monitoring requirements, and emerging technology integrations.

Contact Information:
For questions regarding this proposal, please contact:
[Your Contact Information]
[Email Address]
[Phone Number]

Proposal Valid Until: August 27, 2025