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# **Feasibility Study and Project Plan**

**for**

## **MyExperiment: A Web-based Model Repository for Network Experimentation**

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# Abstract

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# **1 Introduction**

## **1.1 Problem Definition**

The goal of the MyExperiment project is to develop a web-based solution that allows network researchers and experimenters to create, view, modify and manage network models (including network topologies, network traffic, and network configurations), which they use to conduct simulation and emulation experiments for validating design and evaluating performance. The target system will offer an "online store" for users to create various models using existing model generators, as well as configure, inspect and visualize them. The created models can be saved in the online repository for private or public use. MyExperiment will become a common platform for network researchers to store, share and reuse models for network experimentation.

## **1.2 Background**

## **1.3 Definition, Acronyms, and Abbreviations**

## **1.4 Overview of document**

## 2 Feasibility Study

2.1 Description of Current System

2.2 Purpose of New System

2.3 High-level Definition of User Requirements

2.4 Alternative Solutions

2.4.1 Description of Alternatives

2.4.2 Selection Criteria

2.4.3 Analysis of Alternatives

2.5 Recommendations

# 3 Project Plan

## 3.1 Project Organization

### 3.1.1 Project Personnel Organization

### 3.1.2 Hardware and Software Resources

## 3.2 Identification of Tasks, Milestones, and Deliverables

Sprint 1 Sprint Planning ; Feasibility Study ; Initial meeting High-level requirements Investigate alternatives Evaluate alternatives Project Plan ; Work breakdown Time estimation Resource determination Mockups ; Design elements Overall layout Content elements Testing Fixes Deployment/Approval ;

Sprint 2 Sprint Planning ; Design Document ; Infrastructure ; Decide on infrastructure Begin infrastructure setup Revision control User Entry ; Client-side authentication Server-side authentication Single-sign on Session management Administrative Page ; CRUD operations for user CRUD operations for experiments Dashboard ; Header Experiments view Activity view New experiment Statistics Footer Testing Fixes Deployment/Approval ;

Sprint 3 Sprint Planning ; Experiment ; CRUD View Drag & drop topology Topology generators Share Export Info Statistics User Entry UI ; Aesthetics Refined layout Administrative Page UI ; Aesthetics Refined layout Dashboard UI ; Aesthetics Refined layout Testing Fixes Deployment/Approval ;

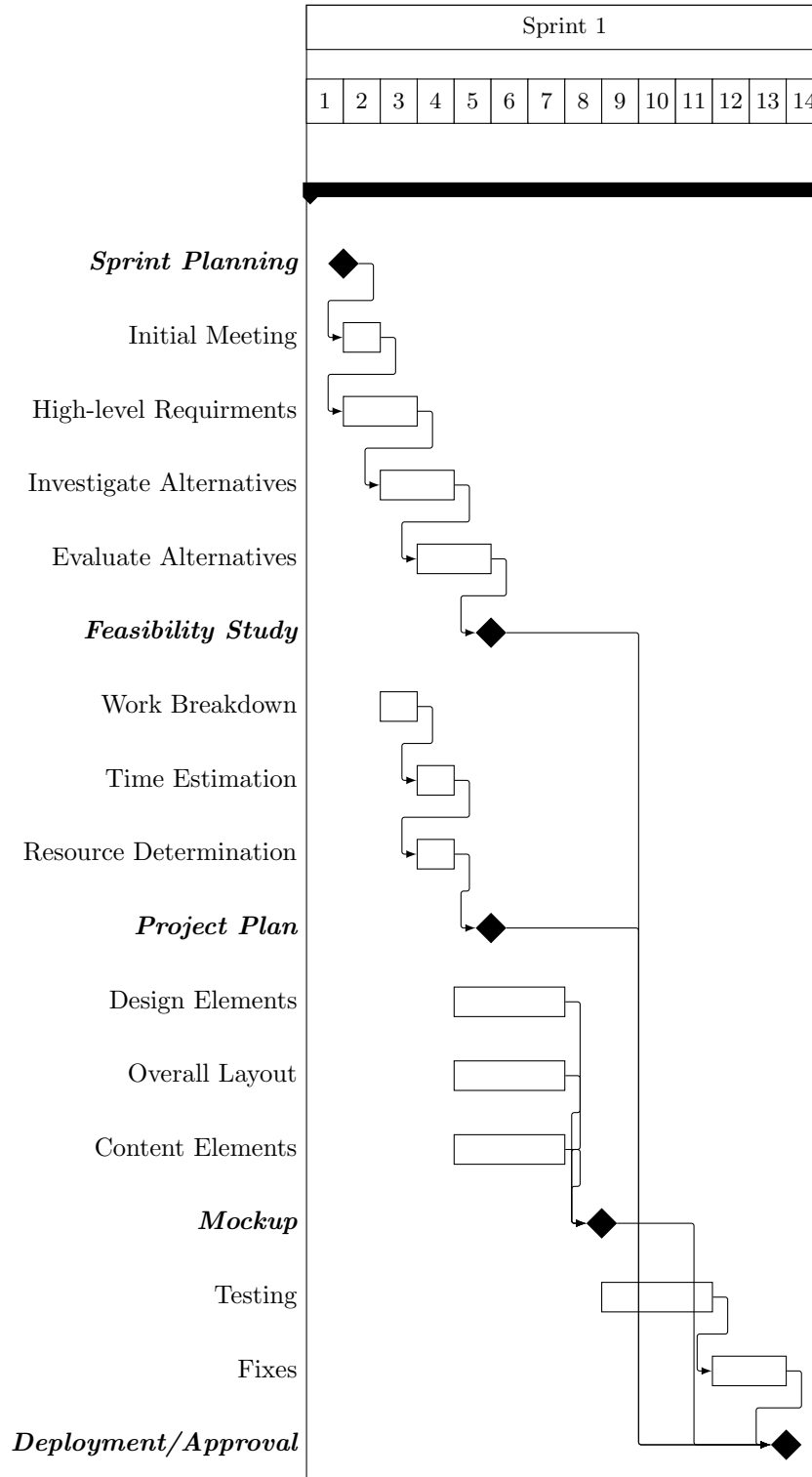
Sprint 4 Sprint Planning ; Activity ; Recent History Sharing Dashboard Integration ; Live experiment view Live activity view Experiments UI ; Aesthetics Refined layout Activity UI ; Aesthetics Refined layout Testing Fixes Deployment/Approval ;

Sprint 5 Sprint Planning ; Mobile View ; Limit features Proper scaling Testbed Input Generation ; XML export XML sharing Input export Input sharing Testing Fixes Deployment/Approval ;

Sprint 6 Sprint Planning ; Final Document ; Poster ; Security ; Platform as a Service ; Testing Fixes Final Testing Deployment/Approval ;

# 4 Appendix

## 4.1 Appendix A - Project Schedule





**4.2 Appendix B - Feasibility Matrix**

**4.3 Appendix C - Cost Matrix**

**4.4 Appendix D - Diary of Meetings**

## 5 References