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# OPNFV Functest Documentation

*Release master*

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## Contents

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<b>1</b>	<b>functest</b>	<b>3</b>
1.1	functest package . . . . .	3
<b>2</b>	<b>Indices and tables</b>	<b>13</b>
	<b>Python Module Index</b>	<b>15</b>
	<b>Index</b>	<b>17</b>



Contents:



# CHAPTER 1

---

functest

---

## 1.1 functest package

### 1.1.1 Subpackages

`functest.core` package

Submodules

`functest.core.cloudify` module

`functest.core.singlevm` module

`functest.core.tenantnetwork` module

Module contents

`functest.opnfv_tests` package

Subpackages

`functest.opnfv_tests.openstack` package

Subpackages

`functest.opnfv_tests.openstack.api` package

Submodules

`functest.opnfv_tests.openstack.api.connection_check module`

**Module contents**

`functest.opnfv_tests.openstack.cinder package`

**Submodules**

`functest.opnfv_tests.openstack.cinder.cinder module`

**Module contents**

`functest.opnfv_tests.openstack.patrole package`

**Submodules**

`functest.opnfv_tests.openstack.patrole.patrole module`

**Module contents**

`functest.opnfv_tests.openstack.rally package`

**Submodules**

`functest.opnfv_tests.openstack.rally.rally module`

**Module contents**

`functest.opnfv_tests.openstack.refstack package`

**Submodules**

`functest.opnfv_tests.openstack.refstack.refstack module`

**Module contents**

`functest.opnfv_tests.openstack.shaker package`

**Submodules**

`functest.opnfv_tests.openstack.shaker.shaker module`

**Module contents**

`functest.opnfv_tests.openstack.tempest package`

## Submodules

[functest.opnfv\\_tests.openstack.tempest.tempest module](#)

### Module contents

[functest.opnfv\\_tests.openstack.vmtp package](#)

## Submodules

[functest.opnfv\\_tests.openstack.vmtp.vmtp module](#)

### Module contents

[functest.opnfv\\_tests.openstack.vping package](#)

## Submodules

[functest.opnfv\\_tests.openstack.vping.vping\\_ssh module](#)

[functest.opnfv\\_tests.openstack.vping.vping\\_userdata module](#)

### Module contents

## Module contents

[functest.opnfv\\_tests.sdn package](#)

## Subpackages

[functest.opnfv\\_tests.sdn.odl package](#)

## Submodules

[functest.opnfv\\_tests.sdn.odl.odl module](#)

Define classes required to run ODL suites.

It has been designed for any context. But helpers are given for running test suites in OPNFV environment.

**Example:** \$ python odl.py

```
class functest.opnfv_tests.sdn.odl.odl.ODLParser
    Bases: object
```

Parser to run ODL test suites.

```
parse_args(argv=None)
```

Parse arguments.

It can call sys.exit if arguments are incorrect.

**Returns:** the arguments from cmdline

```
class functest.opnfv_tests.sdn.odl.odl.ODLTests(**kwargs)
Bases: xtesting.core.robotframework.RobotFramework
```

ODL test runner.

```
basic_suite_dir = '/src/odl_test/csit/suites/integration/basic'
```

```
default_suites = ['/src/odl_test/csit/suites/integration/basic', '/src/odl_test/csit/s
```

```
neutron_suite_dir = '/src/odl_test/csit/suites/openstack/neutron'
```

```
odl_test_repo = '/src/odl_test'
```

```
odl_variables_file = '/src/odl_test/csit/variables/Variables.robot'
```

```
run(**kwargs)
```

Run suites in OPNFV environment

It basically checks env vars to call main() with the keywords required.

**Args:** kwargs: Arbitrary keyword arguments.

**Returns:** EX\_OK if all suites ran well. EX\_RUN\_ERROR otherwise.

```
run_suites(suites=None, **kwargs)
```

Run the test suites

It has been designed to be called in any context. It requires the following keyword arguments:

- odlusername,
- odlpassword,
- osauthurl,
- neutronurl,
- osusername,
- osprojectname,
- ospassword,
- odlip,
- odlwebport,
- odlrestconfport.

**Here are the steps:**

- set all RobotFramework\_variables,
- create the output directories if required,
- get the results in output.xml,
- delete temporary files.

**Args:** kwargs: Arbitrary keyword arguments.

**Returns:** EX\_OK if all suites ran well. EX\_RUN\_ERROR otherwise.

```
classmethod set_robotframework_vars(odlusername='admin', odlpassword='admin')
```

Set credentials in csit/variables/Variables.robot.

**Returns:** True if credentials are set. False otherwise.

```
functest.opnfv_tests.sdn.odl.odl.main()
    Entry point
```

## Module contents

### Module contents

[functest.opnfv\\_tests.vnf package](#)

#### Subpackages

[functest.opnfv\\_tests.vnf.epc package](#)

#### Submodules

[functest.opnfv\\_tests.vnf.epc.juju\\_epc module](#)

### Module contents

[functest.opnfv\\_tests.vnf.ims package](#)

#### Submodules

[functest.opnfv\\_tests.vnf.ims.clearwater module](#)

[functest.opnfv\\_tests.vnf.ims.cloudify\\_ims module](#)

[functest.opnfv\\_tests.vnf.ims.heat\\_ims module](#)

### Module contents

[functest.opnfv\\_tests.vnf.router package](#)

#### Subpackages

[functest.opnfv\\_tests.vnf.router.test\\_controller package](#)

#### Submodules

[functest.opnfv\\_tests.vnf.router.test\\_controller.function\\_test\\_exec module](#)

vrouter function test execution module

```
class functest.opnfv_tests.vnf.router.test_controller.function_test_exec.FunctionTestExec(  
    Bases: object
```

vrouter function test execution class

```
config_reference_vnf(target_vnf, reference_vnf, test_kind)
config_target_vnf(target_vnf, reference_vnf, test_kind)
logger = <Logger functest.opnfv_tests.vnf.router.test_controller.function_test_exec (WARNING)>
result_check(target_vnf, reference_vnf, test_kind, test_list)
run(target_vnf, reference_vnf_list, test_info, test_list)
```

## Module contents

### [functest.opnfv\\_tests.vnf.router.vnf\\_controller package](#)

#### Submodules

##### [functest.opnfv\\_tests.vnf.router.vnf\\_controller.checker module](#)

vrouter test result check module

```
class functest.opnfv_tests.vnf.router.vnf_controller.checker.Checker
Bases: object

vrouter test result check class

static load_check_rule(rule_file_dir, rule_file_name, parameter)
logger = <Logger functest.opnfv_tests.vnf.router.vnf_controller.checker (WARNING)>
static regexp_information(response, rules)
```

##### [functest.opnfv\\_tests.vnf.router.vnf\\_controller.command\\_generator module](#)

command generator module for vrouter testing

```
class functest.opnfv_tests.vnf.router.vnf_controller.command_generator.CommandGenerator
Bases: object

command generator class for vrouter testing

static command_create(template, parameter)
static load_template(template_dir, template)
logger = <Logger functest.opnfv_tests.vnf.router.vnf_controller.command_generator (WARNING)>
```

##### [functest.opnfv\\_tests.vnf.router.vnf\\_controller.ssh\\_client module](#)

ssh client module for vrouter testing

```
class functest.opnfv_tests.vnf.router.vnf_controller.ssh_client.SshClient(ip_address,
                                                                      user,
                                                                      pass-
                                                                      word=None,
                                                                      key_filename=None)
Bases: object

ssh client class for vrouter testing
```

```
close()
connect (time_out=10, retrycount=10)
static error_check (response, err_strs=None)
logger = <Logger functest.opnfv_tests.vnf.router.vnf_controller.ssh_client (WARNING)>
send (cmd, prompt, timeout=10)
```

## functest.opnfv\_tests.vnf.router.vnf\_controller.vm\_controller module

vm controll module

```
class functest.opnfv_tests.vnf.router.vnf_controller.vm_controller.VmController (util_info)
Bases: object

vm controll class

command_create_and_execute (ssh, test_cmd_file_path, cmd_input_param, prompt_file_path)
command_execute (ssh, command, prompt)
command_gen_from_template (command_file_path, cmd_input_param)
command_list_execute (ssh, command_list, prompt)
config_vm (vm_info, test_cmd_file_path, cmd_input_param, prompt_file_path)
connect_ssh_and_config_vm (vm_info, test_cmd_file_path, cmd_input_param,
                           prompt_file_path)
logger = <Logger functest.opnfv_tests.vnf.router.vnf_controller.vm_controller (WARNING)
```

## functest.opnfv\_tests.vnf.router.vnf\_controller.vnf\_controller module

vrouter controll module

```
class functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller.VnfController (util_info)
Bases: object

vrouter controll class

config_vnf (source_vnf, destination_vnf, test_cmd_file_path, parameter_file_path, prompt_file_path)
logger = <Logger functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller (WARNING)>
output_check_result_detail_data (res_data_list)
result_check (target_vnf, reference_vnf, check_rule_file_path_list, parameter_file_path,
              prompt_file_path)
```

## Module contents

### Submodules

#### functest.opnfv\_tests.vnf.router.cloudify\_vrouter module

## functest.opnfv\_tests.vnf.router.utilvnf module

Utility module of vrouter testcase

```
class functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
    Bases: object

    Utility class of vrouter testcase

    static convert_functional_test_result(result_data_list)
    get_address(server_name, network_name)
    get_blueprint_outputs(cfy_manager_ip, deployment_name)
    get_blueprint_outputs_networks(cfy_manager_ip, deployment_name)
    get_blueprint_outputs_vnfs(cfy_manager_ip, deployment_name)
    get_mac_address(server_name, network_name)
    static get_reference_vnf_list(vnf_info_list)
    static get_target_vnf(vnf_info_list)
    static get_test_scenario(file_path)
    static get_vnf_info(vnf_info_list, vnf_name)
    get_vnf_info_list(cfy_manager_ip, topology_deploy_name, target_vnf_name)
    logger = <Logger functest.opnfv_tests.vnf.router.utilvnf (WARNING)>
    output_test_result_json()
    request_vm_delete(vnf_info_list)
    set_credentials(cloud)
    write_result_data(result_data)
```

## functest.opnfv\_tests.vnf.router.vrouter\_base module

vrouter testing base class module

```
class functest.opnfv_tests.vnf.router.vrouter_base.VrouterOnBoardingBase(util,
                                                                           util_info)
    Bases: object

    vrouter testing base class

    function_test_vrouter(target_vnf_name, test_info)
        function test execution

    get_vnf_info_list(target_vnf_name)
    test_vnf()
        vrouter test execution
```

## Module contents

### Module contents

#### Module contents

##### functest.utils package

###### Submodules

###### functest.utils.config module

```
class functest.utils.config.Config
    Bases: object

    fill()
    patch_file(patch_file_path)
```

###### functest.utils.constants module

###### functest.utils.env module

```
functest.utils.env.get(env_var)
functest.utils.env.string()
```

###### functest.utils.functest\_utils module

###### Module contents

###### 1.1.2 Module contents



## CHAPTER 2

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### Indices and tables

---

- genindex
- modindex
- search



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## Python Module Index

---

f

```
functest, 11
functest.core, 3
functest.opnfv_tests, 11
functest.opnfv_tests.openstack, 5
functest.opnfv_tests.openstack.api, 4
functest.opnfv_tests.openstack.cinder,
    4
functest.opnfv_tests.openstack.patrole,
    4
functest.opnfv_tests.openstack.rally, 4
functest.opnfv_tests.openstack.refstack,
    4
functest.opnfv_tests.openstack.shaker,
    4
functest.opnfv_tests.openstack.tempest,
    5
functest.opnfv_tests.openstack.vmtp, 5
functest.opnfv_tests.openstack.vping, 5
functest.opnfv_tests.sdn, 7
functest.opnfv_tests.sdn.opendaylight, 7
functest.opnfv_tests.sdn.opendaylight.odl, 5
functest.opnfv_tests.sdn.odl, 11
functest.opnfv_tests.vnf.epc, 7
functest.opnfv_tests.vnf.ims, 7
functest.opnfv_tests.vnf.router, 11
functest.opnfv_tests.vnf.router.test_controller,
    8
functest.opnfv_tests.vnf.router.test_controller.function_test_exec,
    7
functest.opnfv_tests.vnf.router.utilvnf,
    10
functest.opnfv_tests.vnf.router.vnf_controller,
    9
functest.opnfv_tests.vnf.router.vnf_controller.checker,
    8
functest.opnfv_tests.vnf.router.vnf_controller.command_generator,
    8
functest.opnfv_tests.vnf.router.vnf_controller.ssh_client,
```



Index

B

```
functest.opnfv_tests.sdn (module), 7
functest.opnfv_tests.sdn.odl (module), 7
functest.opnfv_tests.sdn.odl.odl (mod-   get_reference_vnf_list()
ule), 5
functest.opnfv_tests.vnf (module), 11
functest.opnfv_tests.vnf.epc (module), 7
functest.opnfv_tests.vnf.ims (module), 7
functest.opnfv_tests.vnf.router (module), 11
functest.opnfv_tests.vnf.router.test_controller static method, 10
(module), 8
functest.opnfv_tests.vnf.router.test_controller static method, 10
(module), 7
get_vnf_info() (functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
get_vnf_info_list() (functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
functest.opnfv_tests.vnf.router.utilvnf (module), 10
get_vnf_info_list() (functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
(functest.opnfv_tests.vnf.router.vrouter_base.VrouterOnBoarding
method), 10
functest.opnfv_tests.vnf.router.vnf_controller (module), 8
functest.opnfv_tests.vnf.router.vnf_controller.command_generator
(module), 8
load_check_rule()
functest.opnfv_tests.vnf.router.vnf_controller (functest.opnfv_tests.vnf.router.vnf_controller.checker.Checker
method), 8
functest.opnfv_tests.vnf.router.vnf_controller (functest.opnfv_tests.vnf.router.vnf_controller.command_generator
method), 8
functest.opnfv_tests.vnf.router.vnf_controller.function_test_exec.I
(attribute), 8
functest.opnfv_tests.vnf.router.vrouter_dagger (functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
attribute), 10
logger (functest.opnfv_tests.vnf.router.vnf_controller.checker.Checker
attribute), 8
logger (functest.opnfv_tests.vnf.router.vnf_controller.command_generator
attribute), 8
logger (functest.opnfv_tests.vnf.router.vnf_controller.ssh_client.SshClient
attribute), 9
logger (functest.opnfv_tests.vnf.router.vnf_controller.vm_controller.VmCo
method), 10
FunctionTestExec (class      in      attribute), 9
functest.opnfv_tests.vnf.router.test_controller.function_test_exec (functest.opnfv_tests.vnf.router.vnf_controller.VnfCo
attribute), 9
7
```

G

```
get () (in module functest.utils.env), 11
get_address () (functest.openfv_tests.vnf.router.utilvnf
    method), 10
get_blueprint_outputs ()
    (functest.openfv_tests.vnf.router.utilvnf.Utilvnf
        method), 10
get_blueprint_outputs_networks ()
    (functest.openfv_tests.vnf.router.utilvnf.Utilvnf
        method), 10
get_blueprint_outputs_vnfs ()
    (functest.openfv_tests.vnf.router.utilvnf.Utilvnf
        method), 10
get_mac_address ()
```

M

main () (in module *functest.opnfv\_tests.sdn.odl.odl*), 6

Utilv  
N

`neutron_suite_dir`  
(`functest.openvswitch_tests.sdn.odl.odl.ODLTests`  
`attribute`), 6

Q

```
odl_test_repo (functest.opnfv_tests.sdn.odl.odl.ODLTests  
attribute), 6  
odl_variables_file  
(functest.opnfv_tests.sdn.odl.odl.ODLTests  
attribute), 6
```

**V**

```
ODLParser (class in functest.opnfv_tests.sdn.odl.odl), 5
ODLTests (class in functest.opnfv_tests.sdn.odl.odl), 6
output_check_result_detail_data () VmController (class in
functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller),
(functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller).VnfController
method), 9
VmController (class in
functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller),
VnfController 9
output_test_result_json () VrouterOnBoardingBase (class in
functest.opnfv_tests.vnf.router.vrouter_base),
(functest.opnfv_tests.vnf.router.vrouter_base).VrouterOnBoardingBase
method), 10
```

**P**

```
parse_args () (functest.opnfv_tests.sdn.odl.odl.ODLParser
method), 5 W
patch_file () (functest.utils.config.Config method), 11
write_result_data () (functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
```

**R**

```
regexp_information () Checker
(functest.opnfv_tests.vnf.router.vnf_controller.checker.Checker
static method), 8
request_vm_delete () Utilvnf
(functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
result_check () (functest.opnfv_tests.vnf.router.test_controller.function_test_exec.FunctionTestExec
method), 8
result_check () (functest.opnfv_tests.vnf.router.vnf_controller.vnf_controller.VnfController
method), 9
run () (functest.opnfv_tests.sdn.odl.odl.ODLTests
method), 6
run () (functest.opnfv_tests.vnf.router.test_controller.function_test_exec.FunctionTestExec
method), 8
run_suites () (functest.opnfv_tests.sdn.odl.odl.ODLTests
method), 6
```

**S**

```
send () (functest.opnfv_tests.vnf.router.vnf_controller.ssh_client.SshClient
method), 9
set_credentials () Utilvnf
(functest.opnfv_tests.vnf.router.utilvnf.Utilvnf
method), 10
set_robotframework_vars () ODLTests
(functest.opnfv_tests.sdn.odl.odl.ODLTests
class method), 6
SshClient (class in
functest.opnfv_tests.vnf.router.vnf_controller.ssh_client),
8
string () (in module functest.utils.env), 11
```

**T**

```
test_vnf () (functest.opnfv_tests.vnf.router.vrouter_base.VrouterOnBoardingBase
method), 10
```

**U**

```
Utilvnf (class in functest.opnfv_tests.vnf.router.utilvnf),
10
```