

Case Study



Managing an Outsourced Capacity Planning Function

Background

A major UK-based retailer had outsourced its point of sales (POS) systems to a third party company. The system supported sales transactions at several hundred stores with a value in the order of several million pounds annually. The system was based on Microsoft Windows and was running on thousands of devices.

The third party was responsible for maintenance, support, application management and capacity planning of the POS system. The retailer was operating in a very competitive market where the POS system was used to deliver differentiation from its competitors.

Approach

Capacitas staff identified the key stakeholders for the system:

- Capacity and performance teams from both organisations
- Business owners of the system
- Hardware and software support teams

Capacitas staff proposed to develop a formal Capacity and Performance report of the system that would meet the requirements of the stakeholders.

Problems

Shortly after the outsourcing arrangement began, a number of issues around capacity and performance management were identified:

- The outsourcer had a lack of visibility of key system resource utilisation measures and was unable to track

and trend system capacity growth

- The service provider could provide little or no justification for requests to upgrade system capacity and was inundated with ad hoc reporting requests
- The outsourcer was unable to judge the capacity/performance impact of frequent application upgrades to the system. This was an important requirement given the rate of change on the system
- The outsourcer was unable to assess whether or not there were any short-term capacity/performance issues with the system

Impacts

- There was no formal mechanism to highlight capacity and performance issues. As a result these issues did not receive the focus they required
- A large amount of time was spent 'fire fighting' by the service provider, who needed to respond to ad hoc report requests and react to estate wide capacity issues
- Trends and patterns of system resource consumption were not understood. As a result, remedies to tune performance were not found
- Both parties were unable to assess the future capacity requirements for the large number of projects in the pipeline. This led to delays in project implementation and reduced business competitiveness

Our Solution

Capacitas staff designed and developed a report template that was then used by the service provider to produce regular monthly capacity and performance reports. Key stages in developing the report included:

- Identifying the differing store types by business grouping
- Selecting a representative sample of stores to monitor from each business grouping
- Selecting appropriate system management alerts and associated thresholds. This enabled short-term capacity and performance alerting of key Windows performance metrics across the whole estate
- Workload characterisation of the POS system in order to identify the discrete workloads and their associated timeslots

- Selecting the key Windows performance metrics and associated thresholds to monitor long term capacity and performance of the workloads
- Defining the measurement representation of performance metrics in order to maintain a view of peak behaviour of historical data
- Defining report sections to capture business changes and capacity issues

Benefits

Adoption of the report to delivered the following benefits:

- The report was made available to a large number of teams, providing strong communication of capacity and performance management of the system
- Promoted greater collaboration between the two organisations
- The report became a single source of capacity and performance information. The requests for ad hoc reports were reduced for a minimum, freeing the service provider's resource to carry out greater value tasks
- Provided greater confidence in the service provider's ability to capacity and performance manage a revenue critical system
- Analysis of system management alerts raised provided an insight into capacity issues that were prevalent across the whole estate
- Capacity usage was tracked and trended over time, enabling upgrades to be identified more rapidly
- The impact of application releases could be easily assessed against a known baseline

Conclusion

As a result of implementing standardised reporting, more time could be spent on proactive capacity planning. The combination of system management alerting with track/trend of Windows performance metrics provided a view of capacity and performance both over the short and long term. The resulting ability to deploy new applications more rapidly is a clear business benefit in a competitive market.

Regular standard capacity and performance reporting is a generic approach that can be applied to systems in any industry sector. It is particularly applicable for environments where there are a significant number of devices to manage,

e.g. retail POS systems. It should also be considered as part of any outsourcing of Capacity and Performance Management function.

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