Datacenter consolidation ▶▶

with Sumerian Capacity Planner

sumerian®▶▶
capacity planner

The challenge

Over the passage of time, re-structuring, acquisitions and mergers can leave organizations with a plethora of under-utilized datacenters, with excess capacity. The cost burden of this datacenter sprawl is non-trivial—expensive to support legacy hardware, higher operating and energy costs, more complex security and a mix of technologies and standards making failover and disaster recovery planning a real headache.

The rewards of a consolidation program can be substantial. For example, in 2010 the United States government launched the Federal Data Center Consolidation Initiative. In a recent Government Accountability Office (GAO) report to congress, "19 agencies collectively reported achieving an estimated $1.1 billion in cost savings and avoidances between fiscal years 2011 and 2013". Also, "21 agencies collectively reported planning an additional $2.1 billion in cost savings and avoidances by the end of fiscal year 2015, for a total of approximately $3.3 billion—an amount that is about $300 million higher than the Office of Management and Budget's (OMB) original $3 billion goal. Between fiscal years 2011 and 2017, agencies reported planning a total of about $5.3 billion in cost savings and avoidances".

Unlike some cost reduction initiatives, these savings were also achievable in reality: "Most agencies reported successes in achieving cost savings—notably, the benefits of key technologies, reduced power consumption and facility costs, and improvements in asset inventories".

Demonstrating the business case for a consolidation program can be daunting. This requires a clear understanding of existing hardware and its current utilization, alongside a knowledge of what capacity would be required to support the same business applications on other hardware, while leaving enough headroom for growth and failover requirements.

Sumerian solution

Sumerian Capacity Planner tackles datacenter consolidation challenges head on, enabling organizations to understand the current position with clarity, model the impact of each proposed datacenter consolidation, and help to communicate the business case for change to both management and technical users.

By loading asset inventory and performance data from all their datacenters, organizations can create a unified view of their server estate, including both physical and virtualized environments. By using performance benchmark statistics such as SpecCPU® 2006 and IBM rPerf, Sumerian Capacity Planner also takes into account the relative power of different hardware platforms, and shows legacy and modern systems on a comparable basis.

A clear visual representation of the server estate is presented in the "Sunburst" view—enabling easy communication of current estate utilization and capacity to senior management, and answering critical questions regarding which data-centers and clusters are under-used, the amount of spare capacity and whether any of the existing servers are at risk due to limited capacity.

Having established a profile of current utilization and capacity, organizations are then able to model projected utilization under different datacenter consolidation scenarios. By simply dragging one datacenter onto another, the system models whether or not the workloads from that datacenter will fit into the other, and the amount of additional resource that would be needed to fulfill the migration.

Users can choose a target level of utilization they are comfortable with; for example, they may choose to host more servers in each cluster in development environments, while leaving greater headroom in production environments. Failover scenarios can also be modeled to ensure the new configuration would have sufficient capacity in the event of disaster situations. Sumerian Capacity Planner also makes rightsizing recommendations for servers based on the measured system usage, and detects growth patterns in resource consumption, with a forecast of when these resources would reach capacity.

Once a set of potential datacenter consolidation scenarios has been established, the relative costs/savings of the different scenarios can be calculated—together with the expected levels of utilization and headroom for growth. This is key information that will be required in the business case to provide quantified evidence that real savings can be made, and that the proposed changes do not put critical services at risk.

Sumerian Capacity Planner is also able to generate a detailed report of which workloads need to be moved and to where, and which servers need to be right-sized meaning proposed changes can be communicated efficiently to technical staff.

Client results and value

Sumerian Capacity Planner allows organizations to save money by rightsizing their current estates, and identifying and decommissioning under-utilized servers or entire datacenters. It helps IT managers to avoid expenditure on unnecessary hardware by providing improved visibility of existing utilization and forecasting the required capacity to support future growth.

One global financial services provider we worked with, wished to integrate an acquired datacenter and rationalize its regional datacenter estate. Using Sumerian Capacity Planner, they identified an optimal consolidation strategy to achieve cost saving objectives and ensure ongoing service performance and

availability. As a result, they achieved their target of $3.2 million operating cost savings and generate a further $1 million in annual savings.

The solution enables better management of risk, by establishing current operating headroom across each resource, understanding the impact of disaster scenarios and allowing the behavior of failover rules to be modeled.

By using Sumerian Capacity Planner on an ongoing basis, organizations can ensure that they don't find themselves in the same position again in the future, with excess capacity spread across a multitude of different datacenters.

▶▶ More information

To find out more about Sumerian Capacity Planner, just give us a call on 0131 226 9300, drop an email to sarah@sumerian.com or visit our website at www.sumerian.com

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