

Test Analysis and Specification for Ubiquity

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Introduction and Objectives

The aim of this document is to serve as support for the analysis and specification of a comprehensive set of test cases for Ubiquity as well as documenting test coverage decisions.

This is the first formal analysis/specification created within the team so it will help us shape a format that works for what needs to be done and should be maintainable, concise and non-ambiguous.

Ubiquity is one of the installers available on Ubuntu and the aim of this document is making the test cases for the installer as comprehensive and easy to understand as possible. The end goal is to bring the end user experience to the next level when installing Ubuntu for the first time.

The installer should be seamless and reliable, especially in terms of protecting the data of the user in that particular machine. For this, we will mainly use functional testing, positive and negative, black box (it will be mainly UI driven testing). Once these goals are achieved, we will consider adding some performance testing or benchmarking, to make sure changes in the future don't make the installing process unnecessarily lengthy.

The test cases should be fully automated.

Scope

The tests are meant to drive an Ubuntu Desktop installation, positive and negative test cases will be performed in as much details as it is reasonable and feasible to run.

The test cases are being created for Oneiric Ocelot, but they will be relevant for as long as Ubiquity is one of the installers flavours for Ubuntu.

These test cases will ensure the boot loader works, as well as the kernel, the release needs to be able to partition a HD and coexist with other OS already installed. The package under test is Ubiquity, and ideally its integration with Ubuntu.

Maintainability

This test suite will be maintained beyond the scope of this release.

Dependencies

A HD bigger than 2TB is required to test the GPT installation.

Are there any hardware dependencies? Are there any library or installed software dependencies?

Exclusions

TBD

Test Analysis

Description of System Under Test

Ubiquity's design is documented in this [document](#).

Additional information can be found in <https://wiki.ubuntu.com/Ubiquity>

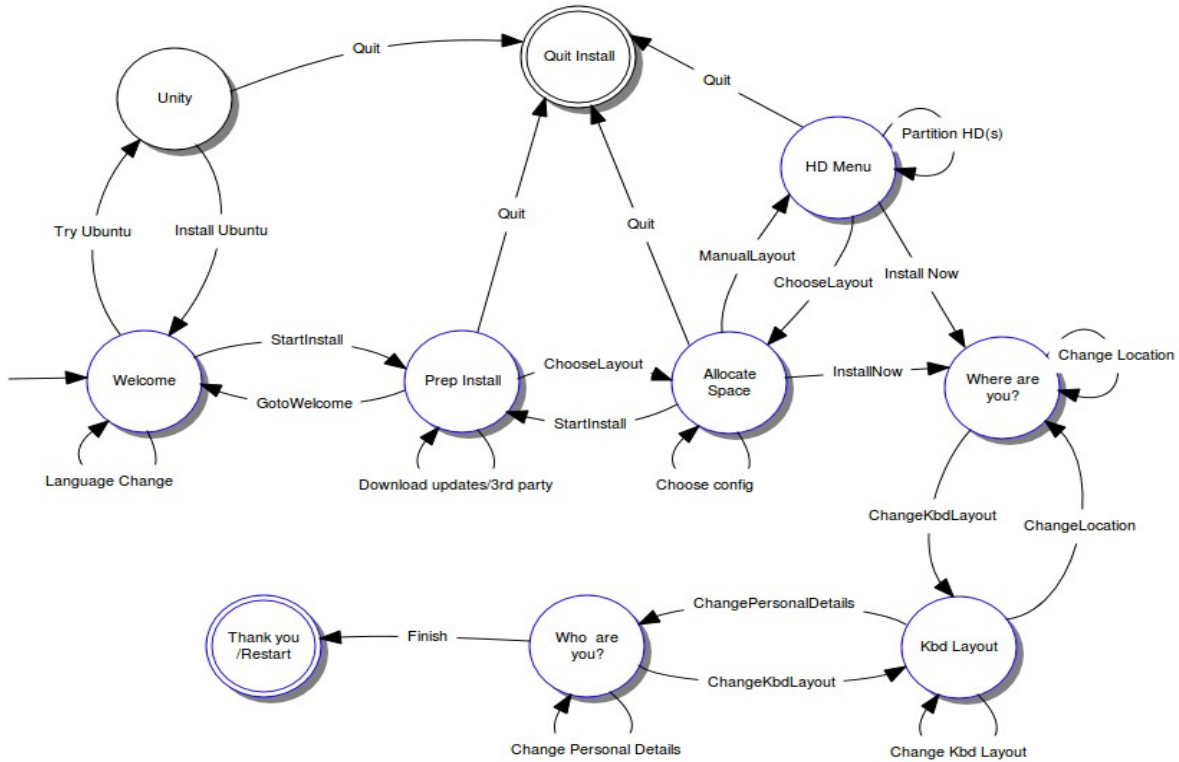
Test techniques

The test techniques that will be used are:

- ◆ [State Transition Diagram](#) for the different screen transitions, this technique will allow us to model the behaviour of the installer from beginning to end and split it in manageable chunks.
Test coverage All states and all events to be used at least once
- ◆ [Classification tree method](#) will be used together with Boundary Testing for the negative scenarios to come up with different HD/Memory configurations, so that as many configurations as possible are covered.
Test Coverage 84 test cases to be implemented out of 4032 possible ones, would give reasonable confidence on the different configurations tested. More combinations can be added if any bugs escape the initial set up.

State Transition Diagram for Ubiquity

The generic state machine that shows the usual Ubiquity work flow is:



The transition table is:

Events / States	Welcome	Unity	Prep Install	Allocate Space	HD Menu	Quit Install	Where are you?	Kbd Layout	Who are you?	Thank you/Restart
Change Kbd Layout	-	-	-	-	-	-	-	Kbd Layout	-	-
Change Location	-	-	-	-	-	-	Where are you?	-	-	-
Change Personal Details	-	-	-	-	-	-	-	-	Who are you?	-
ChangeKbdLayout	-	-	-	-	-	-	Kbd Layout	-	Kbd Layout	-
ChangeLocation	-	-	-	-	-	-	-	Where are you?	-	-
ChangePersonalDetails	-	-	-	-	-	-	-	Who are you?	-	-
Choose config	-	-	-	Allocate Space	-	-	-	-	-	-
ChooseLayout	-	-	Allocate Space	-	Allocate Space	-	-	-	-	-
Download updates/3rd party	-	-	Prep Install	-	-	-	-	-	-	-
Finish	-	-	-	-	-	-	-	-	-	Thank you/Restart
GotoWelcome	-	-	Welcome	-	-	-	-	-	-	-
Install Now	-	-	-	-	Where are you?	-	-	-	-	-
Install Ubuntu	-	Welcome	-	-	-	-	-	-	-	-
InstallNow	-	-	-	Where are you?	-	-	-	-	-	-
Language Change	Welcome	-	-	-	-	-	-	-	-	-
ManualLayout	-	-	-	HD Menu	-	-	-	-	-	-
Partition HD(s)	-	-	-	-	HD Menu	-	-	-	-	-
Quit	-	-	Quit Install	Quit Install	Quit Install	-	-	-	-	-
StartInstall	Prep Install	-	-	Prep Install	-	-	-	-	-	-
Try Ubuntu	Unity	-	-	-	-	-	-	-	-	-

The main execution path is marked by blue states. The coverage will be based on visiting each state at least once and exercising each event/transition at least once to start with.

Simple test cases have been identified to ensure the different states behave as expected and all the transitions are exercised on a simple install:

Test Case Id:	TC-Ubiquity-Localisation-1
Test Description:	Localisation of the installer works properly as well as "Trying Ubuntu" option and going back in the Installer (testing states and interactions between Welcome, Unity and Prep Install)
Assumptions:	None
Actions:	<ol style="list-style-type: none"> 1. Start an install without touching any key before the welcome screen. 2. Select Deutsch in the languages box 3. Click on Ubuntu ausprobieren 4. Click on Ubuntu 11.10 installieren 5. Click on Vor 6. Click on Zurück 7. Click on English 8. Click on the x to end installation 9. Click on Quit
Expected Results:	<ol style="list-style-type: none"> 1. The Welcome screen is displayed in English 2. The Welcome screen is displayed in German 3. Unity loads in less than X seconds (we should agree on timings that are reasonable/acceptable to be able to add these checks to our test cases) and shows all the menus in German 4. The Willkommen screen is displayed 5. Installation von Ubuntu wird vorbereitet screen appears with all the options in German. 6. The Willkommen screen is displayed 7. The Welcome screen is back to English 8. A dialog is displayed asking "Do you really want to quit the installation now?" 9. The machine switches off

TC-Ubiquity-Localisation-1 could be repeated with as many languages as required.

Notes:

- The different information messages on the "Prepare Install" state and the download of updates/3rd party software are to be tested as part of the classification tree test cases.
- The classification tree test cases are meant to cover all the possible transitions between "Allocate Space" and "HD Menu"

Test Case Id:	TC-Where-1
Test Description:	Change of location
Assumptions:	- The installation has been started normally, with enough space on disk for a seamless install up to the "Where are you?" screen.
Actions:	<ol style="list-style-type: none"> 1. Enter a non-existing place and hit enter and the forward button 2. Click back on the "Keyboard Layout" screen 3. Change the location to a remote place (Barbados Time) and click on the list item that will appear 4. Click on a known location on the map 5. Click on forward
Expected Results:	<ol style="list-style-type: none"> 1. The "keyboard Layout" screen appears 2. The "Where are you?" screen appears 3. Whilst writing the name a list of places appears that is selectable, once clicked on one of them the interactive map changes the timezone to that of the chosen place and shows the right time next to the new dot on the map 4. The timezone and time change to that of the location chosen 5. The Keyboard Layout screen appears

Since the aim of this testing is verifying that the installer works, rather than functionally validating all its logic, I have chosen three possible keyboard configurations as an example, if keyboard selection became a problem in any language, I think we can add those as we go along, rather than aiming at executing lots of test cases upfront that would give little value in return.

Test Case Id:	TC-Keyboard-1
Test Description:	Change of keyboard type
Assumptions:	- The installation has been started normally, with enough space on disk for a seamless install up to the "Where are you?" screen and TC-Where-1 has been executed correctly
Actions:	<ol style="list-style-type: none"> 1. Click on Tanzania keyboard layout 2. Click on USA 3. Click on detect keyboard layout 4. Send the key + 5. Send the key q 6. Send the key z 7. Click "No" 8. Click "No" 9. Click "No" 10. Click "No" 11. Click "Yes" 12. Click "Forward"
Expected Results:	<ol style="list-style-type: none"> 1. A list with only one item, "Tanzania" appears on the right box 2. A list with variants of the USA keyboard appear on the right box 3. A little window titled "Detect Keyboard Layout" appears, asking to press a key 4. The little window asks for a letter q next 5. The little window asks for a z or a symbol 6. The window asks whether the keyboard has an S with a little symbol underneath 7. The window asks whether the keyboard has an é 8. The window asks whether the keyboard has a ç 9. The window asks whether the keyboard has a Š 10. The window asks whether the keyboard has a £ 11. United Kingdom – United Kingdom Keyboard Layout are selected 12. The "Who are you" screen appears

Test Case Id:	TC-Who-1
Test Description:	Enter user credentials
Assumptions:	- The installation has been started normally, with enough space on disk for a seamless install up to the "Where are you?" screen and TC-Where-1 and TC-Keyboard-1 have been executed correctly
Actions:	<ol style="list-style-type: none"> 1. Your Name: "Bob", leave computer name and username as default 2. Choose a password: "hello" 3. Confirm your password: "h" 4. Finish typing "ello" in the confirm your password field
Expected Results:	<ol style="list-style-type: none"> 1. A green tick appears next to the name and computer's name and username are suggested. 2. A label stating that the password is too short appears next to the password 3. The Forward button is not click-able and there is no tick next to the confirmed password 4. A green tick appears next to the confirmed password

Test Case Id:	TC-Who-2
Test Description:	Enter user credentials
Assumptions:	- The installation has been started normally, with enough space on disk for a seamless install up to the "Where are you?" screen and TC-Where-1 and TC-Keyboard-1 and TC-Who-1 have been executed correctly
Actions:	<ol style="list-style-type: none">1. Your Name: "Alice"2. Change computer name to "wonderland"3. Change username to "whitebunny"4. Choose a password: "whitebunny123"5. Confirm your password: "whitebunny123"6. Change password to: "23/aliCe"
Expected Results:	<ol style="list-style-type: none">1. A green tick appears next to the name2. A green tick appears next to the computer name3. A green tick appears next to the username4. A label stating that the password is weak appears next to the password5. A green tick appears next to the confirmed password6. A label stating "Good password" appears next to the password and "Passwords do not match" appears next to "Confirm your password"

Classification Tree for HD and Memory configurations

The different memory conditions worth considering are:

- ✓ Smaller than minimum mem requirements (383 MB): Ubuntu won't install and will fail gracefully
- ✓ On the limit (384 MB): Ubuntu will install without problems
- ✓ Bigger than the limit (2 GB): Ubuntu will install without problems

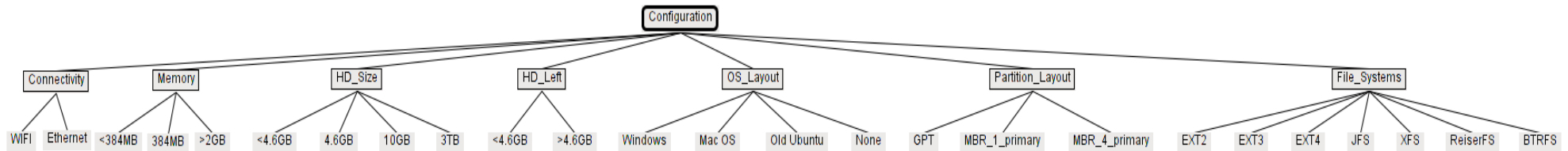
- ✓ The different HD conditions worth considering are:

- ✓ Oneiric with no other OS:
 - ✓ Smaller than 3GB HD – the installation will fail
 - ✓ 3GB HD – the installation will work well
 - ✓ 20 GB HD - the installation will work well
- ✓ Oneiric installing alongside ther OS:
 - ✓ Less than 3 GB free disk left – The partitioning of HD will fail, leaving the other OS untouched
 - ✓ 3 GB or more left – The partitioning will work and Ubuntu will install leaving the other OS still functional (to verify this reliably and grub's installation we should have a different OS in the other partition, grub will need to be configured to boot the other OS on next boot)

Other conditions that are being taken into account:

- ✓ Connectivity:
 - ✓ Wifi
 - ✓ Ethernet
- ✓ Other OS layout
 - ✓ Fresh install (HD is empty)
 - ✓ Mac OS
 - ✓ Old Ubuntu
 - ✓ Windows
- ✓ Partitions layout
 - ✓ GPT
 - ✓ MBR (1 and 4 primary partitions)
- ✓ Different file systems
 - ✓ EXT2
 - ✓ EXT3
 - ✓ EXT4
 - ✓ JFS
 - ✓ ReiserFS
 - ✓ XFS
 - ✓ BTRFS
 - ✓ Any other?

The resulting tree is:



Coverage analysis

Option 1

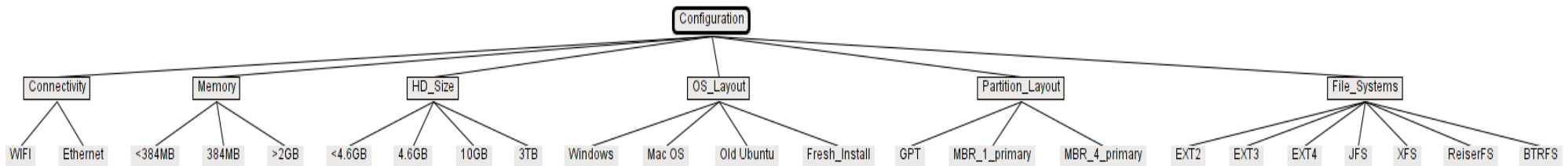
Full coverage with this tree is calculated following this logical rule: $\text{Connectivity} * \text{Memory} * \text{HD_Size} * \text{HD_Left} * \text{OS_Layout} * \text{Partition_Layout} * \text{File_Systems}$.

Total number of test cases: 4032.

Option 2

HD_Size and HD_Left both cover the same conditions despite of implying different configurations, so I can be assumed that with a HD of less than 4.6GB of size the coverage is the same as with a HD that has another system installed that only leaves 4.6 GB of free space. Based on this, the HD_Left condition has been removed. In this case, only 2016 test cases are required.

This is the resulting tree:



Considering the most important conditions being Memory configuration and HD_Size, as well as ensuring all the File Systems work.

In this case, the generation rule would be: $(\text{Connectivity} + \text{OS_Layout} + \text{Partition_Layout}) * \text{Memory} * \text{HD_Size} * \text{File_Systems}$

The number of test cases required in this case would be: 339, which feels a reasonable number of test cases for Ubiquity.

Option 3

Another option would be to consider File_Systems not as important as Memory and HD_size and then the number of test cases becomes much more manageable: $(\text{Connectivity} + \text{OS_Layout} + \text{Partition_Layout} + \text{File_Systems}) * \text{Memory} * \text{HD_Size}$

The number of test cases in this case is 84.

The 84 test cases identified are full installations with the following configurations (test cases to be written once they are agreed to be good and fully trimmed):

Test case	Configuration
TC-Config-1	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 3TB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-2	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-3	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 10GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_1_primary - File_System: EXT3
TC-Config-4	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: JFS
TC-Config-5	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: JFS
TC-Config-6	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: GPT - File_System: ReiserFS
TC-Config-7	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: GPT - File_System: BTRFS
TC-Config-8	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 3TB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-9	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: EXT4

TC-Config-10	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: EXT2
TC-Config-11	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: BTRFS
TC-Config-12	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-13	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT2
TC-Config-14	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-15	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 3TB - OS_Layout: Mac OS - Partition_layout: GPT - File_System: ReiserFS
TC-Config-16	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: BTRFS
TC-Config-17	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 10GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: XFS
TC-Config-18	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-19	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: EXT3

TC-Config-20	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-21	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 10GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: EXT2
TC-Config-22	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT3
TC-Config-23	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 3TB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: ReiserFS
TC-Config-24	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: EXT2
TC-Config-25	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: GPT - File_System: XFS
TC-Config-26	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: ReiserFS
TC-Config-27	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 3TB - OS_Layout: Mac OS - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-28	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: EXT3
TC-Config-29	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: BTRFS

TC-Config-30	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 3TB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: EXT4
TC-Config-31	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT4
TC-Config-32	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Mac OS - Partition_layout: GPT - File_System: EXT2
TC-Config-33	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Windows - Partition_layout: GPT - File_System: ReiserFS
TC-Config-34	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: ReiserFS
TC-Config-35	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: BTRFS
TC-Config-36	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: BTRFS
TC-Config-37	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-38	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 3TB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: EXT3
TC-Config-39	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 10GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: ReiserFS

TC-Config-40	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: JFS
TC-Config-41	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 3TB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_1_primary - File_System: EXT3
TC-Config-42	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-43	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: BTRFS
TC-Config-44	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 3TB - OS_Layout: Mac OS - Partition_layout: GPT - File_System: EXT2
TC-Config-45	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 10GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: JFS
TC-Config-46	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-47	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 10GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT2
TC-Config-48	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: EXT4
TC-Config-49	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: EXT3

TC-Config-50	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-51	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: EXT2
TC-Config-52	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: EXT4
TC-Config-53	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: GPT - File_System: XFS
TC-Config-54	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 3TB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: BTRFS
TC-Config-55	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT3
TC-Config-56	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: ReiserFS
TC-Config-57	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-58	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: BTRFS
TC-Config-59	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: EXT3

TC-Config-60	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 10GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-61	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: EXT3
TC-Config-62	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Mac OS - Partition_layout: MBR_1_primary - File_System: EXT2
TC-Config-63	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 10GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-64	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: ReiserFS
TC-Config-65	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_4_primary - File_System: JFS
TC-Config-66	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: BTRFS
TC-Config-67	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 3TB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: EXT2
TC-Config-68	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-69	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_1_primary - File_System: EXT3

TC-Config-70	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: BTRFS
TC-Config-71	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: EXT4
TC-Config-72	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: 3TB - OS_Layout: Only current - Partition_layout: MBR_4_primary - File_System: XFS
TC-Config-73	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: ReiserFS
TC-Config-74	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-75	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 4.6GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: EXT2
TC-Config-76	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: <4.6GB - OS_Layout: Only current - Partition_layout: MBR_1_primary - File_System: EXT4
TC-Config-77	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 10GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: JFS
TC-Config-78	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: <384MB - HD_size: 3TB - OS_Layout: Windows - Partition_layout: MBR_1_primary - File_System: ReiserFS
TC-Config-79	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: 10GB - OS_Layout: Mac OS - Partition_layout: MBR_4_primary - File_System: EXT2

TC-Config-80	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 10GB - OS_Layout: Windows - Partition_layout: MBR_4_primary - File_System: ReiserFS
TC-Config-81	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: 384MB - HD_size: 4.6GB - OS_Layout: Only current - Partition_layout: GPT - File_System: EXT3
TC-Config-82	<ul style="list-style-type: none"> - Connectivity: Wifi - Memory: >2GB - HD_size: 3TB - OS_Layout: Ubuntu ver-1 - Partition_layout: MBR_1_primary - File_System: JFS
TC-Config-83	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: <384MB - HD_size: 3TB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: XFS
TC-Config-84	<ul style="list-style-type: none"> - Connectivity: Eth - Memory: >2GB - HD_size: <4.6GB - OS_Layout: Ubuntu ver-1 - Partition_layout: GPT - File_System: BTRFS

Feature Pass/Fail Criteria

To be updated when performance/benchmarking testing is added to this test suite.

Tools

A combination of tools will be required to automate this testing. Several prepared HD configurations will be required, they'll have to be copied and used for the different scenarios chosen, their layout will be clearly described in each test case. Test cases generated from the state transition diagram will be combined with the different HD configurations to maximize the coverage minimizing the execution time.