Department of Computer Science

COS 301 - Software Engineering

Not Like This
Functional Requirements

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Software Requirements Specification and Technology Neutral Process Design

Network Visualizations interface for large scale networks/Main Project

Version: Version 1.0 Beta For further references see gitHub. May 26, 2016

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2 Vision

3 Background

4 Architecture Requirements

4.1 Access Channel Requirements

Only registered members of Amazon's EC2 will be allowed to use the visualizer, as it will be integrated into EC2. Clients will be able to use any device(s) that can make use of Chrome, Firefox and/or Internet explorer. The browsers will not need any additional plugins to use the visualizer.

4.2 Quality Requirements

1. The system should show the following performance characteristics:
    - It should cater for large and small customers. (The customer's size is in terms of the number of networks[VPCs] and network interfaces)
    - The visualization should render all displays in under 10 seconds.
    - The visualization should render all displays in under 10 seconds.
    - The site should load and allow customer interaction within 3 seconds on a local network.
    - The project should work within normal EC2 API throttling limits.
    - The web page component should require no more computing resources than can be provided without noticeable slow down on a low end consumer laptop.
2. The system should use secure authentication supported by the EC2 API's and follow best practices

4.3 Integration Requirements

4.4 Architecture Constraints

5 Functional requirements and Application Design

5.1 Use case prioritization

5.2 Use case/Services contracts

5.3 Required functionality

5.4 Process specifications

5.5 Domain Model

6 Software Architecture

6.1 Architecture requirements

Architectural scope

Quality requirements

Integration and access channel requirements

Architectural constraints

6.2 Architectural patterns or styles

6.3 Architectural tactics or strategies

6.4 Use of reference architectures and frameworks

6.5 Access and integration channels

6.6 Technologies

7 Open issues

- The client has yet to mention specific details on how they intend to expand on the base project.