



Incident report



Network incident from 06/27/2024

06/27/2024 – 9 :30am > 9 :58am

Incident severity: Critical

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1. Summary

A significant and one-off increase in the traffic managed by a piece of network equipment located in the IKDC1 datacenter caused a significant increase in the CPU load of the latter. This event occurred while a usual network change, which usually has no impact, was in progress. The combination of these two events caused a chain reaction on several other pieces of equipment, which disrupted the operation of the network in part of the IKDC1 datacenter.

Rapid identification of the cause of the incident enabled appropriate measures to be taken to stop it spreading and then to resolve it as quickly as possible.

For several minutes, between 9.30am and 9.57am, many customers were affected by this incident and the corrective action taken, due to slow or even interrupted networks.

2. Evolution

27/06/2024 – 9:30am	Start of the incident, following a change on an Ikoula VLAN
27/06/2024 – 9:35am	Identification of the cause of the incident: spanning-tree loops appear on several VLANS
27/06/2024 – 9:40am	The first corrective actions did not resolve the problem.
27/06/2024 – 9:42am	We decide to isolate certain parts of the network in order to stop the chain reaction.
27/06/2024 – 9:46am	The chain reaction is stopped.
27/06/2024 – 9:48am	Start of work to reconnect previously isolated areas to the network.
27/06/2024 – 9:57am	Action completed; network restored for all customers
27/06/2024 – 9:58am	End of incident

3. Causes

According to our initial analysis, it seems that a switch experienced a significant increase in its CPU load following an increase in multicast traffic on it.

The change that took place in the same timeframe (on another piece of equipment), consisted of modifying an internal Ikoula VLAN (not used by customers) and involved updating the root bridge. This is a normal spanning-tree event, which can only have an impact on the VLAN in question.

The load on the switch, coupled with the spanning-tree event to be managed, caused the switch's entire spanning-tree process to malfunction, disrupting all the VLANS carried by this switch and propagating the problem to several other switches and so on. In order to put an end to this chain reaction and return to a stable situation, part of the network was isolated.

4. Corrective measures

The faulty equipment and all others of the same type will be replaced as soon as possible.

At the same time, Ikoula has been working for several years to modernize all its historical architectures using spanning-tree technology, which is ill-suited to new architectures.

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INCIDENT SEVERITY LEGEND

- No impact – the end service operates normally
- Minor – the end service is only slightly affected
- Major – the end service is heavily impacted
- Critical – the end service is unavailable or unreachable
- Undefined – the impact on the end service has not yet been defined

CONTACTS

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