

5 Key Trends to Optimize your Data Center Infrastructure

The data center landscape continues to change rapidly. Innovations continue to occur at an accelerated pass. Almost every industry in the world is impacted by the continued development of data centers. Vice versa, every industry is looking for new opportunities data centers offer them, which is pushing capabilities forward.

In preparing your data center for the future it is incredibly important to understand the direction the industry is moving into. Delta has a fifty year legacy in developing new solutions and technologies that support our clients and partners in achieving their goals.

In support of our drive to bring the industry forward, Delta has developed this whitepaper. Which shares the five key trends that our experts identify as most impactful within the data center business the most in the near future.

01 **5G will Remove the Bottleneck for Machine to Machine Communication**

Within the data center industry one of the biggest trends is digitalization. The commercial roll out of the 5G network is the key accelerator of this trend. Many people already live in a world where they work with artificial intelligence, virtual- and augmented reality as a part of their everyday life. What has been missing to really enable these technologies to move into the next level of their capabilities is a strong communication highway. 5G is going to remove the bottleneck for machine to machine communications, which will allow a rapid growth in innovative solutions over the years to come.

These innovations will rely on data traffic. The introduction of 5G will increase the growth in demand for data consumption even further. Which is where the data center industry comes into play. In moving forward the industry will need to strategise what the best solutions are to deal with future demand.

02 **The world is becoming more reliant on real time availability of data**

Over the past couple of years we have seen the rise of many innovations that rely on real time availability of data. Self driving cars need to be fed with a continuous flow of data in order to operate reliably.

Within the medical field it has become more common to perform surgeries where a digital transmission has become the eyes and ears of a remote specialist, who instructs local surgeons on the best way to perform the surgery.

These are just two examples of the developments that rely on real time availability of data. In the case of real time data traffic it is crucial for the connection to be stable, reliable and uninterrupted. Data center specialists within our industry need to build in failsafes, such as an uninterrupted power supply, to be able to guarantee a reliable data flow.

03 The rise of cloud edge architecture

With the growing demand for data consumption and real time availability of data we are now experiencing the rise of the next generation cloud-edge solutions. A computing paradigm that will result in a decrease of response times and for bandwidth to be used more efficiently.

Allowing cost savings, a faster time-to-market to ground-breaking data, AI-based services and all other sorts of innovations. Resulting in tremendous economic potential through the right implementation of next generation cloud-edge solutions.

Within the marketplace these installations are popping up most often near telecom sites. The cloud and edge landscape has evolved significantly over the past couple of years. With it come new challenges. Client expectations about security and reliability have heightened.

Delta's Mission Critical Infrastructure Solutions assure a stable and uninterrupted power supply. Whilst managing energy uptime and efficient power consumption. Contributing strongly to the security and reliability of your data center.

04 Modularity & scalability

A tremendous challenge for data center managers for the coming years will be to forecast the industry growth. We know demand will continue to rise, but at what pass and to what extent is something that is very difficult to forecast. This is why, regardless of the size of the data center (eg. enterprise, colocation/multi-tenant data centers, hyperscale data centers or edge data centers) the management team behind it should integrate modularity and scalability into their growth strategy. Data center managers need to plan for growth in terms of network demand, but also with regards to power supply, cooling and real estate.



When researching modular & scalable solutions it is important to focus on:

- optimize the ability to maximize operating efficiency at the lowest cost;
- maintain a high level of flexibility and control for your IT managers;
- the ability to quickly scale up (or down) to meet demand;
- the right tools and software to monitor your data center.

05 Energy efficiency for a better tomorrow

With data traffic increasing in an accelerated pass, data centers are growing both in size and in energy consumption. Following government legislation and public demand, data center operators need to pay special attention to (creating and) achieving sustainability targets.

Aside from that, the high cost of electricity is not a factor that businesses can afford to ignore when considering their overhead. Every company, no matter how large or how small, must monitor its power use in order to avoid consuming too much. Delta UPSs are known for efficiency and for saving energy, and cost that would be wasted by less advanced devices that require too much power.



The growth of a business should never be at risk of limitation or delay due to avoidable technical restrictions of existing power hardware. To help companies prepare for increasing success, Delta engineers flexible, scalable systems that are built to be easy to expand as needed, to accommodate greater demands for power protection.

Want to learn more?! Talk to our industry experts!

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