Clos Architecture Mega Data Centers: Markets Reach $ 388.5 Billion by 2023

LEXINGTON, Massachusetts (February 6, 2017) – WinterGreen Research announces that it has published a new study Mega Data Centers: Market Shares, Strategy, and Forecasts, Worldwide, 2017 to 2023. The 2017 study has 567 pages, 283 tables and figures. Worldwide, Clos architecture datacenters are being put in place to manage the data from IoT. IoT markets are poised to achieve significant growth with the use of smartphone apps and headsets or glasses that are augmented reality platforms to project digital information as images onto a game image or a work situation.

Mega data centers represent a quantum change in computing. They are building size single cloud computing units that function automatically, representing an entirely new dimension for computing. Each building costs about $1 billion and works to manage web traffic and applications as an integrated computing unit.

The value of automated process to business has been clear since the inception of computing. Automated process replaces manual process. Recently, automated process has taken a sudden leap forward. That leap forward has come in the form of a mega data center.

Mega data centers replace enterprise data centers and many cloud hyperscale computing centers that are mired in spending patterns encompassing manual process by implementing automated infrastructure management and automated application integration.

In the enterprise data centers mired in manual process, the vast majority of IT administrative expenditures are for maintenance rather than for addressing the long-term strategic initiatives.

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Business growth depends on technology spending that is intelligent, not on manual labor spending. The manual labor is always slow and error prone, spending on manual process is counterproductive vs automation spending. So many IT processes have been manual, tedious, and error prone that they have held the company back relative to the competition. Mega data centers get rid of that problem. The companies that invested in mega data centers and automated process for the data centers have had astounding growth, while the companies stuck with ordinary data centers mired in manual process, be they enterprise data centers or hyperscale cloud data centers with manual process, are stuck in slow growth mode.

The only way to realign IT cost structures is to automate infrastructure management and orchestration. Mega data centers automate server and connectivity management. For example, Cisco UCS Director automates everything beyond the input mechanisms. Cisco UCS automates switching and storage, along with hypervisor, operating system, and virtual machine provisioning.

As this leap forward happened, many companies were stuck with their enterprise data center that has become a bottleneck. There is so much digital traffic that it cannot get through the traditional enterprise data center. The existing enterprise data centers are built with Cat Ethernet cable that is not fast enough to handle the quantities of data coming through the existing enterprise data center, creating a bottleneck. As these key enterprise data center parts of the economy bottleneck the flow of digital data, there is a serious problem. Companies that want to grow need to embrace cloud computing and data center innovation to correct this major problem.

Conventional wisdom has it that cloud computing is the answer, but this does not tell enough of the story, it is that portion of cloud computing that embraces automated process that can provide significant competitive advantage, not all cloud computing works. That new kid on the computing block is mega data centers.

All manner of devices will have electronics to generate digital information. The connected home will provide security on every door, window, and room that can be accessed from a smart phone. The refrigerators and heaters will send info so they can be turned on and off remotely. In industry, work flow is being automated so robots are active beyond a single process, extended to multi process information management.

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All this takes a lot of analytics, operation on data in place, and always on access to all the data. Clos architecture mega data centers help implement the type of architecture. That a data center needs in order to operate in an effective, efficient manner.

Robots, drones, and automated vehicles all generate tons of data, with the growth rate for IoT reaching 23% by the end of the forecast period. Trillion dollar markets are evolving in multiple segments. IoT is in the early stages of an explosive growth cycle. The Pokemon Go phenomenon raid adoption raised awareness and expectation for the vision of augmented reality AR and digital enhancement of the surroundings. Digital enhancement as IoT is just human explanation of our existing surroundings. Digital economic leveraging of data provides better management of the innate natural world and of the machines we use to perform work.

Clos architecture data centers are needed to manage all the data coming from the implementation of automated process everywhere.

IoT is set to become an indispensable part of people's lives. Digital real time processing using mega data centers is poised to take off as part of the much heralded Mega Data Centers:. Digital images become as much a part of the real world as the things we can touch and feel as they are integrated into everyday life. The reality is augmented by the digital images. Augmented reality is a misnomer to the extent that it implies that reality is somehow has something superimposed on it. Instead the reality exists, and the digital images blend in to enhance the experience of reality, make it more understandable or more interesting. The reality is not changed, it is not made better, it is understood better.

Use-cases for IoT proliferate. Pokemon Go points the way to, illustrates, the huge game market opportunity looming on the ubiquitous smart phones. Adoption of IoT technology in the enterprise is growing. AR headsets and glasses are used in manufacturing, logistics, remote service, retail, medical, and education. One popular AR application is providing 'see-what-I-see' functionality, enabling off-site specialists to provide real-time guidance and expertise to troubleshoot an issue. Others superimpose process steps by step information on dials and switches in workflow situations.

Functional automated vehicles are driving around as Uber cars in San Francisco. This is generating IoT data that is used for navigation and for transaction processing. With 200.8 billion IoT endpoints predicted to be in service by 2023, the time is right to

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leverage the business value of the IoT by building Clos architecture mega data centers that manage the onslaught of digital data in a manner that is cost effective."

According to Susan Eustis, lead author of the study, "Organizations are hampered by siloed enterprise data center systems that inhibit growth and increase costs. Even the components inside the data center are siloed: servers, database servers, storage, networking equipment. Mega data centers function as universal IoT platforms that overcome legacy limitations and simplify device integration, to enable connectivity and data exchange. Industrial end-to-end process automation markets are anticipated to reach $7 trillion by 2027, growing at a rapid pace, providing remarkable growth for companies able to build new data center capacity efficiently.

Pokémon Go grew to a massive 45 million daily active users per day after two months in the market, with the market reaching $250 million for the vendor Niantic by September 2016 after two months starting from zero. This kind of growth demands the scalability and economy of a clos architecture mega data center.

Phenomenal growth is anticipated to come from implementation of step-by-step procedure virtual reality modules that are used to manage systems. Every business executive in the world wants to have an IT structure agile enough to manage phenomenal growth, should that be necessary, the aim is to construct augmented reality modules that address the issues brought by the Mega Data Centers:. IoT takes the data from sensors, superimposes analytics on collected data, turns the data into information, and streams alerts back to users that need to take action.

The Mega Data Centers:: market size is $459.7 million in 2015 to $1.6 billion in 2016. It goes from anticipated to be USD $359.7 billion in 2023. The market, an astoundingly rapid growth for a market that really is not yet well defined. The increasing scope of applications across different industries, manufacturing, medical, retail, game, and automotive, all industries really, is expected to drive demand over the forecast period to these unprecedented levels, reaching into the trillion dollar market arenas soon. IoT technology is in the nascent stage with a huge growth potential, and has attracted large investments contributing to the industry growth.

WinterGreen Research is an independent research organization funded by the sale of market research studies all over the world and by the implementation of ROI models that are used to calculate the total cost of ownership of equipment, services, and software.

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