

SDN  
Total Solution  
Provider

NAIM  
networks



COD  
(Customer Optimized Datacenter)  
Platform



# Jive

SDN based Enterprise Management Solution

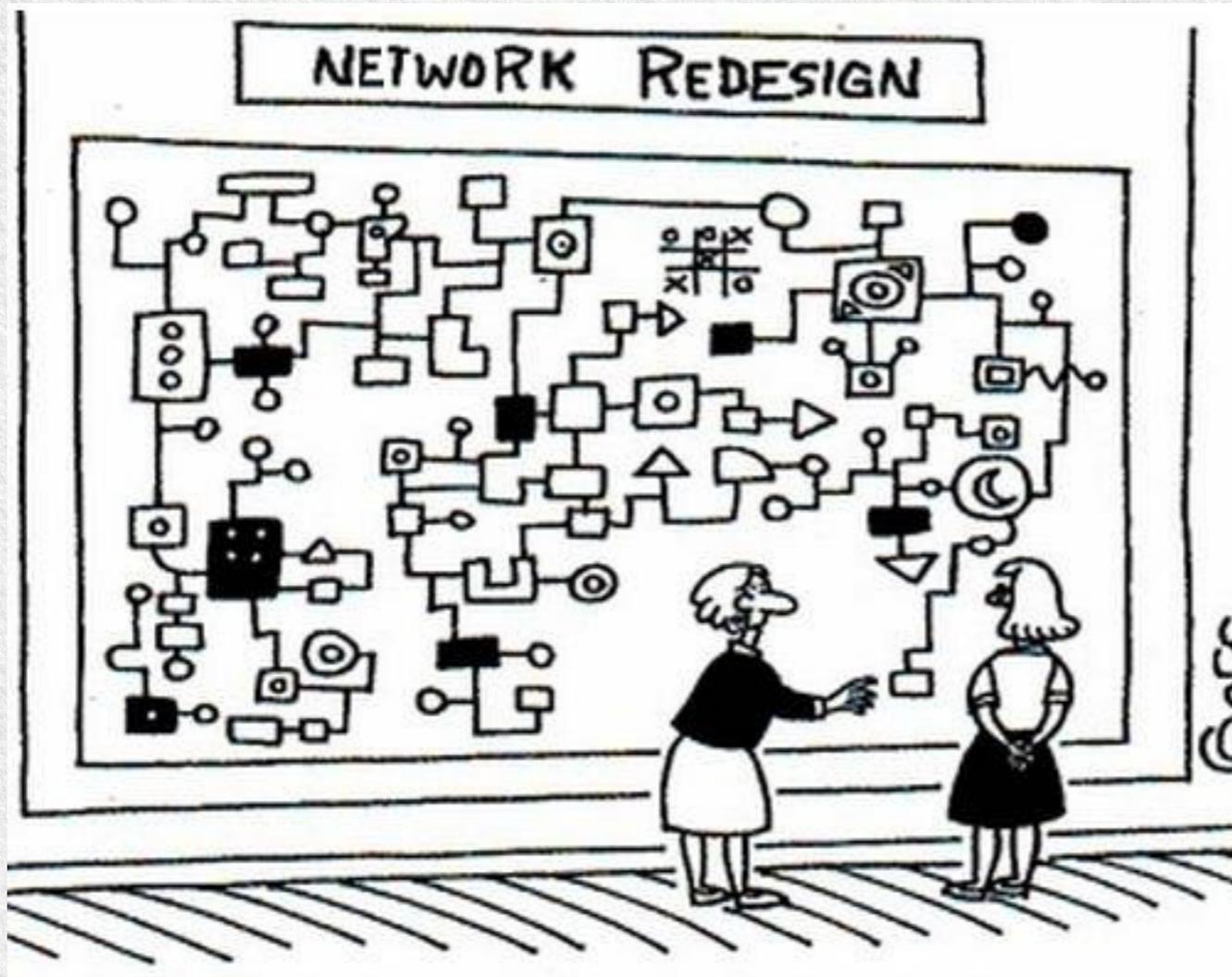
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# Why SDN/NVF?



Too complicated and inefficient IT management environment



- Too much hassle on adding VLAN or home gateway (discussion among different departments, configuration of different equipment)

# Bottleneck against wider IoT deployment



IoT: Too difficult to be understood by non-IT audience?



- Outsourced technical support for room internet and WiFi
- Different connection registration processes by each hotel

# Bottleneck against wider IoT deployment



IoT: Is it cost efficient?



- Compatibility and scalability issues among heterogeneous equipment and devices
- How to respond to technical advancement in the future?



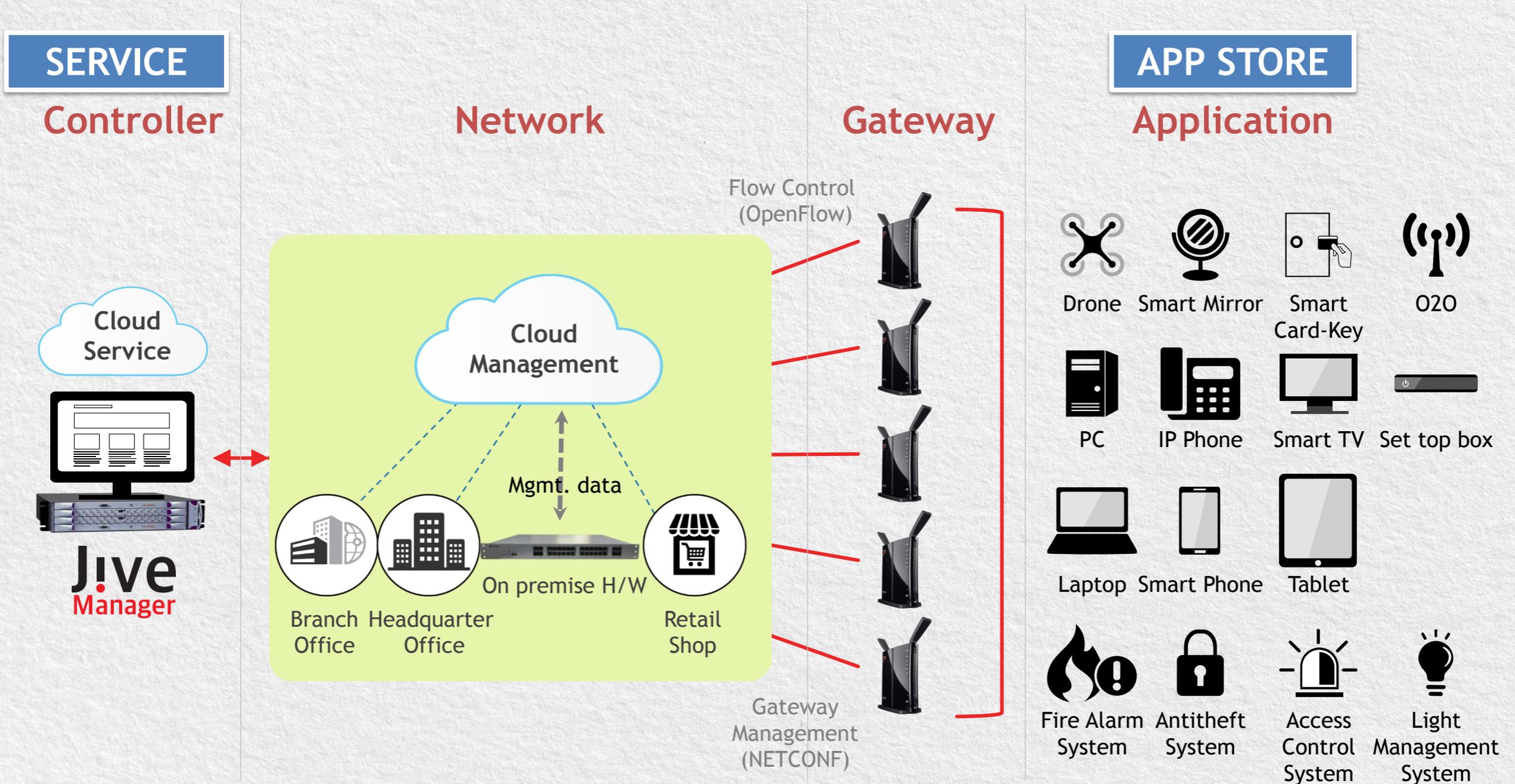
JIVE is the first enterprise IT solution for non-IT community featuring easy-to-use management scheme and dedicated expert eco-system

1. Hassle-free control and management

2. Future-proof open architecture

3. Hospitable eco-system

# Jive Overview



- SDN based enterprise management & control solution
- Zero Touch Configuration
- One centralized manager for switch and gateway management
- Flow management via SDN standard protocol

- All-in-One gateway for IP & IoT devices



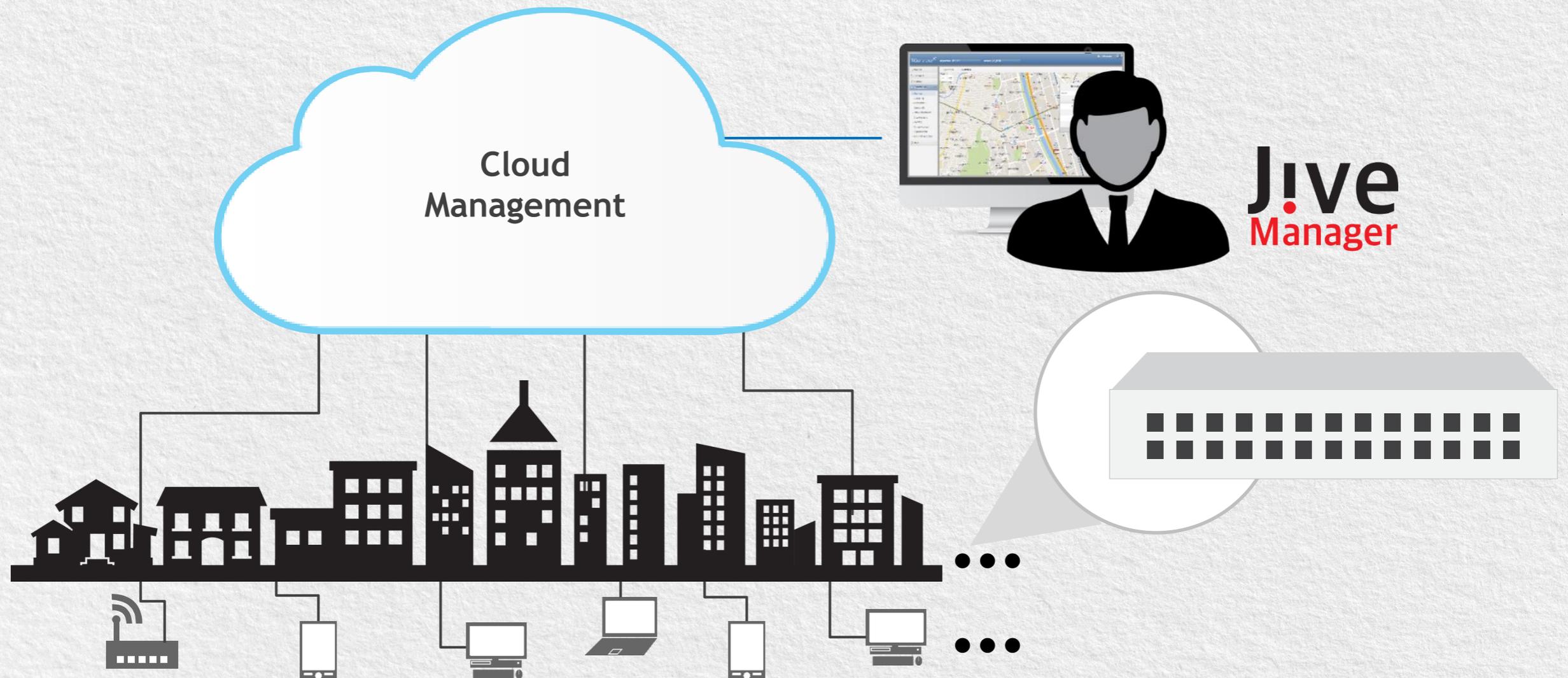
- **Zero Touch Configuration**
  - Transfer all software controls of cloud switches and gateway devices into a central controller, so that OS, features, configurations and policies are immediately downloaded from Jive Manager to devices once they are turned on
  - Reduce CAPEX and OPEX by commoditize switches and devices
  
- **Unified management process through centralized management**
  - Manage cloud switches, gateways and IoT applications in a single manager
  - Monitor cloud switch and gateway status and statistics via unified web GUI
  - Hassle-free network expansion without introducing additional management system
  - Simple and easy network management and operation cost saving via network level batch configuration, automated monitoring and alarm features
  
- **Varied policies application via SDN based flow control**
  - Service policy applied per traffic type
  - Access policy per group
  - Varied security policies including attack detection and shut down
  - Varied QoS policies in accordance to traffic load status
  
- **Proactive operation and failure response**

# Main Feature



## Central Management on Cloud

- NetOps centrally manages all functions required for network operation (installation, management, troubleshooting) from Cloud
- Unified control over switches, gateways and devices
- Support multi-tenant



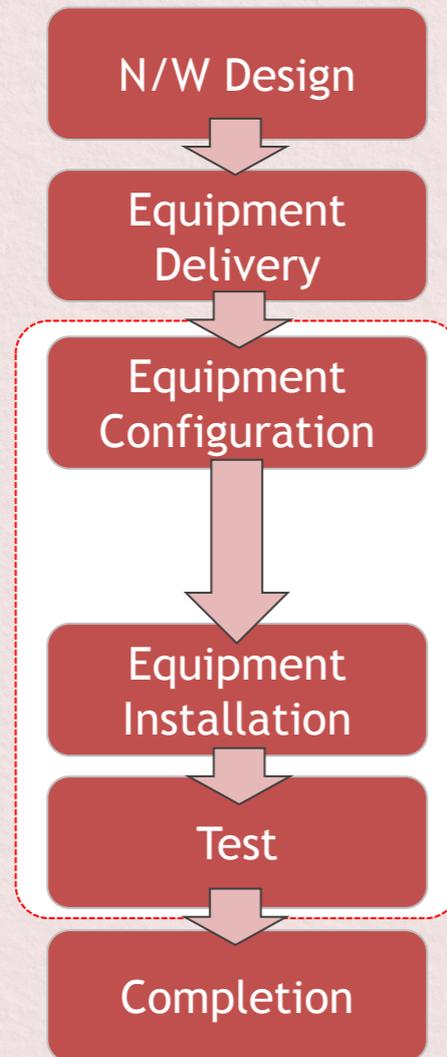
# Main Feature



## Separate configuration from physical installation

### Traditional Switch

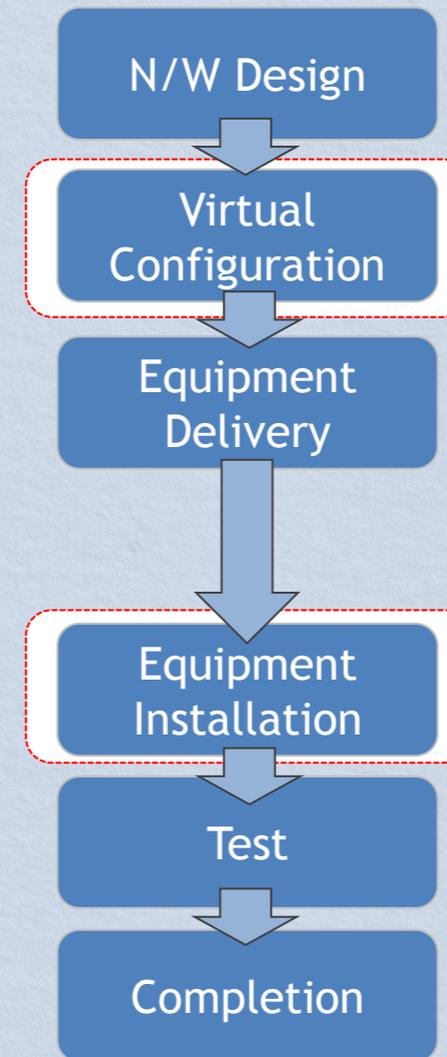
(Physical equipment required for configuration)



- Expert engineers need to visit the site
- Configuration cannot be executed before equipment is delivered and ready
- Console configuration required for each equipment
- Time-consuming installation

### Jive Switch

(Virtual configuration → Immediate application)

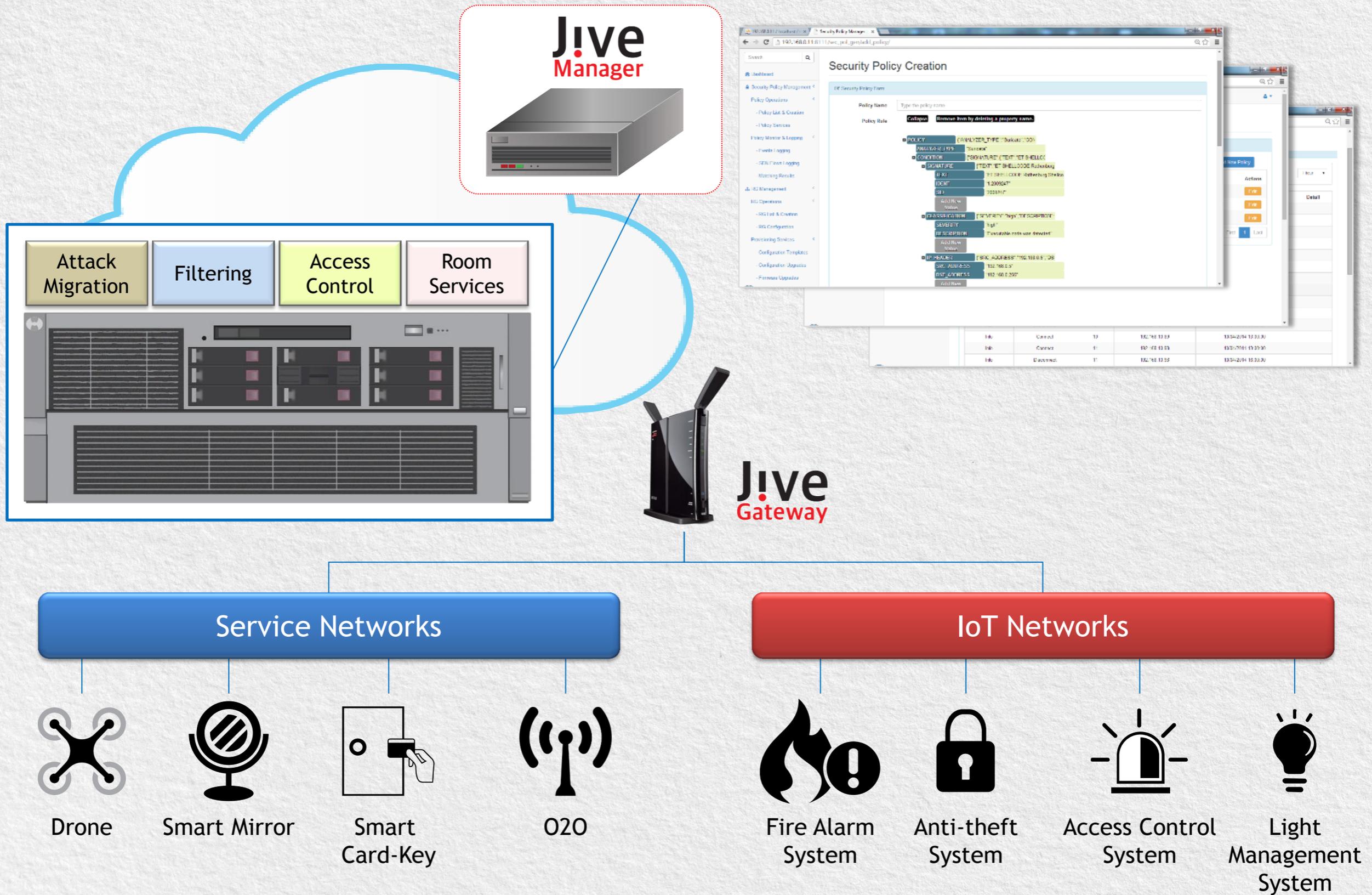


#### Virtual Configuration on Cloud

- Configuration immediately applied once physical equipment is connected to cloud
- Configuration error minimized

- Engineer's site visit not required
- Virtual configuration on cloud
- Immediate test from cloud

# Jive's Applications



# GUI of Jive Manager



## ■ Dash Board

**Jive Security Policy Manager**

Dashboard Overview:

- Quick Access: Security Policies, Events Logging, Alerts Statistics, SDN Flow Monitor, RGateways, Users
- System Statistics: CPU usage (61%), Memory (47%), Volumes (87%)
- Alerts Statistics on 29/10/2014
- Summary: 4 TOTAL POLICIES, 1014 RGateways, 22 SITE VISITS
- Recent Articles: Software-Defined Networking, What is OpenIRIS SDN Controller, Firewall with SDN technology, How to install OVS in RGateway, What is the Suncata IDS, OpenFlow Config

## ■ Security Policy List

**Jive Security Policy Manager**

Security Policy List:

ID	Name	Created Date	Content	Actions
5057	ping 900 test policy 2	10/07/2014 07:21:57	<POLICY> <ANALYZER_TYPE>Suncata<ANALYZER_TY	Edit
5063	"ET WEB_SERVER" policy 2	10/07/2014 07:39:07	<POLICY> <ANALYZER_TYPE>Suncata<ANALYZER_TYPE> <CONDIT	Edit
5078	redirect rule testing	17/07/2014 05:03:00	<POLICY> <ANALYZER_TYPE>Suncata<ANALYZER_TYPE> <CONDITION>	Edit
5079	nvt-filter-2014-08-20 14:21:16.697217	2008/2014 14:21:16	<POLICY> <ANALYZER_TYPE>Suncata<ANALYZER_TYPE>	Edit

Showing 1 to 4 of 4 entries

Summary: 4 TOTAL, 4 IN ACTIVE, 0 IN RECENT 7-DAY

## ■ Security Policy Service

**Jive Security Policy Manager**

Policies Service:

- Start Service / Stop Service
- Policies' Priority Arrangement: nvt-filter-2014-08-20 14:21:16.697217, redirect rule testing, ping 900 test policy 2, "ET WEB\_SERVER" policy 2
- Update List, Move Up, Move Down, Reset List

Summary: 89247 TOTAL, 4383 IN RECENT 7-DAY, 71916 LOW SEVERITY, 16995 MEDIUM SEVERITY, 336 HIGH SEVERITY

## ■ Event Logging

**Jive Security Policy Manager**

Event Logging:

Event ID	Quantity	Description	Severity	ClassType	Detected Time	RG ID	DPID	Src Addr	Src Port	Dst Addr	Dst Port
145253	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,184369	11:22:33	No data	192.168.0.14	42026	192.168.0.11	8088
145252	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,173837	11:22:33	No data	192.168.0.14	42025	192.168.0.11	8088
145251	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,163372	11:22:33	No data	192.168.0.14	42024	192.168.0.11	8088
145250	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,152881	11:22:33	No data	192.168.0.14	42023	192.168.0.11	8088
145249	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,142226	11:22:33	No data	192.168.0.14	42022	192.168.0.11	8088
145248	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,131722	11:22:33	No data	192.168.0.14	42021	192.168.0.11	8088
145247	1	block this IP+Port, please	low	Netvision	22/10/2014 02:18:20,121116	11:22:33	No data	192.168.0.14	42020	192.168.0.11	8088

Summary: 89247 TOTAL, 4383 IN RECENT 7-DAY, 71916 LOW SEVERITY, 16995 MEDIUM SEVERITY, 336 HIGH SEVERITY

# Why Jive?



- **SDN based centralized system**
  - Centralized and unified management replacing traditional separate operation of each switch and gateway
- **Zero Touch Configuration**
  - No additional engineer-level O&M required, as installed/re-installed/replaced device automatically download OS/Feature/Configuration/Policy from Jive Manager once the device is cabled and powered → Reduced CAPEX and OPEX by commoditizing gateway equipment
- **Proactive Maintenance**
  - Jive Manager automatically detects and proactively responds to equipment instabilities and failures to minimize customer frustrations
- **All-in-One Gateway**
  - By adding wire/wireless IP and IoT protocols, control all communications occurred within the area and thus develop new business models

Traditional		Jive
By each equipment	Control Scheme	Centralized Control
Manual Configuration	Equipment Configuration	Zero Touch Configuration
Reactive	Operation and Management	Proactive
Complicated / Policy setup per	Policy Configuration	Unified and centralized policy configuration by User/Group/Flow
Static Routing	Flow Processing	Dynamic Flow Processing via OpenFlow

# Collaborative efforts from Korea's most capable expert companies

**Jive**  
Gateway

**Netvision**  
telecom

**Jive**  
Application

Creative Digital Future  
**CREDIF**

**Jive**  
Access

**PIOLINK**

**Jive**  
Manager  
**NAIM**  
networks





Thank you very much

NAIM