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SOFTWARE TEST PLAN FOR BHUVAN WIKI

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National Remote Sensing Centre
Indian Space Research Organization
Hyderabad-500 037
October, 2019

Document Control Sheet

Document Control Sheet

1	Security Classification	Restricted			
2	Distribution	Internal to ISRO units			
3	Document (a) Issue:		(b) Revision:	0	
4	Report Type	Technical			
5	Report No		NRSC-DPPA&WA-G&WGS-BHUVAN OFF-Oct 2019-TR-000 1377-V.0		
6	Title	Software Test Plan for Bhuvan Wiki			
7	Collation	Pages 8	Figures 0	Tables 0	References 1
8	Project	BHUVAN			
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10	Affiliation of authors	NRSC			
11	Security Mechanism	Reviewed by Mr V Subramanian 25/10/19 GH, BPM Mr AVV Prasad 29/10/2019 GD, G &WGS	Approved & Controlled by Mr Vinod Bothale DD, DPPA & WAA		
12	Originating unit	NRSC / ISRO			
12	Sponsor(s) Name: Type:	Nil			
13	Date of Initiation	May, 2019			
14	Date of Publication	October, 2019			
	Abstract (with Keywords): The document covers details of software Test Plan document for Bhuvan wiki.				

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1. INTRODUCTION

Bhuvan is the Indian Geo-Platform of ISRO to create, visualize, share, and analyse Geospatial data products and services towards Spatial Mashups. Bhuvan currently hosts multi-temporal, multi-sensor and multi-resolution satellite imageries, thematic maps of 12 natural resources, 30 million Point of Interest data, 53 geo-physical products for downloads, 7200+ OGC Services and provides major services including Bhuvan 2D/3D, NRSC Open Data Archive, Thematic services, Disaster Services, Crowd Sourcing applications, Online mapping applications. There are around 120 applications developed in collaboration with states, central ministries, NGOs for utilizing Bhuvan as a platform for governance activities.

Bhuvan wiki is planned as assured applications in Enhanced Bhuvan services program document for publishing information and engaging Bhuvan users for sharing and contributing their knowledge to other users. Also, to organise Bhuvan knowledge like in Wikipedia. Bhuvan requires a highly-flexible system to give Bhuvan knowledge structure. Hence it is required to configure wiki software engine for Bhuvan. In this context, it is decided to explore the currently available open source wiki software for content structuring and online collaborating with user. On research, It is found that the Bluspice Mediawiki is known for collaborative knowledge management, as a knowledge base in user support and as an uncomplicated tool for documentation and handbooks..

Bluspice latest version (3.0.1) is installed in the windows local machine. After installation, software user interface is redesigned as per the Bhuvan requirements and required module extensions are also configured .Bhuvan Knowledge content is restructured from the old manuals and the available sources. After restructuring, content is published in the Bhuvan wiki as version 1; content may be further improved and updated

1.1 Scope

This document describes the test procedure to evaluate the usability of the website in terms of navigation, content, user interface and other non-functional requirements like performance and security.

The document will be followed for evaluating the software by testing and evolution committee.

1.2 References

Software Test Plan- template (IEEE 29119-3-2013)

1.3 Definitions, Acronyms &Abbreviations

NRSC- National Remote Sensing Centre

IEEE- Institute of Electrical and Electronics Engineers

GUI- Graphical User Interface

HTML-Hypertext Markup Language

CSS- Cascading Style Sheet

2. CONTEXT OF THE TESTING

2.1 Test Sub-process

Bhuvan wiki application URL- http://172.31.6.184/bhuvanwiki/index.php/Home

2.2 Test Item(s)

All the functionalities of Bhuvan wiki

2.3 Features/Extensions to be tested

- All the Features as per Software Case Test (STC) document for Bhuvan Wiki
- User Interface
  - Look and feel
  - Testing with different screen resolutions

- Testing the GUI on target devices: smartphones, desktop and tablets.
- Compatibility
  - Network Environments
  - Browser
  - Cross platforms
- Performance
  - Testing site behaviour at or beyond the limit of its anticipated workload (stress Testing)
  - Testing site behaviour at increase workload (Load Testing)
  - Testing the ability to work within or just above the acceptable period under variety of load conditions.(Stability Testing).
  - Page load /Site load testing
- Security
  - Ensure that the website is free from Vulnerabilities

2.4 Test Scope
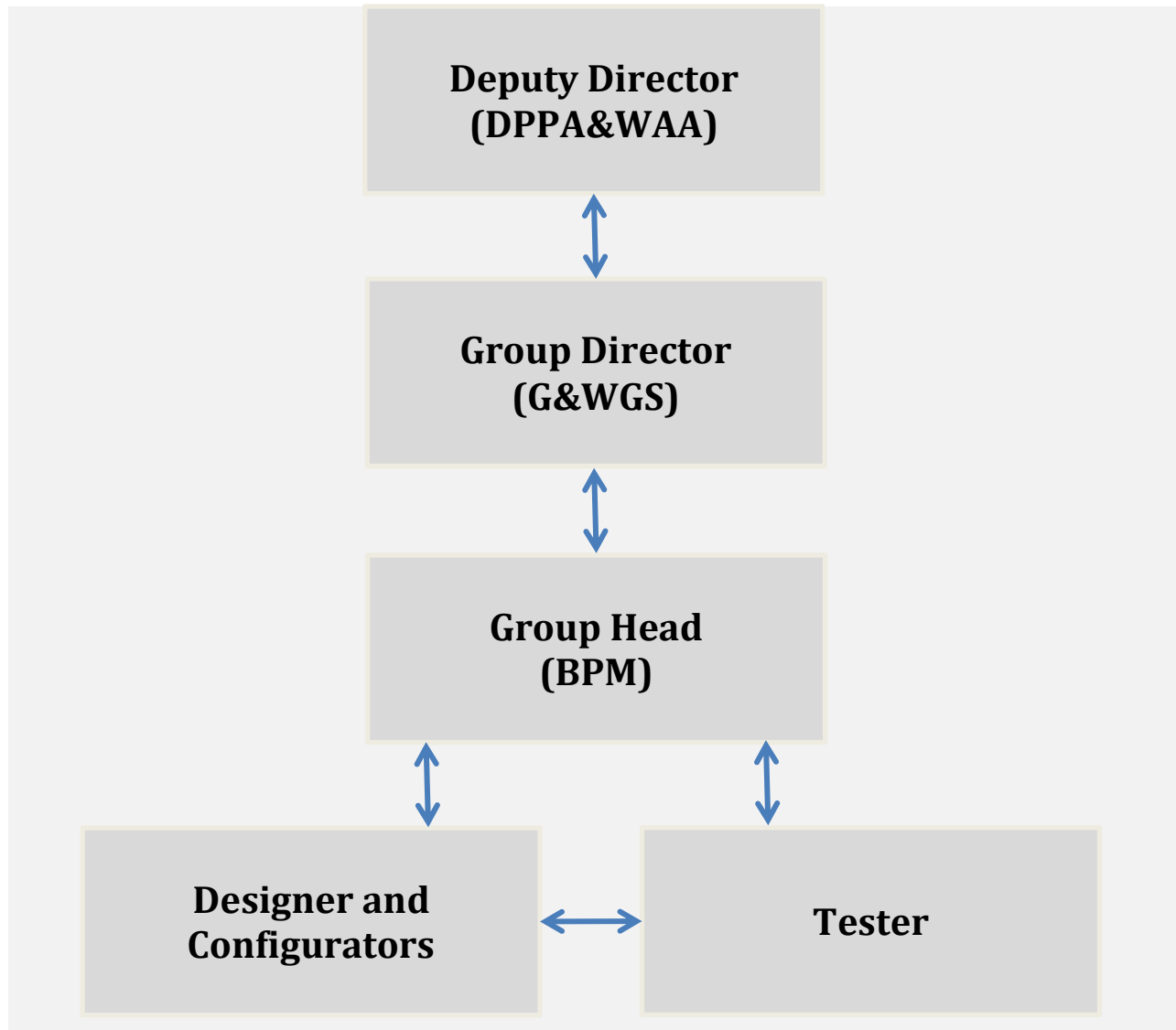Same as 2.3

2.5 Features not to be tested
NIL

2.6 Assumptions and constraints
Refer Software test Case Document

2.7 Stakeholders
Content Providers, Content Approving Authorities, network team, general users.

3. TESTING COMMUNICATION

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┌─────────────────────────────┐
│     Deputy Director         │
│       (DPPA&WAA)            │
└─────────────────────────────┘
              ↕
┌─────────────────────────────┐
│     Group Director          │
│       (G&WGS)               │
└─────────────────────────────┘
              ↕
┌─────────────────────────────┐
│      Group Head             │
│        (BPM)                │
└─────────────────────────────┘
       ↕               ↕
┌──────────────┐   ┌──────────────┐
│ Designer and │ ↔ │    Tester    │
│ Configurators│   │              │
└──────────────┘   └──────────────┘
```

4. TESTING RGISTER

4.1 Product Risk

Content/Articles to be reviewed/approved for implementation in the operational site.

5. TESTING STRATEGY

5.1 Test Sub-Process

The Different functionalities of Bhuvan wiki are to be tested one at a time as per the identified Test case.

5.2 Test Deliverables

- Test Observations
- Error reports

5.3 Test Design Techniques

- Black Box Testing
- Load testing
- Security Testing as per NRSC security Guideline

5.4 Test Completion Criteria

- Test compared with certain percentage passed and test coverage is a achieved.
- There are no known Critical bugs

5.5 Metrics to be collected

- No of Test cases Passed/failed
- No of errors
- Average response time

5.7 Test Environment Requirements

- Testing URL- http://172.31.6.184/bhuvanwiki/index.php/Home
- Different Browsers , Web server
- Software Test Plan And Test Cases (provided in separate documents)

6. STAFFING

T&E committee will test as per its document and provide observations for further improvement.

6.1 Design and configuration Team

- Shalu Soni
- V Subramainam
- Avv Prasad

6.2 Training needs

NA

7. Schedule

The testing of Bhuvan wiki is to be completed as per the deadline of testing and Evolution office order

Acknowledgement

I would like to express my sincere thanks and sense of gratitude to all those who have contributed greatly towards the implementation of Bhuvan wiki. I sincerely convey my gratitude to **Shri Santanu Chowdhury**, Director, NRSC for his acceptance and suggestions for Bhuvan wiki. I am also thankful to **Shri Vinod M Bothle**, DD, DPPA&WAA, **Shri AVV Prasad**, GD, G&WGS, **Shri V Subramanian**, GH, BPM, **Shri SS Rajshekar**, Head, BSN&QA and Mr **Nitin Mishra** for their continuous support and guidance. I thank all Bhuvan Team for their direct and indirect support for the implementing Bhuvan wiki.