**Firefox OS Offline Javascript API Design Specification**

Sponsor:

Dietrich Ayala

Development Team:

Scott Anecito

Brianna Buckner

Casey English

Bin Gao

Tim Huynh

Nathan Kerr

Sean Mahan

Ryan Niebur

Last Updated: November 17, 2014

Table of Contents

[1    Introduction 3](#_Toc404021403)

[2    Design Overview 3](#_Toc404021404)

[3    Scope of Work 3](#_Toc404021405)

[4    System Design 4](#_Toc404021406)

[5    Detailed Design 4](#_Toc404021407)

[6    Interface Design 5](#_Toc404021408)

[7    User Interface Design 5](#_Toc404021409)

[8    Non-Functional Requirements 5](#_Toc404021410)

[9    Testing 5](#_Toc404021411)

[10    Deliverables 6](#_Toc404021412)

[11    Appendices 6](#_Toc404021413)

1    Introduction  
1.1    Purpose of this document  
1.2    Document Overview  
1.3    Identification  
1.4    Scope  
1.5    Relationship to Other Plans  
1.6    References  
1.7    Methodology, Tools, and Techniques  
1.8    Policies, Directives and Procedures  
1.9    Key Stakeholders  
1.10    Points of Contact

2    Design Overview  
2.1    Background Information  
2.2    System Evolution Description  
2.3    Technology Forecast  
2.4    Application Overview  
2.5    Current Process  
2.6    Proposed Process  
2.7    Business Context  
2.8    Constraints  
2.9    Risks  
2.10    Issues  
2.11    Assumptions  
2.12    Dependencies

3    Scope of Work  
3.1    System-wide design decisions  
3.2    System Functions  
3.3    Similar System Information  
3.4    User Characteristics  
3.5    User Problem Statement  
3.6    User Objectives  
3.7    Performance Requirements  
3.8    Security Requirements  
3.9    Hardware Interfaces  
3.10    Communications Interfaces  
3.11    Software Interfaces  
3.12    Design Constraints  
3.13    Data Dictionary  
3.14    Data Analysis  
3.15    Output Specifications  
3.16    Decision Tables  
3.17    Logical Database Model  
3.18    Data Conversion  
3.19    Value Definitions  
3.20    External System Dependencies  
3.21    Data Validation  
3.22    Data Migration and Transformation

4    System Design  
4.1    System Architecture  
4.2    Modules and Interaction  
4.3    Data Design  
4.4    Internal Data Structure  
4.5    Global Data Structure  
4.6    Temporary Data Structure  
4.7    Database description  
4.8    Object-Oriented Design  
4.8.1    Object Decomposition  
4.8.2    Method Decomposition  
4.9    Procedural Approach

5    Detailed Design  
5.1    System Structure  
5.1.1    Architecture diagram  
5.1.2    Alternatives  
5.2    Description for Component n  
5.2.1    Processing narrative for component n  
5.2.2    Component n interface description  
5.2.3    Component n processing detail  
5.3    Software Interface Description  
5.3.1    External Machine Interfaces  
5.3.2    External System Interfaces  
5.3.3    User Interface  
5.4    [Module X]  
5.4.1    Data Model  
5.4.2    User Interfaces and Functionality

6    Interface Design  
6.1    Interface Description

7    User Interface Design  
7.1    User interface  
7.1.1    Screen images  
7.1.2    Objects and actions  
7.1.3    Interface design rules  
7.2    Components available  
7.3    User Interface Development Description

8    Non-Functional Requirements  
8.1    Performance  
8.2    Security  
8.3    Licenses  
8.4    Language  
8.5    Others

9    Testing  
9.1    Test Plan Objectives  
9.2    Test Strategy  
9.3    System Test  
9.4    Performance Test  
9.5    Security Test  
9.6    Automated Test  
9.7    Stress and Volume Test  
9.8    Recovery Test  
9.9    Documentation Test  
9.10    Beta Test  
9.11    User Acceptance Test  
9.12    Environment Requirements  
9.12.1    Data Entry workstations  
9.12.2    MainFrame  
9.13    Test Schedule  
9.14    Control Procedures  
9.14.1    Reviews  
9.14.2    Bug Review meetings  
9.14.3    Change Request  
9.14.4    Defect Reporting  
9.15    Testing Functions  
9.16    Resources and Responsibilities

10    Deliverables  
10.1    Schedule  
10.2    Suspension / Exit Criteria  
10.3    Resumption Criteria  
10.4    Dependencies  
10.4.1    Personnel Dependencies  
10.4.2    Software Dependencies  
10.4.3    Hardware Dependencies  
10.5    Test Data  
10.6    Risks  
10.6.1    Schedule  
10.6.2    Technical  
10.6.3    Management  
10.6.4    Personnel  
10.6.5    Requirements  
10.7    Documentation  
10.8    Approvals

11    Appendices  
11.1    Requirements Traceability Matrix  
11.2    Packaging and Installation  
11.3    Design Metrics  
11.4    Glossary of Terms