# 4 Network Configuration

## 4.1 VLANs Configuration on Switch

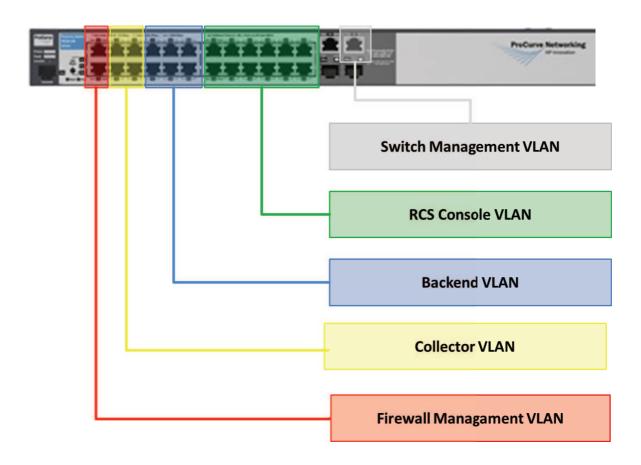
The RCS environment requires 5 VLANs on a switch.

These VLANs create different logical LAN for each RCS component and for devices management.

On the switch you can create there VLANs:

- Backend VLAN
- Collector VLAN
- Console VLAN
- Firewall Management VLAN
- Switch Management VLAN

The assigned ports on the switch for each VLAN could be 2 or more, depending on the architecture.



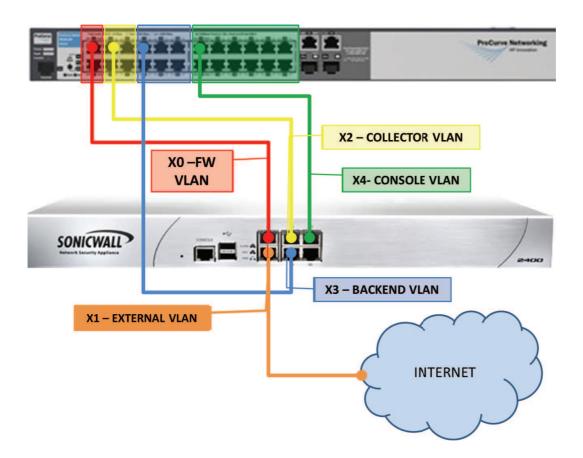
## 4.2 Firewall → Switch Interconnection

The firewall is used to regulate communication between VLANs.

Five zones are configured on the firewall:

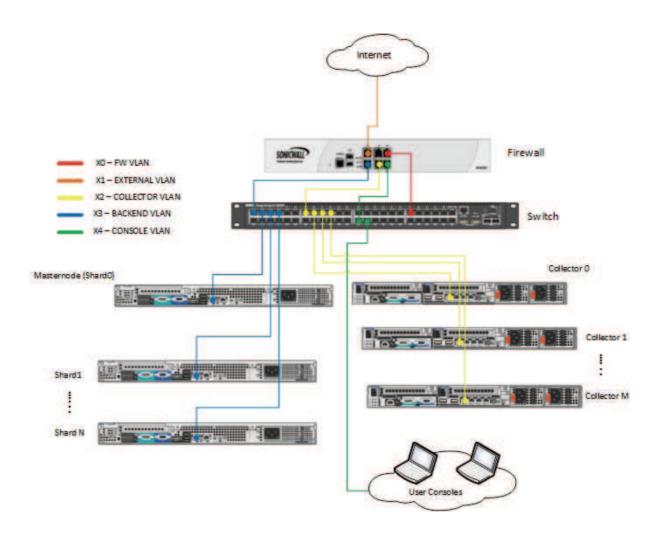
- Backend VLAN
- Collector VLAN
- Console VLAN
- Firewall Management VLAN
- External VLAN (Internet)

Zones on the firewall and VLANs on the switch must be connected according to the picture below.



### 4.3 Hardware Interconnection Schema

Following is represented the whole system architecture with its interconnections. As described in the picture, final infrastructure may include additional RCS Collectors and RCS Shards.



# 4.4 Firewall Rules Setup

The following rules must be implemented on the firewall to allow RCS works correctly.

Table's colors reflect the colors used in previous pictures.

Source	Destination	Service	Protocol	Port
Backend	Any	DNS	UDP	53
Backend	Any	NTP	UDP	123
Backend	Collector	HTTP	TCP	80
Console	Any	HTTPS	TCP	443
Console	Any	HTTP	TCP	80
Console	Any	DNS	UDP	53
Console	Any	ICMP	ICMP	
Console	Collector	RDP	TCP	3389
Console	Backend	RDP	TCP	3389
Console	Backend	HTTPS	TCP	443
Console	Backend	TCP_444	TCP	444
Collector	Any	DNS	UDP	53
Collector	Any	HTTP	TCP	80
Collector	Any	HTTPS	TCP	443
Collector	Any	NTP	UDP	123
Collector	TNI	HTTPS	TCP	443
Collector	Backend	HTTPS	TCP	443
Collector	Backend	TCP_442	TCP	442
Anonymizer(s)	Collector	НТТР	TCP	80