

Académie_OpenERP/Odoo,
OpenERP/Odoo_OnLine,
Tryton_OnLine,

by SISalp <http://sisalp.fr>

Technical description of components
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object

This document explains technical rules which are followed to run Academie-OpenERP, OpenERP_OnLine and Tryton_OnLine hosting solutions

Non technical reader will prefer to read functional information instead, which is available on the following pages. You can get a google translation of these pages.

- <http://sisalp.fr/openerp-serveur-gratuit.html>
- <http://sisalp.fr/index.php/post/Hebergement-OpenERP-infogerance-VDS>
- <http://sisalp.fr/index.php/post/Academie-OpenERP-modalites-d-acquisition-d-un-serveur-pedagogique-pour-l-annee-scolaire-2010-2011>
- demonstration : <http://sisalp.fr/demo.html>

history : cinq years of innovation

- 1 october 2007 : first TinyERP hosting solution
- 1 october 2008 : first free hosting solution (unequaled)
- 1 october 2008 : first hosting solution (unequaled) open to third-party services (not free)
- 1 october 2010 : first Académie OpenERP servers for schools
- 1 october 2010 : first Tryton hosting solution

Today :

- more than 15000 services installed
- all versions from TinyERP 4.2 to Odoo 9.0 and Tryton

specific glossary

cloud : virtualisation technology which separates logical server from computer which provides hardware resources (cpu, memory, disk, network)

cluster : group of several computers which run virtual servers, kept consistent to distribute services

cluster central referee: the hardware or virtual server which manages organisational rules of the cluster/cloud.

virtual host web : the subdomain used to access one's service
ex : <http://version6.openerp-online.com>

firewall (iptables) :the firewall can deny access to unauthorized users. The firewall is replicated on all computers of the cluster.

4 fonctionnal tiers

1. hoe : hosting contracts management
 - moe : mooc contracts management
2. cloe : computing resource management
3. xoe : OpenER and Tryton services management
 - goe : graphical panel of xoe
4. poe : service customization management

These scripts are hierarchically organised
hoe uses cloe script which uses xoe which uses poe. The aim is
that hoe must be able to manage services without knowing
where they are dynamically located.

hoe : hosting contracts

hoe is a command that handles contracts for subscriptions of all types: virtual dedicated server, or service openerp tryton.

- setting contracts virtualization VDS, ACS, MUT
- setting service contracts OES EDU ONL
- reporting and configuration of subscriptions
- Setup Subscription
- Subscription terminations

hoe : examples

- `hoe --subscription -declare`
- `hoe --subscription -configure`
- `hoe --subscription -install`
- `hoe --subscription -close`
- `hoe --subscription -check -expired`
- `hoe --config -edit -global`
- `hoe --config -edit -subscriptions`
- `hoe --config -edit -iptables (firewall)`
- `hoe --update`
- `hoe --mail -start-date`
- `hoe --help`
- `hoe --log`

hoe: characteristics

1. hoe runs only on the referee in a cluster
2. it uses cloe to update the virtual web hosts and firewall rules
3. it uses cloe to locate a resource
4. it uses xoe through cloe to act on the services because he does not know the organization of the cluster managed by cloe

cloe: IT resources

cloe: managing IT resources by combining the Cloud and Cluster techniques

- Cloud computing: the resources are virtualized on Linux kernel, currently on technology OpenVZ, Linux-vservers previously, planned migration to lxc.
- Clustering to arbitration and centralized master / slave mode. cloe is an abstract layer resource management relocated. Relocating a resource group is accompanied by a migration from ip address.

cloe : examples

- `cloe @cluster --install -host`
- `cloe @cluster --update`
- `cloe @cluster --new -vserver`
- `cloe @cluster --start`
- `cloe @cluster --stop`
- `cloe @cluster --save`
- `cloe @cluster --backup`
- `cloe @cluster --restore`
- `cloe @cluster --command group_vserver root "hostname;"`
- `cloe @other_cluster --cluster -Join`

cloe: characteristics

- Multi-cluster management for resource sharing
 - a client dedicated server can use its own dedicated cluster with its own referee
 - Cluster sharing backup resources with dedicated clusters of customers / partners
 - virtual hosts web and firewall rules are combined
- The referee is a resource delocalized (vserver) cluster and as managed by cloe (location, backup etc. ..)
- The cloud is shared dynamically. If a user is alone, he has all the cpu, if another user is present, they share the cpu according to their quotas: high performance offered at low cost.
- Quality Management Service: quotas, localization on fast disks (SSD) or standard (SATA)

xoe : OpenERP and Tryton services

xoe manages openerp and tryton services on multiple virtual server

- self-installation and automated update
- dependencies installation for openerp and tryton
- services settings
- installation and adaptation of services
- starting services
- maintenance of services, backup, update
- monitoring services
- removal of services

more about xoe :

<http://sisalp.fr/index.php/post/Manuel-d-utilisation-de-xoe%2C-gestionnaire-de-serveurs-OpenERP-multiples>

poe : adapting services

poe handles differences between standard software of openerp and tryton and modified software to the needs of each service.

1. compare custom service to a standard version of the software
2. create a list of differences
3. validate the compatibility of differences with a new version
4. adapt the list of differences
5. apply the list of differences to a standard

more about poe :

<http://sisalp.fr/index.php/post/Manuel-d-utilisation-de-poe-pour-adapter-les-serveurs-OpenERP>

Example: new subscription ACS

hoe --subscription -declare

- collection of settings: customer name, subscription type, version, e-mail (hoe)
- cluster configuration: location of virtual server, virtual host web, firewall (hoe, cloe)
- allocation of resources, creation of the virtual server (hoe, cloe)
- xoe installation and dependencies (hoe, cloe, xoe)
- Service Configuration (hoe, cloe, xoe)
- Downloading and adapting the service (hoe, cloe, xoe, poe)
- startup and monitoring of service (hoe, cloe, xoe)
- send credentials to the client by mail (hoe)

Example: Termination ONL

hoe --subscription -set -expired

- for all subscriptions, collect usage statistics (hoe, cloe, XOE)
- compare the dates of use with the contract (hoe)
- if the contract has expired, warn the client (mail)
- if the client is already alerted to remove the service
 - permanent storage of programs and data service (hoe, cloe, XOE)
- reconfiguration of the cluster virtual host web and firewall (hoe, cloe)
- Sending mail to the customer (hoe)

Free hosting (ONL)

Free subscriptions use dedicated servers

- type openerp-server or web-openerp
 - openerp-web is separate because its stability and security are uncertain
- by V4, V5, V6, V6.1, V7, V8, V9, Tryton as dependencies vary
- service has its own copy of the code
-

virtual dedicated server (VDS)

VDS server is reserved for the exclusive use of a single client

- it is pre-configured with three services
 - production
 - training
 - code compatible with production
 - updated with the production base of the day before
 - test
 - test modifications and updates to the code
- It provides services openerp-server and web-openerp to allow complete configuration by the customer

académie-openerp (ACS)

The academy dedicated servers are derived from VDS servers

- preconfigured with nine services openerp-server and web-openerp in different versions
- using additional functions
 - dissemination of a database for student groups
 - automatic copy of production / test database for each student

disaster recovery (optional)

- Intended for disaster recovery in case of a serious problem affecting the main service
- A complementary service subscription VDS
 - Copy periodic (daily) distant from the VDS (cloe)
 - online copy of the version of the previous day (cloe)
 - this copy of the day before is always available
 - the periodic updating of the copy is suspended in case of use of its services (cloe, XOE)
- Without intervention by the system administrator at time of failure
- Planned return to normal during stabilized

publications

Licence :

moe, cloe, xoe, goe and poe are under licence GPL V3

Download :

<http://download.sisalp.net>

hoe is private.

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