# "Xoreax" Incredibuild For Linux Release notes

version: v9.6.0

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Reference		
Document Name	Version	Description
https://github.com/dimakuzminov/incredibuild_de ployment/blob/master/Documentation/Extending _IncrediBuild_Work_Planning_v1.6.xls	V1.6	Tasks description

# **Table of Contents**

Introduction		4
Package information		
Changes from 6.4.1		
Scope	•••••	6
Changes from version 6.4.1	, <b></b>	6
Tests		8
Test Coordinator GUI		8
Test – 0001 Test HelperMachine references counter	8	
Test HelperMachines distribution		8
Test – 0001 Every initiator should receive its local HelperMachine	8	
Test Fixed issues	•••••	9
ATP 03-03-004: Launch XgConsole, number of requested cores is greater than 0	9	
ATP 07-04-005: Stop HelperMachine while building	9	
ATP 02-02-003: Uninstall GridServer	9	
ATP 07-01-003: Install incredibuild on HelperMachine with unknown DNS name	9	
ATP 07-02-004: Uninstall incredibuild on HelperMachine first time	9	
Comparison table		.10
APPENDIX A	•••••	.12
PACKAGE UPDATE		.12
First time installation		.12
Install coordinator machine in domain	12	
Install build machine in domain	12	

## Introduction

The goal of this document is to provide clear status for planned work, developed features and expose issues found during internal QA tests

## Package information

- Package created by automatic "GNU Make" system and propriety build configuration
- Package as binary code is located on https://github.com/dimakuzminov/incredibuild\_deployment.git
- Package structure
  - bin/ all Incredibuild binary applications
  - web/ Monitor scripts, sources and libraries
  - etc/ system scripts that are used on "Helper" and "Initiator" machines
  - usr/ system files for "Helper" and "Initiator" machines
  - Documentation/ all relevant Documents for this project (including this document)
  - grid\_server\_domain.conf.[domain\_group\_name] this file list DNS of computers in grid domain (it is manually defined files). For more information please read "Linux Incredibuild deployment Instructions v1.0.doc"
  - linux.pem ssh access internal key (defined by amazon site, but used in all our test systems)
  - "prepare\_incredibuild\_machine.sh" script that install all relevant packages on helper/initiator machines. For more information please read
     "Linux Incredibuild deployment Instructions v1.1.doc"
  - "prepare\_coordinator\_machine.sh" script that install all relevant packages on coordinator machine. For more information please read "Linux\_Incredibuild\_deployment\_Instructions\_v1.1.doc"
  - 3rd side/ all scripts to install 3rd side applications for grid computation
  - obsolete/ all scripts that were previously supported, some need to be removed and some need to be updated
- How to Install [APPENDIX A]

## **Changes from 7.1**

## Bug fixes

- WEB GUI: Build monitor, builds history is not sorted
- WEB GUI: Page doesn't identify service disconnection

### Changes in Coordinator GUI

- reformat table lookup
- add CPU load
- add CPU frequency
- add Memory format
- counter for same machine multi-usage

## Changes in connectivity between all machine

- · replace mDNS avahi with propriety distribution service
- register each machine by UUID of motherboard
- send to other machine its address by analyzing TCP connection details
  - the issue is, what happens if machine has more than one network card
  - so we identify through each interface connection was done, and sending back interface IP address

## Changes in deployment scripts

- CentOS was broken due to web link deletion
- put all critical web packages to our repository (save rpm packages)
- CentOS rewrite ssh security mechanism to support correctly SeLinux
- Fix bugs related to share code between Ubuntu and CentOS

#### Critical bug fixes

- Connectivity using IP address and UUID
- Coordinator quering engine CPU load (changing engine)

#### Importan features

- change virtualization to support different type of OS
  - Ubuntu is working right now with CentOS (using double virtualization)

## **Scope**

## Changes from version 7.1

commit e56e06bc1104832455fff72011eb29ba80c4e950 Merge branches 'master' and 'connectivity'

commit 5784fb3e46f44cf75129023195f0ba36d3698ae5 Fix warning

commit 5789d33e808e8fe1779c3c991eb5615482dee9fd

Fix CPU load calculation between multiple machines, fix web GUI for coordinator: identify service is down add GUI for live clock

commit 64677756fc584f59166a624bbab01bbadcdbf798 Fix CentOS security, remove sudo

commit 52deaa91c51f1bd4b6e773103f5dddbeaac60812 Fix interesting issue related to chroot to different OS

commit 731e387e9221c752749dcbda376d6423d7701cb0 Screening special symbols in coordinator json report

commit db58141fee7dce3b3f4a70e5da5682c7f3622079 Fix keep alive mechanism in coordinator

commit 22f20e2a4ec530f3b3c9c15d8d64a9d70d35c521 Fix web build presentation

commit 8d7a65be5c7e662fea7679cd01f8b603242c5866 Fix CPU load calculation

commit 9db6290cd9902745de4064a0f2f2ff9f6cbf1488

- 1. Add GUI for coordinator
- 2. Fix wrong machine query process (resolve machine CPU load, by coordinator)

#### 3. Fix reconnection of machine to coordinator

commit e57e1f8d4914e853b64e897a122bb92750db3157 Merge connectivity branch with irina changes

commit 187fa7dfaf963a7727880c3dbd7d49c5f6f5018d Fixed Coordinator commands: CPULoad and CPUFreq

commit bab23e51f189184d708619e17820fb8767cd10cf add filter for git

commit c7cf040ea6f67f1904738bae71f5e61b3f66c0f4 Fix logical error

commit 5c1dd6134250b5835c381da5ebc10ac8198356c3

Add service to announce to coordinator that helper machine is ready

commit 1b035bbf0e5322ae2e31d23ce1af73e09931e5e8

Merge branches 'connectivity' and 'irina' into connectivity

commit 6482e165263e31fb92ad2e4007a12dfe0ed127cb

Configuration file only reads uuid, machines will be up only on connect me request

commit 9f11d004677092ac56730e8f3271b13c0a11208c

Redesign connectivity, enable connect me on fly, need to add service on helper machine to connect and rewrite start point of coordinator

commit f8a61510a86741a2036826e1c66952769be057cd Fixed bug in parameters parsing

commit 92de39035806dcb79a0a5f65e593e99b12c47d7d Merge branches 'master' and 'irina'

## deployment

commit 8ec41fd22f90cb54dd40546dca3b84eec0283d95 Fixing ssh rpm handling for CentOS

commit 281a4ac9242ba437caee3a73cbc5641b98819e36 Fix merge with connectivity error

commit d96abaa451b04f6419a1877873e31a8693840253 Give alias to rpm packages

commit 4c9e96c7e98f53ee30005c0d8ac85513b99c0230 Revert original names

commit b4da4d627dc77fc1388c3f9beaee24ce987dfafa Save libssh rpm package for centos6.4\_64bit

commit b9b8a8be2e2d06cbdafb280f10a0bd232b9c48c2 Release version CentOS v9.6.0

commit 497381ed67daefbb9c745e1a1a208f77c0445f28 Commit version v9.6.0 in master after all merges

commit a1adecb177604790564523e927b6b8ba2b775490 merge

commit aef33f883c758b72acc53e2c8091d66d19d6ad27 Release CentOS version v9.5.0

commit 41ab15c5998b7b38a2775babac7ec495c4b9ba89 Commit version v9.5.0, fixing GUI and stability bags

commit faa6253992abffad1c1a8bfc0a94ee2e5665e4c1 Release CentOS v9.3.0 commit 645264c0b87204fd62639312cfeab9af89c1a365 Release version v9.2.0

commit ca42b519167999b0d9005ebb339e3a8046796df3
CentOS compilation/linkage for v9.2.0

commit da242f62a5c447700e90e1cdd1eb4cb29b1559a6 Fix CentOS part of script

commit 65d05ff3b42605a2873fb960cbcd18492a1cfa1e

Merge branch 'connectivity' of github.com:dimakuzminov/incredibuild\_deployment into connectivity

commit 6c3e3a32c30d6fd488dd1e7636abfb2a8c3522e7 fix coordinator resolving helper

commit 31de7f19fef225ff05135186d848b3e264b93fd6 Fix ssh libraries handling for CentOS

commit bcffd1fe53a8f8352c68d827c6d481471436a659 Release v9.2.0 for CentOS

commit fa80de5b8bdb2167b314cf3703293a87d936e9e9 Release v9.2.0 for CentOS

commit 1e9780277f7d94ce3859b654d659a851ddef9f8c Fix libssh deployment in CentOS

commit 9e22df540d483d19cd97684b9ec7d51b1163a358 release version 9.2.0 with keep alive fix in coordinator and deployment fix

commit cd611069d000d448058d7fefbd49216dc4adf534 Fix start of helper service commit 88d72c7e59449f4f271134b542463b47d9d6134a release version 9.0.0

commit 87897688cc28410f0130041538e485133a54dc07
Fix version printing in deployment package

commit d2d876afa80cfc48b19a2242caea76985091e978 Remove obsolete file

commit c7ad3bc4aa10d934a6e8e1578ed1ee937b63b22e release version 8.0.0, using active helper machine connection

commit 407c46bcf04af950849edae9422d10191525ac58 Fixed parameters parsing

commit 87c31820dd20781d6d2ae693e19692e7b6e67047

Merge branch 'irina' of https://github.com/dimakuzminov/incredibuild\_deployment into irina

commit d85b98603d453997c8baaefb6f958e24a71bb532 Fixed bug in parameters parsing

commit 0f53727b0b1bdb9737aa947cee2d8ad5d5d92a22 Adding initial state script for setting hostname on centos

commit 0e8c04ce9c404c3f6a8f939944ff3c9a8b9cbaae change name of ubuntu script for hostname

commit bd256cf84e59ea0e3b4b9a9a0ae60deba3480b73 Added status of ACT00077

# **ATP** results

ATP task	status
ATP 01-01-1001 Install GridCoordinator	passed
ATP 01-01-002 Install GridCoordinator GUI	passed
ATP 01-02-001 Uninstall GridCoordinator	passed
ATP 01-02-002 Uninstall GridCoordinator GUI	passed
ATP 01-03-001 Launch GridCoordinator	passed
ATP 01-03-002 Launch GridCoordinator GUI	passed
ATP 01-04-001 Stop GridCoordinator	passed
ATP 01-04-002 Stop GridCoordinator GUI	passed
ATP 01-05-001 Check status of GridCoordinator	passed
ATP 01-05-002 Check status of GridCoordinator GUI	passed
ATP 02-01-001 Install GridServer	passed
ATP 02-01-002 Install GridServer GUI	passed
ATP 02-01-003 Install GridServer with wrong hostname	passed
ATP 02-02-001 Uninstall GridServer	passed
ATP 02-03-001 Launch GridServer	passed
ATP 02-04-001 Stop GridServer	passed
ATP 02-05-001 Check status of GridServer	passed
ATP 02-06-001 Check version of GridServer	passed
ATP 03-03-001 Launch XgConsole	passed
ATP 03-03-002 Launch XgConsole, when GridCoordinator and GridServer are down	passed
ATP 03-03-003 Launch XgConsole, when GridCoordinator is down and GridServer is up	passed
ATP 03-03-004 Launch XgConsole, number of requested cores is greater than 0	passed
ATP 03-03-005 Launch XgConsole make, number of requested cores is equal 0	passed
ATP 03-03-006 Launch XgConsole make -j, number of requested cores is equal 0	passed
ATP 03-03-007 Launch XgConsole, DummyMode="true"	passed
ATP 03-03-008 Launch XgConsole, MonitorEnable="true"	passed
ATP 03-06-001 Check version of XgConsole	passed
ATP 04-06-001 Check version of XgSubmit	passed

ATP 07-01-001 Install incredibuild on HelperMachine first time	passed
ATP 07-01-002 Install incredibuild on HelperMachine not first time	passed
ATP 07-01-003 Install incredibuild on HelperMachine wrong hostname	passed
ATP 07-02-001 Uninstall incredibuild on HelperMachine first time	passed
ATP 07-04-001 Stop HelperMachine while building	passed

## **APPENDIX A**

#### PACKAGE UPDATE

- 1. please run following commands each time you know there are updates in deployment package
  - 1.1 "cd incredibuild\_deployment"
  - 1.2 "git pull"
  - 1.3 "git checkout v9.6.0"
    - 1.3.1 if new files, please run following command:
      - 1.3.1.1 coordinator: ./prepare\_coordinator\_machine.sh
        - 1.3.1.1.1 optional can provided predefined "grid\_domain\_server.conf" file as argument
      - 1.3.1.2 initiator/helper machine: ./prepare\_incredibuild\_machine.sh coordinator\_machine\_name/ip\_address
        - 1.3.1.2.1 must specify coordinator\_machine\_DNS\_name to run the script
    - 1.3.2 to remove coordinator package from current machine:
      - 1.3.2.1 ./remove\_coordinator\_package.sh
    - 1.3.3 to remove incredibuild package from current machine:
      - 1.3.3.1 ./remove\_incredibuild\_package.sh

#### First time installation

#### Install coordinator machine in domain

We need to use Terminal application for this process;

- 1 Open terminal
- 2 write following command to download package from public git repository
  - 2.1 install git
    - 2.1.1 Ubuntu "sudo apt-get install git"
    - 2.1.2 CentOS "sudo vum install git"
  - 2.2 "git clone <a href="https://github.com/dimakuzminov/incredibuild-deployment">https://github.com/dimakuzminov/incredibuild-deployment</a>"
- 3 install generic package
  - 3.1 "cd incredibuild\_deployment"
  - 3.2 "git pull"
  - 3.3 "git checkout v9.6.0"
  - 3.4 "./prepare\_coordinator\_machine.sh [grid\_server\_domain.conf.[generic\_ubuntu]]"
    - 3.4.1 grid\_server\_domain.conf.generic\_ubuntu could be replaced with any other grid\_server\_domain.conf.[profile] file
    - 3.4.2 grid\_server\_domain.conf file argument could be ignored

## Install build machine in domain

## It is recommended to install machine, only after coordinator is installed in network and is accessible from current machine

We need to use Terminal application for this process;

- 4 Open terminal
- 5 write following command to download package from public git repository
  - install git
    - 5.1.1 Ubuntu "sudo apt-get install git"
    - 5.1.2 CentOS "sudo yum install git"
  - "git clone https://github.com/dimakuzminov/incredibuild\_deployment" 5.2
- 6 install generic package
  - "cd incredibuild\_deployment" 6.1
  - "git pull" 6.2
  - 6.3
  - "git checkout v9.6.0"
    "./prepare\_incredibuild\_machine.sh coordinator\_machine\_DNS\_name" 6.4
    - must specify coordinator\_machine\_DNS\_name