Overview

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- Technology
  - Hardware
  - Software
- Major Risk
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Project Background

- Need to gather data from environment.
- Current Solution are specific for one type.
- Agency like NOAA need to collect data.
- Distributed database can provide advantages.
- Need for plug & play connection.
Proposed System

RUMStix Project
Block Diagram

Hardware Interface
- Digitalizador
- Voltage Regulator

Driver
- Kernel Code
- Data Conversion
- Agent SNMP

WIFI-Module

Router

Server
- SNMP Agent
- SNMP Tuple Factory
- NetTraveler (Postgres engine)
- Analysis Component

Client
- RCP - Client
Deliverables

- Proposal
- Progress Report
- Final Report
- Hardware and Software
  - Functional Specs
Deliverables

- Client Application
- Gumstix Firmware Image
- USB Sensor Interface
- GumStix
- Software Source Code
## Schedule

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<thead>
<tr>
<th>Phase Name</th>
<th>Start</th>
<th>Finish</th>
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<tr>
<td>Documentation</td>
<td>1/21/2008</td>
<td>5/2/2008</td>
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<td>Analysis &amp; Design</td>
<td>1/9/2008</td>
<td>3/26/2008</td>
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<td>Development</td>
<td>1/18/2008</td>
<td>4/14/2008</td>
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# Resources

<table>
<thead>
<tr>
<th>Resources</th>
<th>Expenses</th>
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<td>Resources</td>
<td>$56,780.76</td>
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<td>Materials</td>
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Hardware

• GumSTIX
  • Full miniature computer
• Sensor Interface
  • Signal conditioning, USB Interface
• Servers
Communication

- SNMP Protocol
- Standard on network management
Software

• Driver
  • Be implement inside the Gumstix
  • Recognizes the Sensor USB Interface

• Client
  • The client will be developed using the eclipse RCP. The client will be divided in different views.
NetTraveler

- Distributed Database System
- Provides fault tolerance
- Access to multiple client
- Internet Available
- Use SQL syntax
Major Risk

Risk: Database Middleware Component Problems

Probability: High

Business Impact: Will affect the storage of data on distributed databases.

Mitigation: Access data directly to the database
Team Organization

- Vicente Rivera, Project Manager
  - Project Management
  - NetTraveler

- Alexs Peña, Quality Assurance
  - Documentation
  - RCP Client

- Jose A Ortiz, Computer Engineer
  - Communication
  - Hardware
Team Organization

• Jonathan Torres, Computer Engineer
  • Driver Development
  • Hardware

• Alfredo Alvarez, Computer Engineer
  • Data Formatter
  • Driver Development
Questions