WIGLAF
Web Interface Generator for Legacy Applications Façade

The Need for Computational Resources...
- Remote data processing
- Large data sets
- Real-time results
- High volatility

One Solution: Commodity Clusters
- Support diverse component requirements
- Low maintenance and management costs
- Open-source software
- Easily scalable
- Existing infrastructure
- High reliability

One Solution: Commodity Clusters (Cont’d)
- Support diverse component requirements
- Low maintenance and management costs
- Open-source software
- Easily scalable
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But Software (Applications) is still the issue...
- Can we achieve a globally consistent view?
- Can we ensure the reliability and security of the application?
- Can we maintain the performance and scalability of the application?

Motivation
- Legacy applications are difficult to maintain
- Heterogeneous systems make it challenging
- Clustering or load balancing may not be sufficient
- Knowledge of the specific system is needed
- The difficulty is due to information gaps

Overview
- WIGLAF is a framework system for generating applications
- Supports distributed component-based applications
- Utilizes commodity clusters

WIGLAF: Integration Levels
- Integration into existing systems
- Application-specific integration
- System-specific integration
- Application-level integration

WIGLAF: Goals and Approach
- Enable the construction of distributed, component-based applications
- Provide a consistent view of the application across locations
- Ensure reliability and security of the application
- Support scalability and performance

Technologies
- Java 1.4.2
- XML 1.0
- W3C DOM
- HTTP
- SOAP
- JXTA
- JMS
- J2EE
- Java

WIGLAF: Current Features
- XML/HTTP for application communication
- Generic, stateless, and dynamic
- Application Server and Client Applet
- Scalable, efficient, and modular

WIGLAF: Tasks Completed
- Retrieve XML data for user input
- Parse XML data
- Create Java objects
- Send objects to server
- Receive objects from server
- Display objects to user

Application Client Applet
- Custom Java applet
- Dynamic content generation
- Interactive user interface

Application Server
- The Application Server services the user's applet
- Handles communication with other servers

Application Server components
- WIGLAF
- Application Server
- Application Client Applet

WIGLAF: Tasks Needed
- Create new application
- Integrate with existing systems
- Test and deploy application

WIGLAF: Status
- Application Server
- Application Client Applet
- Application-level integration
- System-level integration
- Application-specific integration