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Cloud Connect

Local Data Center Can
Serve a Local Cloud

A Training Session Recap on:

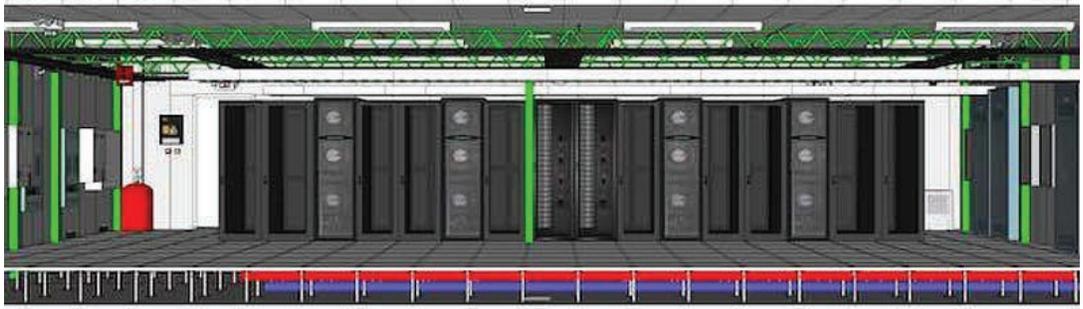
The Latest VxRail Model



Keith Petoske, Future Tech Enterprise Inc.

Local data center can serve a local cloud

Technology Update: Smart data management may include keeping a data center on location as part of a cybersecurity strategy, for manufacturers, aviation, defense, and other applications. An example shows how.



Graphic rendering: A modular, on-demand data center build allows for easy future expansion; adjacent iFortress modules can be added without disruption to the existing center. Courtesy: Schneider Electric and Future Tech Enterprise Inc.



Bob Venero is CEO and founder of Future Tech Enterprise Inc. Courtesy: Future Tech Enterprise Inc.

For data-intensive industries such as manufacturing, aviation, defense, energy, and healthcare, debate continues about application of cloud computing; smart data management may include an on-site component to augment or replace massive off-site data center storage. No approach works for all situations but taking the cloud from the sky and adding local storage can be an option.

“For hospitals, manufacturers, and many other industries, there’s a big struggle right now as to the right mix between the cloud and internal management of data,” said Bob Venero, CEO and founder of Future Tech Enterprise Inc. “It’s about ensuring the avail-

ability of data. If the connection to the cloud goes down, they still need to be able to work. The other challenge is figuring out which data sets are classified in which area. It’s all a delicate balance across many industries.”

Smart hybrid data management

Combining on-premise and cloud solutions on different hardware platforms can be a favorable combination for many applications.

Organizations should analyze potential risks and benefits of cloud use; there’s often a good case for non-sensitive data to be stored in cloud with the goal of reducing IT costs and driving efficiency.

The convenience-related benefits of cloud



options can be incorporated into on-premise locations.

An internal cloud network was constructed in collaboration with a major security company to “provide services and record operations. Everything syncs back to a main data center with information never crossing into the public cloud,” Venero said.

Other possibilities include investing in advanced hardware options with superior computing power, for data intensive industries such as healthcare. Incorporating hardware-agnostic software is another option that helps reduce costs and provides flexibility.

The right data center

A hybrid approach requires a physical data center on premises. A modular, flexible data center design can be adaptable, airtight, hermetically sealed, energy efficient, and easy to construct. A tongue-and-groove panelized system can be constructed with a ratchet. Modular panels make it easy to expand the data center with little construction impact and no data center disruption.

For data center capacity, companies look at today’s needs and a 5-year plan, and most want to go out 10 years, Venero said. A modular design avoids having to heat or cool a 10,000-sq-ft data center that won’t be needed until later. In addition, if a company moves, the data center can be palletized and moved with the business.

Utility data center example

A major Northeastern utility used an onsite data center, which was installed in time to help with reliability during eastern seaboard storms that produced sustained 70-mile-per-hour winds and 15-ft coastal tides over hundreds of miles, causing widespread power outages and regional flooding. Data availability helps first responders deal with such storms so residents can stay informed. However, the data centers face the same conditions as customers. Online servers are critical to rescue efforts.



Only a ratchet wrench is needed for an iFortress data center build, said Bob Venero, CEO and founder of Future Tech Enterprise Inc. Courtesy: Future Tech Enterprise Inc.

Superstorm Sandy vs. data center

A parking lot served as a location for a modular data center, brought online a few weeks prior to Superstorm Sandy in 2012. The hundred-year storm didn’t penetrate the utility data center despite torrential rains and 3 ft of water around the new data center. Utility servers remained online without disruption.

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To learn more about Future Tech Enterprise, Inc. and the iFortress visit www.ftei.com (631-472-5500).

A Training Session Recap on the Latest VxRail Model

Recently, Future Tech hosted a training session on the newest Dell EMC line of storage with native VMware Hyper Converged Infrastructure (HCI). Attendees included senior IT leaders from some of Long Island's largest companies and expert instructors from Dell EMC and VMware. The major points of the session are as follows.



Dell EMC and VMware continue to excel at integrating hardware and software

New VxRail offers 50% faster all flash performance and 35% reduction in latency, compared to previous generations

Hyper Converged is here to stay and VMware is leading the way

A Simpler Solution

From the start, we saw how well VMware and Dell EMC have integrated hardware and software. This enables them to offer a Software Defined Data Center (SDDC) in what feels like an appliance. Using vCenter, you can control the storage, networking, and compute. Even more impressive, the same vCenter can also control VMware on AWS. For anyone who has deployed VMware on AWS, you'll notice that the interfaces are similar.



New VxRail Much Faster than Predecessor

New VxRail has a 50% faster all flash performance and 35% latency reduction over the previous Gen 13th model. An in-kernel vSAN, allows you to control all aspects of storage and network maintenance in the VMware software.

You can bypass the latency you would have with separated HCI. Other manufacturers "offer" solutions with their software in between, but this is as close to a complete simple solution that we have seen.

A More Convenient, Streamlined Option

Working with the software tools, it became apparent that a VMware administrator can allocate storage and configure the network right through the VMware interface. In fact, you couldn't allocate resources without having storage and network resources available (nice warning windows popped up).

The new line of VxRail and VxRack from Dell EMC even ships preloaded with all VMware software ready to be configured out of the box. Support, upgrades and maintenance are all combined.

Final Thoughts

This is truly a Hyper Converged / SDDC solution. Using NSX, vSAN, vSphere, vCenter and now VxRail Manager (that is just a shortlist of the included VMware software) you can do just about everything on VMware as you can on AWS.

Most importantly since we are all HCI and SDDC with VMware you can move workloads between your on-prem to the AWS VMware instances as if they were just another VMware Data Center. I am excited to see what VMware is

doing and anticipate additional functionalities, such as HA, to come shortly.

Everything else you know about VMware instances is technically possible. In June, VMware and AWS announced support for Horizon View and VDI on AWS.

Hyper Converged is here to stay. And VMware is firmly seated at the head of the class.

To learn more about Future Tech Enterprise, Inc. visit www.ftei.com (631-472-5500).