

# ALOHA Load-Balancer

*Alohactl command line*

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Alohactl2 is a command line utility dedicated to manage Load Balancing configuration.

## Syntax

```
alohactl2 [ -S <scope> | -T <transactionid> ] <command> [ param ]* [ --<attribut> <value> | --reset-<attribut> ]*
```

## Exit codes

- Global errors

1 syntax error/unknown option.

2 missing scope.

3 missing transaction id.

4 missing transaction id or scope.

- Normal errors

20 transaction does not exist.

21 defaults does not exist.

22 object does not exist.

23 object already exists.

24 mandatory parameter not set.

25 invalid parameter value.

- Lock error

100 api is locked, retry later.

- Apply errors

101 invalid configuration (original is restored).

102 new configuration apply failure (original is restored, and re-applied).

- Transaction management errors

110 corrupted transaction

111 unable to create transaction.

112 unable to create transaction module context.

113 unable to prepare commit

114 unable to backup config to try a commit

115 unable to install new config

- Critical errors

- 120 unable to restore original configuration.
- 121 unable apply original restored configuration.
- 122 Unable to save configuration on flash or sync on a peer.

## Global commands

- Set and unset global api lock. Used to protect configuration during manual configuration updates or to remove dead locks.
  - alohactl2 global-lock
  - alohactl2 global-unlock

Should be used by administrator only.

- Save configuration on flash.
  - alohactl2 global-save

Entire configuration is saved (no scope limitation available).

- Force remote peer to save its configuration on flash.
  - alohactl2 global-remote-save

Entire configuration is saved (no scope limitation available).

- Push and apply local configuration on remote peer.
  - alohactl2 global-push

All l4 and l7 services configuration is pushed and apply (no scope limitation available).

- Returns alohactl version.
  - alohactl2 version

## Definitions

- Scope

Configuration scope provides cloisioning: working on a scope you cannot read or modify configuration of other scopes.

- Transaction

Transaction allow multiple configuration changes in one atomic operation (see begin/commit).

## Transaction management commands

- List all available transactions.
- alohactl2 transaction-list

Should be used only by administrator.

- Cancel all existing transactions.
- alohactl2 transaction-flush

Should be used by administrator only.

- Begins a new transaction on : current configuration is duplicate and used as working context for next operations in the transaction.
- alohact -S <scope> transaction-begin

If succeed it returns the transactionid on standard output and exit code 0.

- Delete working context identified by .
- alohactl2 -T <transactionid> transaction-cancel
- Re-creates working context from current configuration. Re-plays all update actions recorded on transaction identified by on newly re-created context. If re-play is successful: configuration is locked, validate, applied and finally unlocked. If error occurs during locked phase, it processes a configuration rollback and lock is removed.
- alohactl2 -T <transactionid> transaction-commit

## L7 module commands

All those commands need a to be applied on a working context, or a to be directly and atomically applied on configuration (processing an implicit transaction-begin and transaction-commit ).

Supported L7 objects are farm, server, service and listener. To see details of role, options and attributs of each object please refer to api objects documentation.

### L7 farm object commands

- Create a new farm named in current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-create <name> [ <template> ] [ --<attribut> <value> | --reset-<attribut> ]\*
- Create a new farm named in current scope using options and attributs values of farm named , completed by options and attributs values specified on command line.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-clone <name> <source name> [ --<attribut> <value> | --reset-<attribut> ]\*
- Update options and attributs values specified in command line of farm named present in current scope.

- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-update <name> [ --<attribut> <value> | --reset-<attribut> ]\*
- Delete the farm named present in current scope and sub-objects of this farm (as servers).
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-delete <name>
- Returns attributs values on stdout of farm named :

one attribut per line: + for a configured attribut,  
or - if default is used,  
or ? if attribut is configured but value is not supported by current api version.

```
alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-show <name>
```

- List on stdout all names of farms present in current scope.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-list
- Delete all farms of current scope and sub-objects (as servers).
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-farm-flush

## L7 server object commands

- Create a new server named in farm named of current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-create <farm name> <name> [ <template> ] [ --<attribut> <value> | --reset-<attribut> ]\*
- Create a new server named in farm named of current scope using options and attributs values of server named present in farm , completed by options and attributs values specified on command line. If is not specified, it considers equals to .
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-clone <farm name> <name> <source name> [ <source farm name> ] [ --<attribut> <value> | --reset-<attribut> ]\*
- Update options and attributs values specified in command line of server named present in farm named of current scope.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-update <farm name> <name> [ --<attribut> <value> | --reset-<attribut> ]\*
- Delete the server named present in farm named of current scope.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-delete <farm name> <name>
- Returns attributs values on stdout of server named present in farm named :

one attribut per line: + for a configured attribut,  
or - if default is used,  
or ? if attribut is configured but value is not supported by current api version.

```
alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-show <farm name> <name>
```

- List on stdout all names of servers present in farm named of current scope.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-list <farm name>
- Delete all servers present in farm named of current scope.
- alohactl2 [ -T <transactionid> | -S <scope> ] 17-server-flush <farm name>

## L7 service object commands

- Create a new service named in current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line.  
alohactl2 [ -T | -S ] l7-service-create [ ] [ -- | --reset- ]\*
- Create a new service named in current scope using options and attributs values of service named , completed by options and attributs values specified on command line.  
alohactl2 [ -T | -S ] l7-service-clone [ -- | --reset- ]\*
- Update options and attributs values specified in command line of service named present in current scope.  
alohactl2 [ -T | -S ] l7-service-update [ -- | --reset- ]\*

- Delete the service named present in current scope and sub-objects of this service (as servers).  
alohactl2 [ -T | -S ] l7-service-delete

- Returns attributs values on stdout of service named :  
one attribut per line: + for a configured attribut,  
or - if default is used,  
or ? if attribut is configured but value is not supported by current api version.

alohactl2 [ -T | -S ] l7-service-show

- List on stdout all names of services present in current scope.  
alohactl2 [ -T | -S ] l7-service-list

- Delete all services of current scope and sub-objects (as listeners).  
alohactl2 [ -T | -S ] l7-service-flush

## L7 listener object commands

- Create a new listener named in service named of current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line.  
alohactl2 [ -T | -S ] l7-listener-create [ ] [ -- | --reset- ]\*

- Create a new listener named in service named of current scope using options and attributs values of listener named present in service , completed by options and attributs values specified on command line. If is not specified, it considers equals to .

```
alohactl2 [ -T | -S ] l7-listener-clone [ ] [ -- | --reset- ]*
```

- Update options and attributs values specified in command line of listener named present in service named of current scope.

```
alohactl2 [ -T | -S ] l7-listener-update [ -- | --reset- ]*
```

- Delete the listener named present in service named of current scope.

```
alohactl2 [ -T | -S ] l7-listener-delete
```

- Returns attributs values on stdout of listener named present in service named .

one attribut per line: + for a configured attribut,  
or - if default is used,  
or ? if attribut is configured but value is not supported by current api version.

```
alohactl2 [ -T | -S ] l7-listener-show
```

- List on stdout all names of listeners present in service named of current scope.

```
alohactl2 [ -T | -S ] l7-listener-list
```

- Delete all listeners present in service named of current scope.

```
alohactl2 [ -T | -S ] l7-listener-flush
```

## L4 module commands

All those commands need a to be applied on a working context, or a to be directly and atomically applied on configuration (processing an implicit transaction-begin and transaction-commit ).

Supported L4 objects are farm and server. To see details of role, options and attributs of each object please refer to api objects documentation.

### L4 farm object commands

- Create a new farm named in current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line.

alohactl2 [ -T | -S ] l7-farm-create [ ] [ -- | --reset- ]\*

- Create a new farm named in current scope using options and attributs values of farm named , completed by options and attributs values specified on command line.

alohactl2 [ -T | -S ] l7-farm-clone [ -- | --reset- ]\*

- Update options and attributs values specified in command line of farm named present in current scope.

alohactl2 [ -T | -S ] l7-farm-update [ -- | --reset- ]\*

- Delete the farm named present in current scope and sub-objects of this farm (as servers).

alohactl2 [ -T | -S ] l7-farm-delete

- Returns options and attributs values on stdout of farm named :

one attribut per line: + for a configured attribut,

or - if default is used,

or ? if attribut is configured but value is not supported by current api version.

alohactl2 [ -T | -S ] l7-farm-show

- List on stdout all names of farms present in current scope.

alohactl2 [ -T | -S ] l7-farm-list

- Delete all farms of current scope and sub-objects (as servers).

alohactl2 [ -T | -S ] l7-farm-flush

## L4 server object commands

- Create a new server named in farm named of current scope using options and attributs values specified in an optional template, completed by options and attributs values specified on command line. alohactl2 [ -T | -S ] l7-server-create [ ] [ -- | --reset- ]\*
- Create a new server named in farm named of current scope using options and attributs values of server named present in farm , completed by options and attributs values specified on command line. If is not specified, it considers equals to . alohactl2 [ -T | -S ] l7-server-clone [ ] [ -- | --reset- ]\*
- Update options and attributs values specified in command line of server named present in farm named of current scope.

alohactl2 [ -T | -S ] l7-server-update [ -- | --reset- ]\*

- Delete the server named present in farm named of current scope.

alohactl2 [ -T | -S ] l7-server-delete

- Returns options and attributs values on stdout of server named present in farm named :

one attribut per line: + for a configured attribut,  
or - if default is used,  
or ? if attribut is configured but value is not supported by current api version.

alohactl2 [ -T | -S ] l7-server-show

- List on stdout all names of servers present in farm named of current scope.

alohactl2 [ -T | -S ] l7-server-list

- Delete all servers present in farm named of current scope.

alohactl2 [ -T | -S ] l7-server-flush