

GreyOS

“Technical Specifications”

Ver. 1.0

Introduction

This paper describes the technical specifications of GreyOS.

The document is divided into five (5) sections:

1. The “Core”, back-end hardware and software infrastructure
2. The “Web Services”, internal and third party services
3. The “Applications”, internal and third party web apps
4. The “Development Infrastructure”, platforms, programming languages, libraries and tools
5. The “GUI”, presentation layer for end-user

Finally, the last part describes two parallel “Use Case Scenarios” for GreyOS.

Core

GreyOS core is consisted of the core engine and internal services that integrate the solution. The core engine is divided into hardware and software.

Hardware

The core engine is based on top of an elastic cloud computing platform. This platform is based on the Joyent & Amazon cloud and supports dynamic on-demand deployment for cloud web servers (VMs) and cloud databases. The name of the cloud is GreyOS Cloud and its codename is “Asgard” (Figure 1)

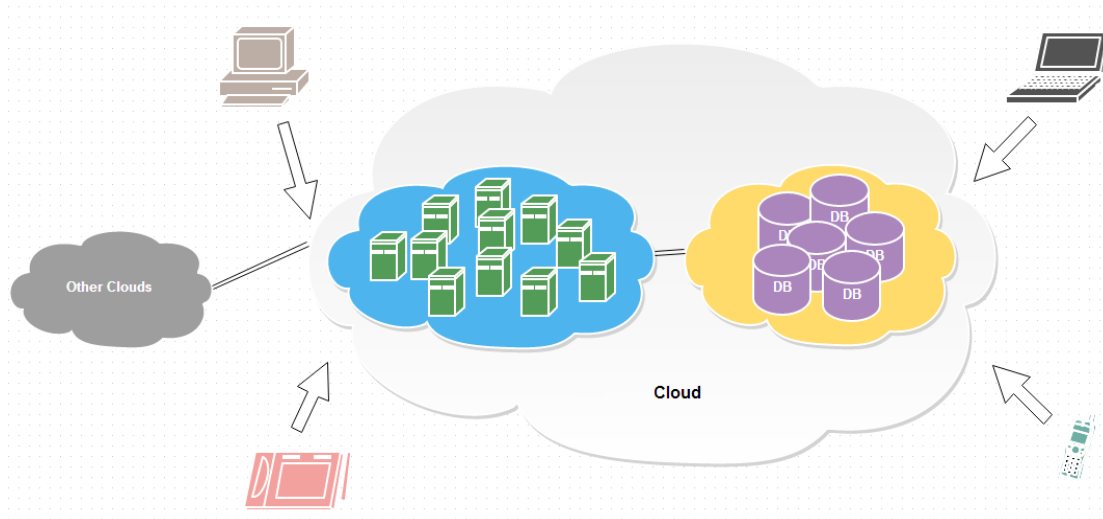


Figure 1. The "GreyOS Cloud" schematic (Asgard)

The availability of this cloud is 100% guaranteed and the support team can solve any issue in one hour max with response time within 15 minutes. The web servers support fast deployment within 10 – 15 minutes and the databases are 100% available and provide us with high consistency and integrity. Another aspect of this cloud is the ability to take automatic backups for the data stored in the cloud databases. Finally, we are able to store huge files in a private cloud for files. The files that are being stored are encrypted and are available through Content Delivery Networks (CDNs) from all over the planet.

Software

The software we manage exists only in the cloud web servers (VMs) as the cloud databases are managed independently. The software we use is divided into two categories:

1. The O/S and related system software
2. The programming languages and libraries for the development

The O/S is either SmartOS or CentOS and Ubuntu Server plus any extra software needed like LAMPP. The programming languages we support are PHP, Javascript, SQL and the databases are MySQL and NoSQL (CouchDB, MongoDB, etc.). We also use extra PHP libraries and third party tools.

Web Services

GreyOS integrates popular web services based on the market needs and trends. Most of the web services we integrate use RESTful A.P.Is to communicate with XML or JSON format. Thus, it is relatively easy for us to gather data and information to use, to monitor and extend these services.

Applications

GreyOS supports integrated and third party, consolidated, applications. In GreyOS you can still use your favorite apps either within a frame or by redirecting to your application's website and access them from within the GreyOS Browser (Coyote).

Development Infrastructure

The GreyOS is built with the help of the following platforms, programming languages, libraries and tools:

1. ALPHA Framework / CMS
2. HTML 5
3. Javascript
4. PHP
5. MySQL
6. NoSQL
7. XML
8. JSON
9. Other external libraries and tools (jQuery, RoundCube, etc.)

GUI

The Graphical User Interface (GUI) of GreyOS contains all the elements, features and apps that the end-user sees. The GUI is an abstract personalized view of the back-end on the cloud. This GUI can be either the web interface or an application for any smart device.

The basic idea/concept is that GreyOS looks like Windows, Mac, Linux and any window based O/S with an interface which is fully responsive and dynamic yet simple and straightforward.

Each and every element on the GUI is like a floating window which the user can move and arrange based on his/her needs. These floating windows can be resized. Finally, all the windows are fully customizable in terms of size, color and labels.

More specifically the user is able to create and maintain his/her personal digital space the way he/she likes. This is supported by GreyOS with its dynamic personalization engine where every piece of every integrated application can be customized in detail. The customization, among others, is being done through the user profile.

The profile contains numerous options for the user and the environment of GreyOS. Through the profile the user can change personal settings, the look and feel of the environment and enable or disable integrated apps.

Use Case Scenarios

The GreyOS can be used in two different ways simultaneously:

1. In the first case a user can use apps "as they are" or use their integrated features through the GreyOS system.
2. In the second case a developer who might also be a user of GreyOS can use GreyOS's simple unified A.P.I to integrate and consolidate complex third party apps and features to his/her system or application.

Best regards,
George A. Delaportas
GreyOS Inc.