The increased adoption of cloud is driving CIOs to rethink their data center architecture. Optimizing the mix of physical vs. virtual servers, on premise vs. in the cloud, private vs. public cloud has significant impact on cost and agility. This is made more complicated by the fact that this type of decision making now needs to happen on a continuous basis, rather than once every few years. Cloud is also affecting the application architecture, offering options to run existing applications on cloud-based infrastructure as well as building new, native cloud ones. Adding to the challenge is the fact that pressures to reduce cost and risk, and to shift spend from ongoing operations to innovation, have not abated.

Whether the goal is to consolidate multiple data centers, re-platform and re-architect applications to benefit from cloud, move servers to the public cloud, or just reduce the running cost of your data center, a key to success is to have a rich understanding of all of the infrastructure components involved. This understanding of the environment must be comprehensive, current, and should take into account the complex web of interdependencies that exist in today’s data center. Failing to do so may result in decisions being made based on inaccurate, incomplete, or outdated information, thus introducing unnecessary and often unacceptable levels of cost and risk into the project, including disruption of services.

**It Is All About the Data**

Making any large-scale changes to the data center or application architecture requires detailed knowledge of what exists in the data center and how it is interconnected. Many such transformation projects have relied on manual processes and tribal knowledge to create “maps” that reflect the infrastructure topology. Our experience has shown this approach to be insufficient given the size and complexity of today’s data centers. This manual approach is time-consuming and often results in inaccurate or partial data. Furthermore, it puts a burden on expensive expert resources such as IT architects. In some cases, particularly with legacy systems, not even tribal knowledge exists and projects have relied on physical inspection of the data center.

Discovery tools and Configuration Management Systems (CMS) can definitely assist, as long as you have already collected the data and you are confident that it is reliable. Our experience has shown that this is usually not the case. Nor are most customers able to afford the time to deploy them and collect the data, because they are already in the middle of the project by the time they realize they have a gap. The Micro Focus® Smart Data Center Analytics Service aims to address these issues by bringing a data-driven, intelligence-based approach to data center transformation projects—an approach that can be deployed to yield results rapidly.

**Your Data Center as a Social Network**

Micro Focus Professional Services brings a fresh, innovative, patented approach to mapping out your data center. Rather than treat your data center as a collection of infrastructure elements, we look at it as a social network. We consider servers as network members, and network traffic as conversations they are having with their ‘friends.’ The more servers ‘speak’ to each other the more ‘friendly’ they are. So all that is needed is information about who talks to whom and how much they talk to each other. In most organizations, the network team already has the data, as they collect it, using Netflow or sFlow for their own operational needs. If you have data in your CMS, we use it to augment the data set to relate servers to their functions (e.g. app servers, DB servers).

We then use our Big Data platform and patented algorithms for Social Analysis Techniques in data center to convert these massive volumes of network traffic into visual network graphs, dashboards, and reports, which can then be used to support several use cases.

**Define Optimal "Move Groups"**

This is the classical data center transformation use case. Whether you are moving or consolidating your data centers, or moving servers onto a virtual or cloud environment, you need to decompose your data center into manageable “move groups” that are as self-contained as possible if you want to avoid any unexpected adverse effects such as downtime or performance degradation.

**Reduce Data Center TCO by Optimizing Resources Utilization**

According to some estimates, 30% of all servers in data centers are ‘zombie’ servers. These are servers, that consume energy, resources, and licenses, yet do no useful work. Identifying these servers allows you to immediately reduce your costs by either decommissioning...
or repurposing them. You can also achieve significant savings by eliminating or repurposing the software licenses installed on these ‘zombie’ servers.

Enhance CMS Data
You may already have data in the CMDB, which is used for various management functions (e.g., configuration management). You can enhance the usefulness and accuracy of this data by enriching it with the connectivity data you get from the Smart Data Center Analytics service.

Smart Data Center Analytics
This service is delivered 'as-a-service.' In other words, you do not need to acquire any licenses or deploy any hardware or software. It can be delivered either as an outcome or on demand.

Figure 1. Example of a network graph.

On Demand
In this delivery mode, we set up for you a data warehouse instance, to which you have ongoing access. You can supply new data sets on a continuous basis, and ‘slice and dice’ the data through our dashboard with its variety of out-of-the-box graphs and reports. We can also accommodate you with custom reports and visualizations.

The Professional Services Difference
Professional Services provides unmatched capabilities with a comprehensive set of Big Data consulting services. We offer:

- Fast time-to-value: We help you rapidly realize business value by leveraging our deep expertise in Micro Focus’s Big Data solutions and our structured, focused implementation approach
- Proven Big Data solution implementation track record of helping large, complex, global organizations realize value from their Big Data investments
- Rich intellectual property and unparalleled reach into product engineering Micro Focus Professional Services brings together consulting expertise and the industry-leading software to help you perform better.

Micro Focus Professional Services brings together consulting expertise and the industry-leading software to help you perform better.

Learn more at www.microfocus.com/bigdataservices