

## CASE STUDY

# Reduce VoIP incidents and costs with ServicePilot

**Note:** Due to the nature of the information presented in this document, the client has asked that the data be anonymized.

## CHALLENGE

The Voice team of a major European car manufacturer is responsible for managing a complex and heterogeneous telephony system which serves approximately 80,000 users. It consists of 80 Alcatel-Lucent nodes, a Cisco node responsible for 4,000 users, and a Skype for Business environment for another 3,000 voice users. Key to this architecture are SIP operators and Oracle SBCs and EBCs.

The team relied on an integrator in order to find a monitoring solution that would allow them to reduce the number of incidents and lower VoIP costs.

## SOLUTION

### 1) Reducing the number of incidents

#### 1.1) Resolving existing incidents faster

Before this customer started to use ServicePilot, and because it has such a complex multivendor telephony environment, troubleshooting call degradations was pretty much like finding a needle in a haystack. Indeed, the Voice team had no ability to view how the different elements of its system were impacting each other.

Because ServicePilot is able to collect data on Alcatel-Lucent, Cisco, Skype for business, Oracle and more, the team now has access to key indicators such as:

- Network equipment usage (CPU, memory load)
- SIP and SBC availability, performance
- Call quality (MOS, jitter, latency and more) and activity (incoming, outgoing, internal) metrics over time

This benefits them in two ways:

- Since members of the Voice team each specialize in a different vendor or technology, ServicePilot's dashboards allow them to diagnose incidents even when they occur on a technology they know little about.
- They can now monitor the entire scope of their telephony environment from a single interface, which allows them to trace call degradations all the way back to root cause, and across a multivendor environment.

#### 1.2) Avoiding 20% of future incidents

However, fixing existing issues is not enough to ensure the best quality of service possible. Before, they were also missing the Capacity Planning tools necessary to predict the future availability and performance trends of their infrastructure components.

With ServicePilot, they can now see potential issues coming up to 3 months in advance, thanks to projections calculated based on each resource's historical statistics. It has been estimated that this feature alone has been responsible for a 20% decrease in the number of incidents received by the Help Desk and Voice teams.

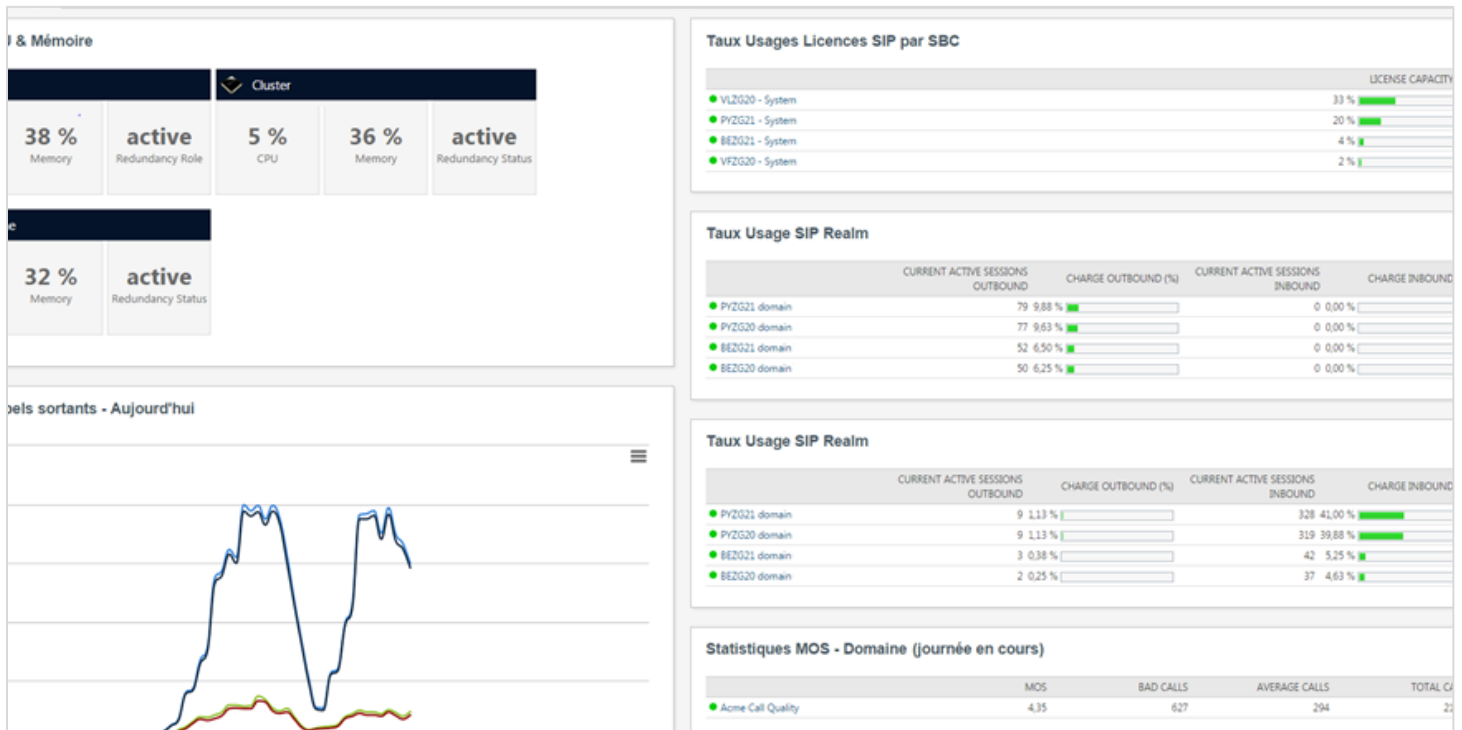
## 2) Lowering VoIP costs

### 2.1) Less VoIP support tickets means lower VoIP costs

First, being able to resolve degradations faster and to prevent future incidents has reduced the company's Mean Time to Recovery and the workload of both the Voice team and the Help Desk. Consequently, the company automatically saw a reduction of its total cost of incident recovery as well as the costs linked to longer-lasting outages.

### 2.2) Adjusting trunk capacity to cut related costs in half

The Capacity Planning feature just described also enabled the Voice team to achieve major savings. Indeed, the ability to foresee trunk usage allowed them to cut in half the number and cost of their SIP channel subscriptions.



### 2.3) Detecting VoIP fraud to avoid losses

In the past the Voice team's telephony system had been victim of VoIP Fraud Attacks. Unfortunately, without the right tool to assist, it is hard to detect the fraud in the first place and let alone to stop it or prevent future occurrences. Soon after deploying ServicePilot, they received an alert notifying them that one of their SBCs was experiencing a sudden increase in traffic, exceeding the threshold that had initially been configured.

Using ServicePilot's dashboard they were able to identify an unusual increase in the number of outgoing international calls (see zone "London" below), as hundreds of international calls were being placed by an unusual IP, all from one of their Oracle SBCs. This information was made visible to them because ServicePilot had been configured to collect SIP traffic statistics from the company's SBCs, to trigger alarms with custom thresholds and display resulting call volumes per geographical zone.

Summary by Zone				
ZONE	BAD CALLS	TOTAL CALLS	INTERNATIONAL CALLS	INTERNAL CALLS
San Diego	5,351	47,949	234	44,876
Paris	1,080	29,315	115	25,790
London	634	29,246	11,994	26,833
Shenzhen	123	34,045	67	30,931
Miami	1	13,208	6	11,750

Having diagnosed the issue with precision, they were able to update their SBC configurations and block the hacker.

## 2.4) Increasing staff productivity leads to lower costs

The Voice team used ServicePilot to create a set “Morning Check” dashboard which gives them every day a clear visibility over the new incidents that need to be fixed. It allows for faster decision making and can be used to generate automated PDF report which can be sent to each local technical team.

On this subject, the car manufacturer’s Director of Telecommunications, said:

*“We rapidly became familiar with ServicePilot’s software and are now able to easily create dashboards and reports in order to face new problematics and manage new pieces of equipment. Despite the complexity of our environment and our large volume of users, maintaining ServicePilot only takes us about one to two hours per week.”*

## BENEFITS

Using ServicePilot, his team was able to achieve the following benefits:

- Troubleshooting incidents faster
- Avoiding 20% of future incidents
- Reducing troubleshooting-related costs
- Cutting in half its SIP channel costs
- Detecting VoIP fraud and avoid associated losses
- Increasing staff productivity