**Quality Attributes**

**Performance**

* **Scalability –** Under all conditions adding additional hardware units (“Deployment units) will enable linear growth in system capacity.
* **peak load behavior/** **latency** **–** 
  + Under full capacity (30 concurrent calls, of with 10 concurrent matches) a deployment unit will handle matches in up to 1 seconds (0.5 on the average case for good quality video
  + Under extreme conditions a deployment unit will be able to handle 20% more load (vs the previous scenario). Additional load will result in no more than 20% drop in latency
* **data loss**
  + Under normal condition the sytem will not lose more than 1% of statistical data
  + Under all conditions the system will not lose more than 0.005% of billing related data

**Efficiency**

Under low system load the average match time should be better than the full capacity processing times

**Availability/Resilience**

* **planned downtime** – Under normal condition planned downtime (e.g. maintenance) will leave the system in no less than 90% of overall capacity.
* **unplanned downtime** –
  + Under normal conditions, a failure in a single component will not result in call termination.
  + Under normal conditions, a failure of a single server will not result in more than loss of the calls currently going through that server.
* **Time to repair** (including time to detect) –
  + Under normal conditions, the system will detect a failure in a component in less than 5 sec.
* **deployment –** 
  + Under normal conditions, deploying a new version will l be done by xcopy.
  + Under all conditions, deploying a new version will still keep the binaries of the previous version.
  + Upon a failure of a new version, rolling back to the previous version will take less than 5 minutes.
  + Under normal conditions, the system will not require manual configuration to work.

**Extensibility / Evolution**

* **testability**
  + During development, components will utilize standard protocols (http, SIP etc.) as much as possible
  + During development, each component will be built with an API interface for testing and statistics needs
  + On an operational system, access to test and statistics interfaces will be restricted to privileged users.
* **Effort to change – Data**
  + Under normal conditions, refreshing the system’s data (links, interactions etc.) shall not require a system restart.
  + Under normal conditions, full deployment of new system data shall not take more than 5 minutes.
* **Effort to change – Deployment**

Under normal conditions, adding a server for scaling purposes should take no longer than 4 hours (including installation, configuration, etc.)

* **Adaptability/ changability (add/remove feature)**
  + During development and operations, a change in a component will only affect the direct components (for development and production)
  + Once in production, a change in an interface will be compatible at least one version back

**Accessibility**

* **localization/internationalization**
  + Under all conditions, adding a new language (that uses Latin alphabet) will be done in configuration only (administration interface will support English language only)

**Business Aspects**

* **time to market** – 5 months
* costs - The cost of a deployment unit shall not exceed 1K$

**Security**

* Spoofing identity
* Tampering with data
* Repudiation
* Information disclosure
* Denial of service
* Elevation of privilege