

## Automate Data Center Provisioning

Rapid change in the data center is the order of the day due to the enterprise's increasing reliance on IT services. Timely provisioning of the many data center resources to meet the corporation's service needs is a major challenge. Because data centers often suffer from inaccurate or incomplete inventory records, provisioning cycles are much longer than necessary, and can result in missteps, re-work, missed deadlines, and service outages.

Using Raritan's dcTrack Data Center Infrastructure Manager you will have an up-to-date view of all data center assets, a controlled change/workflow process and rules based tools to automate and accelerate the provisioning process.

An automated, well-managed provisioning process will lead to faster delivery cycles, increased staff productivity and reduced error-rates. You can meet your deadlines and SLA's, while minimizing the possibility of service outages. And on-time rollouts of reliable IT services will delight your internal and external customers.

## Improve Capacity Management

Your data center is likely the most expensive square footage in your company, with today's large data center builds costing tens of millions of euros. With new builds so expensive, there are enormous incentives to make optimum use of existing capacity. Ad hoc management of capacity results in many issues: space and power shortages, stranded capacity and fragmented resources. On the other hand, over-provisioning can lead to an enormous waste of capital and expenses. Finding the right balance is difficult without the right tools.

The dcTrack Data Center Infrastructure Manager gives you the tools to do intelligent capacity management. dcTrack's powerful floor plan visualization tools and color-coded capacity views highlight the available space, power, networking and cooling resources. But it doesn't stop there – with dcTrack you can also drill down to the most granular level to view individual power and data connections. Plus, dcTrack enables complete power chain management, so that you can properly manage power distribution – even balance 3-phase power loads.

And the benefits are enormous – by carefully managing and utilizing existing capacity, you can defer costly equipment purchases, delay new builds and make full use of your existing resources. By evenly balancing power cooling and space, you can avoid stranded and fragmented resources. You'll make optimal use of your data center assets, minimize capital expenditures and put an end to the constant reorganizations to free up resources.

## Reduce Energy Costs

The trend is clear – energy costs are high, forecasted to go higher. And you have to do something about it! Not that your data center was designed for energy efficiency or that you have the systems in place to monitor and manage energy usage. You know you have old, inefficient servers with low utilization and you can't even measure their energy usage. But you realize that with pending government regulation, corporate mandates and high energy costs, you've have to take control of your data center's energy usage.

With Raritan's dcTrack you can take control of your energy usage and evolve to a "greener" data center. dcTrack's integrated power monitoring, power reporting and detailed power chain modeling can help you quickly understand and reduce your energy usage. Going beyond manufacturer's overly conservative power ratings, dcTrack can calculate de-rated or use actual energy usage to give you an accurate picture of your equipment efficiency. In addition, dcTrack can be used to plan, organize, and manage data center efficiency projects such as virtualization, blade server implementation and cooling optimization.

With comprehensive, accurate data you can set benchmarks (using metrics like PUE) and implement an effective program to reduce energy usage, lower your carbon footprint, and meet your corporate and government mandates.

## Optimize Cooling via CFD Analysis

Cooling is a significant fraction of data center energy usage – up to 40% of total usage. While it is common knowledge that increasing data center temperature by a few degrees will deliver immediate savings, wasteful over-cooling continues to be a common practice. How can you manage the complexities of cooling today's complex data center, reducing energy and still provide for reliable IT services?

Raritan's dcTrack provides many tools to help you analyze and manage the cooling in your data center. dcTrack provides an accurate physical and logical model of your entire data center including rack layout, server locations, power ratings as well as cooling resources such as blanking plates and perforated tiles. dcTrack can also export information to Computational Fluid Dynamics (CFD) analysis tools, such as Innovative Research's TileFlow, a powerful three-dimensional software tool for simulating cooling performance of data centers. In addition, dcTrack can collect and display temperature and humidity readings via SNMP, which can help you to keep manage those troublesome hot-spots.

Simplifying the complex CFD analysis, which is required for to make the right decisions to optimize cooling, will help make significant reductions in energy costs.

## Manage Data Center Builds, Moves and Consolidations

Like it or not, major data center changes – whether new builds, moves or consolidations – are a continuous headache for data center managers. They are further complicated by the data center's multiple, inter-dependent organizations --IT, networking and facilities--needed to plan and construct the modern data center. Coordination of these "silos" is a major obstacle, especially with the multiple (often out-of-date) spreadsheets, databases, CAD drawings and systems that "document" the average data center.

dcTrack's integrated facilities and IT database can help you to plan and organize major data center changes. dcTrack provides detailed, real-world modeling of racks, servers, network, cabling, power cooling and floor space. And with its change and work-order management, you can control, coordinate and manage the many technicians and contractors involved in a major data center project. dcTrack's powerful visualization tools break down the barriers between the data center "silos" to enable a "shared, single version of the truth" that can unite your project team.

With dcTrack, you can accurately and efficiently plan, manage and complete your data center project. With the increase in productivity and quality, you will meet, or even beat, your project deadlines and budgets, to the delight of your internal and external stakeholders.

## Reduce Manual Effort for Compliance and Audits

Most data center managers do not have an up-to-date inventory of the equipment in their data center, not to mention the connections between this equipment. And, if they do, then it is typically spread across multiple spreadsheets, drawings, files and systems. So, how do they respond to the constant requests for compliance, regulatory, financial and energy information, including requests related to Sarbanes-Oxley, FDA regulations, EU Code of Conduct, as well as internal regulatory organizations? The standard approach is time-consuming, periodic physical inventories as well as ad hoc trips to the supposedly "lights-out" data center.

Managers of data centers equipped with dcTrack have up-to-date inventory records of facilities, devices and their interconnection. This data can be used to generate accurate, timely reports which can help you to respond to internal and external requests for information – quickly and without trips to the data center.

The result is timely, accurate compliance and reporting with reduced staff effort. You will save money, increase productivity and be prepared for the next, last-minute request. And possibly even keep the lights out in your lights-out data center.