1. **Data Collection and Monitoring**
   * The system must be able to collect real-time information about individual fish, including metrics such as size, weight, behavior, and health indicators.
   * It should be capable of monitoring water quality parameters such as temperature, pH level, dissolved oxygen, and salinity.
   * The system should also gather weather information from relevant sources to provide insights into environmental conditions affecting fish farms.
2. **Analysis and Reporting**
   * Fishy Watch should provide comprehensive analysis tools to interpret the collected data, allowing fish farmers to assess the health of their livestock.
   * It should include algorithms to detect signs of parasites, diseases, or any abnormalities in fish behavior, enabling proactive measures to be taken.
   * The system must generate insightful reports summarizing the collected data, including trends, anomalies, and recommendations for fish farmers.
3. **User Interface and Accessibility**
   * The platform should offer a user-friendly interface accessible via web browsers and mobile devices, ensuring ease of use for fish farmers worldwide.
   * It should support multiple languages and provide localization options to accommodate users from different regions and language preferences.
4. **Data Security and Privacy**
   * Fishy Watch must adhere to strict data security standards to safeguard sensitive information collected from fish farms.
   * It should implement robust authentication and authorization mechanisms to control access to data, ensuring only authorized personnel can view and modify information.
   * Compliance with global data protection regulations (such as GDPR) should be ensured to maintain customer trust and legal compliance.
5. **Scalability and Reliability**
   * The system should be scalable to accommodate a growing number of users and fish farms, supporting the expanding customer base of Livestock Insights Incorporated.
   * It should demonstrate high reliability and uptime to ensure uninterrupted monitoring and data collection services for fish farmers worldwide.
6. **Integration and Compatibility**
   * Fishy Watch should offer integration capabilities with existing fish farming systems and equipment to streamline data collection and analysis processes.
   * It should be compatible with various hardware sensors and IoT devices commonly used in fish farms, facilitating seamless data integration.
7. **Customer Support and Training**
   * Livestock Insights Incorporated should provide comprehensive customer support services, including technical assistance, troubleshooting, and guidance on using Fishy Watch effectively.
   * The company should offer training programs and resources to educate fish farmers on utilizing the platform's features optimally and maximizing the benefits of fish farm monitoring.

These business requirements outline the key functionalities and features that Fishy Watch should offer to meet the needs of fish farmers globally and ensure the success of Livestock Insights Incorporated's service offering.

Based on the additional requirements provided, here are further business requirements for Fishy Watch:

1. **Customizable Dashboards**
   * Fish farmers must be able to create personalized dashboards tailored to their specific needs and preferences.
   * The dashboard should allow farmers to select and arrange widgets displaying various metrics such as fish health, water quality, weather forecasts, and harvest data.
2. **Threshold-based Alerts**
   * Farmers should have the ability to set customizable thresholds for different parameters, triggering alerts when values exceed or fall below specified limits.
   * The alert system should support both simple thresholds like pH levels and advanced warnings for predicted adverse weather events.
3. **Harvest Data Analysis**
   * Fishy Watch should enable farmers to track information about each harvested fish, including species, size, weight, and quality metrics.
   * Utilizing both raw data and harvested fish data, the system should facilitate the development of predictive models to identify factors contributing to successful harvests.
4. **Multi-species Farm Support**
   * The platform should accommodate farms with multiple fish species, allowing farmers to monitor and analyze data specific to each species independently.
5. **Cross-farm Insights**
   * For large customers managing multiple farms, Fishy Watch should offer capabilities to aggregate and analyze data across all farms.
   * The system should provide tools for comparative analysis and trend identification across different farm locations.
6. **Timely Alerting**
   * Alerts generated by Fishy Watch must be delivered promptly to farmers to provide sufficient time for proactive response.
   * Real-time monitoring and predictive analytics should be employed to ensure timely detection of critical events such as water quality degradation or impending adverse weather conditions.
7. **Continuous Improvement of Data**
   * Fishy Watch should support the integration of more advanced and powerful monitoring devices over time to enrich data collection.
   * The platform should be designed with scalability and flexibility to accommodate future advancements in technology and data gathering capabilities.

Taking into account the additional considerations provided, here are further business requirements for Fishy Watch:

1. **Cross-Device Accessibility**
   * The Fishy Watch platform must be accessible from a variety of devices, including desktop computers, laptops, tablets, and smartphones.
   * Compatibility with rugged industrial devices commonly used on the sea during harvest operations should be ensured, allowing seamless access to the system from such devices.
2. **Offline Data Capture**
   * Given that fish farms are often in remote locations with poor cellular signal, Fishy Watch should support offline data capture capabilities.
   * The system should allow data to be collected locally on devices even when offline and synchronize automatically with the central server once connectivity is restored.
3. **Data Transmission Mechanism**
   * Define a robust mechanism for transmitting data from hardware devices capturing water information and detecting fish behavior to the Fishy Watch system.
   * This mechanism should ensure secure and reliable transmission of data, considering potential challenges such as intermittent connectivity and varying network conditions.
4. **Expansion to Other Livestock**
   * Considering Livestock Insights Inc.'s plan to expand capabilities to cattle, Fishy Watch should be designed to accommodate diverse livestock types beyond fish.
   * The system architecture should be flexible and scalable to support the integration of new livestock monitoring functionalities seamlessly.
5. **Aquarium Application**
   * Extend the usability of Fishy Watch to cater to the needs of aquarium owners and managers for monitoring fish health.
   * Provide customization options within the system to adapt to the specific requirements and setups of aquarium environments.
6. **Compliance and Regulation**
   * Ensure compliance with relevant regulations and standards governing the monitoring and management of livestock health and environmental parameters.
   * Address any specific regulations related to fish farming, cattle management, and aquarium operations in different regions or jurisdictions where Fishy Watch is deployed.
7. **User Training and Support**
   * Offer comprehensive training and support resources to users across different industries, including fish farmers, cattle ranchers, and aquarium operators.
   * Provide documentation, tutorials, and assistance to ensure users can effectively utilize Fishy Watch for their specific livestock monitoring need