IETF-106 Hackathon for I2NSF Framework

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Introduction (1/2)

Goals of IETF-106 I2NSF Hackathon

1. **Previous Implementation of the I2NSF Framework for NSF in OpenStack Environment with**
   - ✓ **Registration Interface** via NETCONF/YANG
   - ✓ **Consumer-Facing Interface** via RESTCONF/YANG
   - ✓ **NSF-Facing Interface** via NETCONF/YANG
   - ✓ **Security Policy Translation** in Security Controller

2. **I2NSF NSF Monitoring in IETF-106 Hackathon**
   - ✓ **NSF Monitoring between NSFs and Security Controller** via NETCONF/YANG

Introduction (2/2)

Build Environment

1. OS
- Ubuntu 18.04 LTS

2. ConfD
- 6.6 Version

3. OpenStack
- Mitaka

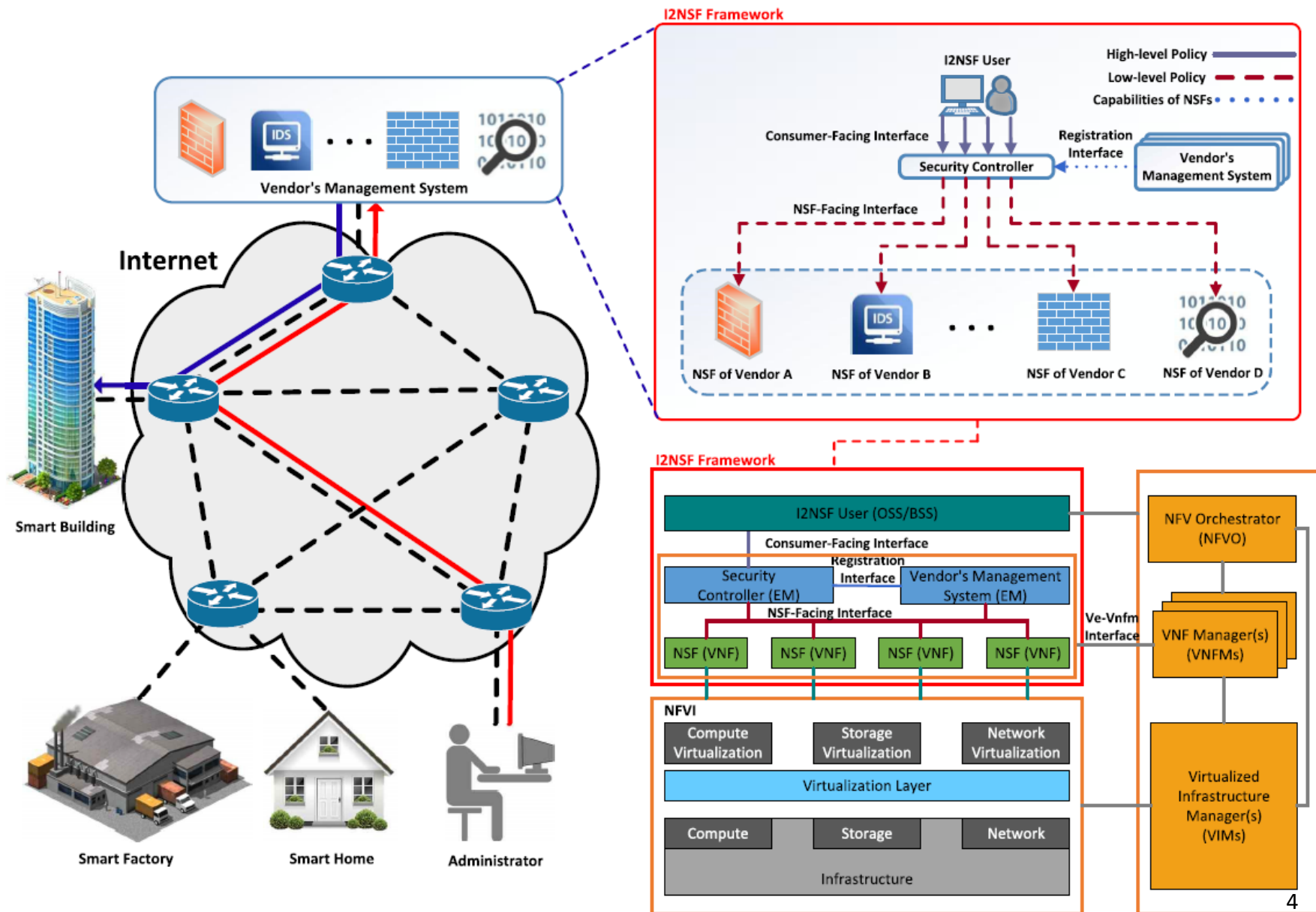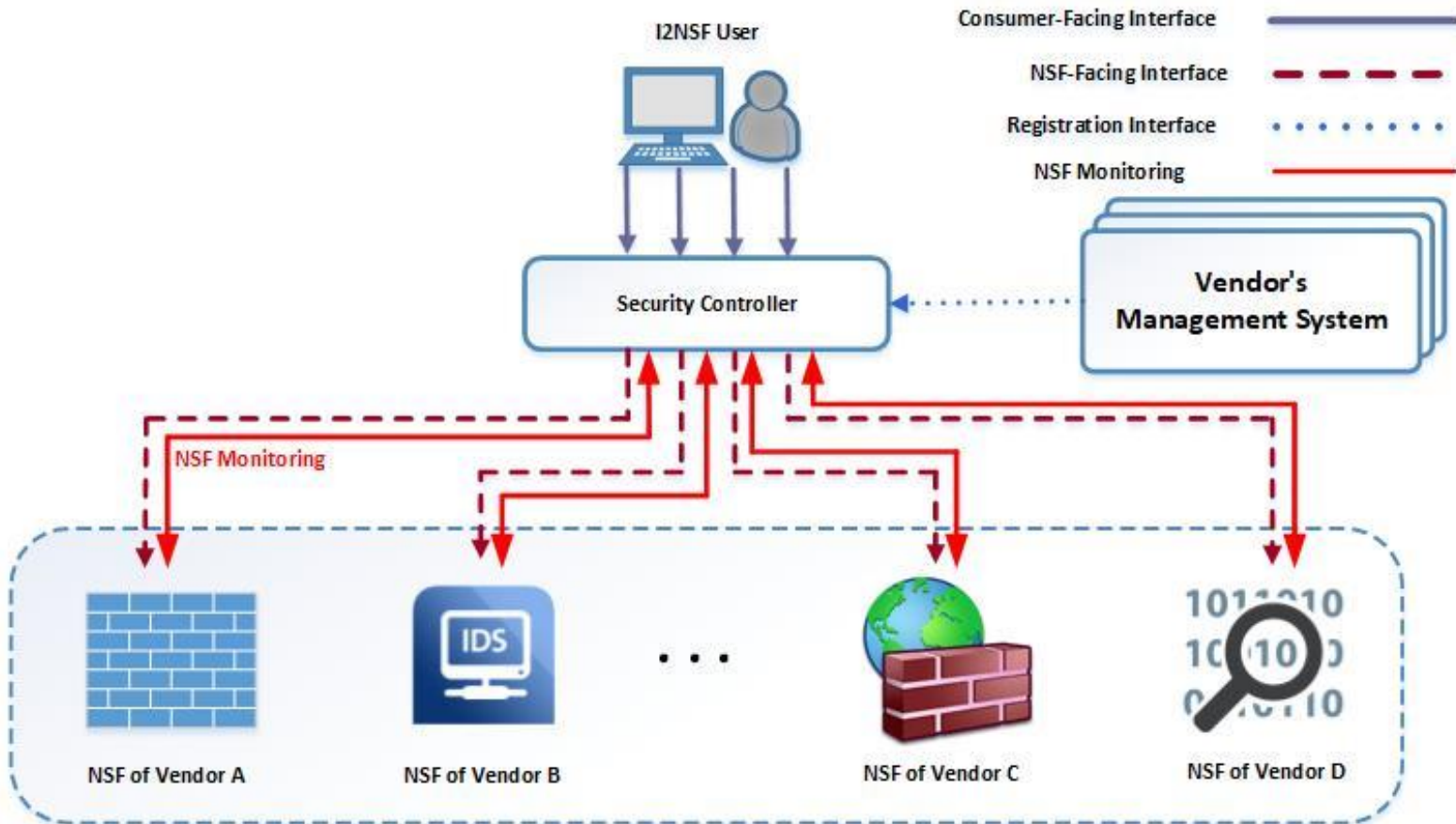### 4. Suricata
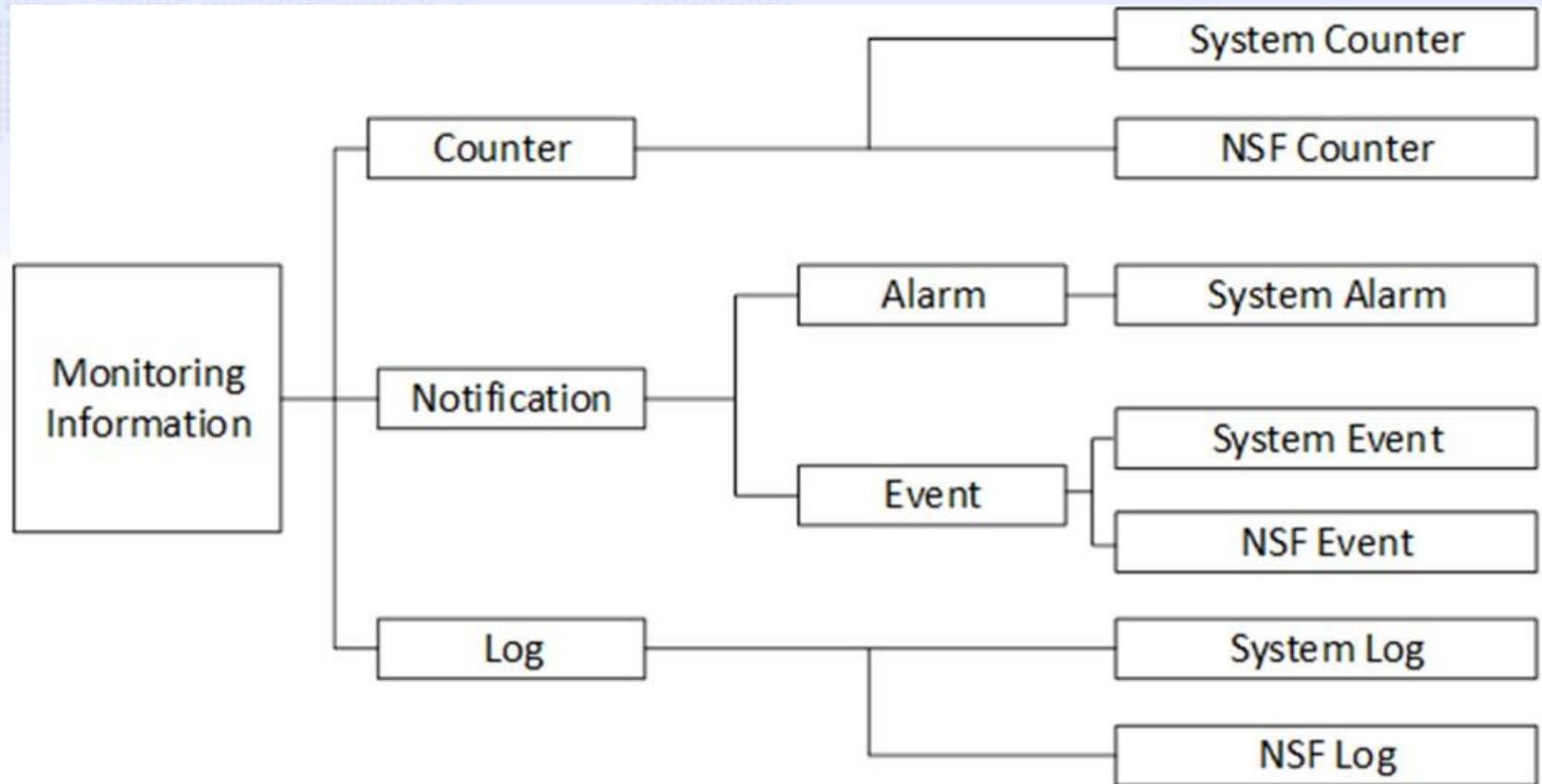- 3.2.1 RELEASE

I2NSF System using NSF Framework

Implementation of I2NSF Hackathon Project (1/2)

I2NSF Framework

I2NSF User

Consumer-Facing Interface
NSF-Facing Interface
Registration Interface
NSF Monitoring

Security Controller

Vendor's Management System

NSF Monitoring

NSF of Vendor A
IDS
NSF of Vendor B
· · ·
NSF of Vendor C
NSF of Vendor D

1. **Application of I2NSF Monitoring (on going)**

2. **NSF Monitoring Data Model**
   https://tools.ietf.org/html/draft-ietf-i2nsf-nsf-monitoring-data-model-02

Lessons from IETF-106 Hackathon

➢ **Proof of Concept (POC) of I2NSF Framework**
- ▪ **I2NSF Interfaces** (Consumer-Facing, NSF-Facing, and Registration Interface)
- ▪ **I2NSF Security Policy Translator**

➢ **Direction of NSF Monitoring Implementation**
- ▪ **Application of I2NSF NSF Monitoring**
- ▪ **We got the direction of implementation of NSF Monitoring.**
- ▪ **This is the last-piece Data Model draft in I2NSF's current charter.**