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# Galileo Supports Accurate IT Budget Planning for Regional Transmission Organization

## The Challenge

A regional transmission organization (RTO) responsible for supporting the movement of wholesale electricity parts across several states sought to update its aging server infrastructure. While this upgrade was critical, the RTO was also focused on ensuring that any upgrades were absolutely essential to operations, and that the company could remain within its IT budget. The organization had been a Galileo customer for years, and contacted its server vendor for assistance in planning its upgrade. The organization hoped to glean additional insight from its vendor into the number of servers that should be replaced, as well as the estimated cost.

> The RTO's infrastructure included 262 physical IBM Power servers, and the company needed proper resources allocated within the IT budget.

The RTO's infrastructure included 262 physical IBM Power servers, and the company looked to its vendor to provide the detail needed to ensure that proper resources could be allocated within the IT budget. The vendor told the RTO that the upgrade would require the purchase of 60 new servers, an estimated $5 million to $7 million investment. Although the RTO had aimed to include the price of the upgrade within its IT budget for the following two to three years, the cost – as estimated by the server vendor – would be too expensive. As a result, the organization began looking into migrating to a Linux and x86 infrastructure, which would better fit into the upcoming budget.

## The Solution

While looking to Linux and x86 as an alternative to 60 new Power servers, the RTO turned to Galileo to verify the initial recommendation. Because the company had used Galileo to monitor its infrastructure for several years – and because Galileo continually stores the precision of all historical data related to a range of infrastructure metrics – the RTO had a wealth of data at its fingertips to leverage for additional insights about the planned server upgrade.

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Galileo analyzed several years' worth of data from the RTO's infrastructure monitoring tool (Galileo), looking closely at server utilization as well as the peak and average host usage. Using this historical data, coupled with additional computations to account for vendor and maintenance costs, Galileo was able to determine that the RTO only needed to update 28 servers, as opposed to the 60 servers the vendor had proposed.

> Thanks to Galileo's extensive data collection, analysts were able identify the peak usage intervals of all servers and hosts.

Best of all, Galileo was able to complete these calculations in a fraction of the time, thanks to the details gleaned from the RTO's infrastructure monitoring tool. Without this technology in place, it would have taken days – if not weeks – to accurately determine the organization's infrastructure needs. With Galileo, it only took eight hours.

Much of this speed centers around the data gathering supported by the infrastructure monitoring solution. Galileo stores five-minute data points across years of monitoring, where other tools typically average out historical data of this kind into a single, 1-day data point.

Thanks to Galileo's extensive data collection, analysts were able identify the peak-month, peak-day and peak five-minute usage intervals of all servers and hosts, ensuring accuracy when determining infrastructure needs. Galileo was even able to test usage if the company had to rely on just one server – purely hypothetical scenario, but still a valuable gauge of how performance would hold up under pressure.

## The Result

Thanks to the historical precision data resulting from the RTO's use of Galileo's infrastructure performance monitoring, the company was able to obtain the analytics-backed insights needed to inform its upgrading efforts. What's more, Galileo showed the organization that it could update its aging servers while still adhering to its IT budget.

Galileo determined that, based on historical usage and other metrics spanning the

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previous few years, the RTO needed less than half the number of servers recommended by its vendor. This finding helped the organization save millions in hardware costs and ensured that the company had the infrastructure support it needed without paying for additional, unnecessary resources.

Before this case, the RTO had mostly leveraged its Galileo infrastructure performance monitoring tool in a day-to-day administrative capacity to support root cause analysis and to determine the best solutions for emerging IT problems. However, this instance proved that Galileo can offer additional value beyond the day to day, and support the organization's need for data-driven insights to inform its yearly fiscal planning.

**To find out more about how Galileo was able to take the guesswork out of IT budget planning, contact us today.**

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