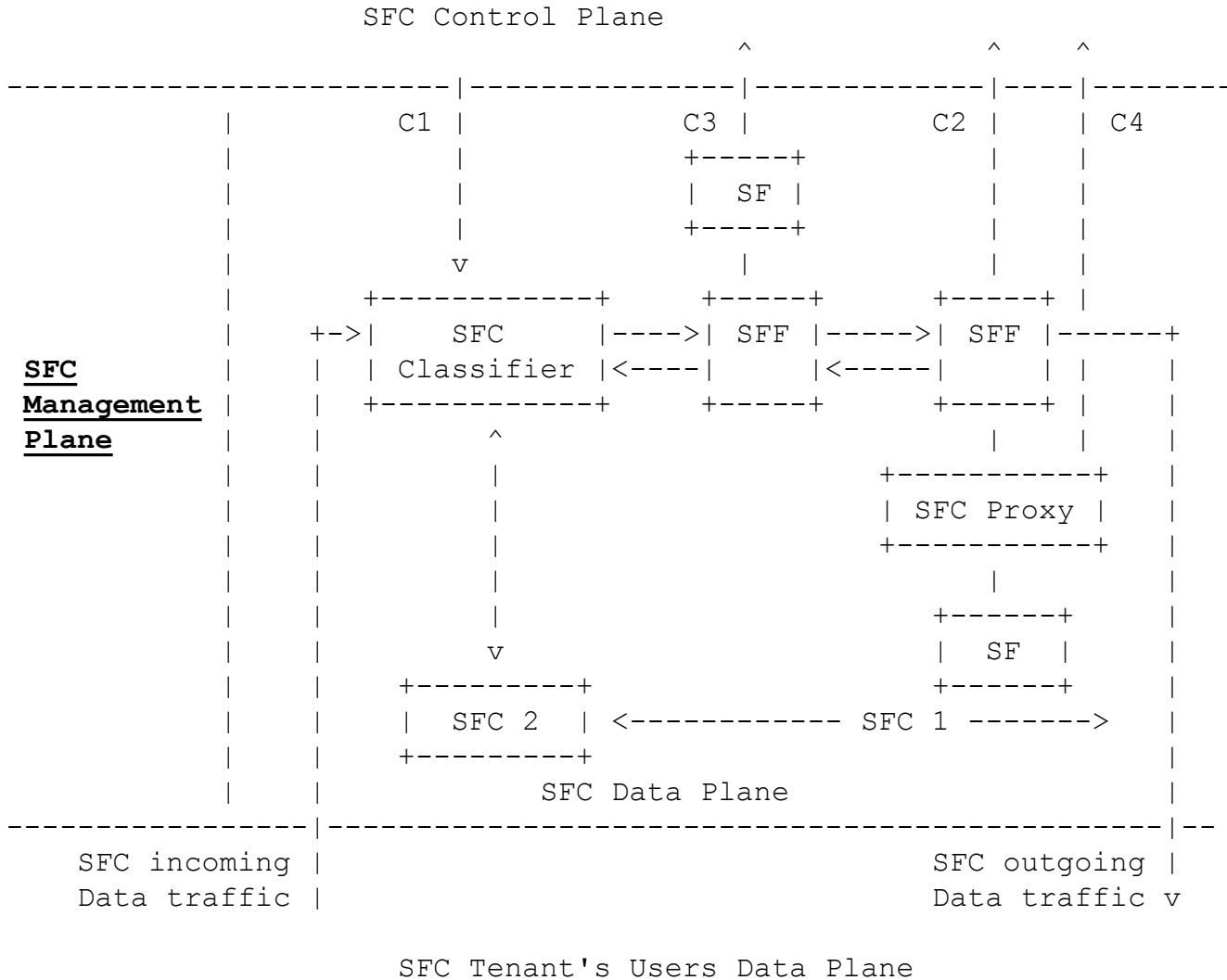# SFC environment Security requirements

`draft-mglt-sfc-security-environment-req-02.txt`

Migault, Pignataro, Reddy, Inacio

Overview: SFC architecture

```
                       SFC Control Plane
                                          ^            ^     ^
-----------------------|--------------|--------------|----|--------
        |              C1 |              C3 |            C2 |   | C4
        |                 |              +-----+          |   |
        |                 |              | SF  |          |   |
        |                 |              +-----+          |   |
        |                 v                 |             |   |
        |         +-----------+          +-----+      +-----+ |
        |    +->| SFC         |---->| SFF |----->| SFF |------+
SFC     |    |  | Classifier  |<----|     |<-----|     | |    |
Management |  |  +-----------+          +-----+      +-----+ |    |
Plane   |    |         ^                             |   |    |
        |    |         |                    +----------+   |    |
        |    |         |                    | SFC Proxy |   |    |
        |    |         |                    +----------+   |    |
        |    |         |                         |      |    |
        |    |         |                      +------+   |    |
        |    |         v                      | SF   |   |    |
        |    |  +---------+                    +------+   |    |
        |    |  | SFC 2   | <----------- SFC 1 ------->   |    |
        |    |  +---------+                              |    |
        |    |            SFC Data Plane                 |    |
----------------|-------------------------------------------|--
     SFC incoming |                        SFC outgoing |
     Data traffic |                        Data traffic v

                    SFC Tenant's Users Data Plane
```

Overview SFC Architecture

SFC architecture is composed 4 planed:

1. SFC Management Plane
2. Control Plane [I-D.ietf-sfc-control-plane]
3. SFC Data Plane
4. SFC Tenant's Users Data Plane

Goal of the document

The purpose of the document is to:

1. Describe the security impact of each plane in the SFC architecture
2. Threat analysis for attack performed from each plan
3. Provide requirements/recommendations to limig the threats an deploy securely an SFC environment

Requirements / recommendations

Recommendations aims at:
1. Isolation the various planes
2. Mitigating attack performed from or targetting the SFC Data Plane

Note:
- Management and Control Plane are addressed in [I-D.ietf-sfc-control-plane]
- SFC Tenant's Users Data Plane is out of control of the administrator of the SFC.

Status

Version 2 integrates comments received from Martin

Before we move forward, we need to understand how the working group wants to address security aspects of SFC.

Thank You