

Test plan: lag_api API implementation.

1. Test plan created to organise testing of new API `lag_api`. API consists of the following functions

```
const sai_lag_api_t lag_api = {  
    stub_create_lag,  
    stub_remove_lag,  
    stub_set_lag_attribute,  
    stub_get_lag_attribute,  
    stub_create_lag_member,  
    stub_remove_lag_member,  
    stub_set_lag_member_attribute,  
    stub_get_lag_member_attribute  
};
```

2. Responsible:

- Denys Levandovskiy - software engineer
- Stepan Vovk - test engineer

3. Tests block:

a) Function:

```
sai_status_t stub_create_lag(  
    _Out_ sai_object_id_t* lag_id,  
    _In_ uint32_t attr_count,  
    _In_ sai_attribute_t *attr_list) {}
```

Tests scenarios:

1. Call function with 1, 2, 3 args. Check status
2. Call function with correct number of args. Assert lag being created. Check status
3. Call function with wrong args type. Check status

b) Function

```
sai_status_t stub_remove_lag(  
    _In_ sai_object_id_t lag_id){}
```

Tests scenarios:

- 1.Call function with non esistent lag_id. Check status
- 2.Create lag. Call function with created lag_id. Check status
- 3.Create alg. Call function with created lag_id. Check lag_id is deleted. Heck status.

c) Function:

```
sai_status_t stub_set_lag_member_attribute(  
    _In_ sai_object_id_t lag_member_id,  
    _In_ const sai_attribute_t *attr)
```

Test scenarios:

- 1.Call function with non esistent lag_member_id, correct attr. Check status.
- 2.Call function with esistent lag_mamber_id.Check status
- 3.Create lag mamber. Call function with correct arguments. Check argument of the created lag member. Check status.

d) Function:

```
sai_status_t stub_get_lag_member_attribute(  
    _In_ sai_object_id_t lag_member_id,  
    _In_ uint32_t attr_count,  
    _Inout_ sai_attribute_t *attr_list)
```

Test scenarios:

1. Create lag member. Call function with correct number of args . Check status.
2. Create lag member. Call function with wrong number of args . Check status.
3. Call function with deleted lag_member_id

e) Function:

```
sai_status_t stub_create_lag_member(  
    _Out_ sai_object_id_t* lag_member_id,  
    _In_ uint32_t attr_count,  
    _In_ sai_attribute_t *attr_list)
```

Tests scenarios:

1. Call function with 1, 2, 3 parameters. Check status
2. Call function with correct number of parameters. Assert lag being created. Check status
3. Call function with wrong parameters type. Check status

End to End scenarios:

Test: Lag member has correct lag and port

1. Create lag #1
2. Create lag#2
3. Create lag member with attr: lag#1 and {port#1, port#2}
4. Create lag member with attr: lag#2 and {port #3, port#4}

Expected result:

Lag members created. Status success

Test: Lag member attr deletion

1. Create lag #1
2. Create lag member with attr: lag#1 and {port#1, port#2}
3. Delete attr: port#1
4. Expected result:

Lag#1 has only port#2 as attr. Status success

Test: Max port attr in lag:

1. Create lag #1
2. Create lag member with attr: lag#1 and {port#1, port#2, n..32}
3. Add one more port# to attr list
4. Status error: max port # of attr exceeded.