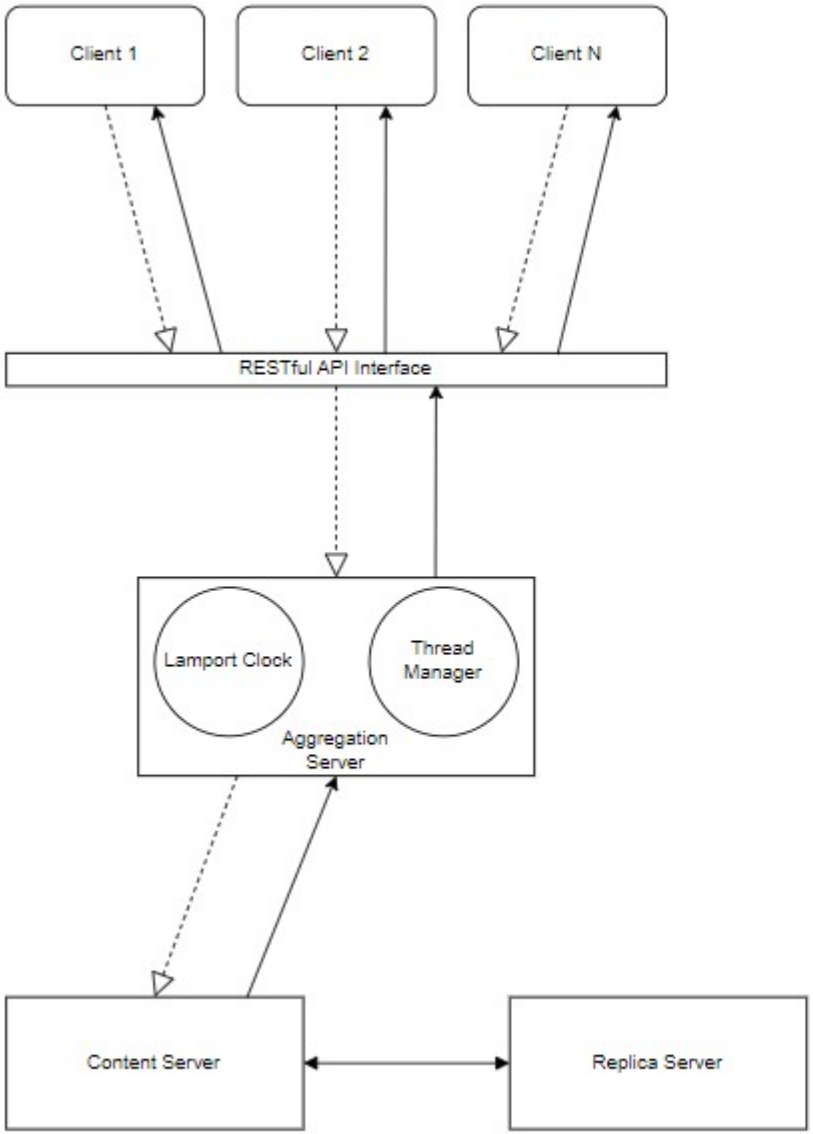

Component Details

1. **Client**:
    - Sends HTTP requests to the RESTful API.
    - Receives HTTP responses in JSON or XML format.
2. **RESTful API Interface**:
    - Exposes endpoints to clients and handles HTTP requests.
    - Passes requests to the Aggregation Server for processing.
    - Formats responses for clients.
3. **Aggregation Server**:
    - **Lamport Clock Manager**:
        - Maintains logical clocks for ordering events across distributed content servers.
        - Ensures that all operations are consistent across different servers, even in a distributed environment.
    - **Thread Manager**:
        - Manages multi-threaded processing of client requests.
        - Ensures thread safety, preventing race conditions and avoiding deadlocks during concurrent operations.
    - Aggregates data from content servers and processes it based on client requests.
4. **Content Server**:
    - Stores and manages raw weather data.
    - Responds to queries from the Aggregation Server.
    - Uses Lamport clocks to maintain consistency in a distributed system.

Interaction Flow with Lamport Clock and Thread Manager

1. **Client Request**:
    - Clients send requests to the RESTful API, which forwards them to the Aggregation Server.
2. **Thread Management**:
    - The Thread Manager handles the incoming requests, ensuring they are processed concurrently without conflicts.
3. **Lamport Clock Management**:
    - The Lamport Clock Manager assigns logical timestamps to operations, ensuring that they are executed in the correct order across all content servers.
4. **Data Aggregation**:
    - The Aggregation Server collects and aggregates data from content servers, using the Lamport Clock Manager to maintain consistency.
    - The Aggregation Server queries multiple content from replica server in case content server not available.
5. **Response**:
    - The aggregated and consistent data is sent back to the client via the RESTful API.