Registration Interface Information Model
(draft-hyun-i2nsf-registration-interface-im-00)

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Contents

Introduction

- The I2NSF registration interface is used to register NSF instances created by Developer's Management System (DMS) to Security Controller.

- This document aims to provide a base information model of I2NSF registration interface for dynamic NSF instantiation/destruction and registration.

Motivation

- Information model for Registration Interface is required for the following purposes:

    - Efficient network resource utilization through dynamic instantiation of NSFs and load balancing

    - Serving an NSF's request for advanced inspection via another NSF

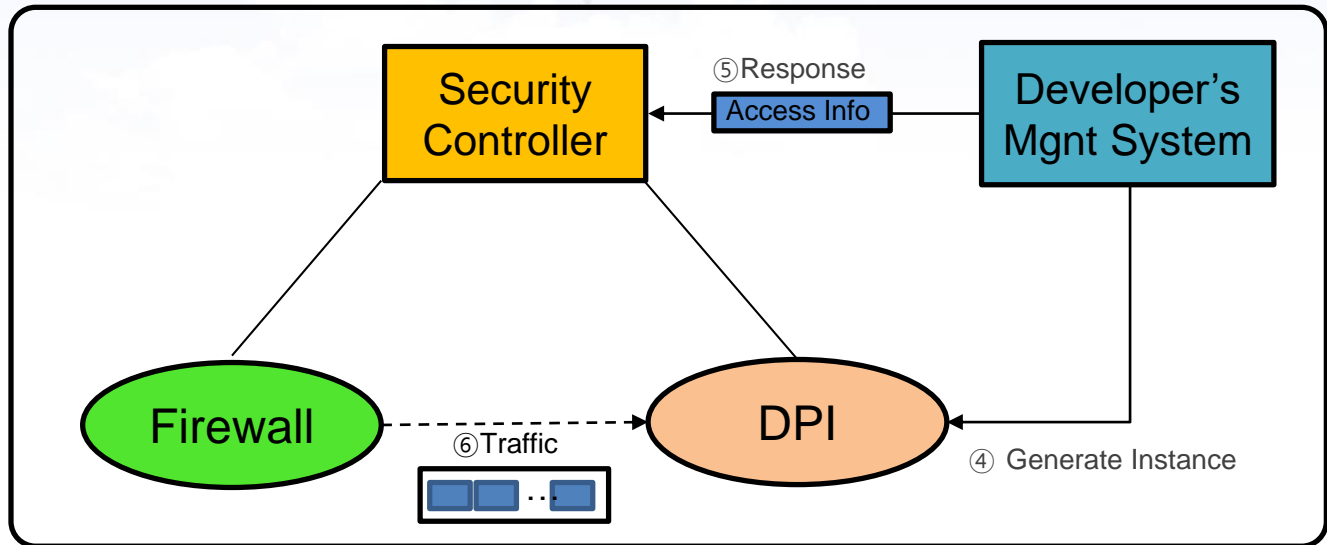   - Registering NSF instances by Developer's Management System (DMS)

Dynamic Life Cycle Management

- When an NSF triggers an advanced inspection of the suspicious traffic via another type of NSF currently unavailable in the system.
- When an NSF instance is currently under congestion.
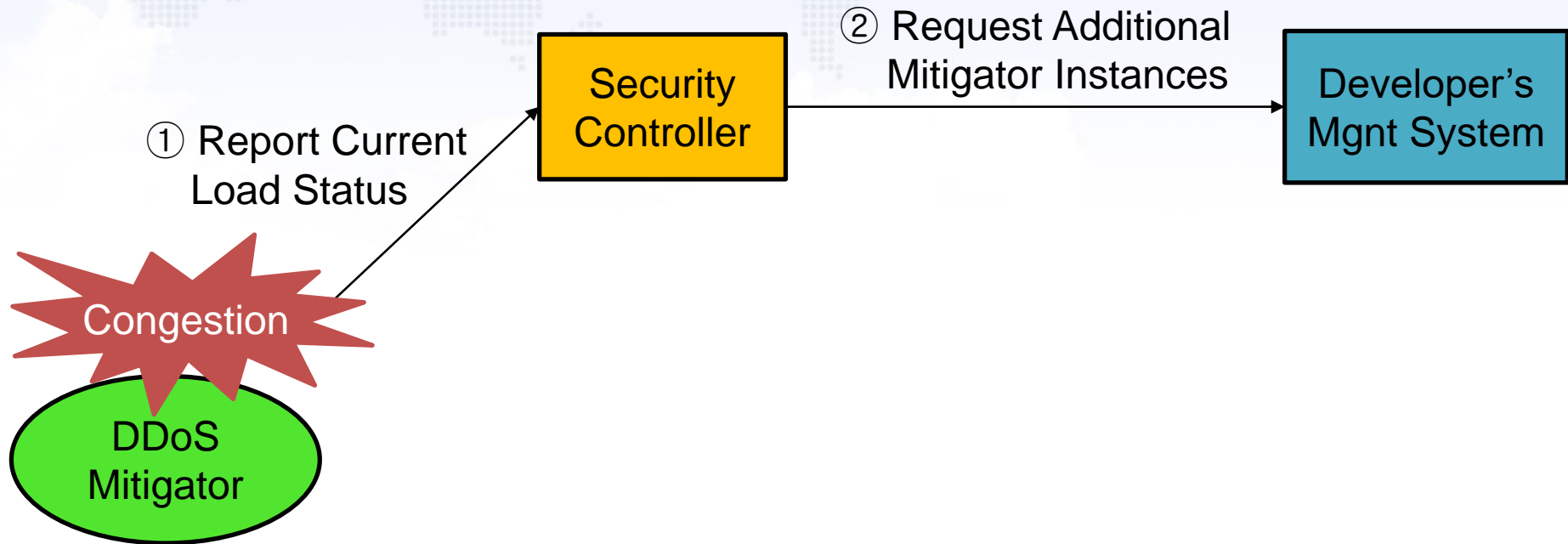- When an NSF instance is in idle.
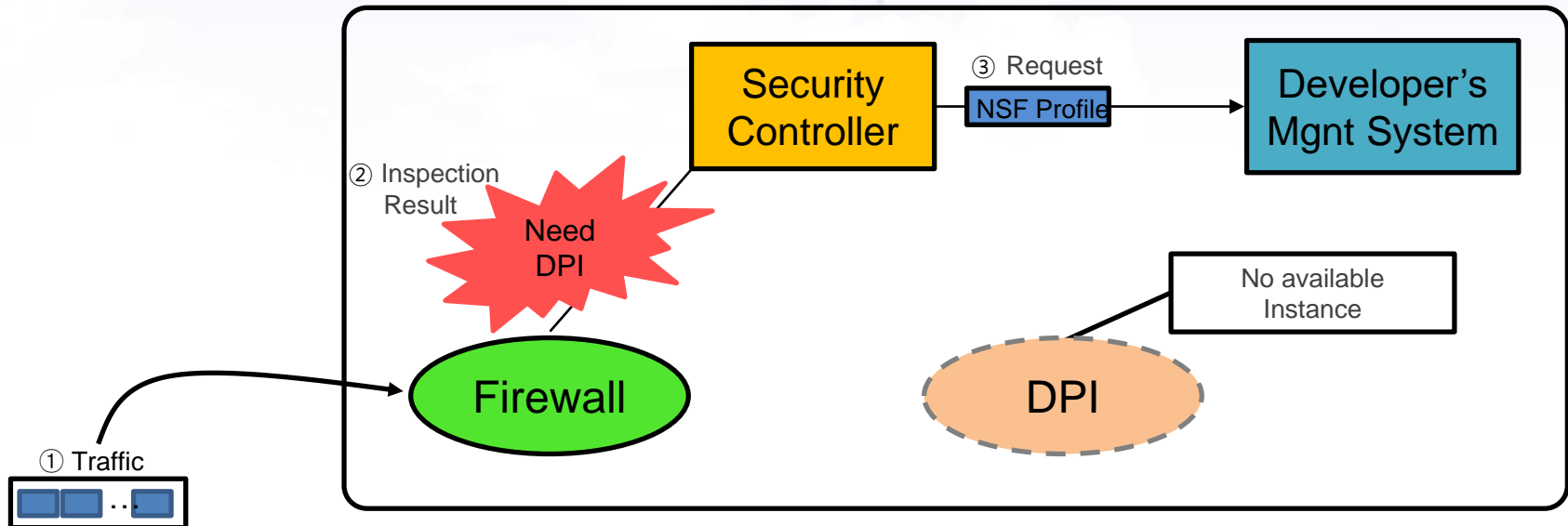
Registration of a New NSF Instance

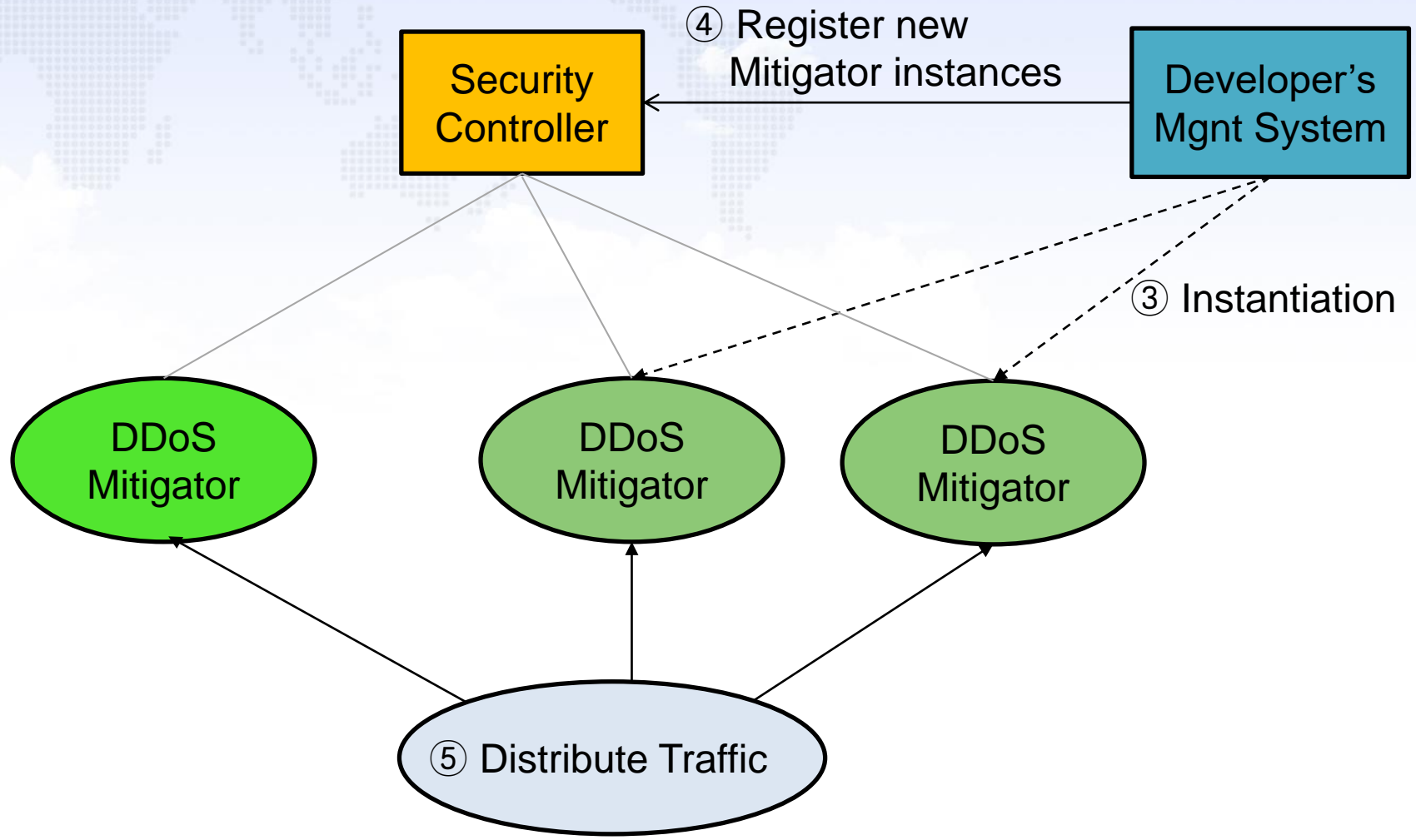- DMS creates and registers a new NSF instance to Security Controller via Registration Interface.

Dynamic Instantiation for Load Balancing (1/2)

Security Controller

② Request Additional Mitigator Instances

Developer's Mgnt System

① Report Current Load Status

Congestion

DDoS Mitigator

Dynamic Instantiation for Load Balancing (2/2)

Next Steps

- We will design **YANG Data Model** for I2NSF Registration Interface.

- We will implement dynamic life cycle management of NSF instance(s) via I2NSF Registration Interface
  - ➢ using our IETF-97 I2NSF Hackathon Code.

Thank you!
Any questions or comments?