

Supervision basée sur Shinken

Huseyin BILGIN

Professeur
Gérald Litzistorf

En collaboration avec
Jacques Daudel



Sommaire

Contexte

Supervision

Etude des outils

Shinken

Scénario

Déploiement

Dépendances

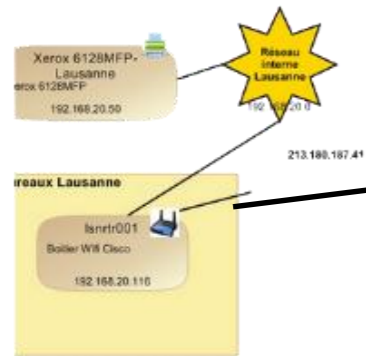
Business Rules

Métrologie, Reporting

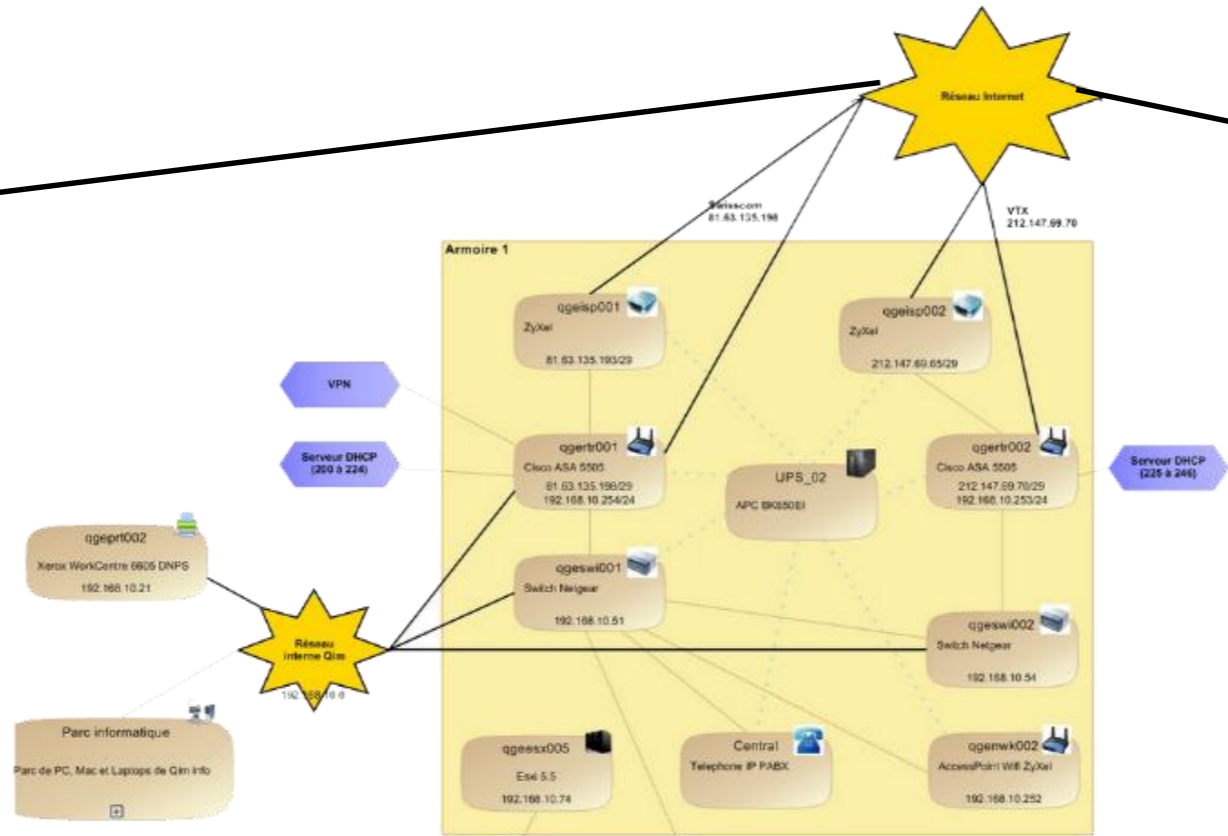
Bilan



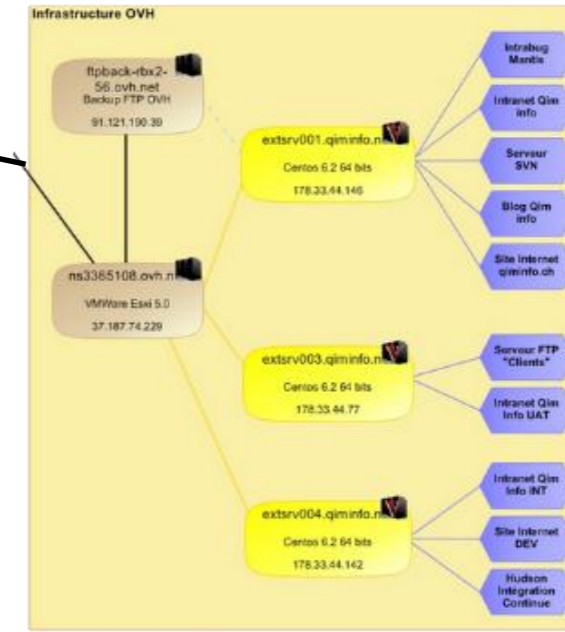
Lausanne



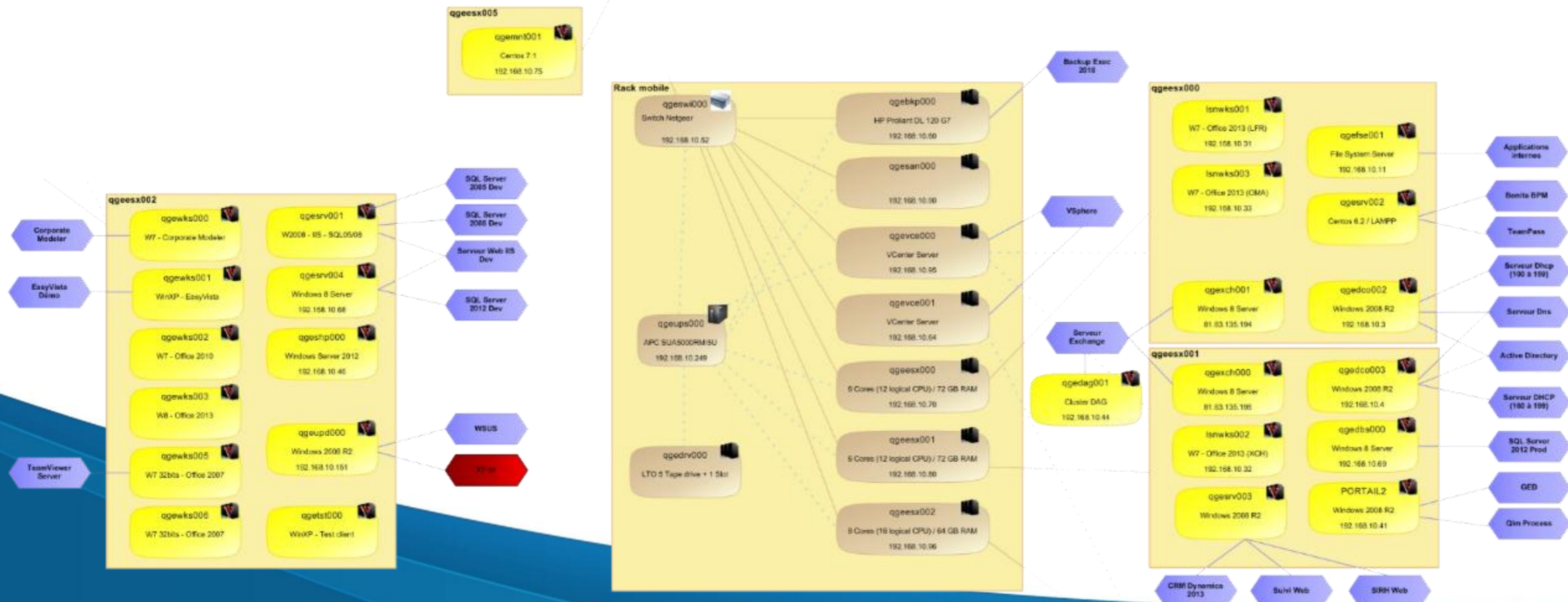
Genève



OVH (Roubaix)



Contexte



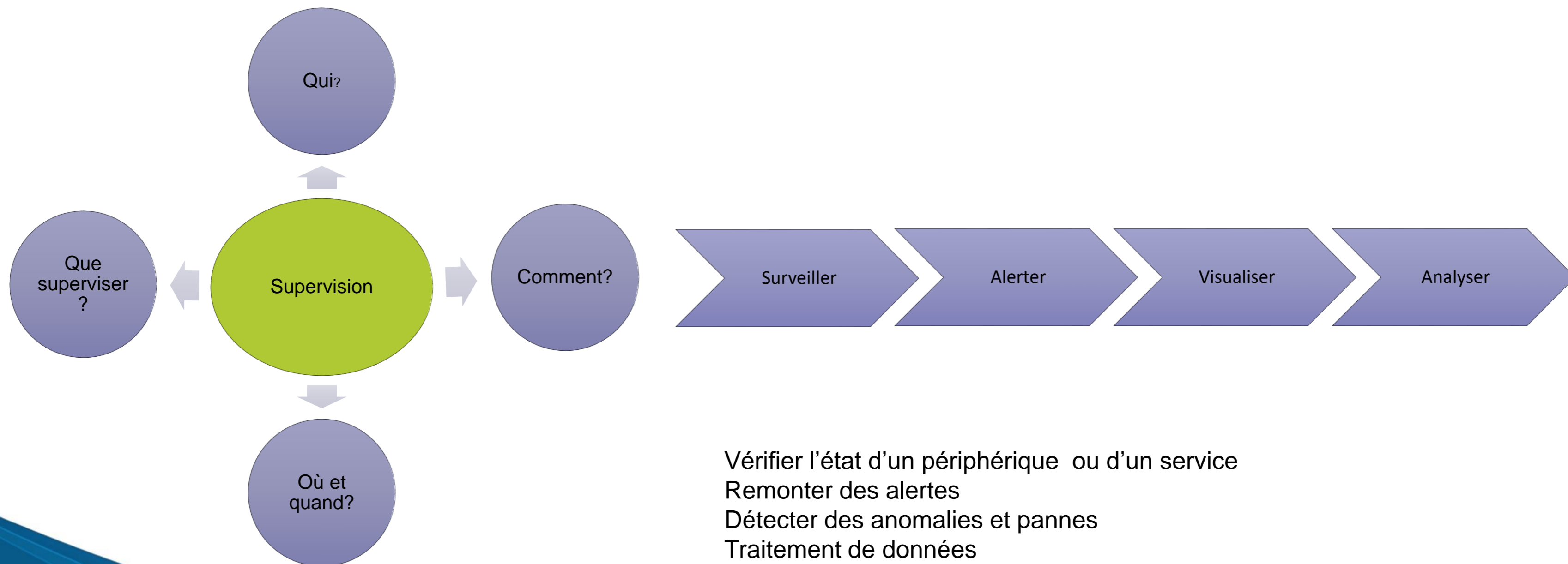
Pas de système proactif
Gestion manuelle
Supervision non automatisée

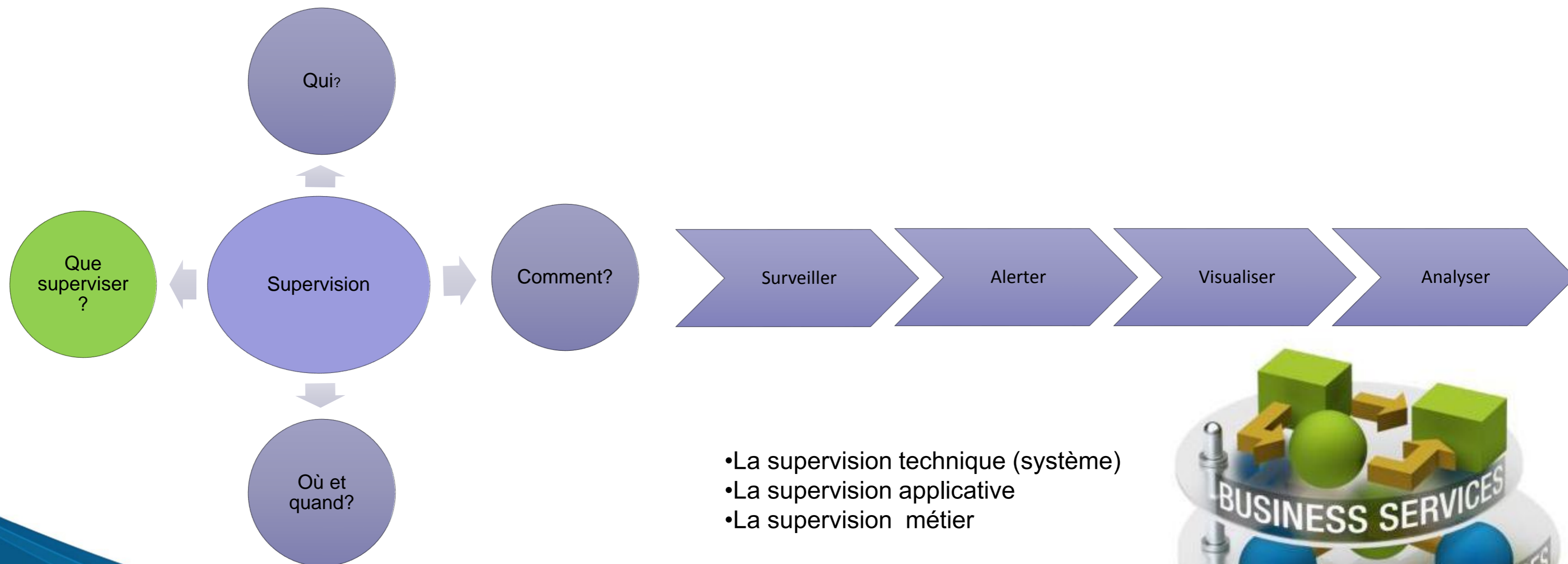
Conséquence

Perte pour l'entreprise
Gestion inefficace des ressources

Besoins

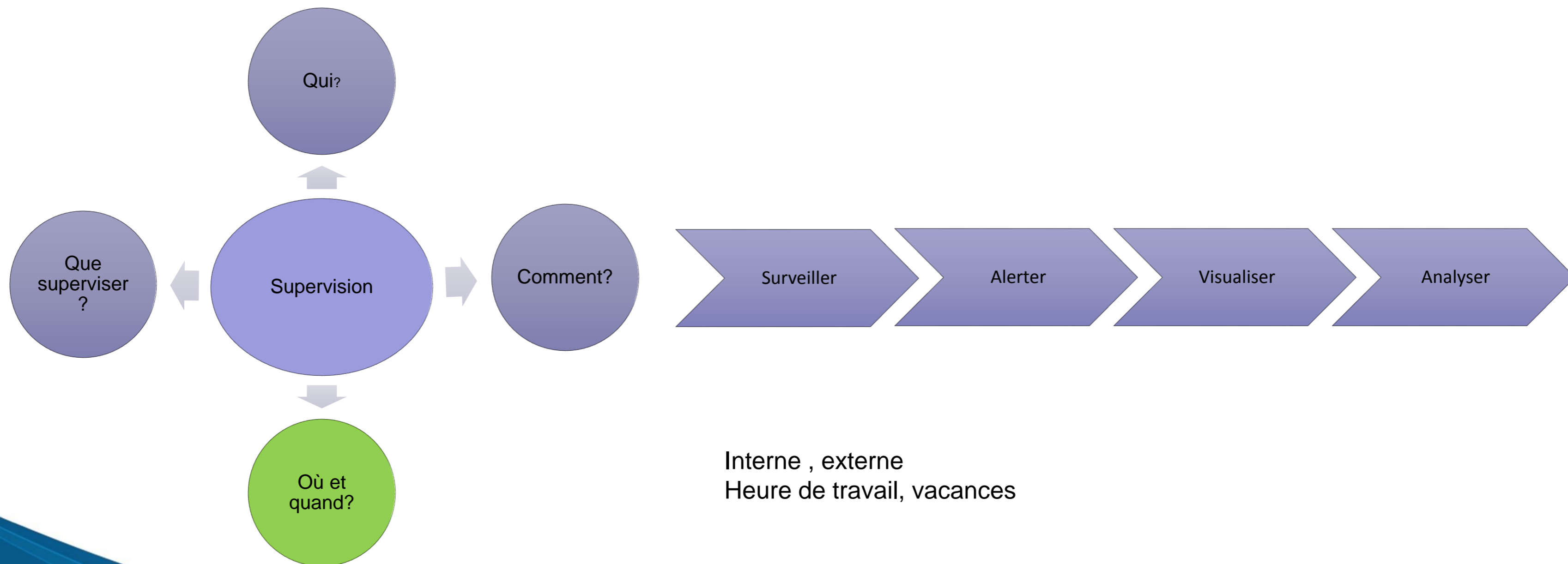
Système proactif
Affichage en temps réel
Alerte
Historique

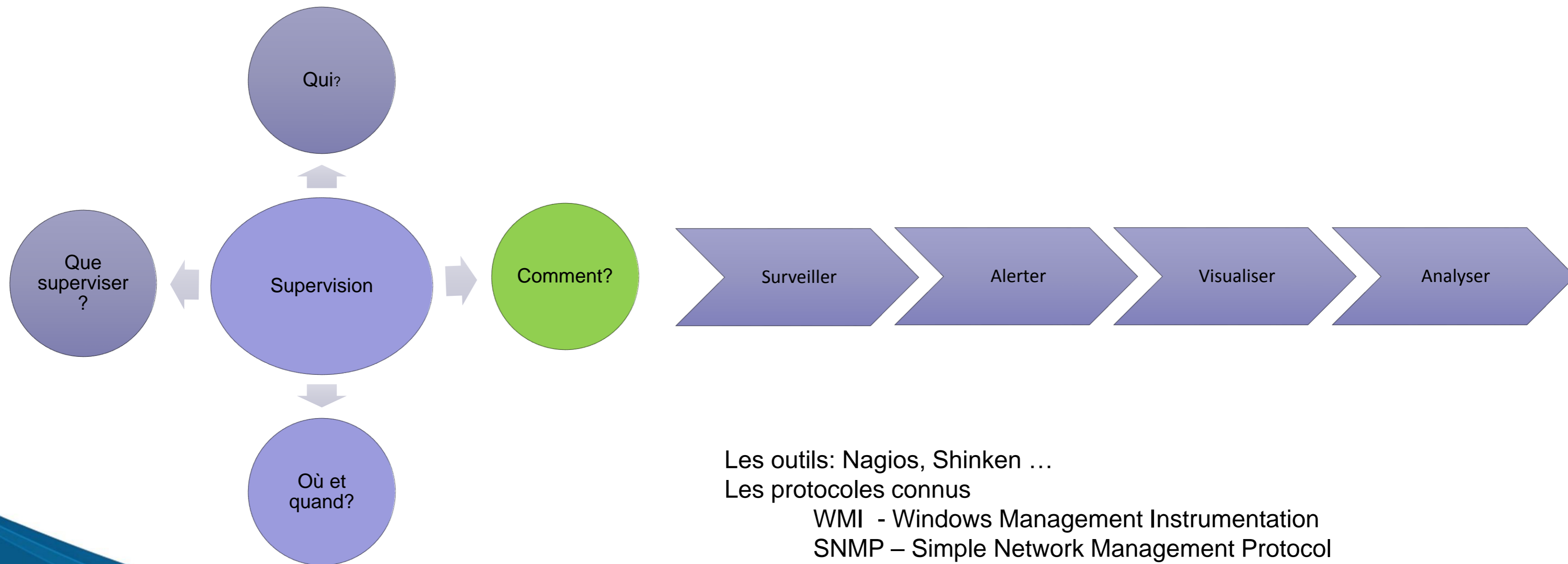




- La supervision technique (système)
- La supervision applicative
- La supervision métier







Les outils: Nagios, Shinken ...

Les protocoles connus

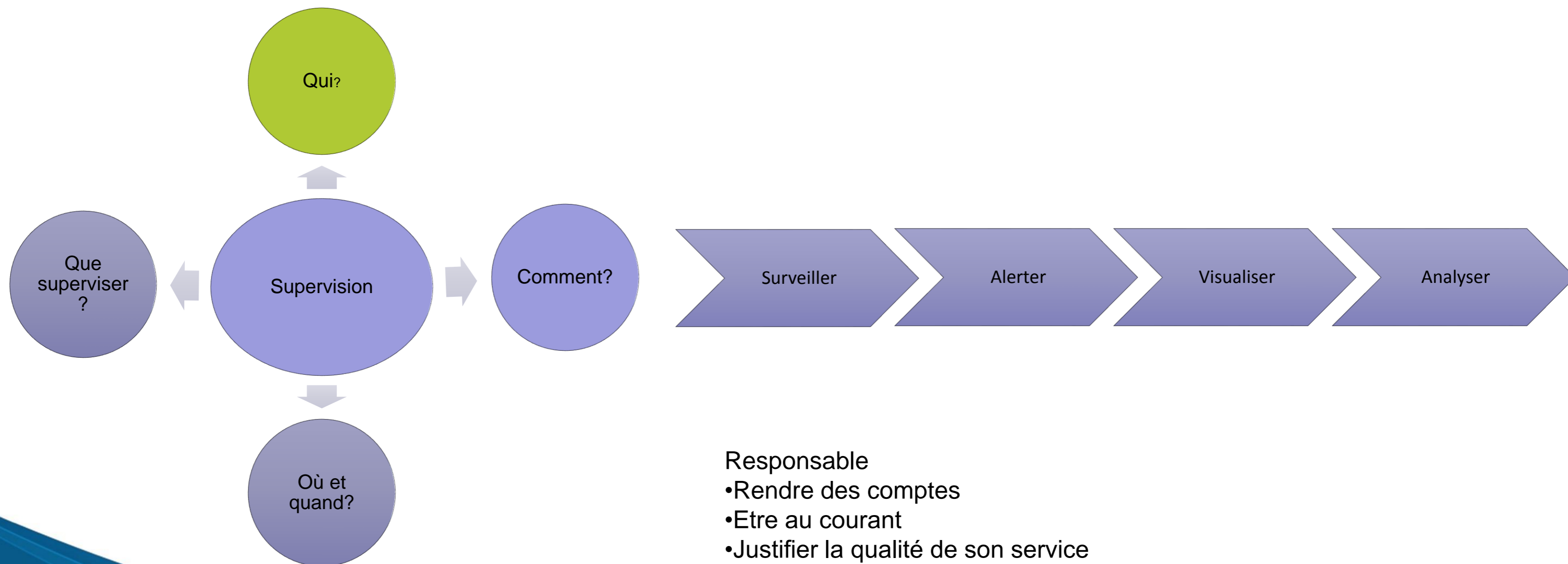
WMI - Windows Management Instrumentation

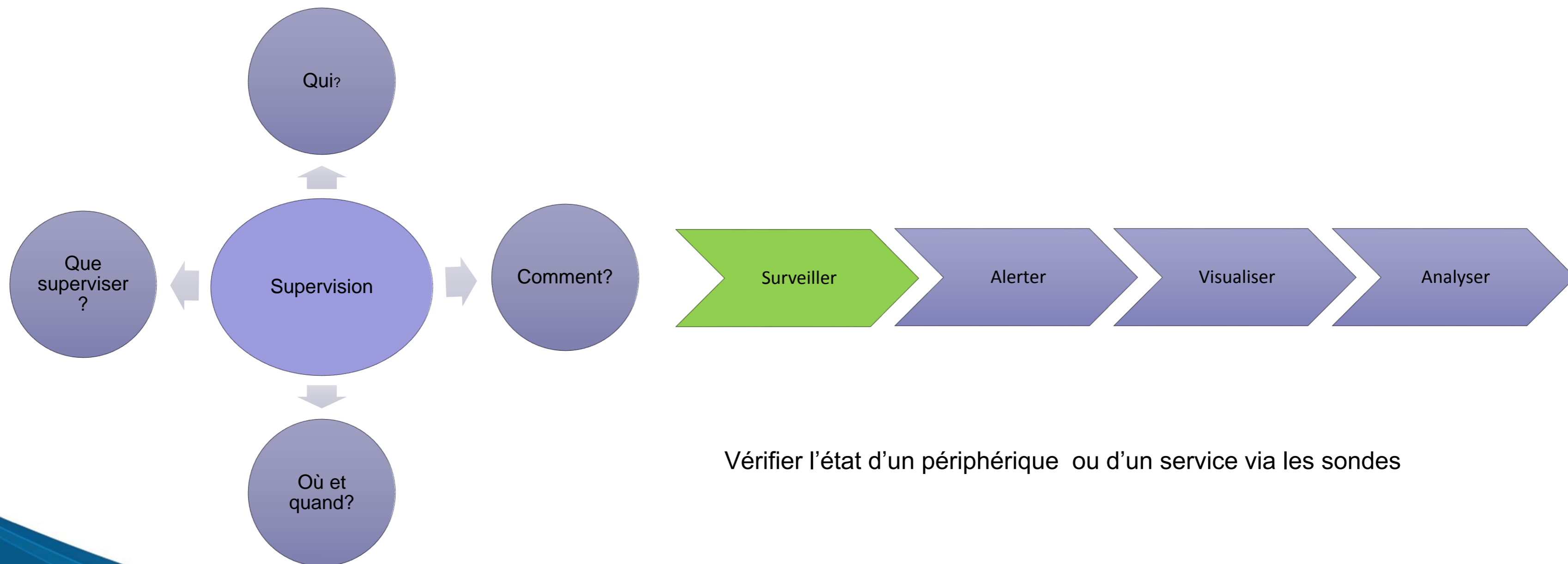
SNMP – Simple Network Management Protocol

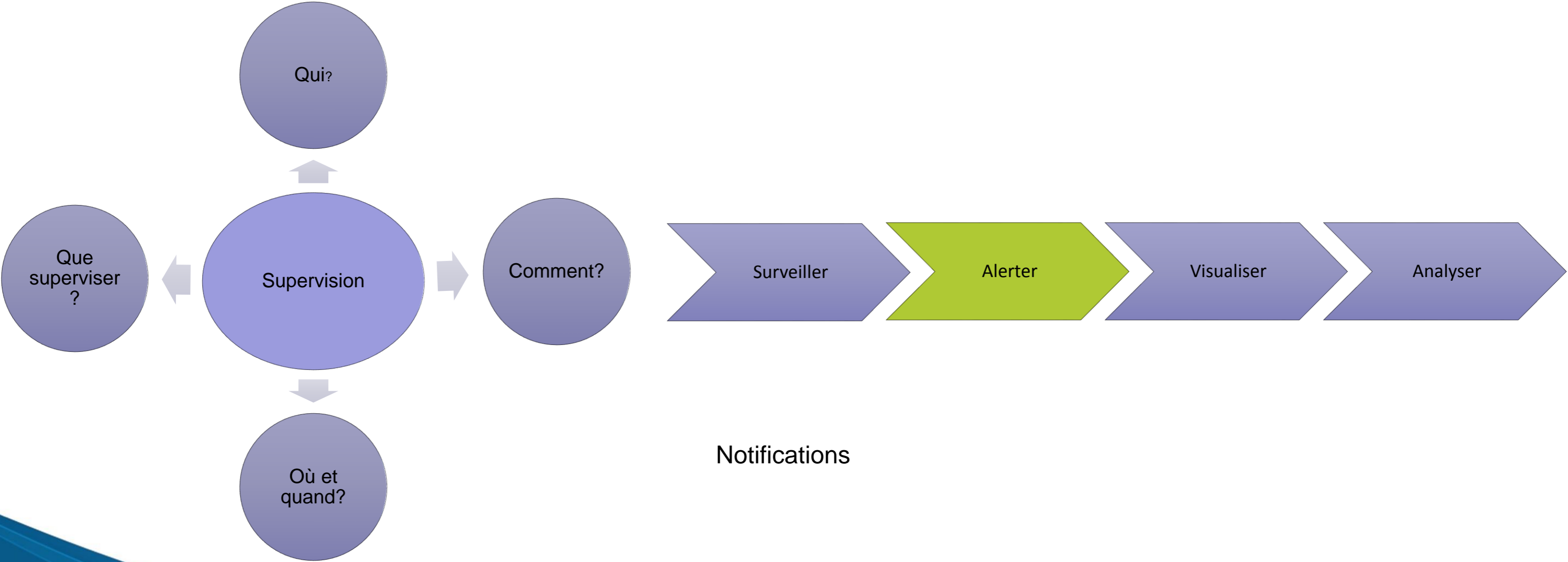
Requêtes - SSH / HTTP /

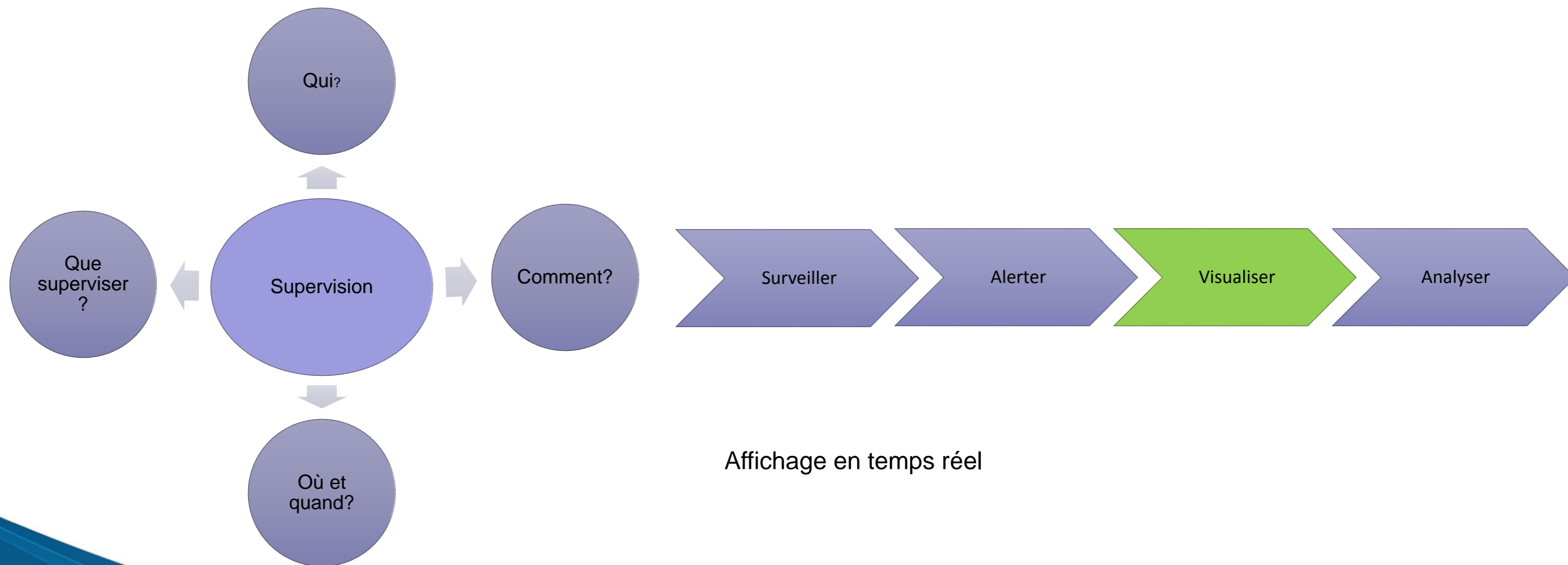
Scripts local ou distant

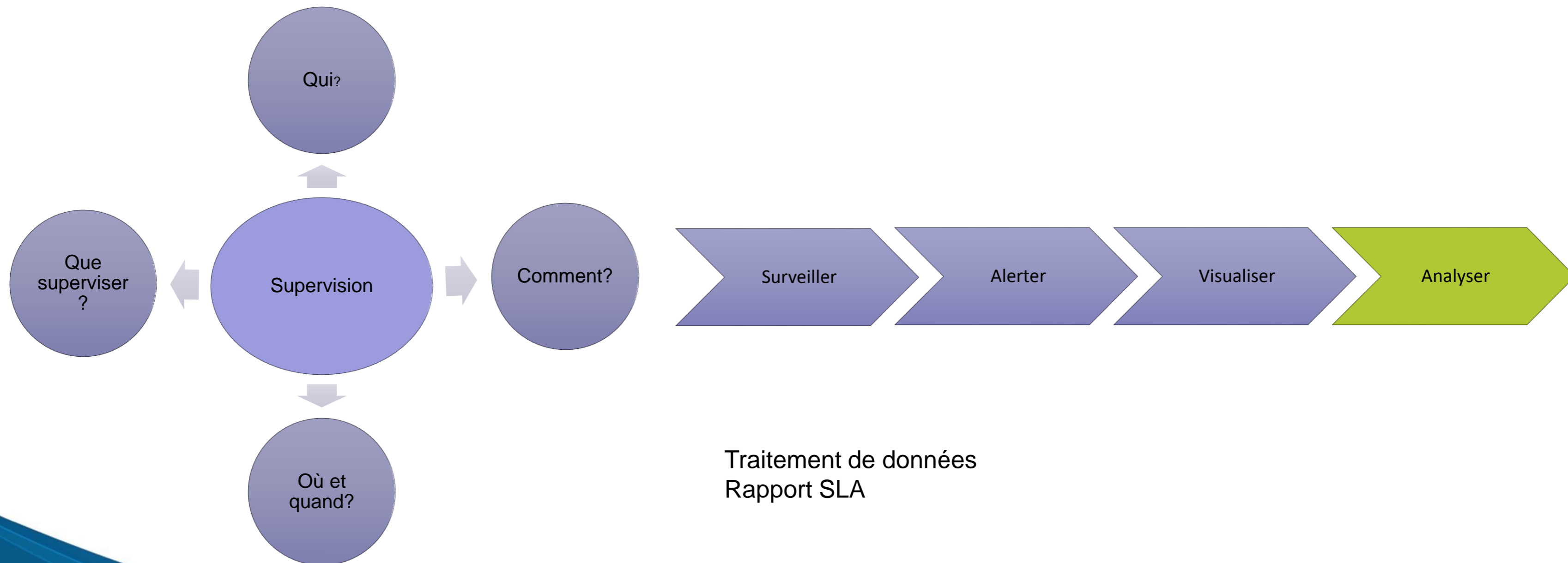
Les logs











Nagios[®]



VIGILO



Pourquoi



Business rule(Règles métier)

Interface

Performance

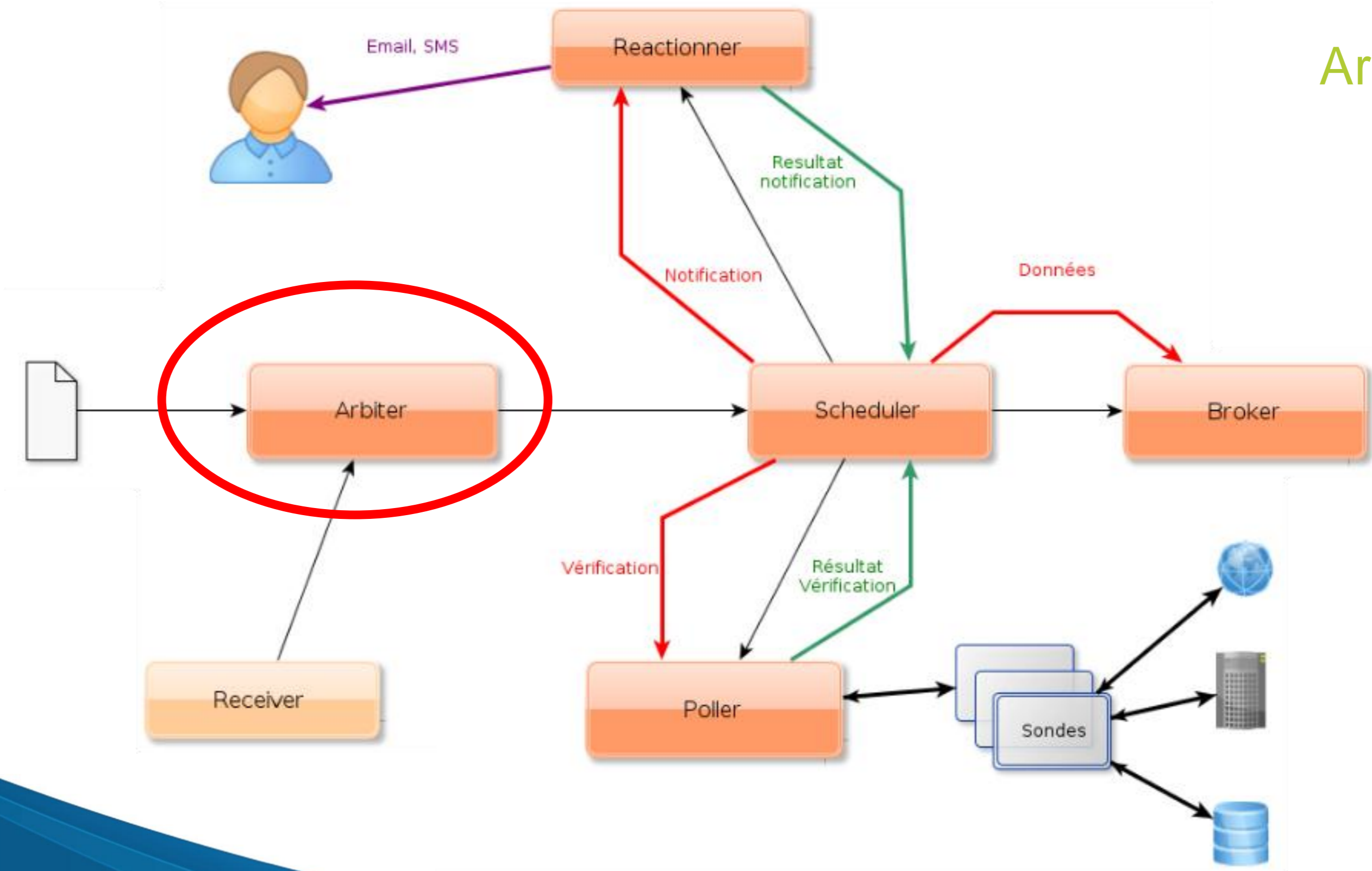
Modularité

Système distribué

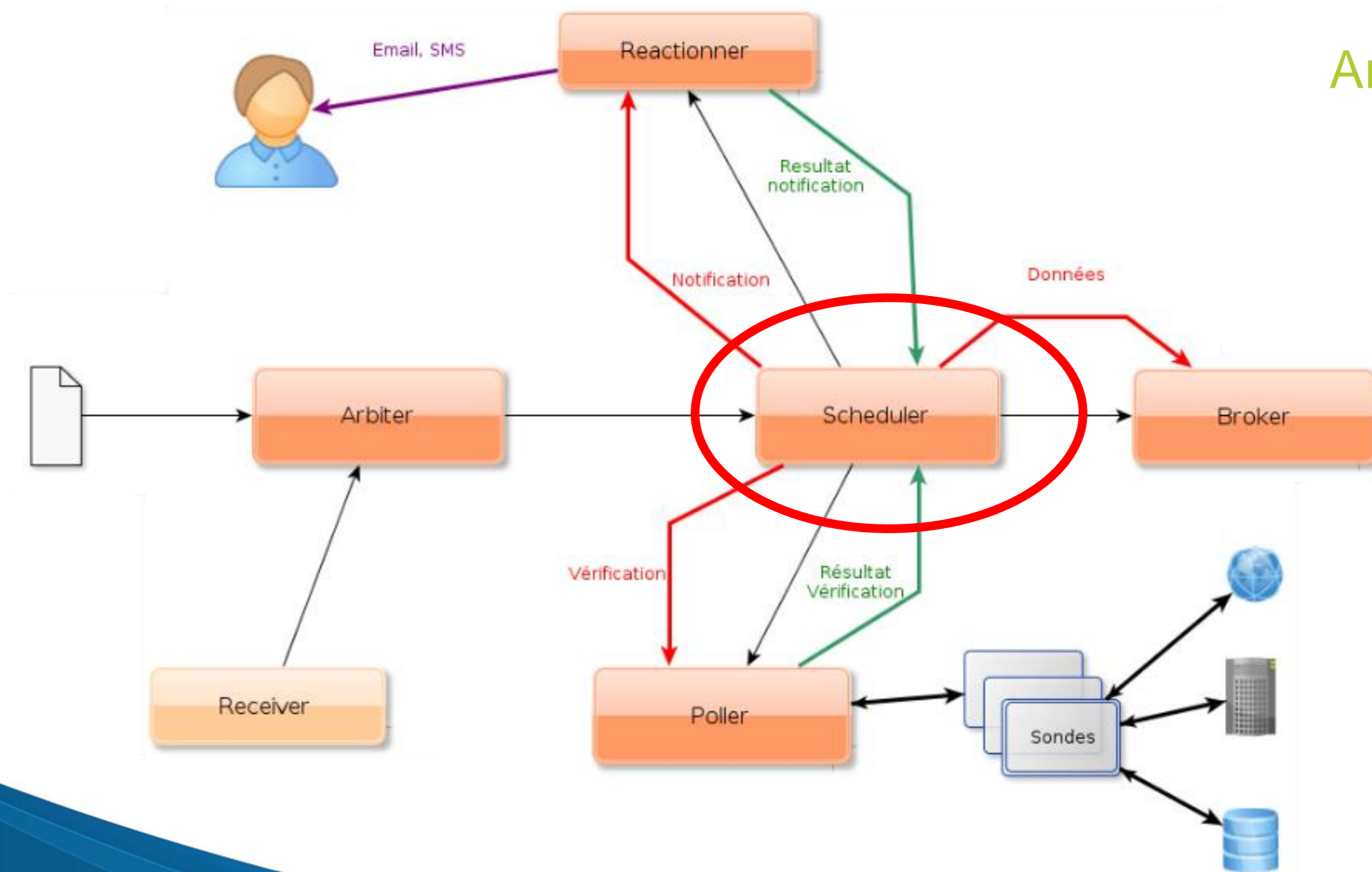
Plateforme

Communauté et développeur réactifs

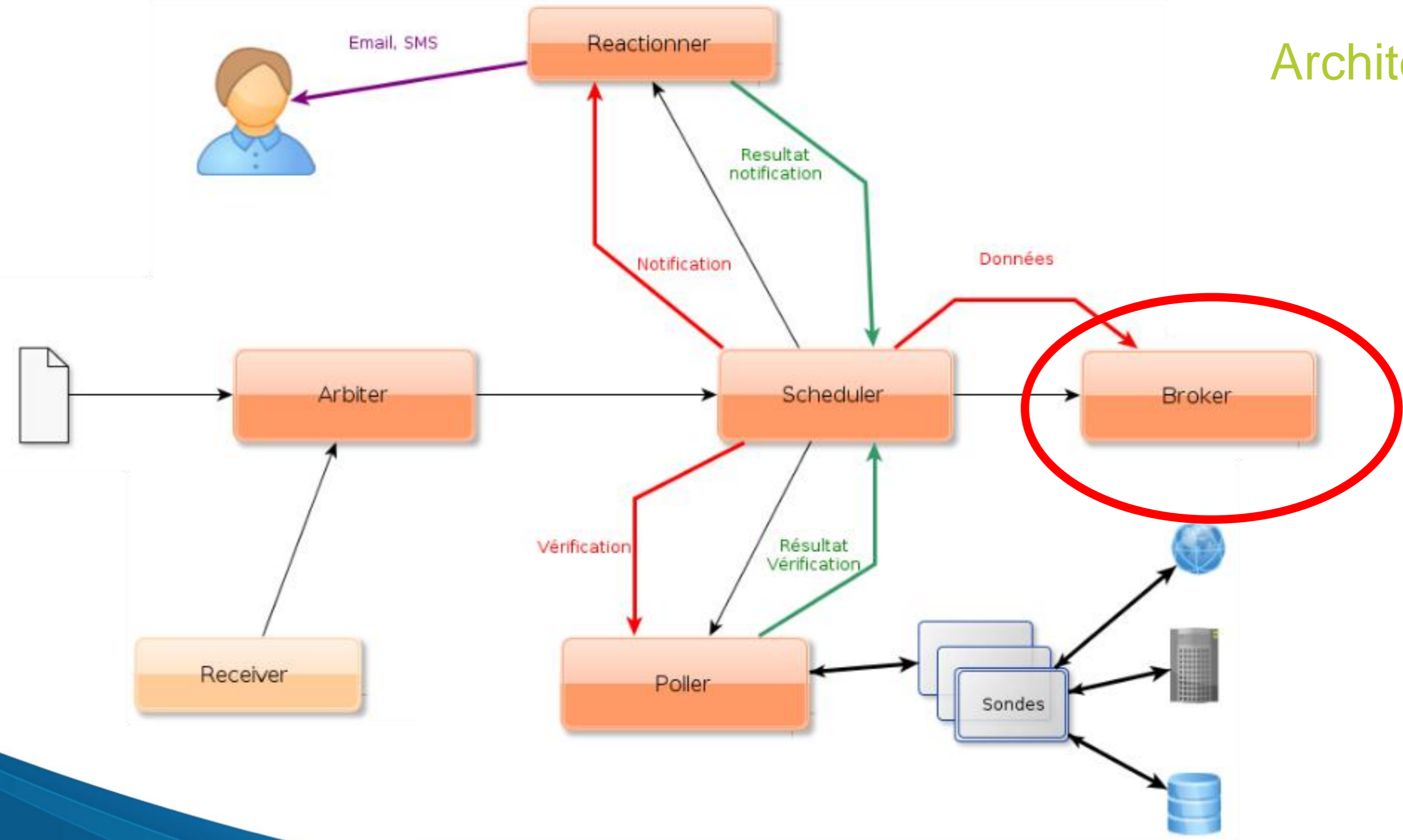
Architecture Shinken

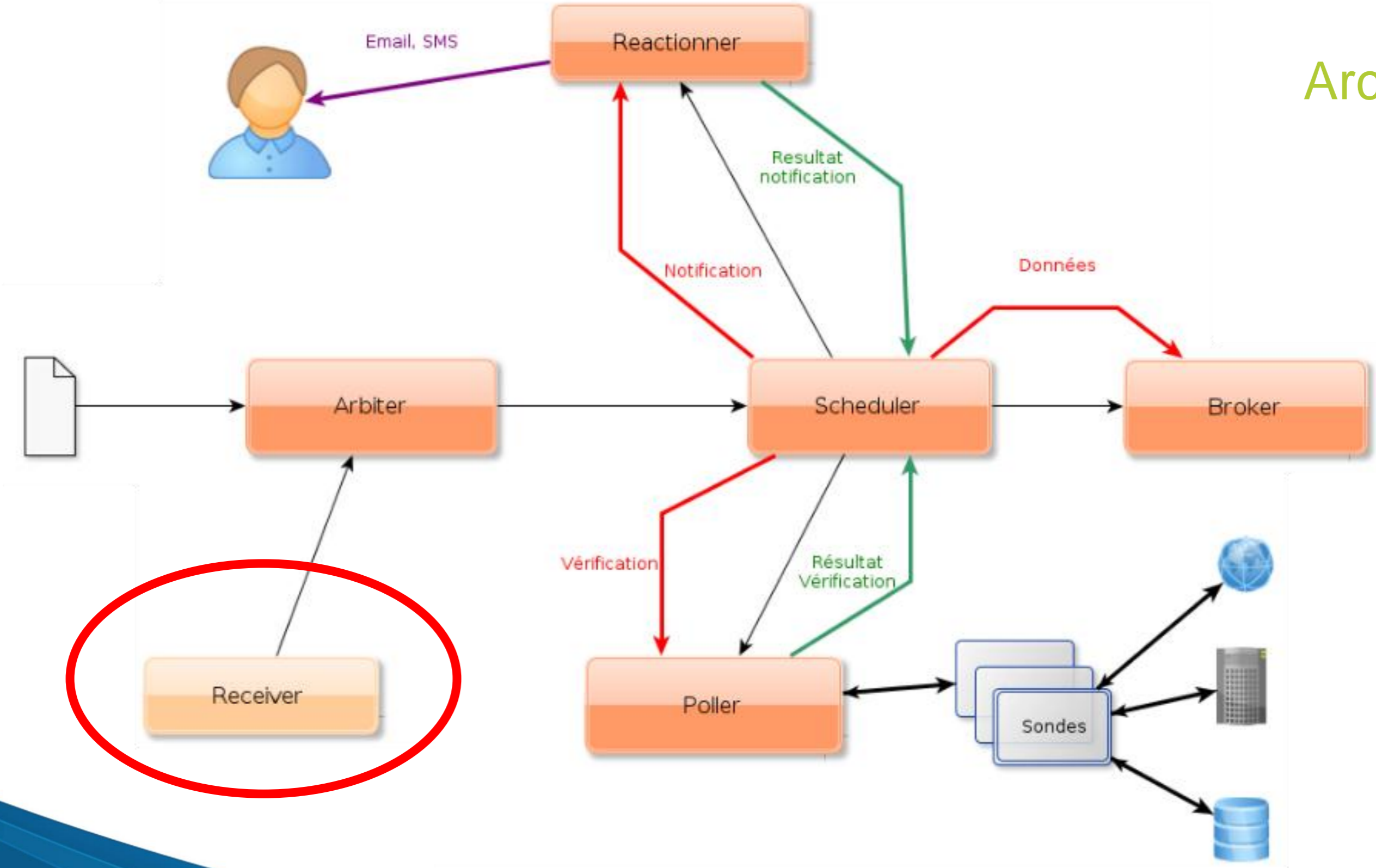


Architecture Shinken

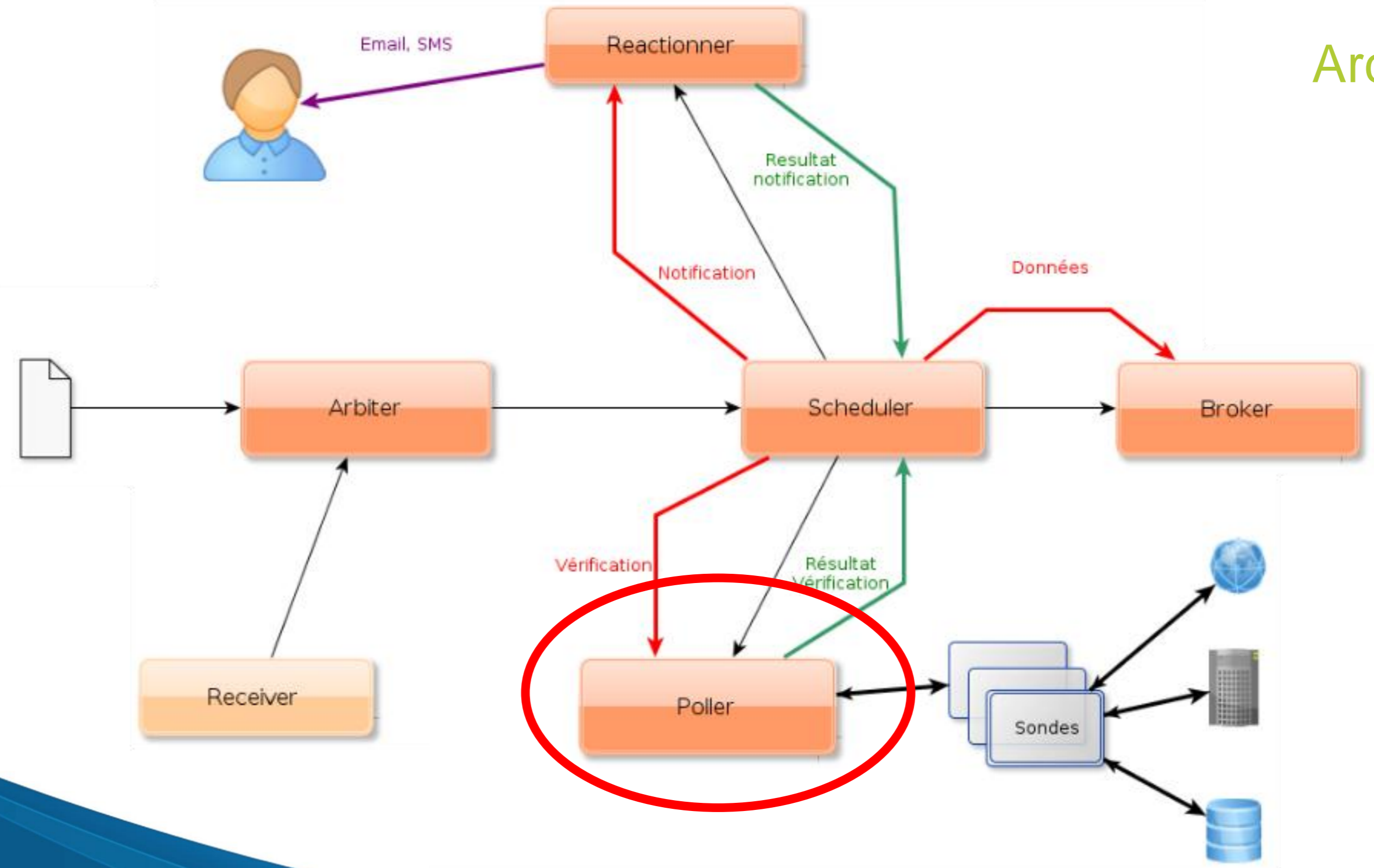


Architecture Shinken

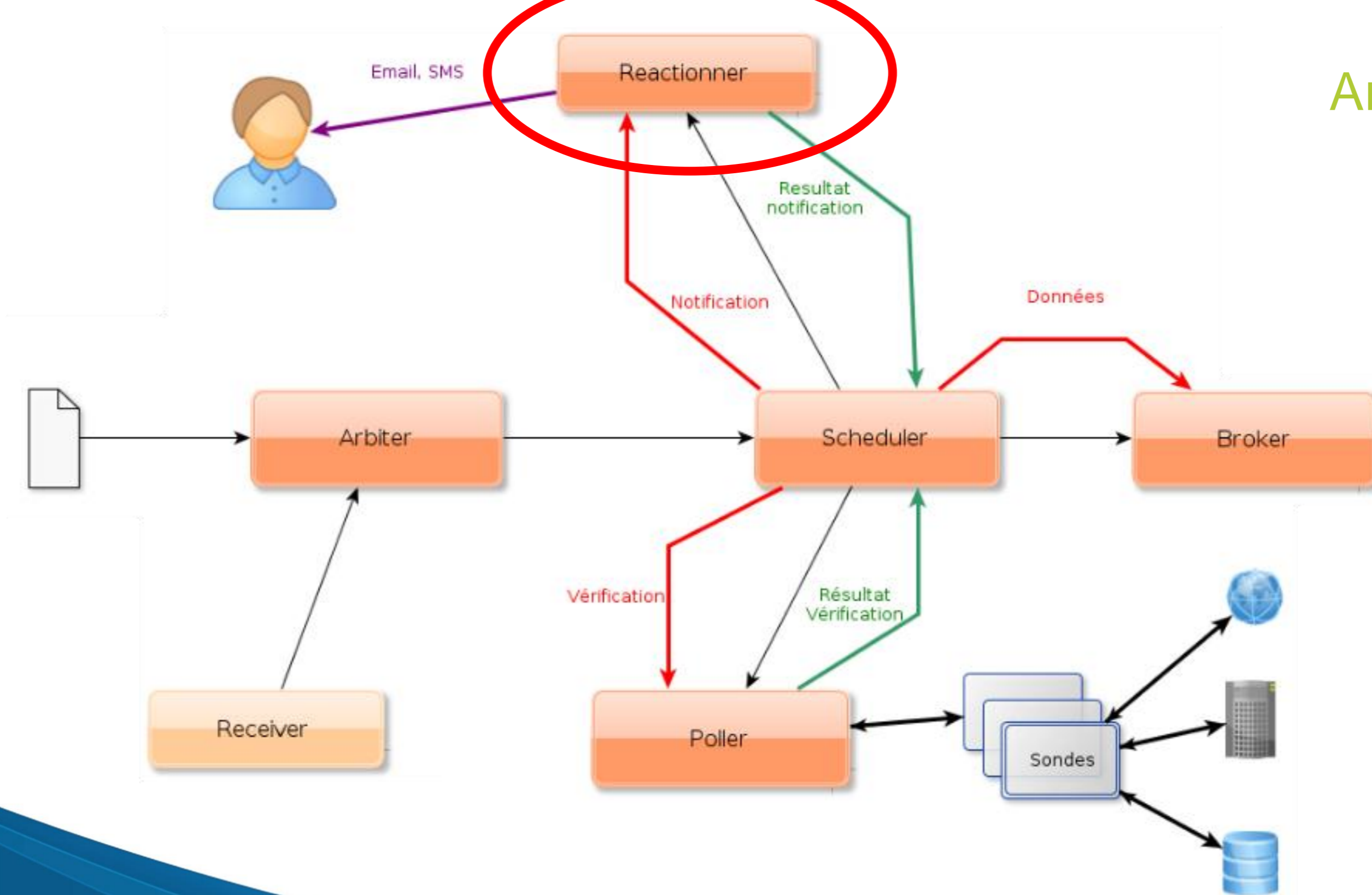




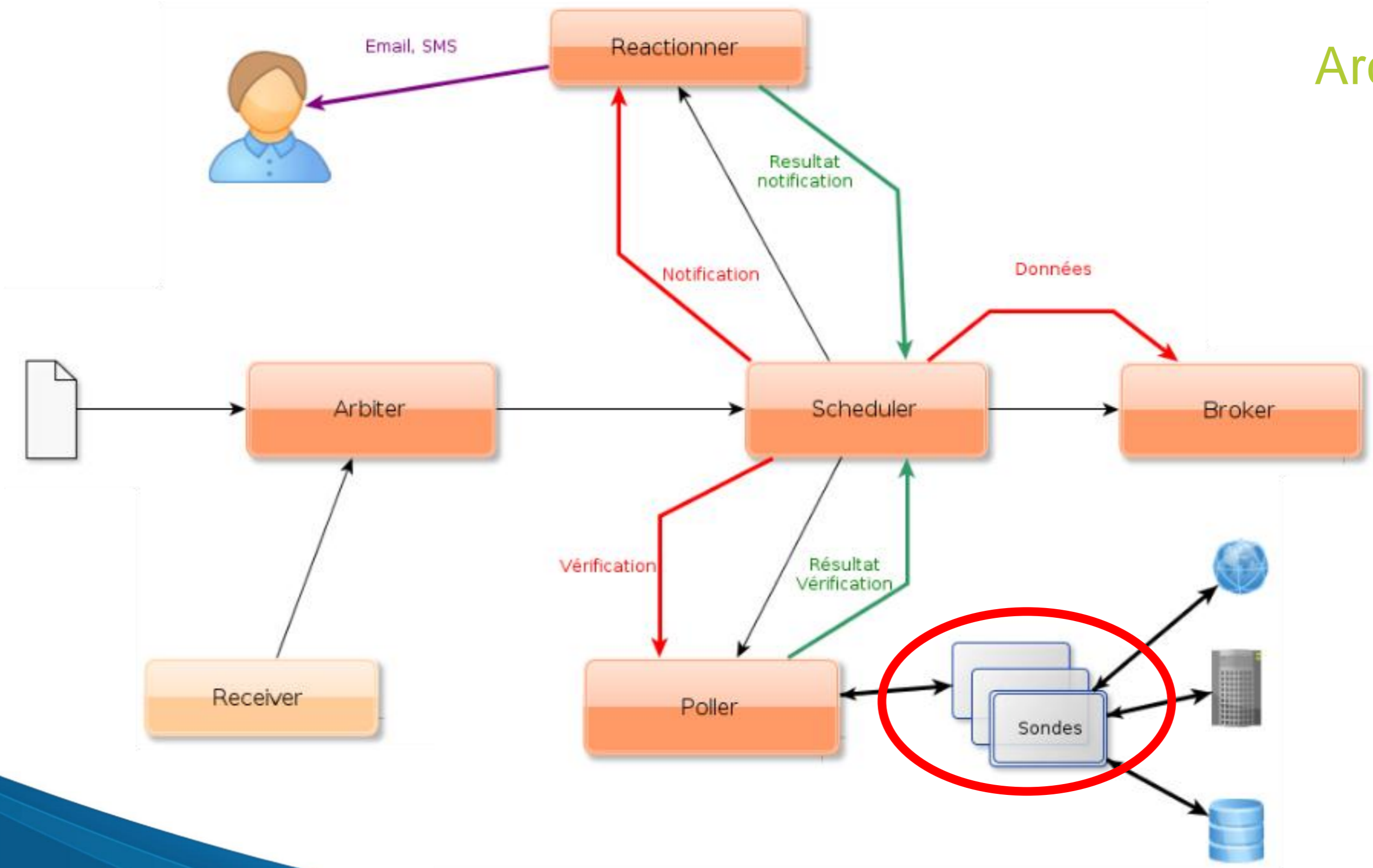
Architecture Shinken

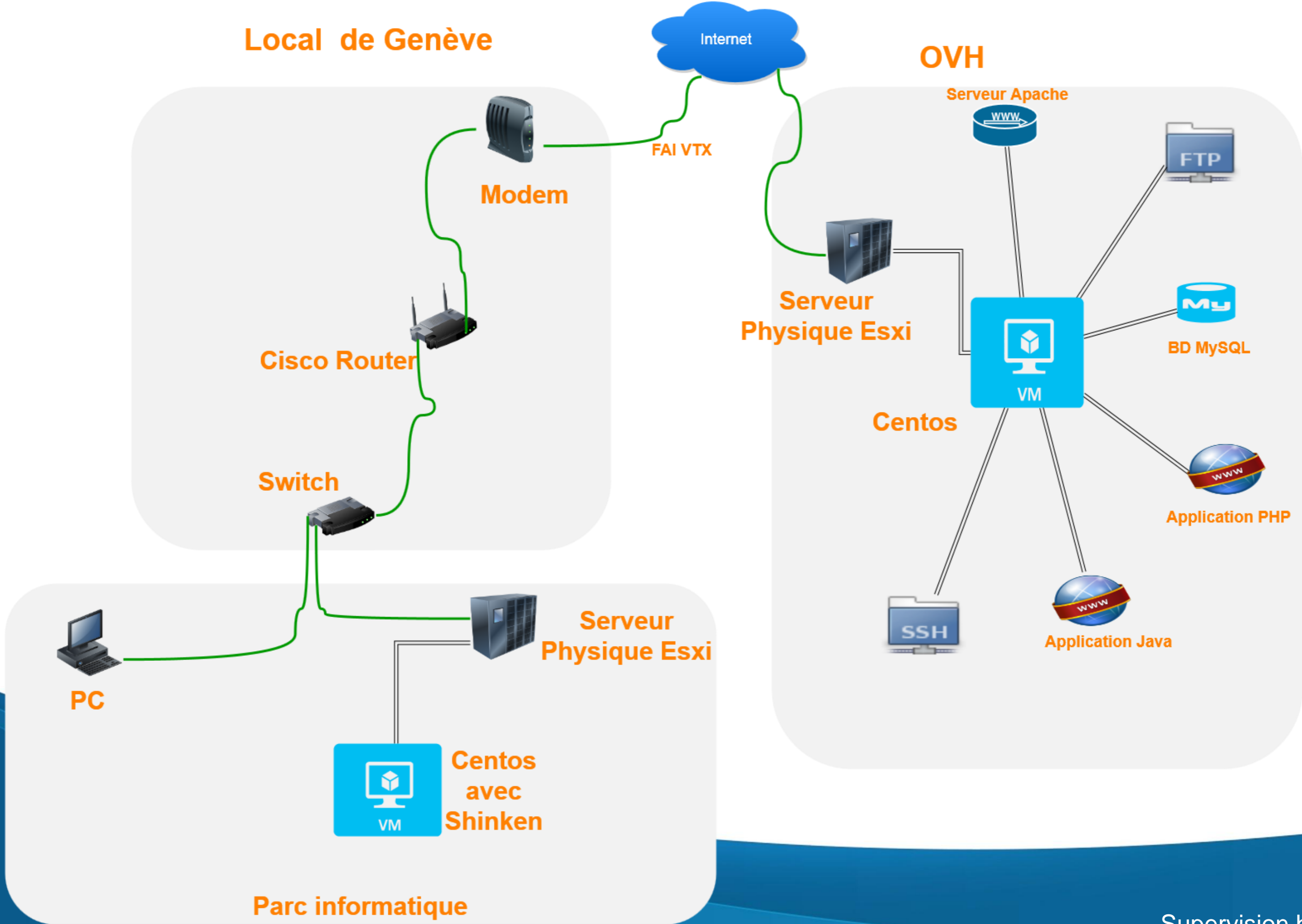


Architecture Shinken

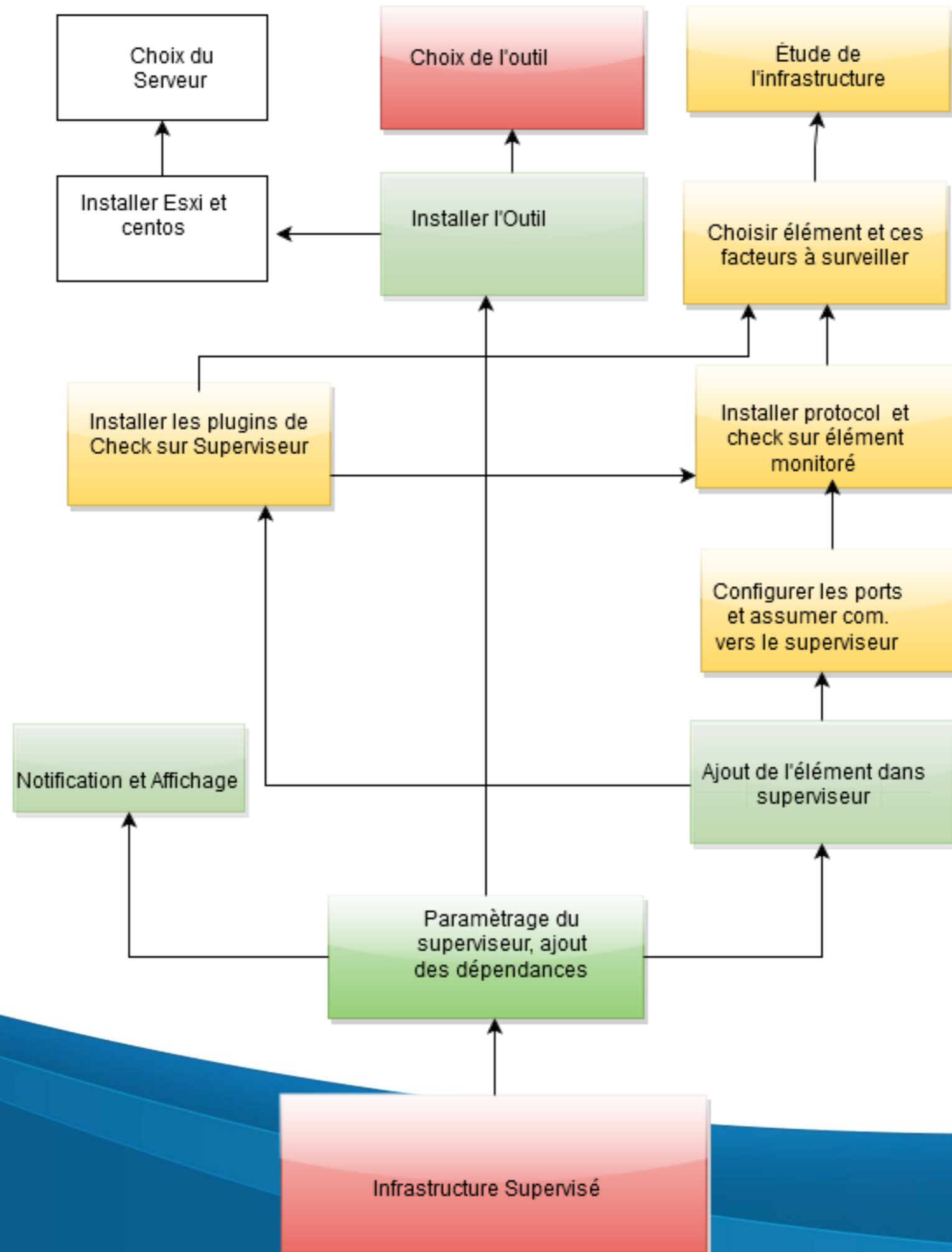


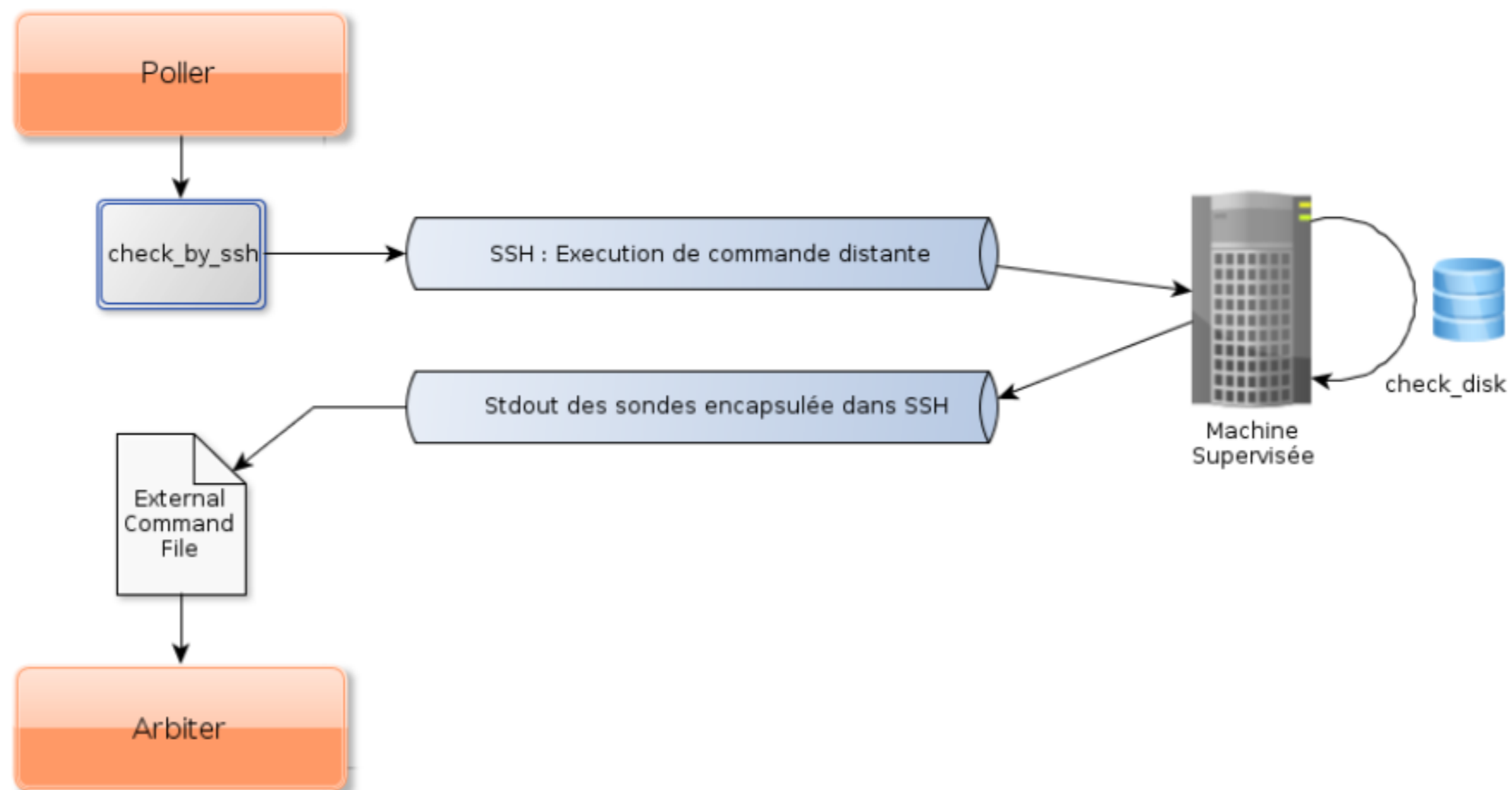
Architecture Shinken

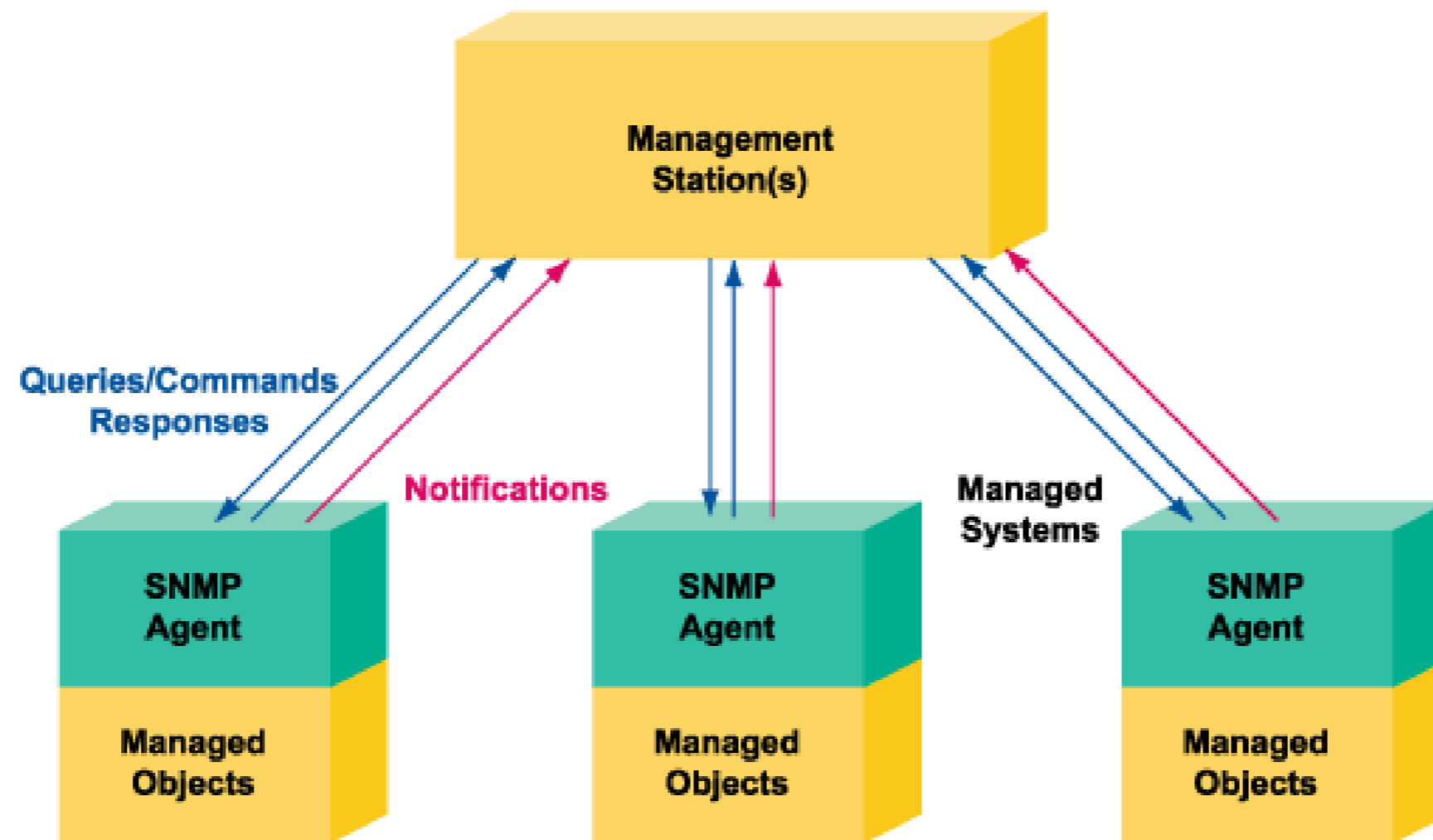




Déploiement







Sonde (Check)

```
define host{
    use                generic-host-sans-check
    alias              Intranet-QIM
    contact_groups    admins
    host_name          extsrv003
    address            178.██████████
    hostgroups        ovh
    labels            ovh
    icon_set          server
    parents           Acces_Internet,qgeisp002,qgeisp003
    check_command     check_tcp !22
    _SSH_KEY          $SSH_KEY$
    _SSH_KEY_PASSPHRASE $SSH_KEY_PASSPHRASE$
    _SSH_USER         $SSH_USER$
    _SSH_PORT         $SSH_PORT$

    _LOAD_WARN        1,1,1
    _LOAD_CRIT        2,2,2
    _STORAGE_WARN     90
    _STORAGE_CRIT     95
    _STORAGE_UNIT     GB
    _STORAGE_MOUNTS   /
    _CPU_WARN         80
    _CPU_CRIT         90
    _MEMORY_WARN      85
    _MEMORY_CRIT      95
}
```

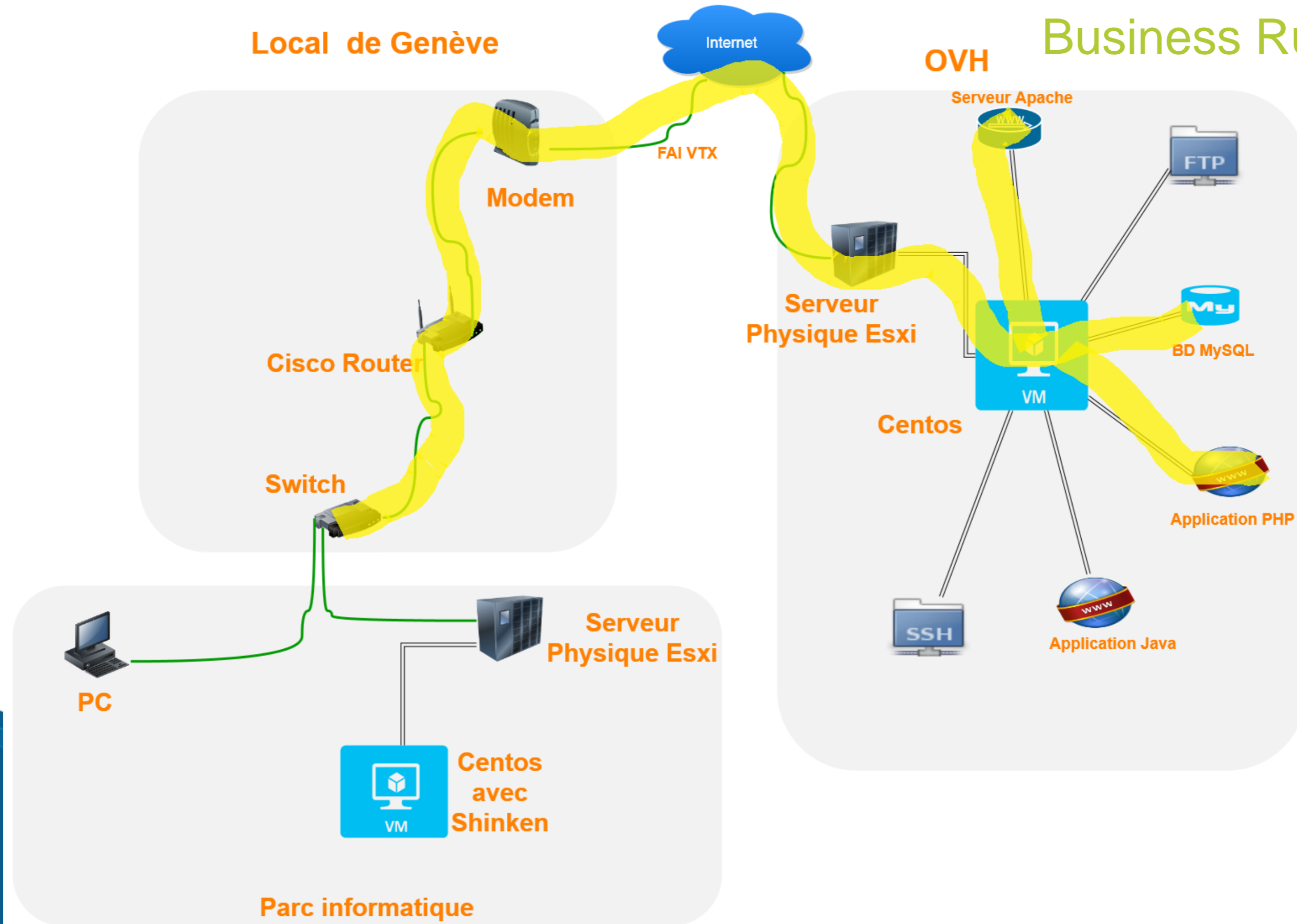
```
define service{
    service_description  ftp
    use                  generic-service
    host_name            extsrv003
    check_command        check_ftp
}
```

```
define command {
    command_name        check_ftp
    command_line        $NAGIOSPLUGINDIR$/check_ftp -H $HOSTADDRESS$
}
```

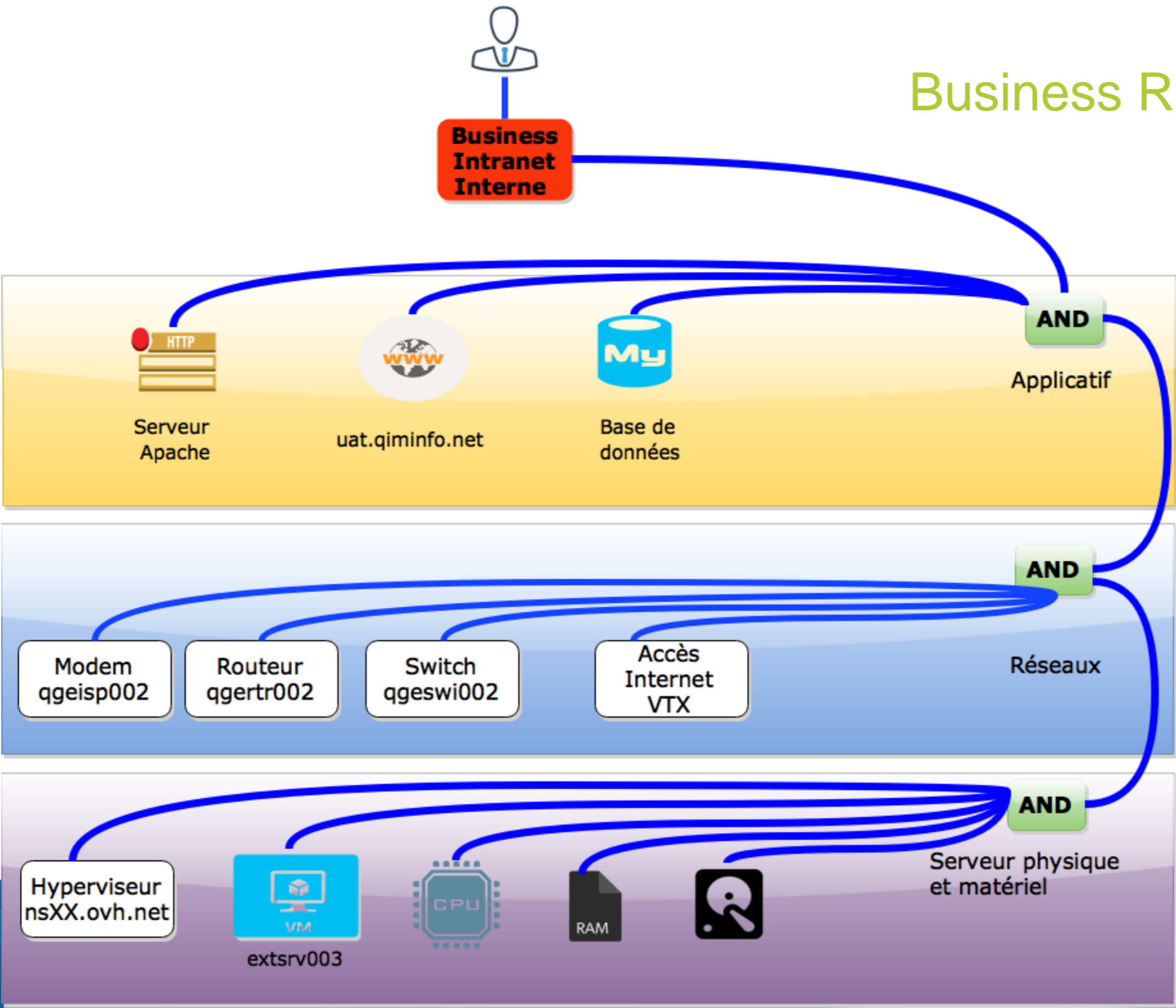
ftp **OK** 3s FTP OK - 0.101 second response time on 178.██████████ port 21 0.101192s
[220----- Welcome to Pure-FTPd [privsep] [TLS] -----]

Host	Service	Realm	Last check	Next check	Actions
extsrv003	ftp	All	4s ago	in 4m 54s	Details

Business Rule (Règles Métier)



Business Rule(Règles Métier)

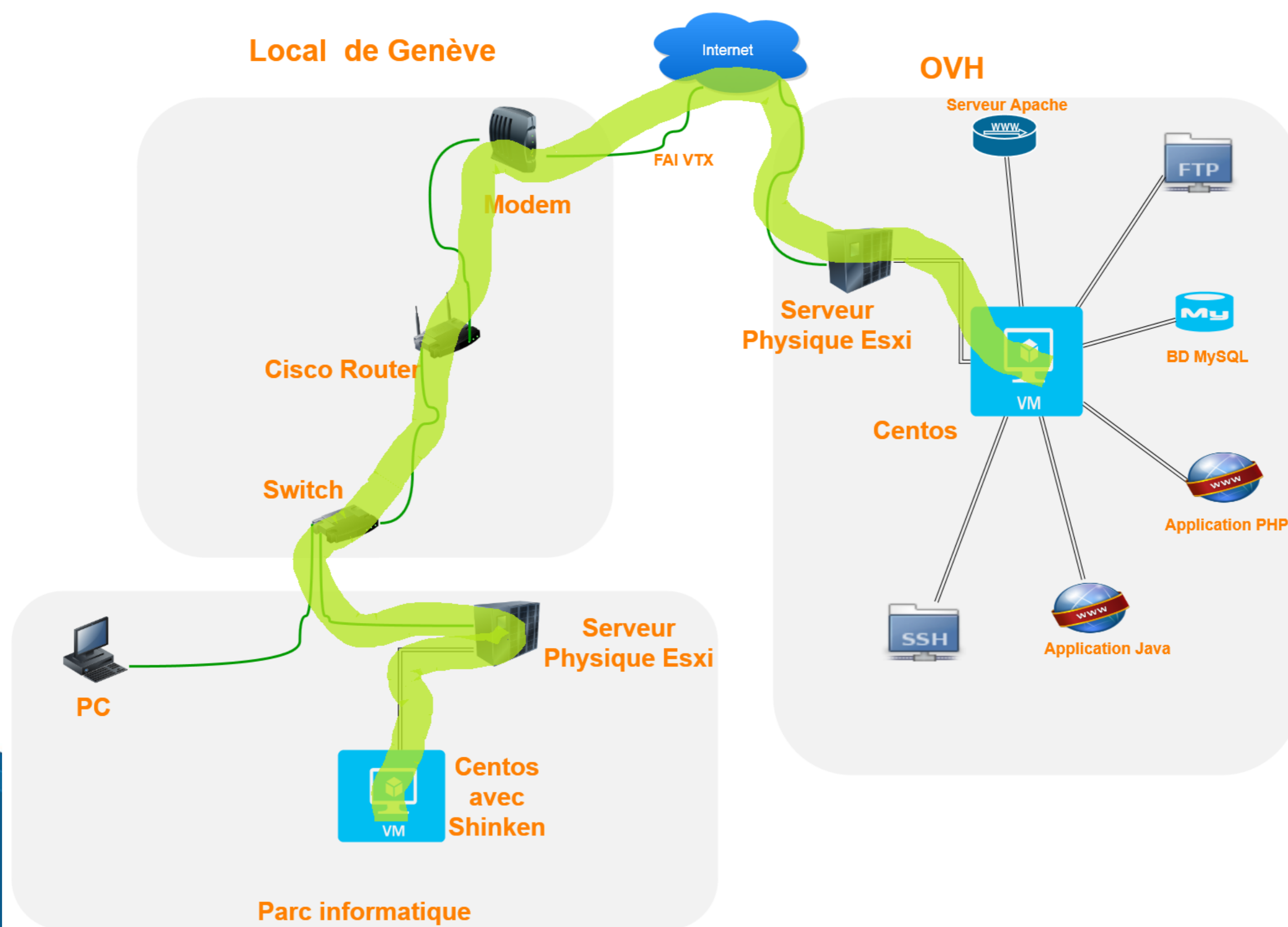


Local de Genève

Internet

OVH

Dépendances



Coupure d'accès internet

Dépendances

Hide toolbar

Select all

1 2 ... Last »

Add filters

No bookmarks
No common bookmarks

Business impact: Very important ★★

<input type="checkbox"/>		Acces_Internet	DOWN	4m 5s	CRITICAL - Socket timeout after 10 seconds	
<input type="checkbox"/>		extsrv003	CRITICAL	21s		
<input type="checkbox"/>		Intranet UAT ext...	CRITICAL	2m 18s		
<input type="checkbox"/>		Jira UAT externe	CRITICAL	1m 37s		

Business impact: High ★

<input type="checkbox"/>		extsrv003	CRITICAL	2m	jira UAT interne	
--------------------------	--	-----------	----------	----	------------------	--

Business impact: Normal

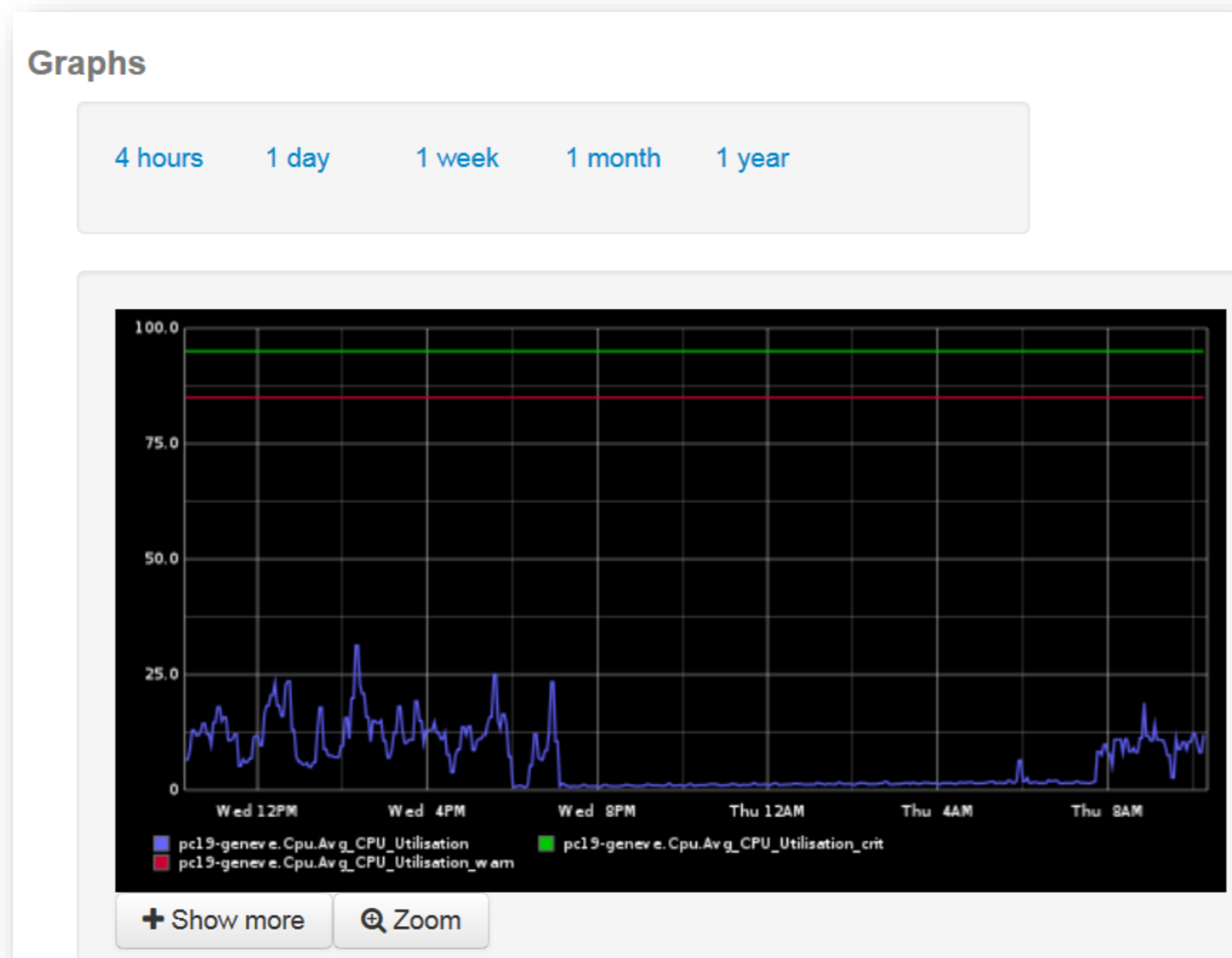
<input type="checkbox"/>		extsrv003	DOWN	4m 7s	CRITICAL - Socket timeout after 10 seconds	
<input type="checkbox"/>		ApacheHTTP -Etat	CRITICAL	4m 1s	CRITICAL 500 Can't connect to 178.33.44.77:443	
<input type="checkbox"/>		CPU Charge mo...	CRITICAL	3m 17s	(Service Check Timed Out)	
<input type="checkbox"/>		Espace Disque	CRITICAL	3m 15s	(Service Check Timed Out)	
<input type="checkbox"/>		Memoire	CRITICAL	3m 15s	(Service Check Timed Out)	
<input type="checkbox"/>		MySQL-Etat	CRITICAL	3m 17s	(Service Check Timed Out)	
<input type="checkbox"/>		SSH Connexion	CRITICAL	3m 17s	(Service Check Timed Out)	
<input type="checkbox"/>		ftp	CRITICAL	4m 7s	CRITICAL - Socket timeout after 10 seconds	
<input type="checkbox"/>		intranet-UAT-HTTP	CRITICAL	4m 8s	CRITICAL - Socket timeout after 10 seconds	
<input type="checkbox"/>		intranet-UAT-HT...	CRITICAL	4m 5s	Status: Critical (500 Can't connect to uat.qiminfo.net:443)	
<input type="checkbox"/>		intranet-UAT-ext...	CRITICAL	3m 15s	(Service Check Timed Out)	
<input type="checkbox"/>		jira-UAT-HTTP	CRITICAL	3m 47s	Server Error: HTTP Statuscode 500 - Internal Server Error	
<input type="checkbox"/>		jira-UAT-externe	CRITICAL	3m 15s	(Service Check Timed Out)	
<input type="checkbox"/>		jira.qiminfo-DNS	OK	3d 20h	DNS OK: 0.046 seconds response time. -a returns	0.045944s
<input type="checkbox"/>		uat.qiminfo-DNS	OK	3d 20h	DNS OK: 0.053 seconds response time. -a returns	0.053315s
<input type="checkbox"/>		pc19-geneve	UP	3d 20h	PING OK - Packet loss = 0%, RTA = 1.78 ms	1.783ms
<input type="checkbox"/>		Cpu	OK	3d 20h	OK (Sample Period 12 sec) - Average CPU Utilisation 23.90%	23.9%
<input type="checkbox"/>		Disks	OK	3d 20h	OK - Overall Disk Total=449.66GB, Used=206.41GB (45.9%), Free=243.25GB (54.1%) OK - C: Total=224.45GB, Used=193.23GB (86.1%), Free=31.22GB (13.9%) OK - D: Total=225.21GB, Used=13.18GB (5.9%), Free=212.03GB (94.1%)	193.23GB
<input type="checkbox"/>		LoadAverage	OK	3d 20h	OK - Average CPU Queue Length 2.1 (20 points with 0 sec delay gives values: 5, 1, 0, 0, 0, 1, 2, 3, 0, 5, 1, 9, 2, 1, 4, 1, 2, 2, 2, 2)	2.1

Source des problèmes détectée

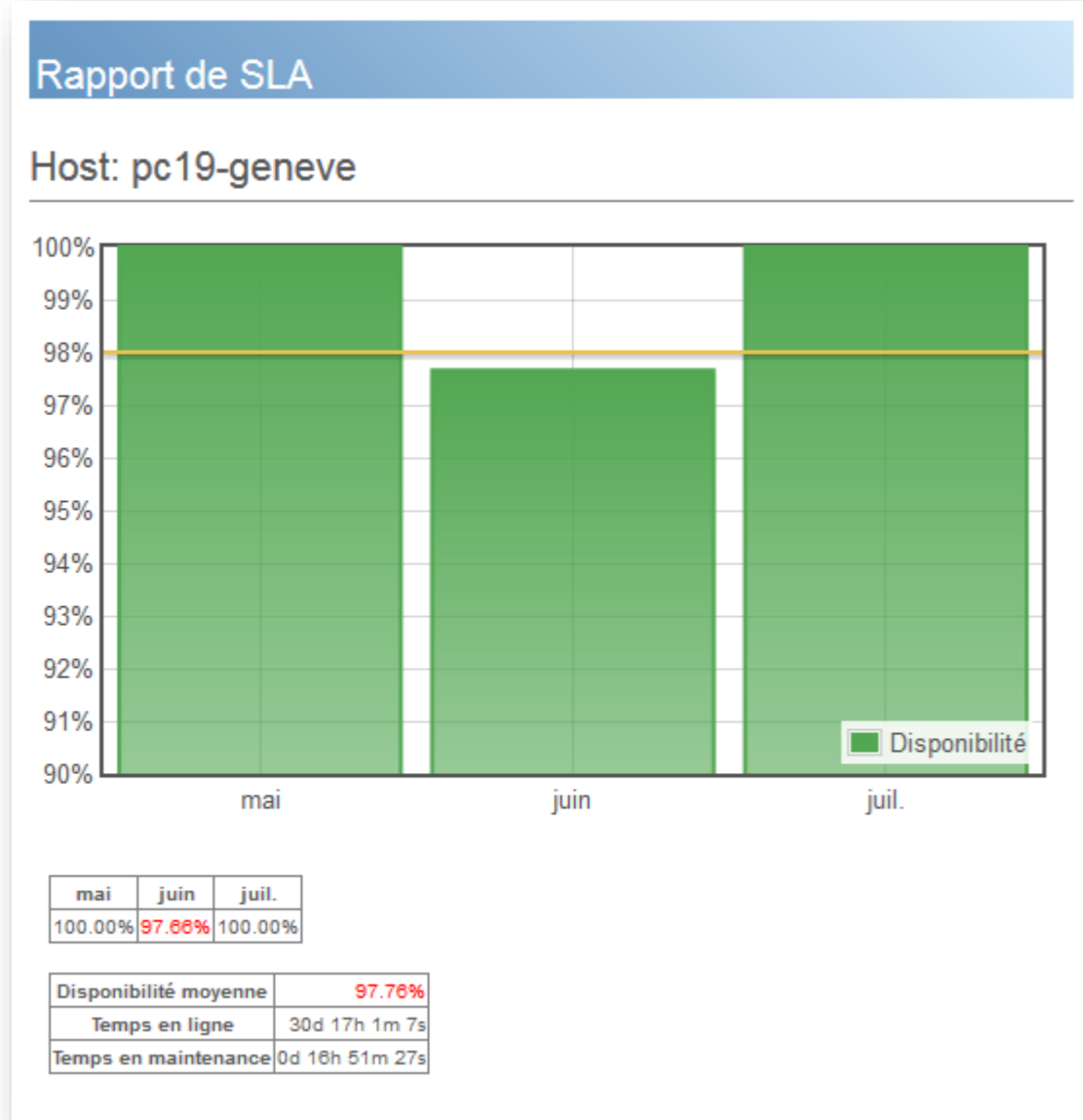
The screenshot shows the Shinken web interface. At the top, there is a navigation bar with 'Shinken' and several menu items: 'Dashboard', 'Impacts', 'IT problems', 'All', 'Wall', and 'System'. Below the navigation bar, there are two buttons: 'Hide toolbar' and 'Select all'. A green button labeled '+ Add filters' is also visible. The main content area displays a problem entry for 'Acces_Internet'. The problem status is 'DOWN' in a red box, with a duration of '5m 21s' and a severity of 'CRITICAL'. The description is 'Socket timeout after 10 seconds'. Above the problem entry, the text 'Business impact: Very important' is displayed with two yellow stars.

The summary dashboard consists of four metrics displayed on a dark background:

- IT Problems:** Represented by a radio tower icon and a yellow box with the number '1'.
- Impacts:** Represented by a cloud and lightning bolt icon and a red box with the number '4'.
- Services OK:** Represented by a server rack icon and a green box with '100%'.
- Hosts UP:** Represented by a house icon and a green box with '87%'.



Cpu d'un PC



Thruk

General

- Home
- Documentation
- Panorama View

Current Status

- Tactical Overview
- Map
- Hosts
- Services
- Host Groups
 - Summary (Grid)
- Service Groups
 - Summary (Grid)
 - Mine Map
- Business View
- Problems
 - Services (Unhandled)
 - Hosts (Unhandled)
 - Network Outages
 - Root Problems

Reports

- Availability
- Trends
- Alerts
 - History (Summary)
- Notifications
- Event Log
- Business Process Reporting

System

- Comments
- Downtimes
 - Recurring Downtimes
- Process Info
- Performance Info
- Scheduling Queue
- Configuration
- Config Tool

Create Report

Name*

Description

Public yes no

E-Mail Settings: [adresse mail si on veut recevoir par mail]

To

Cc

Schedule [Planifier une période si le rapport est crée automatiquement par Thruk]

Report Type

Type [Type du rapport hôte,service ou groupe]

Report Options:

Language*

expected objects: 12 hosts

Host*

Timeperiod [période]

Breakdown by

Report Timeperiod

SLA %* [limite de l'entreprise]

Graph SLA %*

Details SLA %*
hide details if sla is above threshold

Decimal Points*

Assume Initial States [pour les périodes sans données]

Initial Assumed State [mettre OK, pour les périodes non surveillées on suppose que tout était OK]

Include Soft States

Unavailable States*

State	Normal	During Downtime
Up	<input type="checkbox"/>	<input type="checkbox"/>
Down	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unreachable	<input checked="" type="checkbox"/>	<input type="checkbox"/>

[Quels sont les état non OK]

Latest Outages*
max. # pages

Worst Outages*

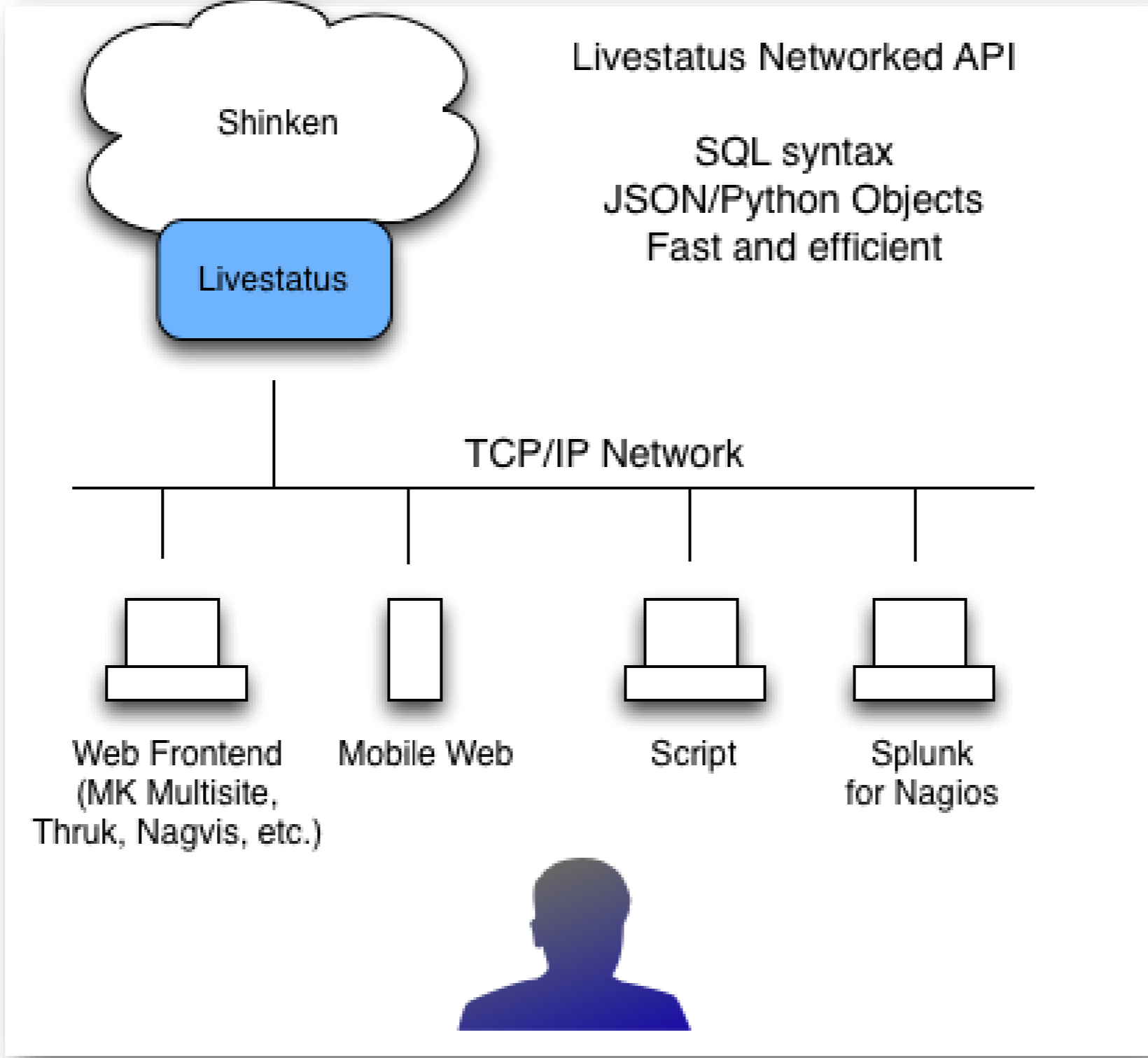


Cartographie

NagVis



Connexion de Shinken avec d'autres outils



Réalisé:

Solution complète:

Reporting, métrologie, cartographie

Détection proactive de problèmes

Superviseur modulaire et stable

Shinken bien adapté à l'entreprise

Charge réseau / performance

Reste à améliorer:

Gestion d'incident

Etendre la supervision

Questions?

