



Depending on Data

Businesses are increasingly reliant on instant access to data, but managing the flow can be a challenge without the right equipment.

By Richard Slawsky | Contributing writer, Digital Signage Today

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More and more, business decisions are made on real-time data, and the amount of data businesses have at their disposal continues to escalate.

In fact, the growth has been so tremendous it's spawned its own catchphrase: big data. Dictionaries define big data as "extremely large data sets that may be analyzed computationally to reveal patterns, trends, and associations, especially relating to human behavior and interactions." In fact, a new term "huge data" is beginning to emerge to describe the next phase of growth.

But that growth has created a number of challenges for organizations seeking to make sense of the ever-rising flood of information. While much of the focus has been on software tools to analyze and interpret that data, an often-overlooked component is the hardware required to manage the flow.

Information drives profits

The importance of data to the business world can't be understated. Data allows companies to better understand existing and potential customers, enabling them to better understand their needs and desires.

In fact, it's nearly impossible to think of a successful business that doesn't depend on a computer network for its operations.

A recent report by [BACR Research](#) estimated businesses that make use of big data see their profits increase by 8%, and their overall costs fall by 10%. Another report, by software company [Domo Inc.](#), says more 2.5 quintillion bytes of data are created every single day, and by 2020 more than 1.7MB of data will be created every second for every person on earth. Other experts [indicate](#) that 90% of the world's data was created in the past two years.

In addition to data provided by tools such as point-of-sale systems and customer databases, more and more businesses are making decisions based on information derived from Internet-of-Things devices such as facial recognition cameras that gather demographic information, beacons that track customer movement and even sensors that track the weather.

And as those devices become a greater part of the business world, security is a major concern as well. A data breach can result in the theft of proprietary information and the disruption of internal processes. Along with that, allowing credit card data or other customer information to get out in the wild can not only result in negative publicity and the loss of customers, it can also lead to fines from regulatory agencies and even the revocation of a business' ability to accept credit card payments.

A 2018 study conducted by IBM Security and Ponemon Institute, for example, found that the global average cost of a data breach was \$3.86 million, up 6.4% from the previous year. The average cost, globally, for each lost or stolen record containing sensitive and confidential information averaged \$148 per record, up 4.8% from 2017. The also study found that breaches are getting bigger as well, with the average size of breaches growing at a 2.2% rate every year.

With the degree to which business depend on data, it's critical that the flow of information remain secure, smooth and uninterrupted. To accomplish the task, many operations depend on network appliances.

IT solutions provider Datto defines a network appliance as "a machine that centralizes hardware, software, or services for a group (or network). While there are varied types and applications, at its core, the network appliance is a cost-effective solution for network management."

And although specific numbers are difficult to come by, a number of research reports issued in the past few years predict tremendous growth for the network appliance market.

The right tool for the task

In light of the increasing volume and importance of data, a number of companies are developing new network appliances that help simplify the task of managing data traffic.

IBASE Technology, for example, recently debuted its FWA9500 network computing appliance. Founded in 2000, IBASE specializes in the design and manufacturing of robust industrial PC products, delivering high quality products and excellent service.



The FWA9500 is designed to be an ideal workhorse for enterprise workloads to manage vast quantities of data, enabling robust levels of performance and reliability in enterprise-class network security, firewall, VPN, UTM, WAN and network management applications.

The highly flexible FWA9500 supports Intel® Skylake-SP Xeon® processors to handle ever-changing network environments. The 2U rackmount system features dual LGA3647 CPU sockets and the Intel C624 chipset that supports up to 512GB RDIMM memory in 16x DDR4-2666 sockets.

In developing the FWA9500, IBASE used a modular approach to provide options for expandability and scalable functionality. This allows rapid customization and easy configuration by interchanging and combining modules to meet customers' optimal requirements, reducing the total cost of ownership.

With two Intel I210-AT Gigabit Ethernet controllers on board and configurable NIC module slots, the FWA9500 can be equipped with 8x IBN (IBASE proprietary network interface) cards to accommodate a maximum of 66 GbE ports.



The FWA9500 comes with I/O connectivity and expansion slots, including a PCIe x8 slot, an M.2 (M-key), a Mini PCIe, two USB 2.0 and an RJ45 serial console with LCM display for easy operation. LAN bypass and the IBASE IDN100 IPMI 2.0 module are optional features.

Inner storage expansion with two 3.5" or four 2.5" swappable drive bays and an 800W redundant power supply also ensure high availability and serviceability.

Reliability is critical

In light of the degree to which businesses rely on data these days, any interruption in the information flow can bring a business to its knees. As a result, the choice of equipment to manage network traffic can be an integral part of a business' success.

New network equipment appears on the market nearly every day, and there are dozens of options from which to choose. When making that choice, it's important to consider the track record of the company behind that equipment.



The FWA9500 network appliance from IBASE

- Performance 2U Network Appliance with Dual Intel® Xeon® Scalable Processors & up to 66 GbE Ports
- Dual Intel® Xeon® Scalable Processors (Skylake-SP)
- 16x DDR4 RDIMM, Max. 512GB
- Max. 8x NIC modules; Max. 64 GbE ports
- Optional IPMI 2.0 module
- 1x PCI-E x8 expansion slot
- 800-watt redundant power supply

Source: IBASE

About the sponsor:

Focused on the design and manufacturing of industrial PC products, IBASE Technology Inc. was created by engineers with experience in industrial PCs. The company produces single-board computers, industrial motherboards, CPU modules, embedded systems and network appliances for different applications in the gaming, entertainment, automation, medical, military, networking and security markets.

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