



Universidad  
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Master in Free Libre Open Source Software

# FLOSS HA cluster for Netnovation's ZCS

## Master Thesis

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# Problem Statement

- Business continuity, fault tolerant systems
- Cloud Computing Services (ZCS)
- Meet Service Level Agreements (SLAs)

# Justification/Motivation

- Give credit to business models based on FLOSS
  - Netnovation: Product Specialists, Hosting Providers



- Show that private enterprise can be benefited by FLOSS



FreeNAS

PROXMOX  
VIRTUAL ENVIRONMENT



endian firewall  
community

ZABBIX

The Ultimate Open Source  
Monitoring Solution

And many other: LDAP, BIND, Postfix, OpenSSL, ClamAV, KVM, OpenVZ, etc.

# Overall Objectives

- Frame the FLOSS business model used by Netnovation
- Show various current alternatives provided by FLOSS at enterprise level
- Adapt the proposed solution to the guidelines established by Netnovation
- Establish an initial reference point for implementing HA private cloud services offered by Netnovation

# Specific Objectives

- Implement a FLOSS HA cluster for Netnovation's ZCS
- Perform tests in a controlled laboratory environment in order to promote it to production
- Describe the methodology used for the selection of the solution, as well as the process to be implemented

# Scope

- 04

# Related Technologies

- 05
- Commercial Enterprise Cluster Software
- HA FLOSS based tools



# Methodology

- 06

# Netnovation's Architecture

- 08
- Infrastructure
- Network Scheme
- Software

# Implementation

- 08
- Key software elements
- Graphical scheme (stack)

# Results

- 09
- Metrics comparison with other minor scale solutions

## Conclusions and future work

- 10
- Cloud benefits and side effects
- Accomplished objectives

# Bibliography

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