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# **jade Documentation**

***Release 0.0.1***

**pchero**

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Contents:





### 1.1 Terms

1. Timestamp

### 1.2 Requirement levels indicator

This document strives to adhere to [RFC 2119](#). In particular should be noted tat:

1. **MUST** This word, or the terms “REQUIRED” or “SHALL”, mean that the definition is an absolute requirement of the specification.
2. **MUST NOT** This phrase, or the phrase “SHALL NOT”, mean that the definition is an absolute prohibition of the specification.
3. **SHOULD** This word, or the adjective “RECOMMENDED”, mean that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
4. **SHOULD NOT** This phrase, or the phrase “NOT RECOMMENDED” mean that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
5. **MAY** This word, or the adjective “OPTIONAL”, mean that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option **MUST** be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein an implementation which does include a particular option **MUST** be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides.)
6. Guidance in the use of these Imperatives

Imperatives of the type defined in this memo must be used with care and sparingly. In particular, they **MUST** only be used where it is actually required for interoperation or to limit behavior which has potential for causing harm (e.g., limiting retransmissions) For example, they must not be used to try to impose a particular method on implementors where the method is not required for interoperability.

#### 7. Security Considerations

These terms are frequently used to specify behavior with security implications. The effects on security of not implementing a **MUST** or **SHOULD**, or doing something the specification says **MUST NOT** or **SHOULD NOT** be done may be very subtle. Document authors should take the time to elaborate the security implications of not following recommendations or requirements as most implementors will not have had the benefit of the experience and discussion that produced the specification.

## CHAPTER 2

---

### Introduction

---

This project is designed for asterisk call manager.

Provide useful APIs for call handling.



### 3.1 SSL certification

Need to create certification file for ssl connection.

```
$ sudo openssl req -subj '/CN=US/O=Jade project/C=US' -x509 -nodes -days 3650 -newkey_
→rsa:2048 -keyout /opt/etc/server.key -out /opt/etc/server.crt
$ cat /opt/etc/server.crt /opt/etc/server.key > /opt/etc/jade.pem
```

### 3.2 Asterisk

Required Asterisk-13.6 or later

#### 3.2.1 Asterisk settings

##### chan\_sip.so

Disable the chan\_sip module.

```
asterisk*CLI> module unload chan_sip.so
```

##### res\_pjsip.so

Enable the res\_pjsip module

```
asterisk*CLI> module load res_pjsip.so
```

## Config manager.conf

Enable and set up the ami user.

```
/etc/asterisk/manager.conf

[general]
enabled = yes
port = 5038
bindaddr = 0.0.0.0

[admin]
secret = admin ; this is not secure. need to be changed.
deny = 0.0.0.0/0.0.0.0
permit = 127.0.0.1/255.255.255.0
read = all
write = all
```

## Reload manager module

```
asterisk*CLI> module reload manager
Module 'manager' reloaded successfully.

asterisk*CLI> manager show user admin

        username: admin
        secret: <Set>
        ACL: yes
        read perm: system,call,log,verbose,command,agent,user,config,dtmf,reporting,
→cdr,dialplan,originate,agi,cc,aoc,test,security,message,all
        write perm: system,call,log,verbose,command,agent,user,config,dtmf,reporting,
→cdr,dialplan,originate,agi,cc,aoc,test,security,message,all
        displayconnects: yes
allowmultiplelogin: yes
        Variables:
```

## Config http.conf

Need to configure the http.conf options.

```
/etc/asterisk/http.conf

[general]
servername=Asterisk
enabled=yes
bindaddr=0.0.0.0
bindport=8088
tlsenable=yes
tlsbindaddr=0.0.0.0:8089
tlscertfile=/opt/etc/jade.pem
```

## 3.3 Required libraries

```
libsqlite3
libevent2
libbsd
libjansson
libevhttp
libssl
libzmq5
libonig
```

### 3.3.1 Libevhttp

Install libevhttp

```
$ mkdir -p /opt/src/libevhttp
$ curl -s https://codeload.github.com/criticalstack/libevhttp/tar.gz/1.2.16 | tar xz -
→C /opt/src/libevhttp --strip-components=1
$ cd /opt/src/libevhttp/build
$ cmake ..
$ make
$ make install
```

### 3.3.2 Libwebsockets

Install libwebsockets

```
$ mkdir -p /opt/src/libwebsockets
$ curl -s https://codeload.github.com/warmcat/libwebsockets/tar.gz/v2.4.2 | tar xz -C_
→/opt/src/libwebsockets --strip-components=1
$ cd /opt/src/libwebsockets/build
$ cmake -DLWS_WITH_LIBEVENT=1 ../
$ make
$ make install
```

## 3.4 Install jade

```
$ cd <downloaded source directory>
$ cd src/
$ make
$ sudo mkdir -p /opt/bin
$ sudo mv jade_backend /opt/bin
```





## CHAPTER 4

---

### Configuration

---

```
{
  "serv_addr": "127.0.0.1",
  "serv_port": "5038",
  "username": "",
  "password": "",
  "loglevel": "7",

  "general" : {
    "result_filename" : "./outbound_result.json"
  },

  "database" : {
    "name": "./database.db"
  }
}
```



## 5.1 Basic structures

### 5.1.1 Agent status

Agent's status.

Table 1: Agent status

Status	Detail
AGENT_LOGGEDOFF	Agent is not logged in.
AGENT_IDLE	Agent is logged in status idle.
AGENT_ONCALL	Agent is logged in and now on call.

### 5.1.2 Device state

Device's state

Table 2: Device state

State	Detail
UNKNOWN	Device is valid but channel didn't know state.
NOT_INUSE	Device is not used.
BUSY	Device is in use.
INVALID	Device is invalid.
UNAVAILABLE	Device is unavailable.
RINGING	Device is ringing.
RINGINUSE	Device is ringing <i>and</i> in use.
ONHOLD	Device is on hold.

### 5.1.3 Peer monitoring status

Peer's monitoring status.

Table 3: Peer monitoring status

Status	Detail

### 5.1.4 Peer status

Peer's status.

Table 4: Peer status

Status	Detail
Unknow	Unknwon status.
Registered	Peer has been registered.
Unregistered	Peer has been unregistered.
Rejected	Rejected.
Lagged	Lagged.

## 6.1 API description

### 6.1.1 Title

The main category of API. Normally, it represents general API URI.

### 6.1.2 Purpose

The purpose of API.

### 6.1.3 Methods

List of supported command with simple description.

### 6.1.4 Method: <command>

Method description with command in detail. It shown also added version.

#### Call

Description of how to call this API. It will explain about method parameters and data parameters.

```
<method> <call URI>  
  
<required data>
```

Method parameters \* `method`: API calling method. i.e. GET, PUT, POST, ... \* `call URI`: URI. Uniform Resource Identifier

Data parameters \* `required data`: Required data to call the API.

## Returns

Description of reply. Described in detail. These are common return objects. This objects will not be explain again.

```
{
  $defhdr,
  "result": {
    "message": "<message-name>",
    "type": "<message-type>",
    "timestamp": "<YYYY-mm-ddTHH:MM:SS.fffZ>"
  }
}
```

- `message`: Represents message name. Fixed.
- `type`: Represents message type. Fixed.
- `timestamp` Denotes when the message has been created. See the Timestamp.

## Example

Simple example of how to use the API. It would be little bit different with real response.

Normally, to test the API curl is used. curl is a tool to transfer data from or to a server, using one of the supported protocols. See detail at link below.

```
https://curl.haxx.se/docs/manpage.html
```

Some of APIs requires a returned uuid for the request. But one must expect that these information are only valid within the user sessions and are temporary.

## 7.1 /agents

### 7.1.1 Methods

GET : Get list of all agents info.

### 7.1.2 Method: GET

Get list of all agents info.

#### Call

```
GET /agents
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "id": "<string>"
      },
      ...
    ]
  }
}
```

- **list** [array of agents id.]

- id: agent id.

## Example

```
$ curl -X GET 192.168.200.10:8081/agents

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "id": "1001"
      },
      {
        "id": "1002"
      }
    ]
  },
  "statusCode": 200,
  "timestamp": "2017-03-13T17:19:07.48261155Z"
}
```

## 7.2 /agents/

### 7.2.1 Methods

GET : Get agent's detail info of given agent id.

#### 7.2.2 Method: GET

Get agent's detail info of given agent id.

#### Call

```
GET /agents/

{
  "id": "<string>"
}
```

Data parameters

- id: agent id.

#### Returns

```
{
  $defhdr,
  "result": {
```

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```

    "id": "<string>",
    "name": "<string>",
    "status": "<string>",
    "logged_in_time": <integer>,

    "channel_name": "<string>",
    "channel_state": <integer>,
    "channel_state_desc": "<string>",

    "caller_id_name": "<string>",
    "caller_id_num": "<string>",

    "connected_line_name": "<string>",
    "connected_line_num": "<string>",

    "context": "<string>",
    "exten": "<string>",
    "priority": "<string>",

    "account_code": "<string>",
    "language": "<string>",

    "unique_id": "<string>",
    "linked_id": "<string>",

    "tm_update": "<string>",
  }
}

```

#### Return parameters

- id: Agent id.
- name: Agent name.
- status: Agent status. See detail [Agent status](#).
- logged\_in\_time: Logged in time.
- channel\_name: Agent channel's name.
- channel\_state: Agent channel's state.
- channel\_state\_desc: Agent channel's state description.
- caller\_id\_name: Caller's id name.
- caller\_id\_num: Caller's id number.
- connected\_line\_name: Connected line name.
- connected\_line\_num: Connected line number.
- context: Context.
- exten: Extension.
- priority: Priority
- caller\_id\_name: Caller's id name.
- caller\_id\_num: Caller's id number.

- `connected_line_name`: Caller's line name.
- `connected_line_num`: Caller's line number.
- `account_code`: Account code.
- `language`: Language.
- `unique_id`: Channel's unique id.
- `linked_id`: Channel's linked id.

### Example

```
$ curl -X GET 192.168.200.10:8081/agents/ -d '{"id": "1001"}'

{
  "api_ver": "0.1",
  "result": {
    "account_code": "",
    "caller_id_name": "300",
    "caller_id_num": "300",
    "channel_name": "SIP/300-00000425",
    "channel_state": 6,
    "channel_state_desc": "Up",
    "connected_line_name": "<unknown>",
    "connected_line_num": "<unknown>",
    "context": "sample_agent_login",
    "exten": "s",
    "id": "1001",
    "language": "en",
    "linked_id": "1489423716.2037",
    "logged_in_time": 1489423716,
    "name": "Agent 1001",
    "priority": "2",
    "status": "AGENT_IDLE",
    "tm_update": "2017-03-13T17:19:06.724533682Z",
    "unique_id": "1489423716.2037"
  },
  "statusCode": 200,
  "timestamp": "2017-03-13T17:20:01.778206702Z"
}
```

## 7.3 /device\_states

### 7.3.1 Methods

GET : Get list of all device\_state device info.

### 7.3.2 Method: GET

Get list of all device\_state device info.

## Call

```
GET /device_states
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "device": "<string>"
      },
      ...
    ]
  }
}
```

Return parameters

- **list** [array of channels.]
  - device: device name.

## Example

```
$ curl -X GET example.com:8081/device_states

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {"device": "Agent:1001"},
      ...
    ]
  },
  "statusCode": 200,
  "timestamp": "2017-04-04T23:09:36.539677164Z"
}
```

## 7.4 /device\_states/

### 7.4.1 Methods

GET : Get device\_state's detail info of given info.

### 7.4.2 Method: GET

Get device\_state's detail info of given info.

## Call

```
GET /device_states/

{
  "device": "<string>"
}
```

### Data parameters

- device: unique id.

## Returns

```
{
  $defhdr,
  "result": {
    "device": "<string>",
    "state": "<string>",

    "tm_update": "2017-04-04T23:08:40.878892472Z"
  }
}
```

### Return parameters

- device: Device name.
- state: Device state. See detail *Device state*.

## Example

```
$ curl -X GET example.com/device_states/ -d \
'{"device": "Agent:1001"}'

{
  "api_ver": "0.1",
  "result": {
    "device": "Agent:1001",
    "state": "UNAVAILABLE",
    "tm_update": "2017-04-04T23:08:40.878892472Z"
  },
  "statusCode": 200,
  "timestamp": "2017-04-04T23:10:37.684581876Z"
}
```

## 7.5 /peers

### 7.5.1 Methods

GET : Get list of all peer info.

## 7.5.2 Method: GET

Get list of all peer info.

### Call

```
GET /peers
```

### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      { "peer": "<string>" },
      ...
    ]
  }
}
```

- **list** [array of peer entry info.]
  - peer: Peer entry info.

### Example

```
$ curl -X GET saturn.pchero21.com:8081/peers

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "peer": "SIP/300"
      },
      ...
    ]
  },
  "statusCode": 200,
  "timestamp": "2017-04-09T01:42:24.765567356Z"
}
```

## 7.6 /peers/

### 7.6.1 Methods

GET : Get peer detail info of given peer info.

## 7.6.2 Method: GET

Get peer detail info of given peer info.

### Call

```
GET /peers/  
  
{  
  "peer": "<string>"  
}
```

### Data parameters

- peer: peer info.

### Returns

```
{  
  $defhdr,  
  "result": {  
    "peer": "<string>",  
  
    "status": "<string>",  
    "address": "<string>",  
    "monitor_status": "<string>",  
  
    "channel_type": "<string>",  
    "chan_object_type": "<string>",  
  
    "dynamic": "<string>",  
    "auto_comedia": "<string>",  
    "auto_force_port": "<string>",  
    "acl": "<string>",  
    "comedia": "<string>",  
    "description": "<string>",  
    "force_port": "<string>",  
    "realtime_device": "<string>",  
    "text_support": "<string>",  
    "video_support": "<string>",  
  
    "tm_update": "<timestamp>",  
  }  
}
```

- peer: Peer name.
- status: Peer's status. See detail [Peer status](#).
- address: Registered peer's address. “<ip>:<port>”
- monitor\_status: Peer monitoring status. See detail [Peer monitoring status](#).
- dynamic: Peer's dynamic option value.
- auto\_comedia: Peer's auto\_comedia option value.
- auto\_force\_port: Peer's auto\_force\_port option value.

- `acl`: Peer's dynamic acl value.
- `comedia`: Peer's comedia option value.
- `description`: Peer's description option value.
- `force_port`: Peer's `force_port` option value.
- `realtime_device`: Peer's `realtime_device` option value.
- `text_support`: Peer's text support option value.
- `video_support`: Peer's video support option value.
- `tm_update`: Updated timestamp.

### Example

```
$ curl -X GET saturn.pchero21.com:8081/peers/ -d '{"peer": "agent-01"}'

{
  "api_ver": "0.1",
  "result": {
    "acl": "no",
    "address": "192.168.200.1:5060",
    "auto_comedia": "yes",
    "auto_force_port": "no",
    "chan_object_type": "peer",
    "channel_type": "SIP",
    "comedia": "yes",
    "description": "",
    "dynamic": "yes",
    "force_port": "no",
    "monitor_status": "OK (22 ms)",
    "peer": "SIP/agent-01",
    "realtime_device": "no",
    "status": "Registered",
    "text_support": "no",
    "tm_update": "2017-04-09T02:08:18.756977409Z",
    "video_support": "no"
  },
  "statuscode": 200,
  "timestamp": "2017-04-09T02:09:55.226677432Z"
}
```

## 7.7 /registries

### 7.7.1 Methods

GET : Get list of all registry accounts info.

### 7.7.2 Method: GET

Get list of all registry accounts info.

## Call

```
GET /registries
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {"account": "<string>"},
      ...
    ]
  }
}
```

- **list** [array of registry account.]
  - account: Registry account info.

## Example

```
$ curl -X GET 192.168.200.10:8081/registries

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {"account": "2345@sip_proxy:5060"},
      {"account": "1234@mysipprovider.com:5060"}
    ]
  },
  "statuscode": 200,
  "timestamp": "2017-03-12T00:27:18.798367307Z"
}
```

## 7.8 /registries/

### 7.8.1 Methods

GET : Get registry detail info of given account info.

### 7.8.2 Method: GET

Get registry detail info of given account info.



## Call

```
GET /registries/

{
  "account": "<string>"
}
```

### Data parameters

- account: account info.

## Returns

```
{
  $defhdr,
  "result": {
    "account": "<string>",
    "state": "<string>",

    "username": "<string>",
    "domain": "<string>",
    "domain_port": <integer>,
    "host": "<string>",
    "port": <integer>,

    "refresh": <integer>,
    "registration_time": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

- account: Registry's account info.
- state: state info.
- username: Registry's username.
- domain: Registry's domain info.
- domain\_port: Registry's domain port.
- host: Registry's host info.
- port: Registry's port info.
- refresh: Refresh.
- registration\_time: registration time.
- tm\_update: Updated timestamp.

## Example

```
$ curl -X GET 192.168.200.10:8081/registries/ -d '{"account": "2345@sip_proxy"}'
```

```
{
```

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```
"api_ver": "0.1",
"result": {
  "account": "2345@sip_proxy",
  "domain": "sip_proxy",
  "domain_port": 5060,
  "host": "sip_proxy",
  "port": 5060,
  "refresh": 120,
  "registration_time": "0",
  "state": "Request Sent",
  "tm_update": "2017-03-09T09:12:06.652539075Z",
  "username": "2345"
},
"statuscode": 200,
"timestamp": "2017-03-09T09:13:00.969355467Z"
}
```

## 7.9 /admin/core/channels

### 7.9.1 Methods

GET : Get list of all channels info.

### 7.9.2 Method: GET

Get list of all channels info.

#### Call

```
GET /admin/core/channels
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "unique_id": "<string>",
        "linked_id": "<string>",

        "channel": "<string>",
        "channel_state": <integer>,
        "channel_state_desc": "<string>",

        "context": "<string>",
        "exten": "<string>",
        "priority": "<string>",

```

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```

        "caller_id_name": "<string>",
        "caller_id_num": "<string>",

        "connected_line_name": "<string>",
        "connected_line_num": "<string>",

        "account_code": "<string>",
        "language": "<string>",

        "hangup_cause": <number>,
        "hangup_cause_desc": "<string>",

        "variables": {},

        "tm_update": "<timestamp>"
    },
    ...
]
}
}

```

- `list`: array of channels. \* See detail at [Method: GET](#).

## Example

```
$ curl -k -X GET https://192.168.200.10:8081/v1/admin/core/channels
```

```

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "account_code": "",
        "application": "Queue",
        "application_data": "",
        "bridge_id": null,
        "caller_id_name": "pjagent-01",
        "caller_id_num": "pjagent-01",
        "channel": "PJSIP/pjagent-01-00000007",
        "channel_state": 4,
        "channel_state_desc": "Ring",
        "connected_line_name": "<unknown>",
        "connected_line_num": "<unknown>",
        "context": "queue_sales",
        "duration": null,
        "exten": "s",
        "hangup_cause": null,
        "hangup_cause_desc": null,
        "language": "en",
        "linked_id": "1513946896.7",
        "priority": "2",
        "tm_update": "2017-12-22T12:48:17.211205731Z",
        "unique_id": "1513946896.7",
        "variables": {}
      }
    ]
  }
}

```

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```
]
},
"statusCode": 200,
"timestamp": "2017-12-22T12:48:26.824442473Z"
}
```

## 7.10 /admin/core/channels/<detail>

### 7.10.1 Methods

GET : Get channel's detail info of given channel info.

DELETE : Hangup the given channel.

### 7.10.2 Method: GET

Get channel's detail info of given channel info.

#### Call

```
GET /admin/core/channels/<detail>
```

#### Method parameters

- detail: unique id.

#### Returns

```
{
  $defhdr,
  "result": {
    "unique_id": "<string>",
    "linked_id": "<string>",

    "channel": "<string>",
    "channel_state": <integer>,
    "channel_state_desc": "<string>",

    "context": "<string>",
    "exten": "<string>",
    "priority": "<string>",

    "caller_id_name": "<string>",
    "caller_id_num": "<string>",

    "connected_line_name": "<string>",
    "connected_line_num": "<string>",

    "account_code": "<string>",
    "language": "<string>",
```

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```

    "application": "<string>",
    "application_data": "<string>",

    "hangup_cause": <number>,
    "hangup_cause_desc": "<string>",

    "variables": {},

    "tm_update": "<timestamp>"
  }
}

```

#### Return parameters

- `unique_id`: Channel's unique id.
- `linked_id`: Channel's linked id.
- `channel`: Channel's name.
- `channel_state`: Channel's state.
- `channel_state_desc`: Channel's state description.
- `context`: Context.
- `exten`: Extension.
- `priority`: Priority
- `caller_id_name`: Caller's id name.
- `caller_id_num`: Caller's id number.
- `connected_line_name`: Caller's line name.
- `connected_line_num`: Caller's line number.
- `account_code`: Account code.
- `language`: Language.
- `application`: Application name.
- `application_data`: Application data.
- `hangup_cause`: Hangup reason.
- `hangup_cause_desc`: Hangup reason description.
- `variables`: List of channel's variables.

#### Example

```

$ curl -k -X GET https://localhost:8081/v1/admin/core/channels/1513946896.7

{
  "api_ver": "0.1",
  "result": {
    "account_code": "",
    "application": "Queue",

```

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```

    "application_data": "",
    "bridge_id": null,
    "caller_id_name": "pjagent-01",
    "caller_id_num": "pjagent-01",
    "channel": "PJSIP/pjagent-01-00000007",
    "channel_state": 4,
    "channel_state_desc": "Ring",
    "connected_line_name": "<unknown>",
    "connected_line_num": "<unknown>",
    "context": "queue_sales",
    "duration": null,
    "exten": "s",
    "hangup_cause": null,
    "hangup_cause_desc": null,
    "language": "en",
    "linked_id": "1513946896.7",
    "priority": "2",
    "tm_update": "2017-12-22T12:48:17.211205731Z",
    "unique_id": "1513946896.7",
    "variables": {}
  },
  "statuscode": 200,
  "timestamp": "2017-12-22T12:49:31.608415721Z"
}

```

### 7.10.3 Method: DELETE

Hangup the given channel.

#### Call

```
DELETE /admin/core/channels/<detail>
```

Method parameters

- detail: unique id.

#### Returns

```

{
  $defhdr
}

```

#### Example

```

$ curl -k -X DELETE https://localhost:8081/v1/admin/core/channels/1513550354.0

{
  "api_ver": "0.1",
  "statuscode": 200,

```

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```

    "timestamp": "2017-12-17T23:11:49.996318852Z"
  }

```

## 7.11 /admin/core/modules

### 7.11.1 Methods

GET : Get list of all modules info.

#### 7.11.2 Method: GET

Get list of all modules info.

#### Call

```
GET /admin/core/modules
```

#### Returns

```

{
  $defhdr,
  "result": {
    "list": [
      {
        "load": "<string>",
        "name": "<string>",
        "size": number,
        "tm_update": "<timestamp>"
      },
      ...
    ]
  }
}

```

- `list`: array of channels. \* See detail at *Method: GET*.

#### Example

```

$ curl -k -X GET https://localhost:8081/v1/admin/core/modules

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "load": "unknown",
        "name": "app_voicemail",

```

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```
        "size": 1083280,  
        "tm_update": "2017-12-17T22:11:40.375546224Z"  
    }  
]  
,  
"statusCode": 200,  
"timestamp": "2017-12-17T23:14:08.548863974Z"  
}
```

## 7.12 /admin/core/modules/<detail>

### 7.12.1 Methods

GET : Get detail info of given module

POST : Load given module.

PUT : Reload given module.

DELETE : Unload given module.

### 7.12.2 Method: GET

Get list of all modules info.

#### Call

```
GET /admin/core/modules/<detail>
```

Method parameters

- detail: module name

#### Returns

```
{  
  $defhdr,  
  "result": {  
    "load": "<string>",  
    "name": "<string>",  
    "size": number,  
    "tm_update": "<timestamp>"  
  }  
}
```

- load: load status.
- name: module name.
- size: module size.



## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/core/modules/app_voicemail

{
  "api_ver": "0.1",
  "result": {
    "load": "unknown",
    "name": "app_voicemail",
    "size": 1083280,
    "tm_update": "2017-12-17T23:28:02.30024695Z"
  },
  "statuscode": 200,
  "timestamp": "2017-12-17T23:28:07.214355673Z"
}
```

### 7.12.3 Method: POST

Load the given module.

#### Call

```
POST /admin/core/modules/<detail>
```

Method parameters

- detail: module name

#### Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X POST https://localhost:8081/v1/admin/core/modules/app_voicemail

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2017-12-17T23:35:07.579784864Z"
}
```

### 7.12.4 Method: PUT

Reload the given module.

## Call

```
PUT /admin/core/modules/<detail>
```

### Method parameters

- detail: module name

## Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X PUT https://localhost:8081/v1/admin/core/modules/app_voicemail

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2017-12-17T23:36:24.508748449Z"
}
```

## 7.12.5 Method: DELETE

Unload the given module.

## Call

```
DELETE /admin/core/modules/<detail>
```

### Method parameters

- detail: module name

## Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/core/modules/app_voicemail

{
  "api_ver": "0.1",
```

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```

"statusCode": 200,
"timestamp": "2017-12-17T23:38:17.170752025Z"
}

```

## 7.13 /admin/core/systems

### 7.13.1 Methods

GET : Get list of all systems info.

### 7.13.2 Method: GET

Get list of all modules info.

#### Call

```
GET /admin/core/systems
```

#### Returns

```

{
  $defhdr,
  "result": {
    "list": [
      {
        "id": "<string>",
        "system_name": "<string>",

        "ami_version": "<string>",
        "ast_version": "<string>",

        "cdr_enabled": "<string>",
        "http_enabled": "<string>",

        "current_calls": <number>,
        "max_calls": <number>,
        "max_file_handles": <number>,
        "max_load_avg": <real>,

        "real_time_enabled": "<string>",

        "reload_date": "<string>",
        "reload_time": "<string>",

        "run_group": "<string>",
        "run_user": "<string>",

        "startup_date": "<string>",
        "startup_time": "<string>",
      }
    ]
  }
}

```

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```
        "tm_update": "<string>"
      },
      ...
    ]
  }
}
```

- `list`: array of channels. \* See detail at [Method: GET](#).

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/core/systems

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "ami_version": "4.0.0",
        "ast_version": "GIT-master-e97e415M",
        "cdr_enabled": "Yes",
        "current_calls": 0,
        "http_enabled": "No",
        "id": "1",
        "max_calls": 0,
        "max_file_handles": 0,
        "max_load_avg": 0.0,
        "real_time_enabled": "No",
        "reload_date": "2017-12-17",
        "reload_time": "23:36:24",
        "run_group": "",
        "run_user": "",
        "startup_date": "2017-12-17",
        "startup_time": "10:17:20",
        "system_name": "",
        "tm_update": "2017-12-17T23:38:54.940300313Z"
      }
    ],
    "statusCode": 200,
    "timestamp": "2017-12-17T23:38:55.914253052Z"
  }
}
```

## 7.14 /admin/core/systems/<detail>

### 7.14.1 Methods

GET : Get detail info of given system.

### 7.14.2 Method: GET

Get detail info of given system.

#### Call

```
GET /admin/core/systems/<detail>
```

#### Method parameters

- detail: system id.

#### Returns

```
{
  $defhdr,
  "result": {
    "id": "<string>",
    "system_name": "<string>",

    "ami_version": "<string>",
    "ast_version": "<string>",

    "cdr_enabled": "<string>",
    "http_enabled": "<string>",
    "real_time_enabled": "<string>",

    "current_calls": <number>,
    "max_calls": <number>,
    "max_file_handles": <number>,
    "max_load_avg": <real>,

    "reload_date": "<string>",
    "reload_time": "<string>",

    "run_group": "<string>",
    "run_user": "<string>",

    "startup_date": "<string>",
    "startup_time": "<string>",

    "tm_update": "<string>"
  }
}
```

- id: system id.
- system\_name: system name.
- ami\_version: AMI version.
- ast\_version: Asterisk version.
- cdr\_enabled: Cdr enabled or not. If enabled “Yes”.
- http\_enabled: http enabled or not. If enabled “Yes”.
- real\_time\_enabled: real time enabled or not. If enabled “Yes”.

- `current_calls`: Current call count.
- `max_calls`: Maximum call count.
- `max_file_handles`: Maximum file handle count.
- `max_load_avg`: Max load average.
- `reload_date`: Reloaded date.
- `reload_time`: Reloaded time.
- `run_group`: Process running group.
- `run_user`: Process running user.
- `startup_date`: Startup date.
- `startup_time`: Startup time.

### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/core/systems/1

{
  "api_ver": "0.1",
  "result": {
    "ami_version": "4.0.0",
    "ast_version": "GIT-master-e97e415M",
    "cdr_enabled": "Yes",
    "current_calls": 0,
    "http_enabled": "No",
    "id": "1",
    "max_calls": 0,
    "max_file_handles": 0,
    "max_load_avg": 0.0,
    "real_time_enabled": "No",
    "reload_date": "2017-12-17",
    "reload_time": "23:36:24",
    "run_group": "",
    "run_user": "",
    "startup_date": "2017-12-17",
    "startup_time": "10:17:20",
    "system_name": "",
    "tm_update": "2017-12-17T23:42:16.933212413Z"
  },
  "statusCode": 200,
  "timestamp": "2017-12-17T23:42:17.210353468Z"
}
```

## 7.15 /admin/dialplan/adps

### 7.15.1 Methods

GET : Get list of all adp(async dialplan)s info.

POST : Create new adp(async dialplan) info.

### 7.15.2 Method: GET

Get list of all adp(async dialplan)s info.

#### Call

```
GET /admin/dialplan/adps
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        ...
      },
      ...
    ]
  }
}
```

Return parameters

- `list` : array of itmes. \* See detail dialplans detail info.

#### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/dialplan/adps

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "command": null,
        "detail": null,
        "dpma_uuid": "1d47735d-2265-463c-908a-d37dea085c21",
        "name": "test_dialplan_1",
        "sequence": 10,
        "tm_create": "2018-01-23T01:05:53.878811167Z",
        "tm_update": "2018-01-23T01:27:54.670312624Z",
        "uuid": "91bba56b-7ec5-4fe2-a724-9f39d527da8c"
      }
    ],
    "statuscode": 200,
    "timestamp": "2018-01-23T01:29:02.718231538Z"
  }
}
```

### 7.15.3 Method: POST

Create new adp(async dialplan) info.

## Call

```
POST /admin/dialplan/adps

{
  ...
}
```

## Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X POST https://localhost:8081/v1/admin/dialplan/adps -d
'{"name": "test_dialplan_1", "dpma_uuid": "1d47735d-2265-463c-908a-d37dea085c21",
↪ "sequence": 1}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-23T01:38:38.709550080Z"
}
```

## 7.16 /admin/dialplan/adps/<detail>

### 7.16.1 Methods

GET : Get async dialplan detail info of given detail.

PUT : Update async dialplan detail info of given detail.

DELETE : Delete the given async dialplan info.

### 7.16.2 Method: GET

Get async dialplan detail info of given detail.

## Call

```
GET /admin/dialplan/adps/<detail>
```

Method parameters

- detail: dialplan uuid



## Returns

```
{
  $defhdr,
  "result": {
    "uuid": "<string>",
    "dpma_uuid": "<string>",
    "sequence": <number>,

    "name": "<string>",
    "detail": "<string>",

    "command": "<string>",

    "tm_create": "<timestamp>",
    "tm_update": "<timestamp>"
  }
}
```

### Return parameters

- `uuid`: dialplan uuid.
- `dpma_uuid`: Dpma uuid.
- `sequence`: Sequence.
- `name`: Name.
- `detail`: Detail info.
- `command`: Command.
- `tm_create`: timestamp.
- `tm_update`: timestamp.

## Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/adps/abde9ef2-7255-4e64-acbe-
↪a6edb964c442

{
  "api_ver": "0.1",
  "result": {
    "command": null,
    "detail": null,
    "dpma_uuid": "1d47735d-2265-463c-908a-d37dea085c21",
    "name": "test_dialplan_1",
    "sequence": 1,
    "tm_create": "2018-01-23T01:38:38.698487606Z",
    "tm_update": null,
    "uuid": "abde9ef2-7255-4e64-acbe-a6edb964c442"
  },
  "statusCode": 200,
  "timestamp": "2018-01-23T01:38:53.794937064Z"
}
```

### 7.16.3 Method: PUT

Update async dialplan detail info of given detail.

#### Call

```
PUT /admin/dialplan/adps/<detail>

{
  ...
}
```

#### Method parameters

- detail: dialplan uuid.

#### Returns

```
{
  $defhdr
}
```

#### Example

```
$ curl -k -X PUT https://localhost:8081/v1/admin/dialplan/adps/91bba56b-7ec5-4fe2-
↪a724-9f39d527da8c -d \
'{"uuid": "91bba56b-7ec5-4fe2-a724-9f39d527da8c", \
"dpma_uuid": "1d47735d-2265-463c-908a-d37dea085c21", "sequence": 10}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-23T01:27:54.683794074Z"
}
```

### 7.16.4 Method: DELETE

DELETE : Delete the given async dialplan info.

#### Call

```
DELETE /admin/dialplan/adps/<detail>
```

#### Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/dialplan/adps/91bba56b-7ec5-4fe2-
↪a724-9f39d527da8c

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-23T01:29:34.538575375Z"
}
```

## 7.17 /admin/dialplan/adpmas

### 7.17.1 Methods

GET : Get list of all adpma info.

POST : Create new adpma info.

### 7.17.2 Method: GET

Get list of all adpma info.

## Call

```
GET /admin/dialplan/adpmas
```

## Returns

```
{
  $defhdr,
  "reuslt": {
    "list": [
      {
        ...
      },
      ...
    ]
  }
}
```

Return parameters

- `list` : array of itmes. \* See detail adpma detail info.

## Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/adpmas

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "detail": "test dpma dpma",
        "name": "test dpma",
        "tm_create": "2018-01-22T23:40:55.513269352Z",
        "tm_update": null,
        "uuid": "1d47735d-2265-463c-908a-d37dea085c21"
      }
    ]
  },
  "statuscode": 200,
  "timestamp": "2018-01-22T23:41:06.819146813Z"
}
```

### 7.17.3 Method: POST

Create new adpma info.

#### Call

```
POST /admin/dialplan/adpmas

{
  ...
}
```

#### Returns

```
{
  $defhdr
}
```

#### Example

```
$ curl -k -X POST https://localhost:8081/v1/admin/dialplan/adpmas -d '{"name": "test_
↪dpma", "detail": "test dpma dpma"}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-22T23:40:55.524091997Z"
}
```

## 7.18 /admin/dialplan/adpmas/<detail>

### 7.18.1 Methods

GET : Get adpmas detail info of given detail.

PUT : Update adpmas detail info of given detail.

DELETE : Delete the given adpmas info.

### 7.18.2 Method: GET

Get adpma detail info of given detail.

#### Call

```
GET /admin/dialplan/adpmas/<detail>
```

Method parameters

- detail: adpma uuid

#### Returns

```
{
  $defhdr,
  "result": {
    "uuid": "<string>",

    "name": "<string>",
    "detail": "<string>",

    "tm_create": "<string>",
    "tm_update": "<string>"
  }
}
```

Return parameters

- uuid: adpma uuid.
- name: Name.
- detail: Detail info.
- tm\_create: timestamp.
- tm\_update: timestamp.

#### Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/adpmas/1d47735d-2265-463c-908a-
↪d37dea085c21

{
  "api_ver": "0.1",
  "result": {
    "detail": "test dpma dpma",
    "name": "test dpma",
    "tm_create": "2018-01-22T23:40:55.513269352Z",
    "tm_update": null,
    "uuid": "1d47735d-2265-463c-908a-d37dea085c21"
  },
  "statuscode": 200,
  "timestamp": "2018-01-22T23:43:06.585017860Z"
}
```

### 7.18.3 Method: PUT

Update adpmas detail info of given detail.

#### Call

```
PUT /admin/dialplan/adpmas/<detail>

{
  ...
}
```

Method parameters

- detail: dpma uuid.

#### Returns

```
{
  $defhdr
}
```

#### Example

```
$ curl -k -X PUT https://localhost:8081/v1/admin/dialplan/adpmas/1d47735d-2265-463c-
↪908a-d37dea085c21 -d
'{"name": "test change name" }'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-22T23:46:38.238159711Z"
}
```

### 7.18.4 Method: DELETE

DELETE : Delete the given adpma info.

#### Call

```
DELETE /admin/dialplan/adpmas/<detail>
```

#### Returns

```
{
  $defhdr
}
```

#### Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/dialplan/adpmas/1d47735d-2265-
→463c-908a-d37dea085c21

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-01-23T01:59:22.411717755Z"
}
```

## 7.19 /admin/dialplan/configurations

### 7.19.1 Methods

GET : Get all dialplan configurations info.

### 7.19.2 Method: GET

Get all dialplan configurations info.

#### Example

```
{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "data": "...",
        "name": "extensions.conf"
      },
      {
        "data": "..."
      }
    ]
  }
}
```

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```
        "name": "extensions.conf.2018-05-20T19:54:00.66126645Z"
      },
      ...
    ]
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T13:24:14.979704248Z"
}
```

## 7.20 /admin/dialplan/configurations/<detail>

### 7.20.1 Methods

GET: Get given dialplan configuration detail info.

PUT: Update given dialplan configuration detail info.

DELETE: Delete given dialplan configuration detail info.

### 7.20.2 Method: GET

Get given dialplan configuration detail info.

#### Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/configurations/extensions.conf\?
↪ authToken=86f7c25d-54db-4ffd-9bf8-8f691fbb4b97

{
  "api_ver": "0.1",
  "result": {
    "data": "...",
    "name": "extensions.conf"
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T13:33:06.376506142Z"
}
```

### 7.20.3 Method: PUT

Update given dialplan configuration detail info.

### 7.20.4 Method: DELETE

Delete given dialplan configuration detail info.



## Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/dialplan/configurations/
↳ extensions.conf.2018-05-21T08:49:27.783332067Z\?authToken=86f7c25d-54db-4ffd-9bf8-
↳ 8f691fbb4b97

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-22T13:35:18.521871974Z"
}
```

## 7.21 /admin/dialplan/sdps

### 7.21.1 Methods

GET: Get all of dialplan's static dialplans info.

### 7.21.2 Method: GET

## Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/sdps\?authToken=86f7c25d-54db-4ffd-
↳ 9bf8-8f691fbb4b97

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "data": [
          {
            "exten": "> _X.,1,NoOp(jade-queue) "
          },
          {
            "same": "> n,Queue(jade-queue) "
          }
        ],
        "name": "jade-queue"
      },
      {
        "data": [],
        "name": "jade_demo2"
      },
      {
        "data": [
          {
            "exten": "> 100,1,NoOp(sample_park) "
          },
          {
            "same": "> n,park() "
          }
        ],

```

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```
        {
            "exten": "> _X.,1,BackGround(demo-congrats) "
        },
        {
            "same": "> n, Hangup() "
        }
    ],
    "name": "jade_demo"
},
{
    "data": [],
    "name": "jade_demo3"
}
]
},
"statusCode": 200,
"timestamp": "2018-05-22T13:36:41.645574898Z"
}
}
```

## 7.22 /admin/dialplan/sdps/<detail>

### 7.22.1 Methods

Get: Get detail info of the given sdp.

PUT: Update detail info of the given sdp.

DELETE: Delete detail info of the given sdp.

### 7.22.2 Method: GET

Get detail info of the given sdp.

#### Example

```
$ curl -k https://localhost:8081/v1/admin/dialplan/sdps/jade_demo\?authtoken=86f7c25d-
↪54db-4ffd-9bf8-8f691fbb4b97

{
  "api_ver": "0.1",
  "result": {
    "data": [
      {
        "exten": "> 100,1,NoOp(sample_park) "
      },
      {
        "same": "> n,park() "
      },
      {
        "exten": "> _X.,1,BackGround(demo-congrats) "
      }
    ]
  }
}
```

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```

        {
            "same": "> n, Hangup()"
        }
    ],
    "name": "jade_demo"
},
"statusCode": 200,
"timestamp": "2018-05-22T13:39:39.664914968Z"
}

```

### 7.22.3 Method: PUT

Update detail info of the given sdp.

#### Example

### 7.22.4 Method: DELETE

Delete detail info of the given sdp.

#### Example

```

$ curl -k -X DELETE https://localhost:8081/v1/admin/dialplan/sdps/jade_demo3\?
↪authToken=86f7c25d-54db-4ffd-9bf8-8f691fbb4b97

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-22T13:42:00.607209696Z"
}

```

## 7.23 /admin/info

### 7.23.1 Methods

GET: Get current user's info.

PUT: Update current user's info.

### 7.23.2 Method: GET

Get current user's info.

#### Example

```
$ curl -k https://localhost:8081/v1/admin/info\?authToken=86f7c25d-54db-4ffd-9bf8-
↪8f691fbb4b97

{
  "api_ver": "0.1",
  "result": {
    "name": "Test Administrator",
    "tm_create": "2018-04-28T05:03:36.560694725Z",
    "tm_update": "2018-04-28T07:10:29.116108422Z",
    "username": "admin",
    "uuid": "ed629979-802b-40f0-9098-b30b2988f9b6"
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T13:42:29.17642767Z"
}
```

### 7.23.3 Method: PUT

Update current user's info.

## 7.24 /admin/login

### 7.24.1 Methods

POST: Create new authToken.

DELETE: Delete the given authToken.

### 7.24.2 Method: POST

Create new authToken.

#### Example

```
$ curl -k -X POST https://localhost:8081/v1/admin/login -u admin:admin

{
  "api_ver": "0.1",
  "result": {
    "authToken": "7ac326bf-e146-493a-b9c7-bfb990264b59"
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T13:49:12.711802985Z"
}
```

### 7.24.3 Method: DELETE

Delete the given authToken

## Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/login\?authToken=7ac326bf-e146-
↪493a-b9c7-bfb990264b59

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-22T13:50:29.818196101Z"
}
```

## 7.25 /admin/park/cfg\_parkinglots

### 7.25.1 Methods

GET: Get all of the config parkinglots info.

POST: Create new config parkinglot info.

### 7.25.2 Method: GET

Get all of the config parkinglots info.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/park/cfg_parkinglots\?
↪authToken=0e81eee1-f215-4397-ac99-e0de58b87b88

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "data": {
          "context": "teset",
          "parkpos": "851-900"
        },
        "name": "test_park1"
      },
      {
        "data": {},
        "name": "jade-tesetqueue2"
      },
      {
        "data": {
          "comebackcontext": "edvinapark-timeout",
          "comebackdialtime": "90",
          "comebacktoorigin": "no",
          "context": "edvina_park",
          "findslot": "next",
          "parkedmusicclass": "edvina",
          "parkpos": "800-850"
        }
      }
    ]
  }
}
```

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```
        },
        "name": "edvina"
      },
      {
        "data": {},
        "name": "jade-testqueue2"
      }
    ]
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T14:09:47.561146235Z"
}
```

### 7.25.3 Method: POST

Create new config parkinglot info.

#### Example

## 7.26 /admin/park/cfg\_parkinglots/<detail>

### 7.26.1 Methods

GET: Get detail info of the given config parkinglot.

PUT: Update detail info of the given config parkinglot.

DELETE: Delete detail info of the given config parkinglot.

### 7.26.2 Method: GET

Get detail info of the given config parkinglot.

#### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/park/cfg_parkinglots/edvina\?
↪authtoken=0e81eeel-f215-4397-ac99-e0de58b87b88

{
  "api_ver": "0.1",
  "result": {
    "data": {
      "comebackcontext": "edvinapark-timeout",
      "comebackdialtime": "90",
      "comebacktoorigin": "no",
      "context": "edvina_park",
      "findslot": "next",
      "parkedmusicclass": "edvina",
      "parkpos": "800-850"
    },
  },
}
```

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```

    "name": "edvina"
  },
  "statusCode": 200,
  "timestamp": "2018-05-22T14:14:53.78923359Z"
}

```

### 7.26.3 Method: PUT

Update detail info of the given config parkinglot.

### 7.26.4 Method: DELETE

Delete detail info of the given config parkinglot.

#### Example

```

$ curl -k -X DELETE https://localhost:8081/v1/admin/park/cfg_parkinglots/jade-
tesetqueue2\?authtoken=0e81eee1-f215-4397-ac99-e0de58b87b88

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-22T14:17:32.187887090Z"
}

```

## 7.27 /admin/park/configurations

### 7.28 /admin/park/configurations/<detail>

## 7.29 /admin/park/parkedcalls

### 7.29.1 Methods

GET : Get list of all parked calls info.

### 7.29.2 Method: GET

Get list of all parked calls info.

#### Call

```
GET /admin/park/parkedcalls
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        ...
      },
      ...
    ]
  }
}
```

### Return parameters

- `list`: array of itmes. \* See detail parkedcall detail info.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/park/parkedcalls

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "parkee_account_code": "",
        "parkee_caller_id_name": "pjagent-01",
        "parkee_caller_id_num": "pjagent-01",
        "parkee_channel": "PJSIP/pjagent-01-00000044",
        "parkee_channel_state": "6",
        "parkee_channel_state_desc": "Up",
        "parkee_connected_line_name": "<unknown>",
        "parkee_connected_line_num": "<unknown>",
        "parkee_context": "sample_park",
        "parkee_exten": "s",
        "parkee_linked_id": "1514423807.111",
        "parkee_priority": "2",
        "parkee_unique_id": "1514423807.111",
        "parker_dial_string": "PJSIP/pjagent-01",
        "parking_duration": 0,
        "parking_lot": "default",
        "parking_space": "701",
        "parking_timeout": 45,
        "tm_update": "2017-12-28T01:16:48.343347741Z"
      }
    ],
    "statuscode": 200,
    "timestamp": "2017-12-28T01:17:10.187476889Z"
  }
}
```



## 7.30 /admin/park/parkedcalls/<detail>

### 7.30.1 Methods

GET : Get parked\_call's detail info of given info.

DELETE : Hangup the given parked call info.

### 7.30.2 Method: GET

Get parked\_call's detail info of given info.

#### Call

```
GET /admin/park/parkedcalls/<detail>
```

Method parameters

- detail: Parkee's unique id.

#### Returns

```
{
  $defhdr,
  "result": {
    "parkee_unique_id": "<string>",
    "parkee_linked_id": "<string>",

    "parkee_channel": "<string>",
    "parkee_channel_state": "<string>",
    "parkee_channel_state_desc": "<string>",

    "parkee_caller_id_name": "<string>",
    "parkee_caller_id_num": "<string>",

    "parkee_connected_line_name": "<string>",
    "parkee_connected_line_num": "<string>",

    "parkee_account_code": "<string>",

    "parkee_context": "<string>",
    "parkee_exten": "<string>",
    "parkee_priority": "<string>",

    "parker_dial_string": "<string>",
    "parking_duration": <integer>,
    "parking_lot": "<string>",
    "parking_space": "<string>",
    "parking_timeout": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

#### Return parameters

- `parkee_unique_id`: Parkee's unique id.
- `parkee_linked_id`: Parkee's linked id.
- `parkee_channel`: Parkee's channel name.
- `parkee_channel_state`: Parkee's channel state.
- `parkee_channel_state_desc`: Parkee's channel state description.
- `parkee_caller_id_name`: Parkee's caller id name.
- `parkee_caller_id_num`: Parkee's caller id number.
- `parkee_connected_line_name`: Parkee's connected line name.
- `parkee_connected_line_num`: Parkee's connected line number.
- `parkee_account_code`: Parkee's account code.
- `parkee_context`: Parkee's current context.
- `parkee_exten`: Parkee's current exten.
- `parkee_priority`: Parkee's current priority.
- `parker_dial_string`: Dial String that can be used to call back the parker on `ParkingTimeout`.
- `parking_duration`: Time the parkee has been in the parking bridge since `tm_update`(in seconds).
- `parking_lot`: Name of the parking lot that the parkee is parked in.
- `parking_space`: Parking Space that the parkee is parked in.
- `parking_timeout`: Time remaining until the parkee is forcefully removed from parking in seconds since `tm_update`.

#### Example

```
$ curl -X GET localhost:8081/park/parkedcalls/1514423984.115

{
  "api_ver": "0.1",
  "result": {
    "parkee_account_code": "",
    "parkee_caller_id_name": "pjagent-01",
    "parkee_caller_id_num": "pjagent-01",
    "parkee_channel": "PJSIP/pjagent-01-00000046",
    "parkee_channel_state": "6",
    "parkee_channel_state_desc": "Up",
    "parkee_connected_line_name": "<unknown>",
    "parkee_connected_line_num": "<unknown>",
    "parkee_context": "sample_park",
    "parkee_exten": "s",
    "parkee_linked_id": "1514423984.115",
    "parkee_priority": "2",
    "parkee_unique_id": "1514423984.115",
    "parker_dial_string": "PJSIP/pjagent-01",
    "parking_duration": 0,
    "parking_lot": "default",
    "parking_space": "701",
```

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```

    "parking_timeout": 45,
    "tm_update": "2017-12-28T01:19:44.271005802Z"
  },
  "statuscode": 200,
  "timestamp": "2017-12-28T01:19:53.629685348Z"
}

```

### 7.30.3 Method: DELETE

Hangup the given parked call info.

#### Call

```
DELETE /admin/park/parkedcalls/<detail>
```

Method parameters

- detail: Parkee's unique id.

#### Returns

```

{
  $defhdr
}

```

#### Example

```

$ curl -k -X DELETE https://localhost:8081/v1/admin/park/parkedcalls/1515019232.8

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-01-03T22:40:50.55634319Z"
}

```

## 7.31 /admin/park/parkinglots

### 7.31.1 Methods

GET : Get list of all parking lot info.

### 7.31.2 Method: GET

Get list of all parking lots info.

## Call

```
GET /admin/park/parkinglots
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        ...
      },
      ...
    ]
  }
}
```

Return parameters

- **list** [array of itmes.]
  - See detail at parking lot detail info.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/park/parkinglots

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "name": "default",
        "start_space": "701",
        "stop_spcae": "720",
        "timeout": 45,
        "tm_update": "2017-12-28T01:16:46.350523532Z"
      }
    ]
  },
  "statusCode": 200,
  "timestamp": "2017-12-28T01:21:57.180448453Z"
}
```

## 7.32 /admin/park/parkinglots/<detail>

### 7.32.1 Methods

GET : Get parking lot's detail info of given detail.

PUT : Update parking lot's detail info of given detail.

DELETE : Delete the given parking lot info.

### 7.32.2 Method: GET

Get parking lot's detail info of given info.

#### Call

```
GET /admin/park/parkinglots/<detail>
```

#### Method parameters

- detail: url encoded parking lot's name.

#### Returns

```
{
  $defhdr,
  "result": {
    "name": "<string>",

    "start_space": "<string>",
    "stop_spcae": "<string>",

    "timeout": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

#### Return parameters

- name: Parking lot's name.
- start\_space: Parking lot's start space.
- stop\_spcae: Parking lot's stop space.
- timeout: Timeout second in the parking lot.

#### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/park/parkinglots/default

{
  "api_ver": "0.1",
  "result": {
    "name": "default",
    "start_space": "701",
    "stop_spcae": "720",
    "timeout": 45,
    "tm_update": "2017-12-28T01:16:46.350523532Z"
  },
  "statusCode": 200,
```

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```
}
  "timestamp": "2017-12-28T01:25:47.123913131Z"
}
```

### 7.32.3 Method: PUT

Update parking lot's detail info of given detail.

#### Call

```
PUT /admin/park/parkinglots/<detail>

{
  ...
}
```

#### Method parameters

- detail: url encoded parking lot's name.

#### Returns

```
{
  $defhdr
}
```

#### Example

```
$ curl -k -X PUT https://localhost:8081/v1/admin/park/parkinglots/test_parkinglot -d \
'{"context": "> edvina_park", "parkpos": "> 800-900", "findslot": "> next", \
"comebacktoorigin": "no", "comebackdialtime": "90", \
"comebackcontext": "edvinapark-timeout", "parkedmusicclass": "edvina" }'

{
  "api_ver": "0.1",
  "timestamp": "2018-01-03T22:17:22.76376966Z",
  "statuscode": 200
}
```

### 7.32.4 Method: DELETE

DELETE : Delete the given parking lot info.

#### Call

```
DELETE /admin/park/parkinglots/<detail>
```

## Returns

```
{
  $defhdr
}
```

## Example

```
$ curl -k -X DELETE https://localhost:8081/v1/admin/park/parkinglots/test_parkinglot

{
  "api_ver": "0.1",
  "timestamp": "2018-01-03T21:50:01.672074605Z",
  "statuscode": 200
}
```

## 7.33 /admin/pjsip/aors

### 7.33.1 Methods

GET : Get all list of aors.

### 7.33.2 Method: GET

GET : Get all list of aors.

## Call

```
GET ^/admin/pjsip/aors
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "object_name": "<string>",
        "object_type": "<string>",

        "endpoint_name": "<string>",
        "contacts": "<string>",
        "contacts_registered": <number>,
        "total_contacts": <number>,

        "authenticate_qualify": "<string>",

        "default_expiration": <number>,

```

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```

    "mailboxes": "<string>",

    "max_contacts": <number>,
    "maximum_expiration": <number>,
    "minimum_expiration": <number>,

    "outbound_proxy": "<string>",

    "qualify_frequency": <number>,
    "qualify_timeout": <number>,

    "remove_existing": "<string>",
    "support_path": "<string>",

    "voicemail_extension": "<string>",

    "tm_update": "<timestamp>"
  },
  ...
]
}
}

```

## Example

```

$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/aors

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "authenticate_qualify": "false",
        "contacts": "",
        "contacts_registered": 0,
        "default_expiration": 3600,
        "endpoint_name": "199",
        "mailboxes": "",
        "max_contacts": 1,
        "maximum_expiration": 7200,
        "minimum_expiration": 60,
        "object_name": "199",
        "object_type": "aor",
        "outbound_proxy": "",
        "qualify_frequency": 0,
        "qualify_timeout": 3,
        "remove_existing": "true",
        "support_path": "false",
        "tm_update": "2017-12-19T20:03:34.948197060Z",
        "total_contacts": 0,
        "voicemail_extension": ""
      },
      ...
    ]
  }
}

```

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```

},
"statusCode": 200,
"timestamp": "2017-12-19T20:03:41.263715886Z"
}

```

## 7.34 /admin/pjsip/aors/<detail>

### 7.34.1 Methods

GET : Get detail aor info of given aor info.

### 7.34.2 Method: GET

GET : Get detail aor info of given aor info.

#### Call

```
GET /admin/pjsip/aors/<detail>
```

#### Method parameters

- detail: aor name.

#### Returns

```

{
  $defhdr,
  "result": {
    "object_name": "<string>",
    "object_type": "<string>",

    "endpoint_name": "<string>",
    "contacts": "<string>",
    "contacts_registered": <number>,
    "total_contacts": <number>,

    "authenticate_qualify": "<string>",

    "default_expiration": <number>,

    "mailboxes": "<string>",

    "max_contacts": <number>,
    "maximum_expiration": <number>,
    "minimum_expiration": <number>,

    "outbound_proxy": "<string>",

    "qualify_frequency": <number>,
    "qualify_timeout": <number>,
  }
}

```

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```
"remove_existing": "<string>",
"support_path": "<string>",

"voicemail_extension": "<string>",

"tm_update": "<timestamp>"
}
}
```

- object\_name: aor name.
- object\_type: type. Always would be “aor”.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/aors/pjagent-01

{
  "api_ver": "0.1",
  "result": {
    "authenticate_qualify": "false",
    "contacts": "pjagent-01/sip:35740219@10.12.118.159:49027",
    "contacts_registered": 1,
    "default_expiration": 3600,
    "endpoint_name": "pjagent-01",
    "mailboxes": "",
    "max_contacts": 1,
    "maximum_expiration": 7200,
    "minimum_expiration": 60,
    "object_name": "pjagent-01",
    "object_type": "aor",
    "outbound_proxy": "",
    "qualify_frequency": 0,
    "qualify_timeout": 3,
    "remove_existing": "true",
    "support_path": "false",
    "tm_update": "2017-12-19T20:03:36.64487822Z",
    "total_contacts": 1,
    "voicemail_extension": ""
  },
  "statuscode": 200,
  "timestamp": "2017-12-19T20:21:29.736727558Z"
}
```

## 7.35 /admin/pjsip/auth

### 7.35.1 Methods

GET : Get all list of auths.

### 7.35.2 Method: GET

GET : Get all list of auths.

#### Call

```
GET /admin/pjsip/auths
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "object_name": "<string>",
        "object_type": "<string>",

        "username": "<string>",
        "auth_type": "<string>",
        "password": "<string>",
        "md5_cred": "<string>",

        "realm": "<string>",
        "nonce_lifetime": <number>,

        "endpoint_name": "<string>",

        "tm_update": "<timestamp>"
      },
      ...
    ]
  }
}
```

- **list**

- object\_name: auth name.
- object\_type: type. Always will be “auth”.

#### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/auths

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "auth_type": "userpass",
        "endpoint_name": "pjagent-01",
        "md5_cred": "",
        "nonce_lifetime": 32,
```

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```
        "object_name": "pjagent-01",
        "object_type": "auth",
        "password": "pjagent-01",
        "realm": "",
        "tm_update": "2017-12-19T20:03:36.42243261Z",
        "username": "pjagent-01"
    },
    ...
]
},
"statusCode": 200,
"timestamp": "2017-12-19T20:26:09.770460034Z"
}
```

## 7.36 /admin/pjsip/auth/<detail>

### 7.36.1 Methods

GET : Get detail auth info of given auth info.

### 7.36.2 Method: GET

GET : Get detail auth info of given auth info.

#### Call

```
GET /admin/pjsip/auths/<detail>
```

Method parameters

- detail: auth name.

#### Returns

```
{
  $defhdr,
  "result": {
    "object_name": "<string>",
    "object_type": "<string>",

    "username": "<string>",
    "auth_type": "<string>",
    "password": "<string>",
    "md5_cred": "<string>",

    "realm": "<string>",
    "nonce_lifetime": <number>,

    "endpoint_name": "<string>",
```

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```

    "tm_update": "<timestamp>"
  }
}

```

- object\_name: aor name.
- object\_type: type. Always would be “aor”.

### Example

```

$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/auths/pjagent-01

{
  "api_ver": "0.1",
  "result": {
    "auth_type": "userpass",
    "endpoint_name": "pjagent-01",
    "md5_cred": "",
    "nonce_lifetime": 32,
    "object_name": "pjagent-01",
    "object_type": "auth",
    "password": "pjagent-01",
    "realm": "",
    "tm_update": "2017-12-19T20:03:36.42243261Z",
    "username": "pjagent-01"
  },
  "statuscode": 200,
  "timestamp": "2017-12-19T20:34:54.165290324Z"
}

```

## 7.37 /admin/pjsip/configurations

### 7.38 /admin/pjsip/configurations/<detail>

## 7.39 /admin/pjsip/contacts

### 7.39.1 Methods

GET : Get all list of contacts.

### 7.39.2 Method: GET

GET : Get all list of contacts.

#### Call

```
GET /admin/pjsip/contacts
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "id": "<string>",
        "call_id": "<string>",

        "uri": "<string>",
        "aor": "<string>",
        "endpoint_name": "<string>",
        "status": "<string>",

        "qualify_frequency": 0,
        "qualify_timeout": 3,

        "authentication_qualify": 0,

        "outbound_proxy": "<string>",
        "path": "<string>",

        "reg_expire": 1513714265,
        "round_trip_usec": "<string>",

        "user_agent": "<string>",
        "via_address": "<string>",

        "tm_update": "<string>"
      },
      ...
    ]
  }
}
```

- **list**

- object\_name: auth name.
- object\_type: type. Always will be “auth”.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/contacts

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "aor": "pjagent-01",
        "authentication_qualify": 0,
        "call_id": "c67ef58c-3b65-44cd-a9a8-784e2af542d3",
        "endpoint_name": "pjagent-01",
        "id": "pjagent-01;@116e48d167ff94856cbc9009cdc735b2",
```

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```

        "outbound_proxy": "",
        "path": "",
        "qualify_frequency": 0,
        "qualify_timeout": 3,
        "reg_expire": 1513714265,
        "round_trip_usec": "0",
        "status": "Unknown",
        "tm_update": "2017-12-19T20:29:36.751968068Z",
        "uri": "sip:35740219@10.12.118.159:49027",
        "user_agent": "Blink 3.0.3 (Linux)",
        "via_address": "10.12.118.159:49027"
    }
}
},
"statuscode": 200,
"timestamp": "2017-12-19T20:38:09.405901164Z"
}

```

## 7.40 /admin/pjsip/contacts/<detail>

### 7.40.1 Methods

GET : Get detail contact info of given contact info.

### 7.40.2 Method: GET

GET : Get detail contact info of given contact info.

#### Call

```
GET /admin/pjsip/contacts/<detail>
```

#### Method parameters

- detail: uri encoded contact id.

#### Returns

```

{
  $defhdr,
  "reuslt": {
    "id": "<string>",
    "call_id": "<string>",

    "uri": "<string>",
    "aor": "<string>",
    "endpoint_name": "<string>",
    "status": "<string>",

    "qualify_frequency": 0,

```

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```
"qualify_timeout": 3,

"authentication_qualify": 0,

"outbound_proxy": "<string>",
"path": "<string>",

"reg_expire": 1513714265,
"round_trip_usec": "<string>",

"user_agent": "<string>",
"via_address": "<string>",

"tm_update": "<string>"
}
}
```

## Example

```
$ curl -X GET localhost:8081/pjsip/contacts/pjagent-01%3B
↪%40116e48d167ff94856cbc9009cdc735b2

{
  "api_ver": "0.1",
  "result": {
    "aor": "pjagent-01",
    "authentication_qualify": 0,
    "call_id": "c67ef58c-3b65-44cd-a9a8-784e2af542d3",
    "endpoint_name": "pjagent-01",
    "id": "pjagent-01;@116e48d167ff94856cbc9009cdc735b2",
    "outbound_proxy": "",
    "path": "",
    "qualify_frequency": 0,
    "qualify_timeout": 3,
    "reg_expire": 1513716547,
    "round_trip_usec": "N/A",
    "status": "Unknown",
    "tm_update": "2017-12-19T20:45:42.698151858Z",
    "uri": "sip:35740219@10.12.118.159:49027",
    "user_agent": "Blink 3.0.3 (Linux)",
    "via_address": "10.12.118.159:49027"
  },
  "statuscode": 200,
  "timestamp": "2017-12-19T20:51:43.977637876Z"
}
```

## 7.41 /admin/pjsip/endpoints

### 7.41.1 Methods

GET : Get all list of endpoints.



## 7.41.2 Method: GET

GET : Get all list of endpoints.

### Call

```
GET /admin/pjsip/endpoints
```

### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        ...
      },
      ...
    ]
  }
}
```

### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/endpoints
```

```
{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "account_code": "",
        "acl": "",
        "active_channels": "",
        "aggregate_mwi": "true",
        "allow":
↪ "(codec2|g723|ulaw|alaw|gsm|g726|g726aal2|adpcm|slin|slin|slin|slin|slin|slin|slin|slin|slin|lpc10
↪ ",
        "allow_overlap": "true",
        "allow_subscribe": "true",
        "allow_transfer": "true",
        "aors": "pjagent-01",
        "asymmetric_rtp_codec": "false",
        "auth": "pjagent-01",
        "bind_rtp_to_media_address": "false",
        "bundle": "false",
        "call_group": "",
        "caller_id": "<unknown>",
        "caller_id_privacy": "allowed_not_screened",
        "caller_id_tag": "",
        "connected_line_method": "invite",
        "contact_acl": "",

```

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```

"context": "demo",
"cos_audio": 0,
"cos_video": 0,
"device_state": "Not in use",
"device_state_busy_at": 0,
"direct_media": "true",
"direct_media_glare_mitigation": "none",
"direct_media_method": "invite",
"disable_direct_media_on_nat": "false",
"disallow": "",
"dtls_ca_file": "",
"dtls_ca_path": "",
"dtls_cert_file": "",
"dtls_cipher": "",
"dtls_fingerprint": "SHA-256",
"dtls_private_key": "",
"dtls_rekey": 0,
"dtls_setup": "active",
"dtls_verify": "No",
"dtmf_mode": "rfc4733",
"fax_detect": "false",
"fax_detect_time": 0,
"force_avp": "false",
"force_rport": "true",
"from_domain": "",
"from_user": "",
"g_726_non_standard": "false",
"ice_support": "false",
"identify_by": "username,ip",
"inband_progress": "false",
"incoming_mwi_mailbox": "pjagent-01@vm-demo",
"language": "",
"mailboxes": "pjagent-01@vm-demo",
"max_audio_streams": 1,
"max_video_streams": 1,
"media_address": "",
"media_encryption": "no",
"media_encryption_optimistic": "false",
"media_use_received_transport": "false",
"message_context": "",
"moh_passthrough": "false",
"moh_suggest": "default",
"mwi_from_user": "",
"mwi_subscribe_replaces_unsolicited": "false",
"named_call_group": "",
"named_pickup_group": "",
"notify_early_inuse_ringing": "false",
"object_name": "pjagent-01",
"object_type": "endpoint",
"one_touch_recording": "false",
"outbound_auth": "",
"outbound_proxy": "",
"pickup_group": "",
"preferred_codec_only": "false",
"record_off_feature": "automixmon",
"record_on_feature": "automixmon",
"redirect_method": "",

```

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```

        "refer_blind_progress": "true",
        "rel_100": "yes",
        "rewrite_contact": "false",
        "rpid_immediate": "false",
        "rtcp_mux": "false",
        "rtp_engine": "asterisk",
        "rtp_ipv6": "false",
        "rtp_keepalive": 0,
        "rtp_symmetric": "false",
        "rtp_timeout": 0,
        "rtp_timeout_hold": 0,
        "sdp_owner": "-",
        "sdp_session": "Asterisk",
        "send_diversion": "true",
        "send_pai": "false",
        "send_rpid": "false",
        "set_var": "",
        "srtp_tag32": "false",
        "sub_min_expiry": "0",
        "subscribe_context": "",
        "t38_udptl": "false",
        "t38_udptl_ec": "none",
        "t38_udptl_ipv6": "false",
        "t38_udptl_maxdatagram": 0,
        "t38_udptl_nat": "false",
        "timers": "yes",
        "timers_min_se": "90",
        "timers_sess_expires": 1800,
        "tm_update": "2017-12-19T20:45:42.632334496Z",
        "tone_zone": "",
        "tos_audio": 0,
        "tos_video": 0,
        "transport": "transport-udp",
        "trust_id_inbound": "false",
        "trust_id_outbound": "false",
        "use_avpf": "false",
        "use_ptime": "false",
        "user_eq_phone": "false",
        "voicemail_extension": "",
        "webrtc": "no"
    },
    ...
]
},
"statusCode": 200,
"timestamp": "2017-12-19T20:55:13.546370914Z"
}

```

## 7.42 /admin/pjsip/endpoints/<detail>

### 7.42.1 Methods

GET : Get detail endpoint info of given endpoint info.

## 7.42.2 Method: GET

GET : Get detail endpoint info of given endpoint info.

### Call

```
GET /admin/pjsip/endpoints/<detail>
```

### Method parameters

- detail: uri encoded endpoint name.

### Returns

```
{
  $defhdr,
  "result": {
    ...
  }
}
```

### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/pjsip/endpoints/pjagent-01

{
  "api_ver": "0.1",
  "result": {
    "account_code": "",
    "acl": "",
    "active_channels": "",
    "aggregate_mwi": "true",
    "allow":
      ↪ "(codec2|g723|ulaw|alaw|gsm|g726|g726aal2|adpcm|slin|slin|slin|slin|slin|slin|slin|slin|slin|lpc10
      ↪ ",
    "allow_overlap": "true",
    "allow_subscribe": "true",
    "allow_transfer": "true",
    "aors": "pjagent-01",
    "asymmetric_rtp_codec": "false",
    "auth": "pjagent-01",
    "bind_rtp_to_media_address": "false",
    "bundle": "false",
    "call_group": "",
    "caller_id": "<unknown>",
    "caller_id_privacy": "allowed_not_screened",
    "caller_id_tag": "",
    "connected_line_method": "invite",
    "contact_acl": "",
    "context": "demo",
    "cos_audio": 0,
    "cos_video": 0,
    "device_state": "Not in use",
```

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```

"device_state_busy_at": 0,
"direct_media": "true",
"direct_media_glare_mitigation": "none",
"direct_media_method": "invite",
"disable_direct_media_on_nat": "false",
"disallow": "",
"dtls_ca_file": "",
"dtls_ca_path": "",
"dtls_cert_file": "",
"dtls_cipher": "",
"dtls_fingerprint": "SHA-256",
"dtls_private_key": "",
"dtls_rekey": 0,
"dtls_setup": "active",
"dtls_verify": "No",
"dtmf_mode": "rfc4733",
"fax_detect": "false",
"fax_detect_time": 0,
"force_avp": "false",
"force_rport": "true",
"from_domain": "",
"from_user": "",
"g_726_non_standard": "false",
"ice_support": "false",
"identify_by": "username,ip",
"inband_progress": "false",
"incoming_mwi_mailbox": "pjagent-01@vm-demo",
"language": "",
"mailboxes": "pjagent-01@vm-demo",
"max_audio_streams": 1,
"max_video_streams": 1,
"media_address": "",
"media_encryption": "no",
"media_encryption_optimistic": "false",
"media_use_received_transport": "false",
"message_context": "",
"mo_h_passthrough": "false",
"mo_h_suggest": "default",
"mwi_from_user": "",
"mwi_subscribe_replaces_unsolicited": "false",
"named_call_group": "",
"named_pickup_group": "",
"notify_early_inuse_ringing": "false",
"object_name": "pjagent-01",
"object_type": "endpoint",
"one_touch_recording": "false",
"outbound_auth": "",
"outbound_proxy": "",
"pickup_group": "",
"preferred_codec_only": "false",
"record_off_feature": "automixmon",
"record_on_feature": "automixmon",
"redirect_method": "",
"refer_blind_progress": "true",
"rel_100": "yes",
"rewrite_contact": "false",
"rpid_immediate": "false",

```

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```
"rtcp_mux": "false",
"rtp_engine": "asterisk",
"rtp_ipv6": "false",
"rtp_keepalive": 0,
"rtp_symmetric": "false",
"rtp_timeout": 0,
"rtp_timeout_hold": 0,
"sdp_owner": "-",
"sdp_session": "Asterisk",
"send_diversion": "true",
"send_pai": "false",
"send_rpid": "false",
"set_var": "",
"srtplib32": "false",
"sub_min_expiry": "0",
"subscribe_context": "",
"t38_udptl": "false",
"t38_udptl_ec": "none",
"t38_udptl_ipv6": "false",
"t38_udptl_maxdatagram": 0,
"t38_udptl_nat": "false",
"timers": "yes",
"timers_min_se": "90",
"timers_sess_expires": 1800,
"tm_update": "2017-12-19T20:45:42.632334496Z",
"tone_zone": "",
"tos_audio": 0,
"tos_video": 0,
"transport": "transport-udp",
"trust_id_inbound": "false",
"trust_id_outbound": "false",
"use_avpf": "false",
"use_ptime": "false",
"user_eq_phone": "false",
"voicemail_extension": "",
"webrtc": "no"
},
"statusCode": 200,
"timestamp": "2017-12-19T21:07:25.80668047Z"
}
```

## 7.43 /admin/pjsip/registration\_outbounds

## 7.44 /admin/pjsip/registration\_outbounds/<detail>

## 7.45 /admin/queue/cfg\_queues

## 7.46 /admin/queue/cfg\_queues/<detail>

## 7.47 /admin/queue/configurations

## 7.48 /admin/queue/configurations/<detail>

## 7.49 /admin/queue/entries

### 7.49.1 Methods

GET : Get list of all queue entries info.

### 7.49.2 Method: GET

Get list of all queue entries info.

#### Call

```
GET /admin/queue/entries
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "unique_id": "<string>",
        "queue_name": "<string>",
        "channel": "<string>",

        "caller_id_name": "<string>",
        "caller_id_num": "<string>",
        "connected_line_name": "<string>",
        "connected_line_num": "<string>",

        "position": <number>,
        "wait": <number>,
      }
    ]
  }
}
```

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```
        "tm_update": "<timestamp>"
      },
      ...
    ]
  }
}
```

- `list` : array of queue entries. \* See detail at `get_queue_entries_detail`.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/queue/entries

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "caller_id_name": "pjagent-01",
        "caller_id_num": "pjagent-01",
        "channel": "PJSIP/pjagent-01-00000002",
        "connected_line_name": "<unknown>",
        "connected_line_num": "<unknown>",
        "position": 1,
        "queue_name": "sales_1",
        "tm_update": "2017-12-18T00:23:39.821137155Z",
        "unique_id": "1513556618.4",
        "wait": null
      }
    ]
  },
  "statuscode": 200,
  "timestamp": "2017-12-18T00:23:40.94974824Z"
}
```

## 7.50 /admin/queue/entries/<detail>

### 7.50.1 Methods

GET : Get queue entry detail info of given queue entry info.

### 7.50.2 Method: GET

Get queue entry detail info of given queue entry info.

#### Call

```
GET /admin/queue/entries/<detail>
```

Method parameters



- detail: unique id

## Returns

```
{
  $defhdr,
  "result": {
    "unique_id": "<string>",
    "queue_name": "<string>",
    "channel": "<string>",

    "caller_id_name": "<string>",
    "caller_id_num": "<string>",
    "connected_line_name": "<string>",
    "connected_line_num": "<string>",

    "position": <number>,
    "wait": <number>,

    "tm_update": "<timestamp>"
  }
}
```

## Return parameters

- unique\_id: Unique id of channel.
- caller\_id\_num: The name of the queue.
- channel: Channel name.
- caller\_id\_name: Caller's name.
- caller\_id\_num: Caller's number.
- connected\_line\_name: Connected line's name.
- connected\_line\_num: Connected line's number.
- position: Position in the queue.
- wait: If set when paused, the reason the queue member was paused.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/queue/entries/1513557067.6

{
  "api_ver": "0.1",
  "result": {
    "caller_id_name": "pjagent-01",
    "caller_id_num": "pjagent-01",
    "channel": "PJSIP/pjagent-01-00000004",
    "connected_line_name": "<unknown>",
    "connected_line_num": "<unknown>",
    "position": 1,
    "queue_name": "sales_1",
    "tm_update": "2017-12-18T00:31:08.754950500Z",
```

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```
    "unique_id": "1513557067.6",
    "wait": null
  },
  "statuscode": 200,
  "timestamp": "2017-12-18T00:31:18.894580134Z"
}
```

## 7.51 /admin/queue/members

### 7.51.1 Methods

GET : Get list of all queue members info.

### 7.51.2 Method: GET

Get list of all queue members info.

#### Call

```
GET /admin/queue/members
```

#### Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "id": "<string>",
        "name": "<string>",
        "queue_name": "<string>",
        "status": <integer>,
        "membership": "<string>",
        "state_interface": "<string>",
        "location": "<string>",
        "paused": <integer>,
        "paused_reason": "<string>",
        "penalty": <integer>,
        "calls_taken": <integer>,
        "in_call": <integer>,
        "last_call": <integer>,
        "last_pause": <integer>,
        "ring_inuse": <integer>,

```

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```

        "tm_update": "<timestamp>"
    },
    ...
]
}
}

```

- `list`: array of registry account. \* See detail at *Method: GET*.

## Example

```

$ curl -k -X GET https://localhost:8081/v1/admin/queue/members

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "id": "sip/agent-02@sales_1",
        "calls_taken": 0,
        "in_call": 0,
        "last_call": 0,
        "last_pause": 0,
        "location": "sip/agent-02",
        "membership": "dynamic",
        "name": "sip/agent-02",
        "paused": 0,
        "paused_reason": "",
        "penalty": 0,
        "queue_name": "sales_1",
        "ring_inuse": null,
        "state_interface": "sip/agent-02",
        "status": 4,
        "tm_update": "2017-12-18T00:31:04.175880809Z"
      },
      ...
    ]
  },
  "statuscode": 200,
  "timestamp": "2017-12-18T00:34:45.370734689Z"
}

```

## 7.52 /admin/queue/members/<detail>

### 7.52.1 Methods

GET : Get queue member detail info of given queue member info.

### 7.52.2 Method: GET

Get queue member detail info of given queue member info.

## Call

```
GET /admin/queue/members/<detail>?queue_name=<string>
```

### Method parameters

- detail: member name.
- queue\_name: queue name.

## Returns

```
{
  $defhdr,
  "result": {
    "id": "<string>",

    "name": "<string>",
    "queue_name": "<string>",
    "status": <integer>,

    "membership": "<string>",
    "state_interface": "<string>",
    "location": "<string>",

    "paused": <integer>,
    "paused_reason": "<string>",
    "penalty": <integer>,

    "calls_taken": <integer>,
    "in_call": <integer>,

    "last_call": <integer>,
    "last_pause": <integer>,

    "ring_inuse": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

Return parameters \* id: member's id.

- name: The name of the queue member.
- queue\_name: The name of the queue.
- status: The numeric device state status of the queue member.
- membership: Membership of queue member.
- state\_interface: Channel technology or location from which to read device state changes.
- location: The queue member's channel technology or location.
- paused: Paused.
- paused\_reason: If set when paused, the reason the queue member was paused.
- penalty: The penalty associated with the queue member.

- `calls_taken`: The number of calls this queue member has serviced.
- `in_call`: Set to 1 if member is in call. Set to 0 after `LastCall` time is updated.
- `last_call`: The time this member last took a call, expressed in seconds since 00:00, Jan 1, 1970 UTC.
- `last_pause`: The time when started last paused the queue member.
- `ring_inuse`: Ring in use option.

### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/queue/members/Agent%2F10001\?queue_
↪name=sales_1

{
  "api_ver": "0.1",
  "result": {
    "id": "Agent/10001@sales_1",
    "calls_taken": 0,
    "in_call": 0,
    "last_call": 0,
    "last_pause": 0,
    "location": "Agent/10001",
    "membership": "static",
    "name": "Agent/10001",
    "paused": 0,
    "paused_reason": "",
    "penalty": 0,
    "queue_name": "sales_1",
    "ring_inuse": null,
    "state_interface": "Agent/10001",
    "status": 4,
    "tm_update": "2017-12-18T00:31:04.234368754Z"
  },
  "statuscode": 200,
  "timestamp": "2017-12-18T00:38:27.704665757Z"
}
```

## 7.53 /admin/queue/queues

### 7.53.1 Methods

GET : Get list of all queues info.

### 7.53.2 Method: GET

Get list of all queues info

#### Call

```
GET /admin/queue/queues
```

## Returns

```
{
  $defhdr,
  "result": {
    "list": [
      {
        "name": "<string>",
        "strategy": "<string>",
        "max": <integer>,
        "weight": <integer>,

        "calls": <integer>,
        "completed": <integer>,
        "abandoned": <integer>,

        "hold_time": <integer>,
        "talk_time": <integer>,

        "service_level": <integer>,
        "service_level_perf": <integer>,

        "tm_update": "<timestamp>"
      },
      ...
    ]
  }
}
```

- `list`: array of registry account. \* See detail at `get_queue_queues_detail`.

## Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/queue/queues

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "abandoned": 2,
        "calls": 0,
        "completed": 0,
        "hold_time": 0,
        "max": 0,
        "name": "sales_1",
        "service_level": 5,
        "service_level_perf": 0.0,
        "strategy": "ringall",
        "talk_time": 0,
        "tm_update": "2017-12-18T00:31:04.142068111Z",
        "weight": 0
      }
    ]
  },
  "statusCode": 200,
}
```

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```

    "timestamp": "2017-12-18T00:46:25.124236613Z"
  }

```

## 7.54 /admin/queue/queues/<detail>

### 7.54.1 Methods

GET : Get queue detail info of given queue info.

### 7.54.2 Method: GET

Get queue detail info of given queue info.

#### Call

```
GET /admin/queue/queues/<detail>
```

Method parameters

- detail: queue name.

#### Returns

```

{
  $defhdr,
  "result": {
    "name": "<string>",
    "strategy": "<string>",
    "max": <integer>,
    "weight": <integer>,

    "calls": <integer>,
    "completed": <integer>,
    "abandoned": <integer>,

    "hold_time": <integer>,
    "talk_time": <integer>,

    "service_level": <integer>,
    "service_level_perf": <integer>,

    "tm_update": "<timestamp>"
  }
}

```

Return parameters

- name: Queue name.
- strategy: Call distribution.

- max: Max waiting call count.
- weight: Queue priority.
- calls: Waiting call count.
- completed: Completed call count.
- abandoned: Abandoned call count.
- hold\_time: Average waiting time.
- talk\_time: Average talk time.
- service\_level: Service\_level\_perf interval time.
- service\_level\_perf: Service level performance.

### Example

```
$ curl -k -X GET https://localhost:8081/v1/admin/queue/queues/sales_1

{
  "api_ver": "0.1",
  "result": {
    "abandoned": 2,
    "calls": 0,
    "completed": 0,
    "hold_time": 0,
    "max": 0,
    "name": "sales_1",
    "service_level": 5,
    "service_level_perf": 0.0,
    "strategy": "ringall",
    "talk_time": 0,
    "tm_update": "2017-12-18T00:31:04.142068111Z",
    "weight": 0
  },
  "statusCode": 200,
  "timestamp": "2017-12-18T00:43:30.189014882Z"
}
```

## 7.55 /admin/user/users

### 7.55.1 Methods

GET : Get the all users info.

POST : Create user info

### 7.55.2 Method: GET

Get the all users info.



## Example

```
$ curl -k https://192.168.200.10:8081/v1/admin/user/users\?authToken=986d5648-3905-4def-8479-009b33939273

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "name": "Test Administrator",
        "password": "admin",
        "tm_create": "2018-04-28T05:03:36.560694725Z",
        "tm_update": "2018-04-28T07:10:29.116108422Z",
        "username": "admin",
        "uuid": "ed629979-802b-40f0-9098-b30b2988f9b6"
      },
      {
        "name": "test1",
        "password": "test1",
        "tm_create": "2018-04-29T07:19:00.56688782Z",
        "tm_update": "2018-05-02T16:18:36.730339477Z",
        "username": "test1",
        "uuid": "65abf0b4-9cd5-4bff-8ec9-c03c1aea22d4"
      },
      {
        "name": "test2",
        "password": "test2",
        "tm_create": "2018-05-02T13:52:58.303710170Z",
        "tm_update": "2018-05-03T03:55:08.886606228Z",
        "username": "test2",
        "uuid": "16dle8ea-1331-4ba7-a371-2c6261e1ce33"
      }
    ]
  },
  "statusCode": 200,
  "timestamp": "2018-05-03T08:46:52.150892217Z"
}
```

## 7.55.3 Method: POST

Create user info

## Example

```
$ curl -k -X POST https://192.168.200.10:8081/v1/admin/user/users\?authToken=986d5648-3905-4def-8479-009b33939273 -d '{"name": "test3", "password": "test3", "username": "test3"}'

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-03T08:48:05.464359109Z"
}
```

## 7.56 /admin/user/users/<detail>

### 7.56.1 Methods

GET : Get the given detail user info.

PUT : Update the given detail user info.

DELETE : Delete the given detail user info.

### 7.56.2 Method: GET

Get the given detail user info.

#### Example

```
$ curl -k https://192.168.200.10:8081/v1/admin/user/users/16d1e8ea-1331-4ba7-a371-2c6261e1ce33?authtoken=986d5648-3905-4def-8479-009b33939273

{
  "api_ver": "0.1",
  "result": {
    "name": "test2",
    "password": "test2",
    "tm_create": "2018-05-02T13:52:58.303710170Z",
    "tm_update": "2018-05-03T03:55:08.886606228Z",
    "username": "test2",
    "uuid": "16d1e8ea-1331-4ba7-a371-2c6261e1ce33"
  },
  "statuscode": 200,
  "timestamp": "2018-05-03T08:47:13.766737242Z"
}
```

### 7.56.3 Method: PUT

Update the given detail user info.

#### Example

```
$ curl -k -X PUT https://192.168.200.10:8081/v1/admin/user/users/4364a7cc-982b-448c-ba18-8a9b0fb3040d?authtoken=986d5648-3905-4def-8479-009b33939273 -d '{"name": "test3 change"}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-05-03T08:53:07.924367640Z"
}
```

## 7.56.4 Method: DELETE

Delete the given detail user info.

### Example

```
$ curl -k -X DELETE https://192.168.200.10:8081/v1/admin/user/users/4364a7cc-982b-448c-ba18-8a9b0fb3040d\?authToken=986d5648-3905-4def-8479-009b33939273

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-03T08:53:56.840482109Z"
}
```

## 7.57 /admin/user/contacts

### 7.58 /admin/user/contacts/<detail>

### 7.59 /admin/user/permissions

### 7.60 /admin/user/permissions/<detail>

## 7.61 /manager/sdialplans

### 7.61.1 Methods

GET : Get the all static dialplans info.

POST : Create static dialplan info

### 7.62 /manager/sdialplans/<detail>

#### 7.62.1 Methods

GET : Get the given detail static dialplan info.

PUT : Update the given detail static dialplan info.

DELETE : Delete the given detail static dialplan info.

## 7.63 /manager/trunks

### 7.63.1 Methods

GET : Get the all trunks info.

POST : Create trunk info

## 7.64 /manager/trunks/<detail>

### 7.64.1 Methods

GET : Get the given detail trunk info.

PUT : Update the given detail trunk info.

DELETE : Delete the given detail trunk info.

## 7.65 /manager/users

### 7.65.1 Methods

GET : Get the all users info.

POST : Create user info

### 7.65.2 Method: GET

Get the all users info.

#### Example

```
$ curl -k https://192.168.200.10:8081/v1/manager/users?authtoken=06d838a0-71b4-4236-
↪8e93-b7ff59c61502

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "context": "",
        "name": "Test Administrator",
        "password": "admin",
        "permissions": [
          {
            "permission": "admin"
          },
          {
            "permission": "user"
          }
        ],
        "tm_create": "2018-04-28T05:03:36.560694725Z",
        "tm_update": "2018-04-28T07:10:29.116108422Z",
        "username": "admin",
        "uuid": "ed629979-802b-40f0-9098-b30b2988f9b6"
      },
      {

```

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```

        "context": "demo",
        "name": "test1",
        "password": "test1",
        "permissions": [
            {
                "permission": "user"
            }
        ],
        "tm_create": "2018-04-29T07:19:00.56688782Z",
        "tm_update": null,
        "username": "test1",
        "uuid": "65abf0b4-9cd5-4bff-8ec9-c03c1aea22d4"
    }
}
},
"statuscode": 200,
"timestamp": "2018-05-02T13:24:50.821980931Z"
}

```

### 7.65.3 Method: POST

Create user info

#### Example

```

$ curl -k -X POST https://192.168.200.10:8081/v1/manager/users?authtoken=06d838a0-
↪71b4-4236-8e93-b7ff59c61502 -d '{"context": "demo", "name": "test2", "username":
↪"test2", "password": "test2", "permissions": [{"permission": "user"}]}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-05-02T13:28:31.201418110Z"
}

```

## 7.66 /manager/users/<detail>

### 7.66.1 Methods

GET : Get the given detail user info.

PUT : Update the given detail user info.

DELETE : Delete the given detail user info.

### 7.66.2 Method: GET

Get the given detail user info.

## Example

```
$ curl -k https://192.168.200.10:8081/v1/manager/users/3305c47b-fc87-4186-b4ef-
↪30cef0c8f5b2?authToken=06d838a0-71b4-4236-8e93-b7ff59c61502

{
  "api_ver": "0.1",
  "result": {
    "context": "demo",
    "name": "test2",
    "password": "test2",
    "permissions": [
      {
        "permission": "user"
      }
    ],
    "tm_create": "2018-05-02T13:28:31.101851891Z",
    "tm_update": null,
    "username": "test2",
    "uuid": "3305c47b-fc87-4186-b4ef-30cef0c8f5b2"
  },
  "statusCode": 200,
  "timestamp": "2018-05-02T13:30:52.782019666Z"
}
```

### 7.66.3 Method: PUT

Update the given detail user info.

## Example

```
$ curl -k -X PUT https://192.168.200.10:8081/v1/manager/users/3305c47b-fc87-4186-b4ef-
↪30cef0c8f5b2?authToken=06d838a0-71b4-4236-8e93-b7ff59c61502 -d '{"context": "demo-
↪test", "name": "test2", "username": "test2", "password": "test2", "permissions": [{
↪"permission": "user"}]}'

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-02T13:38:39.731423546Z"
}
```

### 7.66.4 Method: DELETE

Delete the given detail user info.

## Example

```
$ curl -k -X DELETE https://192.168.200.10:8081/v1/manager/users/3305c47b-fc87-4186-
↪b4ef-30cef0c8f5b2?authToken=06d838a0-71b4-4236-8e93-b7ff59c61502
```

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```
{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-05-02T13:40:24.837434999Z"
}
```

## 7.67 /me/buddies

### 7.67.1 Methods

GET : Get the all buddy info.

POST : Create buddy info

### 7.67.2 Method: GET

Get the all buddy info.

#### Example

```
$ curl -k https://localhost:8081/me/buddies\?authtoken=490d3714-348a-4fb4-9748-
↪0e6eef484b33

{
  "api_ver": "0.1",
  "result": [
    {
      "detail": null,
      "name": null,
      "tm_create": "2018-03-28T01:37:52.133197867Z",
      "tm_update": null,
      "uuid": "611f9902-00c9-4765-9775-20fbaf8261b0",
      "uuid_user": "980404a2-f509-4140-9c92-96a018d1b61c"
    }
  ],
  "statusCode": 200,
  "timestamp": "2018-03-28T01:46:34.598437496Z"
}
```

### 7.67.3 Method: POST

Create buddy info

#### Example

```
$ curl -k -X POST https://localhost:8081/me/buddies\?authtoken=490d3714-348a-4fb4-
↪9748-0e6eef484b33 -d '{"uuid_user": "980404a2-f509-4140-9c92-96a018d1b61c"}'

{
  "api_ver": "0.1",
  "statuscode": 200,
  "timestamp": "2018-03-28T01:37:19.333332411Z"
}
```

## 7.68 /me/contacts

### 7.68.1 Methods

GET : Get all contacts info.

### 7.68.2 Method: GET

Get all contacts info.

#### Example

```
$ curl -k https://localhost:8081/v1/me/contacts\?authtoken=73fe26da-bdcf-4558-afb8-
↪b241deb00aba

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "detail": "test target detail 4",
        "info": {
          "id": "199",
          "password": "199",
          "public_url": "sip:199@192.168.200.10",
          "realm": "localhost"
        },
        "name": "test target",
        "target": "199",
        "tm_create": "2018-02-13T17:54:12.399972783Z",
        "tm_update": "2018-03-28T01:15:50.278779412Z",
        "type": "pjsip_endpoint",
        "user_uuid": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
        "uuid": "62a78a12-34ba-4b4f-b9ea-e52e4bac6459"
      }
    ]
  },
  "statuscode": 200,
  "timestamp": "2018-04-12T14:28:30.181544876Z"
}
```



## 7.69 /me/chats

### 7.69.1 Methods

GET : Get the all chat info

POST : Create chat info.

### 7.69.2 Method: GET

Get the all chat info

#### Example

```
$ curl -k https://localhost:8081/me/chats\?authtoken=17cd592d-2706-44b6-b6e2-
↪1c244b946cf0

{
  "api_ver": "0.1",
  "result": [
    {
      "detail": "test chat detail",
      "name": "test chat name",
      "room": {
        "members": [
          "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
          "980404a2-f509-4140-9c92-96a018d1b61c"
        ],
        "tm_create": "2018-03-27T06:53:37.432474880Z",
        "tm_update": null,
        "type": 1,
        "uuid": "57b8706a-67e7-4c3a-a070-b164a08562ab",
        "uuid_creator": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
        "uuid_owner": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
      },
      "tm_create": "2018-03-27T06:53:37.496918935Z",
      "tm_update": null,
      "uuid": "15130428-6f27-456d-b744-6156e3a4b7a8"
    }
  ],
  "statusCode": 200,
  "timestamp": "2018-03-27T10:44:06.311937832Z"
}
```

### 7.69.3 Method: POST

Create chat info

#### Example

```
$ curl -k -X POST https://localhost:8081/me/chats?authtoken=32644555-58e5-4d03-9608-
↪a66ed1651f12 -d \
'{"name": "test chat name", "detail": "test chat detail", "type": 1, \
"members": [{"980404a2-f509-4140-9c92-96a018d1b61c", "59e3a7d5-b05f-43cd-abdf-
↪db7009eed6cf"}]}'

{"api_ver": "0.1", "timestamp": "2018-03-26T16:10:54.451912673Z", "statuscode": 200}
```

## 7.70 /me/chats/<detail>

### 7.70.1 Methods

GET : Get the given detail chat info.

PUT : Update the given detail chat info.

DELETE : Delete the given detail chat info.

### 7.70.2 Method: GET

Get the given detail chat info.

#### Example

```
$ curl -k https://localhost:8081/me/chats/15130428-6f27-456d-b744-6156e3a4b7a8\?
↪authtoken=17cd592d-2706-44b6-b6e2-1c244b946cf0

{
  "api_ver": "0.1",
  "result": {
    "detail": "test chat detail",
    "name": "test chat name",
    "room": {
      "members": [
        "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
        "980404a2-f509-4140-9c92-96a018d1b61c"
      ],
      "tm_create": "2018-03-27T06:53:37.432474880Z",
      "tm_update": null,
      "type": 1,
      "uuid": "57b8706a-67e7-4c3a-a070-b164a08562ab",
      "uuid_creator": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
      "uuid_owner": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
    },
    "tm_create": "2018-03-27T06:53:37.496918935Z",
    "tm_update": null,
    "uuid": "15130428-6f27-456d-b744-6156e3a4b7a8"
  },
  "statuscode": 200,
  "timestamp": "2018-03-27T10:39:34.496808298Z"
}
```

### 7.70.3 Method: PUT

Update the given detail chat info.

#### Example

```
$ curl -k -X PUT https://localhost:8081/me/chats/7c817566-3c4a-4d97-b4f0-
e29b2d2e1564?authToken=d2718890-043f-43c8-9bf9-79c2602d2c81 -d '{"name": "update_
test chat name"}'

{
  "api_ver": "0.1",
  "statusCode": 200,
  "timestamp": "2018-03-26T07:27:03.713679335Z"
}
```

### 7.70.4 Method: DELETE

Delete the given detail chat info.

#### Example

```
:: $ curl -k -X DELETE https://localhost:8081/me/chats/7c817566-3c4a-4d97-b4f0-e29b2d2e1564?authToken=d2718890-
043f-43c8-9bf9-79c2602d2c81

{ "api_ver": "0.1", "statusCode": 200, "timestamp": "2018-03-26T07:28:19.397554581Z"
}
```

## 7.71 /me/chats/<detail>/messages

### 7.71.1 Methods

GET : Get chat messages

POST: Create chat messages

### 7.71.2 Method: GET

Get chat message

#### Call

```
GET /me/chats/<detail>/messages?authToken=<string>[&timestamp=<string>&count=<number>]
```

Method parameters

- detail: chat uuid.
- timestamp: Uri encoded UTC timestamp.

- count: number of message

## Example

```
$ curl -k https://localhost:8081/me/chats/15130428-6f27-456d-b744-6156e3a4b7a8/
↪messages\?authtoken=17cd592d-2706-44b6-b6e2-1c244b946cf0\&timestamp=2018-03-30T08
↪%3A30%3A02.364443446Z\&count=2

{
  "api_ver": "0.1",
  "result": [
    {
      "message": {
        "message": "test message"
      },
      "tm_create": "2018-03-27T10:26:14.452323600Z",
      "uuid": "1800fcee-1077-47f0-9d7c-3c7cde768e93",
      "uuid_owner": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
    },
    {
      "message": {
        "message": "test message"
      },
      "tm_create": "2018-03-27T08:30:50.225964433Z",
      "uuid": "eb251f63-8ed1-4a00-b757-20a88caa8a20",
      "uuid_owner": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
    }
  ],
  "statuscode": 200,
  "timestamp": "2018-03-27T10:36:04.543077586Z"
}
```

### 7.71.3 Method: POST

#### Example

```
$ curl -k -X POST https://localhost:8081/me/chats/15130428-6f27-456d-b744-
↪6156e3a4b7a8/messages\?authtoken=b0da6bea-f654-446b-8900-2e52cf4f3cd6 -d '{"test_
↪message"}'
```

## 7.72 /me/info

### 7.72.1 Methods

GET : Get me info.

### 7.72.2 Method: GET

Get me info.

## Example

```
$ curl -k https://localhost:8081/me/info\?authtoken=88fa51b6-e980-4e57-93cb-
↪7cdefd21b2a1

{
  "api_ver": "0.1",
  "result": {
    "chats": [
      {
        "detail": "test chat detail",
        "name": "test chat name",
        "room": {
          "members": [
            "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
            "980404a2-f509-4140-9c92-96a018d1b61c"
          ],
          "tm_create": "2018-03-27T06:53:37.432474880Z",
          "tm_update": null,
          "type": 1,
          "uuid": "57b8706a-67e7-4c3a-a070-b164a08562ab",
          "uuid_creator": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
          "uuid_owner": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
        },
        "tm_create": "2018-03-27T06:53:37.496918935Z",
        "tm_update": null,
        "uuid": "15130428-6f27-456d-b744-6156e3a4b7a8"
      }
    ],
    "contacts": [
      {
        "detail": "test target detail 4",
        "info": {
          "id": "199",
          "password": "199",
          "public_url": "sip:199@192.168.200.10",
          "realm": "localhost"
        },
        "name": "test target",
        "target": "199",
        "tm_create": "2018-02-13T17:54:12.399972783Z",
        "tm_update": "2018-03-27T20:24:51.355343689Z",
        "type": "pjsip_endpoint",
        "user_uuid": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf",
        "uuid": "62a78a12-34ba-4b4f-b9ea-e52e4bac6459"
      }
    ],
    "name": "teset admin",
    "tm_create": "2018-02-13T17:42:16.453145450Z",
    "tm_update": "2018-03-27T08:30:03.254978318Z",
    "username": "admin",
    "uuid": "59e3a7d5-b05f-43cd-abdf-db7009eed6cf"
  },
  "statuscode": 200,
  "timestamp": "2018-03-27T20:25:32.526413444Z"
}
```

## 7.73 /me/search

### 7.73.1 Methods

GET : Get searched info.

### 7.73.2 Method: GET

Get searched info

#### Example

```
$ curl -k https://localhost:8081/v1/me/search\?filter=test\&type=username\&
→authtoken=8eaa8d32-b58d-494a-a323-c0535b6f66d5

{
  "api_ver": "0.1",
  "result": {
    "list": [
      {
        "name": "test name",
        "username": "test",
        "uuid": "980404a2-f509-4140-9c92-96a018d1b61c"
      }
    ]
  },
  "statuscode": 200,
  "timestamp": "2018-04-12T06:42:15.741891135Z"
}
```

### 8.1 EVENT description

#### 8.1.1 Event name

Publish event name. And description of EVENT.

##### Topic

Event's topic. If the client subscribe this topic, then can receive this event.

```
<topic>
```

Description of the detail of topic.

##### Event

Description of event. Described in detail.

```
{  
  ...  
}
```

##### Example

Simple example of the event. It would be little bit different with real response.

```
{  
  ...  
}
```





### 9.1 core.agi

Notify core agi event.

#### 9.1.1 core.agi.create

Notify event for core agi create.

##### Topic

```
/core/agis/<target>
```

- target: URI encoded caller\_id\_name.

##### Event

```
{  
  "core.agi.create": {  
    ...  
  }  
}
```

- See detail at Asterisk's agi info.

##### Example

```
topic: /core/agus/pjagent-02

{
  "core.agi.create": {
    "unique_id": "1516635793.1",
    "channel": "PJSIP/pjagent-02-00000001",
    "linked_id": "1516635793.1",
    "channel_state_desc": "Ring",
    "language": "en",
    "channel_state": 4,
    "caller_id_name": "pjagent-02",
    "caller_id_num": "pjagent-02",
    "priority": "2",
    "connected_line_num": "<unknown>",
    "connected_line_name": "<unknown>",
    "account_code": "",
    "context": "sample-agi-async",
    "env": {
      "agi_request": "async",
      "agi_uniqueid": "1516635793.1",
      "agi_enhanced": "0.0",
      "agi_callingpres": "0",
      "agi_version": "GIT-master-516ab38M",
      "agi_callington": "0",
      "agi_channel": "PJSIP/pjagent-02-00000001",
      "agi_language": "en",
      "agi_extension": "s",
      "agi_type": "PJSIP",
      "agi_callerid": "pjagent-02",
      "agi_callingani2": "0",
      "agi_priority": "2",
      "agi_calleridname": "pjagent-02",
      "agi_dnid": "4006",
      "agi_callingtms": "0",
      "agi_rdnis": "unknown",
      "agi_arg_1": "test argument 1",
      "agi_context": "sample-agi-async",
      "agi_accountcode": "",
      "agi_threadid": "1984414752",
      "agi_arg_2": "test argument 2"
    },
    "exten": "s",
    "cmd": {},
    "tm_update": "2018-01-22T15:43:13.166737961Z"
  }
}
```

### 9.1.2 core.agi.update

Notify event for core agi update.

#### Topic

```
/core/agus/<target>
```

- target: URI encoded caller\_id\_name.

## Event

```
{
  "core.agi.update": {
    ...
  }
}
```

- See detail at Asterisk's channel info.

## Example

```
topic: /core/agi/pjagent-01

{
  "core.agi.update": {
    "unique_id": "1516637665.7",
    "channel_state": 6,
    "caller_id_name": "pjagent-02",
    "tm_update": "2018-01-22T16:14:51.595209834Z",
    "cmd": {
      "77cdcf4c-feed-11e7-bd12-5b24ee4818c3": {
        "result": "200 result=0\n",
        "tm_update": "2018-01-22T16:14:51.595209834Z"
      }
    },
    "linked_id": "1516637665.7",
    "language": "en",
    "channel": "PJSIP/pjagent-02-00000006",
    "channel_state_desc": "Up",
    "caller_id_num": "pjagent-02",
    "connected_line_num": "<unknown>",
    "exten": "s",
    "connected_line_name": "<unknown>",
    "account_code": "",
    "context": "sample-agi-async",
    "priority": "2",
    "env": {
      "agi_request": "async",
      "agi_context": "sample-agi-async",
      "agi_channel": "PJSIP/pjagent-02-00000006",
      "agi_language": "en",
      "agi_type": "PJSIP",
      "agi_uniqueid": "1516637665.7",
      "agi_version": "GIT-master-516ab38M",
      "agi_callerid": "pjagent-02",
      "agi_callingani2": "0",
      "agi_callingtns": "0",
      "agi_calleridname": "pjagent-02",
      "agi_arg_1": "test argument 1",
      "agi_callingpres": "0",
      "agi_callington": "0",
      "agi_dnid": "4006",
```

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```
    "agi_rdnis": "unknown",
    "agi_extension": "s",
    "agi_accountcode": "",
    "agi_priority": "2",
    "agi_enhanced": "0.0",
    "agi_threadid": "1954337824",
    "agi_arg_2": "test argument 2"
  }
}
```

### 9.1.3 core.agi.delete

Notify event for core agi delete.

#### Topic

```
/core/agis/<target>
```

- target: URI encoded caller\_id\_name.

#### Event

```
{
  "core.agi.delete": {
    ...
  }
}
```

- See detail at Asterisk's channel info.

#### Example

```
topic: /core/agi/pjagent-01

{
  "core.agi.delete": {
    "unique_id": "1516637665.7",
    "channel_state": 6,
    "caller_id_name": "pjagent-02",
    "tm_update": "2018-01-22T16:24:23.1900430Z",
    "cmd": {
      "77cdcf4c-feed-11e7-bd12-5b24ee4818c3": {
        "result": "200 result=0\n",
        "tm_update": "2018-01-22T16:14:51.595209834Z"
      }
    },
    "linked_id": "1516637665.7",
    "language": "en",
    "channel": "PJSIP/pjagent-02-00000006",
```

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```

"channel_state_desc": "Up",
"caller_id_num": "pjagent-02",
"connected_line_num": "<unknown>",
"exten": "s",
"connected_line_name": "<unknown>",
"account_code": "",
"context": "sample-agi-async",
"priority": "2",
"env": {
  "agi_request": "async",
  "agi_context": "sample-agi-async",
  "agi_channel": "PJSIP/pjagent-02-00000006",
  "agi_language": "en",
  "agi_type": "PJSIP",
  "agi_uniqueid": "1516637665.7",
  "agi_version": "GIT-master-516ab38M",
  "agi_callerid": "pjagent-02",
  "agi_callingani2": "0",
  "agi_callingtms": "0",
  "agi_calleridname": "pjagent-02",
  "agi_arg_1": "test argument 1",
  "agi_callingpres": "0",
  "agi_callington": "0",
  "agi_dnid": "4006",
  "agi_rdnis": "unknown",
  "agi_extension": "s",
  "agi_accountcode": "",
  "agi_priority": "2",
  "agi_enhanced": "0.0",
  "agi_threadid": "1954337824",
  "agi_arg_2": "test argument 2"
}
}
}

```

## 9.2 core.channel

Notify core channel event.

### 9.2.1 core.channel.create

Notify event for core channel create.

#### Topic

```
/core/channels/<target>
```

- target: URI encoded caller\_id\_name.

## Event

```
{
  "core.channel.create": {
    ...
  }
}
```

- See detail at Asterisk's channel info.

## Example

```
topic: /core/channels/pjagent-01

{
  "core.channel.create": {
    "unique_id": "1513946313.6",
    "duration": null,
    "linked_id": "1513946313.6",
    "context": "demo",
    "connected_line_num": "<unknown>",
    "account_code": "",
    "channel_state_desc": "Ring",
    "connected_line_name": "<unknown>",
    "caller_id_name": "pjagent-01",
    "channel": "PJSIP/pjagent-01-00000006",
    "channel_state": 4,
    "caller_id_num": "pjagent-01",
    "language": "en",
    "exten": "4002",
    "variables": {},
    "hangup_cause": null,
    "priority": "1",
    "application": null,
    "application_data": null,
    "tm_update": "2017-12-22T12:38:33.971448254Z",
    "bridge_id": null,
    "hangup_cause_desc": null
  }
}
```

### 9.2.2 core.channel.update

Notify event for core channel update.

## Topic

```
/core/channels/<target>
```

- target: URI encoded caller\_id\_name.

## Event

```
{
  "core.channel.update": {
    ...
  }
}
```

- See detail at Asterisk's channel info.

## Example

```
topic: /core/channels/pjagent-01

{
  "core.channel.update": {
    "unique_id": "1513946313.6",
    "duration": null,
    "linked_id": "1513946313.6",
    "context": "queue_sales",
    "connected_line_num": "<unknown>",
    "account_code": "",
    "channel_state_desc": "Ring",
    "connected_line_name": "<unknown>",
    "caller_id_name": "pjagent-01",
    "channel": "PJSIP/pjagent-01-00000006",
    "channel_state": 4,
    "caller_id_num": "pjagent-01",
    "language": "en",
    "exten": "s",
    "variables": {
      "ABANDONED": "TRUE"
    },
    "hangup_cause": null,
    "priority": "2",
    "application": "Queue",
    "application_data": "",
    "tm_update": "2017-12-22T12:38:37.542000617Z",
    "bridge_id": null,
    "hangup_cause_desc": null
  }
}
```

### 9.2.3 core.channel.delete

Notify event for core channel delete.

## Topic

```
/core/channels/<target>
```

- target: URI encoded caller\_id\_name.

## Event

```
{
  "core.channel.delete": {
    ...
  }
}
```

- See detail at Asterisk's channel info.

## Example

```
topic: /core/channels/pjagent-01

{
  "core.channel.delete": {
    "unique_id": "1513946313.6",
    "duration": null,
    "linked_id": "1513946313.6",
    "context": "queue_sales",
    "connected_line_num": "<unknown>",
    "account_code": "",
    "channel_state_desc": "Ring",
    "connected_line_name": "<unknown>",
    "caller_id_name": "pjagent-01",
    "channel": "PJSIP/pjagent-01-00000006",
    "channel_state": 4,
    "caller_id_num": "pjagent-01",
    "language": "en",
    "exten": "s",
    "variables": {
      "ABANDONED": "TRUE",
      "QUEUEPOSITION": "1"
    },
    "hangup_cause": 127,
    "priority": "2",
    "application": "Queue",
    "application_data": "",
    "tm_update": "2017-12-22T12:38:37.623937167Z",
    "bridge_id": null,
    "hangup_cause_desc": "Interworking, unspecified"
  }
}
```

## 9.3 park.parkedcall

Notify park parkedcall event.

### 9.3.1 core.channel.create

Notify event for core channel create.



## Topic

```
/park/parkinglots/<target>
```

- target: URI encoded parking lot.

## Event

```
{
  "park.parkedcall.create": {
    ...
  }
}
```

- See detail at parkedcall info.

## Example

```
topic: /park/parkinglots/default

{
  "park.parkedcall.create": {
    "parkee_unique_id": "1514424631.119",
    "parking_lot": "default",
    "parkee_caller_id_num": "pjagent-01",
    "parkee_exten": "s",
    "parkee_linked_id": "1514424631.119",
    "parkee_connected_line_num": "<unknown>",
    "parkee_channel": "PJSIP/pjagent-01-00000048",
    "parkee_account_code": "",
    "parkee_caller_id_name": "pjagent-01",
    "parkee_channel_state_desc": "Up",
    "tm_update": "2017-12-28T01:30:31.382834514Z",
    "parkee_channel_state": "6",
    "parking_timeout": 45,
    "parkee_connected_line_name": "<unknown>",
    "parkee_context": "sample_park",
    "parker_dial_string": "PJSIP/pjagent-01",
    "parking_duration": 0,
    "parkee_priority": "2",
    "parking_space": "701"
  }
}
```

### 9.3.2 park.parkedcall.update

Notify event for park parkedcall update.

## Topic

```
/park/parkinglots/<target>
```

- target: URI encoded parking lot.

## Event

```
{
  "park.parkedcall.update": {
    ...
  }
}
```

- See detail at parkedcall info.

## Example

```
...
```

### 9.3.3 park.parkedcall.delete

Notify event for park parkedcall delete.

## Topic

```
/park/parkinglots/<target>
```

- target: URI encoded parking lot.

## Event

```
{
  "park.parkedcall.delete": {
    ...
  }
}
```

- See detail at parkedcall info.

## Example

```
topic: /park/parkinglots/default

{
  "park.parkedcall.delete": {
    "parkee_unique_id": "1514425145.127",
    "parking_lot": "default",
    "parkee_caller_id_num": "pjagent-01",
    "parkee_exten": "s",
    "parkee_linked_id": "1514425145.127",
    "parkee_connected_line_num": "<unknown>",
    "parkee_channel": "PJSIP/pjagent-01-0000004c",
  }
}
```

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```

    "parkee_account_code": "",
    "parkee_caller_id_name": "pjagent-01",
    "parkee_channel_state_desc": "Up",
    "tm_update": "2017-12-28T01:39:05.298799696Z",
    "parkee_channel_state": "6",
    "parking_timeout": 45,
    "parkee_connected_line_name": "<unknown>",
    "parkee_context": "sample_park",
    "parker_dial_string": "PJSIP/pjagent-01",
    "parking_duration": 0,
    "parkee_priority": "2",
    "parking_space": "701"
  }
}

```

## 9.4 queue.entry

Queue entry event.

### 9.4.1 queue.entry.delete

Event for queue entry delete.

#### Topic

```
/queue/statuses/<target>
```

- target: URI encoded queue name.

#### Event

```

{
  "queue.entry.delete": {
    "unique_id": "<string>",

    "queue_name": "<string>",
    "channel": "<string>",

    "caller_id_name": "<string>",
    "caller_id_num": "<string>",
    "connected_line_name": "<string>",
    "connected_line_num": "<string>",

    "position": <number>,
    "wait": <number>,

    "tm_update": "<timestamp>"
  }
}

```

- See detail at Asterisk's queue info.

## Example

```
topic: /queue/statuses/sales%5F1

{
  "queue.entry.delete": {
    "unique_id": "1513886574.11",
    "connected_line_num": "<unknown>",
    "queue_name": "sales_1",
    "wait": null,
    "position": 1,
    "channel": "PJSIP/pjagent-01-0000000b",
    "caller_id_num": "pjagent-01",
    "caller_id_name": "pjagent-01",
    "connected_line_name": "<unknown>",
    "tm_update": "2017-12-21T20:02:55.766020378Z"
  }
}
```

### 9.4.2 queue.entry.update

Event for queue entry insert/update.

#### Topic

```
/queue/statuses/<target>
```

- target: URI encoded queue name.

#### Event

```
{
  "queue.entry.update": {
    "unique_id": "<string>",

    "queue_name": "<string>",
    "channel": "<string>",

    "caller_id_name": "<string>",
    "caller_id_num": "<string>",
    "connected_line_name": "<string>",
    "connected_line_num": "<string>",

    "position": <number>,
    "wait": <number>,

    "tm_update": "<timestamp>"
  }
}
```

- See detail at Asterisk's queue info.

## Example

```
topic: /queue/statuses/sales%5F1

{
  "queue.entry.update": {
    "unique_id": "1513887042.12",
    "caller_id_name": "pjagent-01",
    "connected_line_num": "<unknown>",
    "position": 1,
    "tm_update": "2017-12-21T20:10:43.841799160Z",
    "queue_name": "sales_1",
    "channel": "PJSIP/pjagent-01-0000000c",
    "caller_id_num": "pjagent-01",
    "connected_line_name": "<unknown>",
    "wait": null
  }
}
```

## 9.5 queue.member

Queue member event.

### 9.5.1 queue.member.delete

Event for queue member delete.

#### Topic

```
/queue/statuses/<target>
```

- target: URI encoded queue name.

#### Event

```
{
  "queue.entry.delete": {
    "id": "<string>",
    "name": "<string>",
    "queue_name": "<string>",
    "status": <integer>,

    "membership": "<string>",
    "state_interface": "<string>",
    "location": "<string>",

    "paused": <integer>,
    "paused_reason": "<string>",
    "penalty": <integer>,
  }
}
```

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```
"calls_taken": <integer>,
"in_call": <integer>,

"last_call": <integer>,
"last_pause": <integer>,

"ring_inuse": <integer>,

"tm_update": "<timestamp>"
}
}
```

- See detail at Asterisk's queue info.

## Example

```
topic: /queue/statuses/sales%5F1

{
  "queue.member.delete": {
    "location": "sip/agent-01",
    "penalty": 0,
    "ring_inuse": 1,
    "id": "sip/agent-01@sales_1",
    "state_interface": "sip/agent-01",
    "queue_name": "sales_1",
    "name": "sip/agent-01",
    "membership": "dynamic",
    "calls_taken": 0,
    "last_call": 0,
    "last_pause": 0,
    "in_call": 0,
    "status": 4,
    "paused": 0,
    "paused_reason": "",
    "tm_update": "2017-12-21T21:35:04.605327430Z"
  }
}
```

## 9.5.2 queue.member.update

Event for queue member insert/update.

### Topic

```
/queue/statuses/<target>
```

- target: URI encoded queue name.

## Event

```
{
  "queue.member.update": {
    "id": "<string>",

    "name": "<string>",
    "queue_name": "<string>",
    "status": <integer>,

    "membership": "<string>",
    "state_interface": "<string>",
    "location": "<string>",

    "paused": <integer>,
    "paused_reason": "<string>",
    "penalty": <integer>,

    "calls_taken": <integer>,
    "in_call": <integer>,

    "last_call": <integer>,
    "last_pause": <integer>,

    "ring_inuse": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

- See detail at Asterisk's queue info.

## Example

```
topic: /queue/statuses/sales%5F1

{
  "queue.member.update": {
    "location": "sip/agent-01",
    "penalty": 0,
    "ring_inuse": 1,
    "id": "sip/agent-01@sales_1",
    "state_interface": "sip/agent-01",
    "queue_name": "sales_1",
    "name": "sip/agent-01",
    "membership": "dynamic",
    "calls_taken": 0,
    "last_call": 0,
    "last_pause": 0,
    "in_call": 0,
    "status": 4,
    "paused": 0,
    "paused_reason": "",
    "tm_update": "2017-12-21T21:35:04.605327430Z"
  }
}
```

## 9.6 queue.queue

### 9.6.1 queue.queue.update

#### Topic

```
/queue/statuses/<target>
```

- target: URI encoded queue name.

#### Event

```
{
  "queue.queue.update": {
    "name": "<string>",

    "strategy": "<string>",
    "max": <integer>,
    "weight": <integer>,

    "calls": <integer>,
    "completed": <integer>,
    "abandoned": <integer>,

    "hold_time": <integer>,
    "talk_time": <integer>,

    "service_level": <integer>,
    "service_level_perf": <integer>,

    "tm_update": "<timestamp>"
  }
}
```

- See detail at Asterisk's queue info.

#### Example

```
topic: /queue/statuses/sales%5F1

{
  "queue.queue.update": {
    "weight": 0,
    "name": "sales_1",
    "service_level": 5,
    "abandoned": 6,
    "service_level_perf": 0.0,
    "max": 0,
    "hold_time": 0,
    "strategy": "ringall",
    "calls": 0,
    "tm_update": "2017-12-21T18:35:17.131303352Z",
    "talk_time": 0,
```

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```
    "completed": 0
  }
}
```



# CHAPTER 10

---

## Websock basics

---

The jade supports subscription through the Websocket.

### 10.1 Topic subscription

To subscribe topic through the websocket, the client needs to send subscription request first.

```
{
  "type": "<message type>",
  "topic": "<topic string>"
}
```

- message type: message type.
  - – subscribe: add subscription.
  - – unsubscribe: remove subscription.
- topic: Subscribe/Unsubscribe topic.

#### 10.1.1 Example

```
{"type": "subscribe", "topic": "/"}
```



### 11.1 Concept

#### 11.1.1 Principle

The asterisk-outbound has a 5W1H principle.

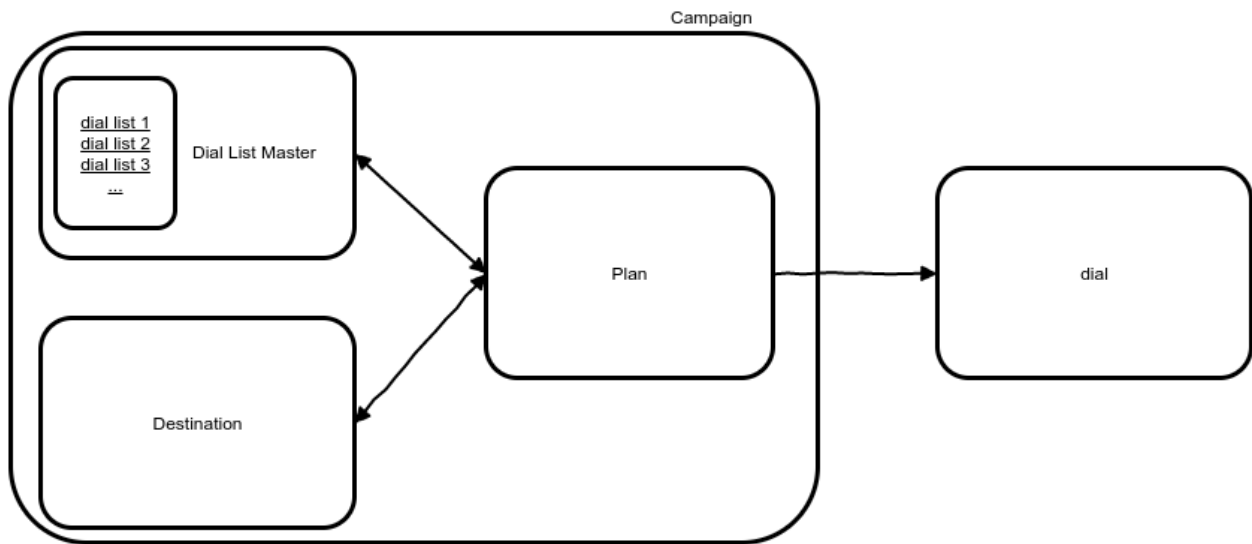


Fig. 1: Basic concept

- Campaign : Determine why make a call(Why).
- Plan : Determine how/when to make a call(How/When).
- Destination : Determine who get a call after answer(Who).

- Dial list(Dial List Master) : Determine where/what call heading for(Where/What).

## **11.2 Features**

### **11.2.1 Call balancing**

The res\_outbound supports call balancing.

With this feature, the res\_outbound can managing the amount of outbound call depends on the destination's condition.

For example, if the destination is queue, it calculate waiting agent's number and queue's performance.

### **11.2.2 Stratigical retrying**

The res\_outbound supports the stratigical retrying.

The user can set retry counts and retry delay time for each call.

### **11.2.3 Customer info based dial list**

The res\_outbound supports customer based dial list.

The user can set the customer's detail info such as name, detail, database key, email, ... not only for numbers And supports several types of numbers.

### **11.2.4 Call capsulization**

The res\_outbound supports the call capsulization.

When the res\_outbound making a call, the call kept all the resource info itself. So, if the other resources chagned later, it doesn't affect to the existing call.

It makes call-capsulization.

### **11.2.5 Dynamic resource management**

The res\_outbound supports the dynamic resource management.

### **11.2.6 Campaign scheduling**

The res\_outbound supports the campaign scheduling.

The user can set the auto-start, auto-end.

### **11.2.7 Set variables**

The res\_outbound supports variables setting.

The user can set the variables for each resources.

It can deliver to the dialplan or SIP headers.

### 11.2.8 Monitoring

### 11.2.9 Detail dial result

The `res_outbound` supports the detail dial result.

In the result, the user can check the all the call info(original info, dialing info, result info).

## 11.3 Resources

### 11.3.1 Campaign

- Set destination, plan, dial list(dlma).

### 11.3.2 Destination

- Call's transfer destination after customer has answered.

### 11.3.3 Plan

Dialling strategy. \* UUI delivery. \* Dial mode \* Dialing control.

### 11.3.4 Dial list

Customer info list. \* Dial number. \* UUI info.

## 11.4 Campaign

Determine why make a call(Why).

To dial to the customer, the user need to create the campaign first and need to assign the correct resources(destination, plan, dial list master).

Then the resources determine where/what/who/how/when make a call to the customer.

### 11.4.1 Status

The campaign has a status. See detail *Campaign status*.

### 11.4.2 Scheduling

The user can sets scheduling for campaign. See detail *Scheduling*.

## 11.5 Plan

Determine how/when to make a call(How/When).

### 11.5.1 Dial mode

The user can sets the dial mode. See detail [Dial mode](#).

#### Predictive

- Predict the number of customers to dial based on the deliver application/agent's answer rate.
- Predict how many call will be answered or not answered.
- Calculate possilbilties automatically.

#### Preview

- The destination makes decision to make a call.
- Developing.

#### SMS

- Send an SMS messages
- Developing.

#### Fax

- Send a fax
- Developing.

### 11.5.2 Service level

Service level controlling the amount of dailing.

```
(Max available outbound call count) - (Current outbound call count) + (Service level)  $\rightarrow$  (Available call count)
```

If the (Available call count) **is** bigger than 0, make a call.

#### Max available outbound call count

The max available outbound call count is depends on the destination.

See detail [Destination](#).

## 11.6 Destination

Determine who get a call after answer(Who). And it determine the max available outbound call count.

Normaly, the destination suppose to be an agent. But in the asterisk system, the destination could be anything. For example, it could be extension or application(queue).



If the destination type is application, then the res\_outbound calculate application's availability.

## 11.7 Result

Result data divided by 5 sections.

Identity info, Dial info, Result info, Timestamp info, Related resources info.



## 12.1 Basic structures

### 12.1.1 Use flag

Represent usable item.

Table 1: Use flag

flag	Detail
0	Not in use(Deleted item)
1	In use.

### 12.1.2 Force option

Determine delete all the referenced items.

Table 2: Force option

option	detail
0	Do not delete the referenced items.
1	Delete the referenced items.

## 12.2 Destination

### 12.2.1 Destination type

Table 3: Destination type

Type	Detail
0	Extensioin
1	Application

### 12.2.2 Application availability

Table 4: Application availability

Application	Detail
queue	QueueSummary's Available.
park	Unlimited.
others	Unlimited.

## 12.3 Campaign

### 12.3.1 Campaign status

Table 5: Campaign status

Status	Detail
0	Stop
1	Start
2	Pause
10	Stopping
11	Starting
12	Pausing
30	Stopping forcedly

### 12.3.2 Scheduling

The campaign can sets schedule. If the schedule sets, the campaign start and stop automatically on schedule.

#### Scheduling mode

Table 6: Scheduling mode

Mode	Detail
0	Scheduling on
1	Scheduling off

## Scheduling time

Scheduling time. 24H

```
hh:mm:ss
```

- hh : Hour. 00 ~ 23
- mm : Minute. 00 ~ 59
- ss : Second. 00 ~ 59

Example

```
15:00:00
```

## Scheduling date

Scheduling date.

```
YYYY-MM-DD
```

- YYYY : Year.
- MM : Month.
- DD : Day.

Example

```
:: 2016-11-17
```

## Scheduling date list

List of scheduling date.

```
YYYY-MM-DD, YYYY-MM-DD
```

Example

```
2016-11-16, 2016-11-17, 2016-11-18, ...
```

## Scheduling day list

List of scheduling day.

```
0 : Sunday
1 : Monday
2 : Tuesday
3 : Wednesday
4 : Thursday
5 : Friday
6 : Saturday
```

Example

0, 1, 3, 4

## 12.4 Plan

### 12.4.1 Dial mode

Table 7: Dial mode

Mode	Detail
0	None(No dial mode)
1	Predictive

### 12.4.2 Tech name

Table 8: Tech name

Mode	Detail
sip	Normal sip tech
...	...

### 12.4.3 Dial list end handling

Table 9: Dail list end handling

Mode	Detail
0	Keep current status.
1	Stop the campaign.

### 12.4.4 Trunk name

Determine outbound call trunk info.

## 12.5 Dial list

### 12.5.1 Dial list status

Table 10: Dial list status

Status	Detail
0	Idle.
1	Dial list dialing.
2	Reserved for preview dialing.

## 12.6 Dialing

### 12.6.1 Dialing status

Table 11: Dialing status

Status	Detail
0	None
1	Originate request sent.
2	Originate queued.
3	Dial begin.
4	Channel created.
5	Dial end.
6	Originate responded.
7	Hangup.
10	Error occurred.
11	Originate request failed. Could not send originate request.
12	Originate queued failed.
13	Originate response failed.

### 12.6.2 Dial result

Table 12: Dial result

Result	Detail
0	No dial result event received yet.
1	Other end has hungup
2	Local ring
3	Remote end is ringing
4	Remote end has answered
5	Remote end is busy
6	Make it go off hook
7	Line is off hook
8	Congestion (circuits busy)
9	Flash hook
10	Wink
11	Set a low-level option
12	Key Radio
13	Un-Key Radio
14	Indicate PROGRESS
15	Indicate CALL PROCEEDING
16	Indicate call is placed on hold
17	Indicate call is left from hold
18	Indicate video frame update
19	T38 state change request/notification deprecated This is no longer supported. Use AST_CONTROL_T38_PARAMETERS
20	Indicate source of media has changed
21	Indicate status of a transfer request
22	Indicate connected line has changed
23	Indicate redirecting id has changed
24	T38 state change request/notification with parameters

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Table 12 – continued from previous page

Result	Detail
25	Indication that Call completion service is possible
26	Media source has changed and requires a new RTP SSRC
27	Tell ast_read to take a specific action
28	Advice of Charge with encoded generic AOC payload
29	Indicate that this position was the end of the channel queue for a softhangup.
30	Indication that the extension dialed is incomplete
31	Indicate that the caller is being malicious.
32	Interrupt the bridge and have it update the peer
33	Contains an update to the protocol-specific cause-code stored for branching dials
34	A masquerade is about to begin/end. (Never sent as a frame but directly with ast_indicate_data().)
1000	Indicate to a channel in playback to stop the stream.
1001	Indicate to a channel in playback to suspend the stream.
1002	Indicate to a channel in playback to restart the stream.
1003	Indicate to a channel in playback to rewind.
1004	Indicate to a channel in playback to fast forward.
1100	Indicated to a channel in record to stop recording and discard the file.
1101	Indicated to a channel in record to stop recording.
1102	Indicated to a channel in record to suspend/unsuspend recording.
1103	Indicated to a channel in record to mute/unmute (i.e. write silence) recording.

### 12.6.3 Hangup result

Table 13: Hangup result

Result	Detail
0	No hangup event received yet.
1	Unallocated.
2	No route transit network.
3	No route destination.
5	Mis dialled trunk prefix.
6	Channel unacceptable.
7	Call awarded delivered.
8	Pre emptied.
14	Number ported not here.
16	Normal clearing.
17	User busy.
18	No user response.
19	No answer.
20	Subscriber absent.
21	Call rejected.
22	Number changed.
23	Redirected to new destination.
26	Answered elsewhere.
27	Destination out of order.
28	Invalid number format.
29	Facility rejected.
30	Response to status enquiry.
31	Normal unspecified.
34	Normal circuit congestion.

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Table 13 – continued from previous page

Result	Detail
38	Network out of order.
41	Normal temporary failure.
42	Switch congestion.
43	Access info discarded.
44	Requested chan unavail.
50	Facility not subscribed.
52	Outgoing call barred.
54	Incoming call barred.
57	Bearer capability not auth.
58	Bearer capability not available.
65	Bearer capability not implemented.
66	Channel not implemented.
69	Facility not implemented.
81	Invalid call reference.
88	Incompatible destination.
95	Invalid message unspecified.
96	Mandatory item missing.
97	Message type nonexistent.
98	Wrong message.
99	Item nonexistent.
100	Invalid item contents.
101	Wrong call state.
102	Recovery on timer expire.
103	Mandatory item length error.
111	Protocol error.
127	Internetwroking.



### 13.1 Preparation

We need two groups of peers. The agent and client.

#### 13.1.1 Add the agent(sip) info

Add the agent info to the `/etc/asterisk/sip.conf`

This sip info is act like an agent.

Assume that we have below agent info.

```
[agent-01]
type=friend
secret=*****
host=dynamic

[agent-02]
type=friend
secret=*****
host=dynamic

[agent-03]
type=friend
secret=*****
host=dynamic
```

#### 13.1.2 Add the client/customer(sip) info

Add the client info to the `/etc/asterisk/sip.conf`

This sip info is act like an client(customer).

Assume that we have a below client info.

```
[300]
type=friend
secret=*****
host=dynamic

[301]
type=friend
secret=*****
host=dynamic

[302]
type=friend
secret=*****
host=dynamic
```

### 13.1.3 Settings

```
saturn*CLI> sip show peers
Name/username      Host                               Dyn Forcerport
↪Comedia    ACL Port      Status      Description
300/83916470      192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
301/19563407      192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
302/52704186      192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
303/84613297      192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (7 ms)
agent-01/59041286  192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
agent-02/20369415  192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
agent-03/26315780  192.168.200.1      D   No       Auto
↪(Yes)        56389          OK (1 ms)
...
17 sip peers [Monitored: 7 online, 0 offline Unmonitored: 0 online, 10 offline]
```

## 13.2 Basic tutorial

Dial to the customer. After the customer answered call, the call will be transferred to the parking lot.

- Create a plan.
- Create a destination.
- Create dlma and dial list.
- Create a campaign.
- Update campaign status to start.
- Check dial list status.

### 13.2.1 Create plan

```
$ curl -X POST http://192.168.200.10:8081/plans -d
'{"name":"basic tutorial plan", "detail":"test plan for basic tutorial", "tech_name":
↪ "sip", "dial_mode":1}'

{
  "api_ver": "0.1",
  "timestamp": "2017-03-08T01:42:40.668089274Z",
  "statuscode": 200,
  "result": {
    "tm_delete": null,
    "caller_id": null,
    "uuid": "50fd1e1f-920b-477a-b84c-afe58928dad",
    "name": "basic tutorial plan",
    "detail": "test plan for basic tutorial",
    "max_retry_cnt_1": 5,
    "max_retry_cnt_7": 5,
    "in_use": 1,
    "max_retry_cnt_8": 5,
    "service_level": 0,
    "dial_timeout": 30000,
    "variables": null,
    "dial_mode": 1,
    "codecs": null,
    "dl_end_handle": 1,
    "retry_delay": 60,
    "trunk_name": null,
    "early_media": null,
    "max_retry_cnt_2": 5,
    "tech_name": "sip",
    "max_retry_cnt_4": 5,
    "max_retry_cnt_3": 5,
    "max_retry_cnt_5": 5,
    "max_retry_cnt_6": 5,
    "tm_create": "2017-03-08T01:42:40.551073859Z",
    "tm_update": null
  }
}
```

### 13.2.2 Create destination

```
$ curl -X POST http://192.168.200.10:8081/destinations -d
'{"name": "basic tutorial destination", "detail":"test pln for basic tutorial", "type
↪ ":1, "application": "park"}'

{
  "api_ver": "0.1",
  "result": {
    "application": "park",
    "context": null,
    "data": null,
    "detail": "test pln for basic tutorial",
    "exten": null,
    "in_use": 1,
```

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```

    "name": "basic tutorial destination",
    "priority": null,
    "tm_create": "2017-03-08T01:46:42.781526492Z",
    "tm_delete": null,
    "tm_update": null,
    "type": 1,
    "uuid": "36a8a632-569d-414a-94e1-f92c8e0d505e",
    "variables": null
  },
  "statuscode": 200,
  "timestamp": "2017-03-08T01:46:42.830332118Z"
}

```

### 13.2.3 Create dlma and dial list

Create dlma.

```

$ curl -X POST http://192.168.200.10:8081/dlmas -d
'{"name": "basic tutorial dlma", "detail": "test dlma for basic tutorial"}'

{
  "api_ver": "0.1",
  "result": {
    "detail": "test dlma for basic tutorial",
    "dl_table": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "in_use": 1,
    "name": "basic tutorial dlma",
    "tm_create": "2017-03-08T01:51:40.978836362Z",
    "tm_delete": null,
    "tm_update": null,
    "uuid": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "variables": null
  },
  "statuscode": 200,
  "timestamp": "2017-03-08T01:51:41.37138842Z"
}

```

Create dial list

```

$ curl -X POST http://192.168.200.10:8081/dls -d
'{"dlma_uuid": "42b72a18-a6c5-43bf-b9aa-6043ff32128d", "name": "basic tutorial test_
↪customer 1", "detail": "test customer for basic tutorial", "number_1": "300"}'

{
  "api_ver": "0.1",
  "result": {
    "detail": "test customer for basic tutorial",
    "dialing_camp_uuid": null,
    "dialing_plan_uuid": null,
    "dialing_uuid": null,
    "dlma_uuid": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "email": null,
    "in_use": 1,
    "name": "basic tutorial test customer 1",
    "number_1": "300",

```

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```

    "number_2": null,
    "number_3": null,
    "number_4": null,
    "number_5": null,
    "number_6": null,
    "number_7": null,
    "number_8": null,
    "res_dial": 0,
    "res_dial_detail": null,
    "res_hangup": 0,
    "res_hangup_detail": null,
    "resv_target": null,
    "status": 0,
    "tm_create": "2017-03-08T01:55:07.911271576Z",
    "tm_delete": null,
    "tm_last_dial": null,
    "tm_last_hangup": null,
    "tm_update": null,
    "trycnt_1": 0,
    "trycnt_2": 0,
    "trycnt_3": 0,
    "trycnt_4": 0,
    "trycnt_5": 0,
    "trycnt_6": 0,
    "trycnt_7": 0,
    "trycnt_8": 0,
    "ukey": null,
    "uuid": "7d760dd1-8ba5-48d9-989d-415d610ffe57",
    "variables": null
  },
  "statusCode": 200,
  "timestamp": "2017-03-08T01:55:07.936731333Z"
}

```

### 13.2.4 Create campaign

Create campaign using above information.

```

$ curl -X POST http://192.168.200.10:8081/campaigns -d
'{"name": "basic tutorial campaign", "detail": "test campaign for basic tutorial", \
"plan": "50fd1e1f-920b-477a-b84c-afe58928dadc", "dest": "36a8a632-569d-414a-94e1-
↪f92c8e0d505e", \
"dlma": "42b72a18-a6c5-43bf-b9aa-6043ff32128d"}'

{
  "api_ver": "0.1",
  "result": {
    "dest": "36a8a632-569d-414a-94e1-f92c8e0d505e",
    "detail": "test campaign for basic tutorial",
    "dlma": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "in_use": 1,
    "name": "basic tutorial campaign",
    "next_campaign": null,
    "plan": "50fd1e1f-920b-477a-b84c-afe58928dadc",
    "sc_date_end": null,

```

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```
"sc_date_list": null,
"sc_date_list_except": null,
"sc_date_start": null,
"sc_day_list": null,
"sc_mode": 0,
"sc_time_end": null,
"sc_time_start": null,
"status": 0,
"tm_create": "2017-03-08T01:59:48.604422007Z",
"tm_delete": null,
"tm_update": null,
"uuid": "30097375-df96-4ca4-829b-b1e3100a2221"
},
"statusCode": 200,
"timestamp": "2017-03-08T01:59:48.722673874Z"
}
```

### 13.2.5 Update Campaign status to start

```
$ curl -X PUT http://192.168.200.10:8081/campaigns/30097375-df96-4ca4-829b-
↪b1e3100a2221 -d '{"status": 1}'
```

```
{
  "api_ver": "0.1",
  "result": {
    "dest": "36a8a632-569d-414a-94e1-f92c8e0d505e",
    "detail": "test campaign for basic tutorial",
    "dlma": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "in_use": 1,
    "name": "basic tutorial campaign",
    "next_campaign": null,
    "plan": "50fd1e1f-920b-477a-b84c-afe58928dadcd",
    "sc_date_end": null,
    "sc_date_list": null,
    "sc_date_list_except": null,
    "sc_date_start": null,
    "sc_day_list": null,
    "sc_mode": 0,
    "sc_time_end": null,
    "sc_time_start": null,
    "status": 1,
    "tm_create": "2017-03-08T01:59:48.604422007Z",
    "tm_delete": null,
    "tm_update": "2017-03-08T02:02:19.305706615Z",
    "uuid": "30097375-df96-4ca4-829b-b1e3100a2221"
  },
  "statusCode": 200,
  "timestamp": "2017-03-08T02:02:19.345044282Z"
}
```

### 13.2.6 Check dial list status

After update the campaign status, the aserisk will make a call to peer 300. And if the client answer the call the call transfers to the parking lot.



Then, if we check the dial list status later, we can see the updated dial list information.

```
$ curl -X GET http://192.168.200.10:8081/dls/7d760dd1-8ba5-48d9-989d-415d610ffe57

{
  "api_ver": "0.1",
  "timestamp": "2017-03-08T02:05:54.905205247Z",
  "statusCode": 200,
  "result": {
    "tm_last_dial": "2017-03-08T02:02:19.561972329Z",
    "number_4": null,
    "email": null,
    "trycnt_5": 0,
    "uuid": "7d760dd1-8ba5-48d9-989d-415d610ffe57",
    "dlma_uuid": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
    "res_hangup": 16,
    "detail": "test customer for basic tutorial",
    "in_use": 1,
    "res_hangup_detail": "Normal Clearing",
    "number_3": null,
    "name": "basic tutorial test customer 1",
    "status": 0,
    "trycnt_7": 0,
    "ukey": null,
    "dialing_uuid": null,
    "resv_target": null,
    "trycnt_6": 0,
    "trycnt_3": 0,
    "variables": null,
    "trycnt_2": 0,
    "number_8": null,
    "dialing_camp_uuid": null,
    "number_2": null,
    "dialing_plan_uuid": null,
    "res_dial": 4,
    "number_1": "300",
    "tm_create": "2017-03-08T01:55:07.911271576Z",
    "trycnt_1": 1,
    "number_5": null,
    "trycnt_8": 0,
    "number_6": null,
    "number_7": null,
    "trycnt_4": 0,
    "res_dial_detail": "Remote end has answered",
    "tm_delete": null,
    "tm_update": null,
    "tm_last_hangup": "2017-03-08T02:02:38.294239075Z"
  }
}
```

And also, we can see the dial try result in a file.

```
$ tail -n 1 /opt/bin/outbound_result.json

{
  "uuid": "7ac02fb2-abe9-4882-a023-bbba573fc220",
  "name": null,
  "res_hangup_detail": "Normal Clearing",
```

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```

"status": 7,
"action_id": "7f2aab69-4d09-4756-ac9a-f522c9e12f47",
"res_dial_detail": "Remote end has answered",
"dial_addr": "300",
"res_dial": 4,
"tm_update": "2017-03-08T02:02:38.225648380Z",
"res_hangup": 16,
"uuid_camp": "30097375-df96-4ca4-829b-b1e3100a2221",
"uuid_plan": "50fd1e1f-920b-477a-b84c-afe58928dad",
"uuid_dest": "36a8a632-569d-414a-94e1-f92c8e0d505e",
"dial_data": "",
"uuid_dlma": "42b72a18-a6c5-43bf-b9aa-6043ff32128d",
"dial_channel": "sip/300",
"uuid_dl_list": "7d760dd1-8ba5-48d9-989d-415d610ffe57",
"tm_create": "2017-03-08T02:02:19.491821216Z",
"dial_trycnt": 1,
"dial_application": "park",
"dial_type": 1,
"dial_index": 1,
"dial_timeout": 30000,
"dial_exten": null,
"tm_delete": null
}

```

## 13.3 Normal call distribute

Dial to the customer. After the customer answered call, the call will be distributed to the waiting agents.

- Create a queue and add memeber to queue.
- Create a destination.
- Create dlma and dial list.
- Create a campaign.
- Update campaign status to start
- Check result

### 13.3.1 Create a queue and add memeber to queue

Add the queue info to the /etc/asterisk/queues.conf

Assume that we have a below queue info.

```

[sales_1]
musicclass = default
strategy = ringall
joinempty = yes

```

Add the all agents to the queue.

```

pluto*CLI> queue add member sip/agent-01 to sales_1
Added interface 'sip/agent-01' to queue 'sales_1'

```

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```
pluto*CLI> queue add member sip/agent-02 to sales_1
Added interface 'sip/agent-02' to queue 'sales_1'

pluto*CLI> queue add member sip/agent-03 to sales_1
Added interface 'sip/agent-03' to queue 'sales_1'
```

### Check the queue status

```
pluto*CLI> queue show sales_1
sales_1 has 0 calls (max unlimited) in 'ringall' strategy (0s holdtime, 0s talktime),
↳ W:0, C:0, A:0, SL:0.0% within 0s
Members:
  sip/agent-01 (ringinuse enabled) (dynamic) (Not in use) has taken no calls yet
  sip/agent-02 (ringinuse enabled) (dynamic) (Not in use) has taken no calls yet
  sip/agent-03 (ringinuse enabled) (dynamic) (Not in use) has taken no calls yet
No Callers
```

## 13.3.2 Create plan

```
$ curl -X POST http://192.168.200.10:8081/plans -d
'{"name":"normal call distribute plan", "detail":"test plan for normal call distribute
↳ ", "tech_name":"sip", "dial_mode":1}'

{
  "api_ver": "0.1",
  "result": {
    "caller_id": null,
    "codecs": null,
    "detail": "test plan for normal call distribute",
    "dial_mode": 1,
    "dial_timeout": 30000,
    "dl_end_handle": 1,
    "early_media": null,
    "in_use": 1,
    "max_retry_cnt_1": 5,
    "max_retry_cnt_2": 5,
    "max_retry_cnt_3": 5,
    "max_retry_cnt_4": 5,
    "max_retry_cnt_5": 5,
    "max_retry_cnt_6": 5,
    "max_retry_cnt_7": 5,
    "max_retry_cnt_8": 5,
    "name": "normal call distribute plan",
    "retry_delay": 60,
    "service_level": 0,
    "tech_name": "sip",
    "tm_create": "2017-03-08T02:26:58.135746353Z",
    "tm_delete": null,
    "tm_update": null,
    "trunk_name": null,
    "uuid": "2410fdf4-5633-4b84-917b-c66cc5e94d0c",
    "variables": null
  },
  "statusCode": 200,
```

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```

    "timestamp": "2017-03-08T02:26:58.194401817Z"
  }

```

### 13.3.3 Create destination

```

$ curl -X POST http://192.168.200.10:8081/destinations -d
'{"name": "normal call distribute destination", "detail": "test pln for normal call_
↪distribute", "type": 1, "application": "queue", "data": "sales_1"}'

{
  "api_ver": "0.1",
  "result": {
    "application": "queue",
    "context": null,
    "data": "sales_1",
    "detail": "test pln for normal call distribute",
    "exten": null,
    "in_use": 1,
    "name": "normal call distribute destination",
    "priority": null,
    "tm_create": "2017-03-08T02:30:28.856570883Z",
    "tm_delete": null,
    "tm_update": null,
    "type": 1,
    "uuid": "cc260c6a-80b5-434b-8d68-d2486eeb2c01",
    "variables": null
  },
  "statuscode": 200,
  "timestamp": "2017-03-08T02:30:28.877500393Z"
}

```

### 13.3.4 Create dlma and dial list

#### Create Dlma

```

$ $ curl -X POST http://192.168.200.10:8081/dlmas -d
'{"name": "normal call distribute dlma", "detail": "test dlma for normal call_
↪distribute"}'

{
  "api_ver": "0.1",
  "result": {
    "detail": "test dlma for normal call distribute",
    "dl_table": "b0d73193_2787_4341_8c32_bc051bad9f94",
    "in_use": 1,
    "name": "normal call distribute dlma",
    "tm_create": "2017-03-08T02:31:30.747154596Z",
    "tm_delete": null,
    "tm_update": null,
    "uuid": "b0d73193-2787-4341-8c32-bc051bad9f94",
    "variables": null
  },
  "statuscode": 200,

```

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```

    "timestamp": "2017-03-08T02:31:30.764677718Z"
}

```

### Create dial list.

```

$ curl -X POST http://192.168.200.10:8081/dls -d
'{"dlma_uuid":"b0d73193-2787-4341-8c32-bc051bad9f94", "name": "normal call distribute
↪test customer 1", "detail": "test customer for normal call distribute", "number_1":
↪"300"}'

{
  "api_ver": "0.1",
  "result": {
    "detail": "test customer for normal call distribute",
    "dialing_camp_uuid": null,
    "dialing_plan_uuid": null,
    "dialing_uuid": null,
    "dlma_uuid": "b0d73193-2787-4341-8c32-bc051bad9f94",
    "email": null,
    "in_use": 1,
    "name": "normal call distribute test customer 1",
    "number_1": "300",
    "number_2": null,
    "number_3": null,
    "number_4": null,
    "number_5": null,
    "number_6": null,
    "number_7": null,
    "number_8": null,
    "res_dial": 0,
    "res_dial_detail": null,
    "res_hangup": 0,
    "res_hangup_detail": null,
    "resv_target": null,
    "status": 0,
    "tm_create": "2017-03-08T02:32:52.786548232Z",
    "tm_delete": null,
    "tm_last_dial": null,
    "tm_last_hangup": null,
    "tm_update": null,
    "trycnt_1": 0,
    "trycnt_2": 0,
    "trycnt_3": 0,
    "trycnt_4": 0,
    "trycnt_5": 0,
    "trycnt_6": 0,
    "trycnt_7": 0,
    "trycnt_8": 0,
    "ukey": null,
    "uuid": "d0527ab9-c240-49a4-a001-1d3adecebbcb",
    "variables": null
  },
  "statuscode": 200,
  "timestamp": "2017-03-08T02:32:52.812825540Z"
}

```

### 13.3.5 Create campaign and status update

Create campaign.

```
$ curl -X POST http://192.168.200.10:8081/campaigns -d
'{"name": "normal call distribute campaign", "detail": "test campaign for normal call
↪distribute", \
"plan": "2410fdf4-5633-4b84-917b-c66cc5e94d0c", "dest": "cc260c6a-80b5-434b-8d68-
↪d2486eeb2c01", \
"dlma": "b0d73193-2787-4341-8c32-bc051bad9f94"}'
```

```
{
  "api_ver": "0.1",
  "result": {
    "dest": "cc260c6a-80b5-434b-8d68-d2486eeb2c01",
    "detail": "test campaign for normal call distribute",
    "dlma": "b0d73193-2787-4341-8c32-bc051bad9f94",
    "in_use": 1,
    "name": "normal call distribute campaign",
    "next_campaign": null,
    "plan": "2410fdf4-5633-4b84-917b-c66cc5e94d0c",
    "sc_date_end": null,
    "sc_date_list": null,
    "sc_date_list_except": null,
    "sc_date_start": null,
    "sc_day_list": null,
    "sc_mode": 0,
    "sc_time_end": null,
    "sc_time_start": null,
    "status": 0,
    "tm_create": "2017-03-08T02:35:01.122129833Z",
    "tm_delete": null,
    "tm_update": null,
    "uuid": "ed40ec12-9d39-4594-823c-0a2b5d86d9b6"
  },
  "statuscode": 200,
  "timestamp": "2017-03-08T02:35:01.142891513Z"
}
```

Update campaign status.

```
$ curl -X PUT http://192.168.200.10:8081/campaigns/ed40ec12-9d39-4594-823c-
↪0a2b5d86d9b6 -d '{"status": 1}'
```

```
{
  "api_ver": "0.1",
  "result": {
    "dest": "cc260c6a-80b5-434b-8d68-d2486eeb2c01",
    "detail": "test campaign for normal call distribute",
    "dlma": "b0d73193-2787-4341-8c32-bc051bad9f94",
    "in_use": 1,
    "name": "normal call distribute campaign",
    "next_campaign": null,
    "plan": "2410fdf4-5633-4b84-917b-c66cc5e94d0c",
    "sc_date_end": null,
    "sc_date_list": null,
    "sc_date_list_except": null,
    "sc_date_start": null,

```

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```

    "sc_day_list": null,
    "sc_mode": 0,
    "sc_time_end": null,
    "sc_time_start": null,
    "status": 1,
    "tm_create": "2017-03-08T02:35:01.122129833Z",
    "tm_delete": null,
    "tm_update": "2017-03-08T02:36:31.509227769Z",
    "uuid": "ed40ec12-9d39-4594-823c-0a2b5d86d9b6"
  },
  "statusCode": 200,
  "timestamp": "2017-03-08T02:36:31.526276933Z"
}

```

### 13.3.6 Check dial list status

After update the campaign status, the aserisk will make a call to peer 300. And if the client answer the call, the agent's device will be ringing.

If the one of the agent is answered the call, the other's device's ringing will be stopped.

Then, if we check the dial list status later, we can see the updated dial list information.

```

$ curl -X GET http://192.168.200.10:8081/dls/d0527ab9-c240-49a4-a001-1d3adecebbcb

{
  "api_ver": "0.1",
  "result": {
    "detail": "test customer for normal call distribute",
    "dialing_camp_uuid": null,
    "dialing_plan_uuid": null,
    "dialing_uuid": null,
    "dlma_uuid": "b0d73193-2787-4341-8c32-bc051bad9f94",
    "email": null,
    "in_use": 1,
    "name": "normal call distribute test customer 1",
    "number_1": "300",
    "number_2": null,
    "number_3": null,
    "number_4": null,
    "number_5": null,
    "number_6": null,
    "number_7": null,
    "number_8": null,
    "res_dial": 4,
    "res_dial_detail": "Remote end has answered",
    "res_hangup": 18,
    "res_hangup_detail": "No user responding",
    "resv_target": null,
    "status": 0,
    "tm_create": "2017-03-08T02:32:52.786548232Z",
    "tm_delete": null,
    "tm_last_dial": "2017-03-08T02:36:31.704367362Z",
    "tm_last_hangup": "2017-03-08T02:37:36.836258185Z",
    "tm_update": null,
    "trycnt_1": 1,

```

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```
"trycnt_2": 0,
"trycnt_3": 0,
"trycnt_4": 0,
"trycnt_5": 0,
"trycnt_6": 0,
"trycnt_7": 0,
"trycnt_8": 0,
"ukey": null,
"uuid": "d0527ab9-c240-49a4-a001-1d3adecebbcb",
"variables": null
},
"statusCode": 200,
"timestamp": "2017-03-08T02:38:56.518844830Z"
}
```

```
$ tail -n 1 /opt/bin/outbound_result.json

{
  "uuid": "363f21fc-d7f1-43bb-868e-37b7c7ede07c",
  "name": null,
  "res_hangup_detail": "No user responding",
  "status": 7,
  "action_id": "92746286-f090-418b-9411-c0ee43b96664",
  "res_dial_detail": "Remote end has answered",
  "dial_addr": "300",
  "res_dial": 4,
  "tm_update": "2017-03-08T02:37:36.621821426Z",
  "res_hangup": 18,
  "uuid_camp": "ed40ec12-9d39-4594-823c-0a2b5d86d9b6",
  "uuid_plan": "2410fdf4-5633-4b84-917b-c66cc5e94d0c",
  "uuid_dest": "cc260c6a-80b5-434b-8d68-d2486eeb2c01",
  "dial_data": "sales_1",
  "uuid_dlma": "b0d73193-2787-4341-8c32-bc051bad9f94",
  "dial_channel": "sip/300",
  "uuid_dl_list": "d0527ab9-c240-49a4-a001-1d3adecebbcb",
  "tm_create": "2017-03-08T02:36:31.649998750Z",
  "dial_trycnt": 1,
  "dial_application": "queue",
  "dial_type": 1,
  "dial_index": 1,
  "dial_timeout": 30000,
  "dial_exten": null,
  "tm_delete": null
}
```



## CHAPTER 14

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