



AMSYS Web Hosting Services

The AMSYS Web Data Center:

Industrial-Grade Equipment for the Ultimate Performance and Reliability.

We recognize that down time is not an option for your web-server. That is why we invest heavily in hardware and facilities that ensure your website is up and running on the web 24 hours a day, seven days a week.

AMSYS' Network Operations Center (NOC) features raised flooring. This enables a constant flow of conditioned air and helps to maintain uniform room temperature at all times. In addition, raised flooring reduces static and ensures a professional, computer grade environment for your server.

The facility is equipped with a Raytheon fire suppression system designed to immediately extinguish fire and protect equipment and personnel. The command center is controlled via automatic doors to further secure and protect the equipment.

Finally, the NOC is located in a secure, monitored, class A building with a minimum number of approved personnel allowed access to highly sensitive areas and equipment. A detailed record of employee and visitor entry is maintained at all times.

Uninterruptible Power System

To guard against local power failures, there are two industrial-grade, three phase Liebert UPS systems. These act as back-up batteries, maintaining uninterrupted power in case of surges or power outages. With these backup systems in place, we can keep our network up and running indefinitely without relying on external power.

Industrial-Grade Air Conditioners

AMSYS' NOC has two Liebert ten ton industrial air conditioners, which condition our computer rooms and operations center. Our computer room is kept at an optimal temperature of 65 degrees Fahrenheit.

Custom Web Servers

Our web servers are custom-built industrial machines designed for a 24/7 web serving environment. All servers are equipped with dual redundant 450-watt power supplies, hot swap high performance disk drives and force-filtered cooling systems. In addition, our NOC is equipped with an inventory of identically configured, burned-in standby servers.

Force Filtered Cooling

The web servers are equipped with a positive pressure filtered-air system. Four large fans pull filtered air into each server's protective case and the components within are cooled by fans which circulate this purified air. This constant introduction of clean air into the case creates a positive pressure environment ensuring dust and particles remain outside of the server.

Hot Swap Storage Drives

The drives and drive bays of all AMSYS servers are constructed from high-grade aluminum, and rest in shock mounted drive cages, which adds to the durability of the hardware. Our drives proudly feature the lowest failure rate in the industry.

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Redundant Hot Swap Power Supplies

Each server employs dual-redundant hot swap power supplies. If a power supply were to fail, the server would continue running with power from the alternate supply. Meanwhile, alarms would alert a technician, who would quickly restore redundancy. In the meantime, servers and client sites would experience no downtime.

Standby Servers

We keep spare servers on-line of all CPU configurations. If a server were to experience a hardware failure, we would turn a key, grab the handle on the drive, pull it out, and insert it into an identical standby CPU. We would then reboot the second machine and the server would be up and running again in a matter of minutes.

Connected to Three Backbones

The AMSYS NOC located in Baltimore, Maryland is OnNet with GlobalCenter (GC), Qwest Communications and GTE through three separate bandwidth-on-demand connections which actually enter Baltimore in our building.

GC, a Tier 1 provider whose 13,000-mile fiber optic network and Dense Wave Division Multiplexing (DWDM) technology provides an enormous 460 gigabytes per second (Gbps) of capacity worldwide, has an Asynchronous Transfer Mode (ATM) fiber node located just a few floors below the AMSYS NOC.

Qwest comes into Baltimore with an OC-12 line and plans to upgrade their connection to an OC-48 in the near future. They also have an ATM fiber node floors below the NOC. Our Qwest connection enables us to offer additional redundancy and better routes to Europe, Latin America and Asia. With our carriers, our router has up to 150,000 possible routes to send each packet of traffic.

Genuity, a division of GTE, is our third Tier One Internet backbone. Genuity provides excellent network performance as a result of their high-speed peering arrangements with other Tier One Internet backbone providers. The GTE global network delivers customers directly onto the Internet via a high-speed connection to its private, super-capacity backbone, including 17,000 miles of fiber and OC192 capacity. It is comprised of more than 800 U.S. local access points and approximately 1,500 international local access points in more than 150 countries.

Furthermore, because of these unique connections, we do not need to link to the Internet though an OC3 or T3 Telecom circuit. Instead, independent cables run inside our building directly from the AMSYS NOC to all three carriers points of presence. These lines can handle the bandwidth of a T3 or an OC3 with DWDM. Plus, they handle several times the bandwidth of an OC3. Whatever your bandwidth needs may be, AMSYS has the scalability to meet them.

Network Redundancy

Our site uses intelligent end-user routing software called Border Gateway Protocol (BGP), between Qwest, GC and GTE, who use the same protocol. BGP identifies which path is the most efficient for each data packet and then routes the packet to its destination on the fastest path. This increases the speed at which web pages sent from our NOC arrive at their destination.

Studies have shown that the most common reason for downtime is circuit failure on Tier 1 provider backbones, the major data highways. To guard against this potential problem, we have three Tier 1 providers. If one experiences problems, we can route traffic down the other one. Furthermore, because we are OnNet with GlobalCenter, Qwest and GTE, we share their digital

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distribution architecture, which includes private peering network connections to major Internet carriers such as MCI, Sprint, UUNET, EUNET, AT&T, AOL, Best, Erols, @Horne, IBM Advantis and others. These private peering arrangements allow AMSYS to exchange packets of data with every major backbone carrier in a one-to-one environment quickly and efficiently.

In addition, GC has high-speed links to eight public exchanges including both MAE East and West and several NAPS. Through these public exchanges, customers have the ability to reach their site, no matter from where they are coming on the Internet.

Network Reliability

Industry analysis reveals that 70% of downtime over ten hours with any ISP is caused by telephone circuit failure. Since our NOC is in the same building as Global Center, Qwest and GTE, circuit failure is virtually eliminated because there is no phone circuit between us and our providers. Instead, there is a direct connection between our Cisco 7500 routers and theirs.

AMSYS' providers also have peering connections with other major Tier 1 providers, which allows traffic to be switched to alternate backbones should the need arise.

Raw Performance Equals Low Latency/High Throughput

Too often providers operate their networks at three to four times responsible capacity. As a result, their corresponding transfer times reach over 300ms. The network daily average is 27% of its capacity, with midday peak spikes reaching only 33% capacity. Clients will be carried off our network in less than 80ms over a five minute average at any time of day or night.

Speed, Reliability & Security

AMSYS has chosen the best possible combination of hardware, connectivity, location and systems that is available anywhere in the world today. We have done this to insure that your website resides on servers that guarantee the fastest, most reliable and most secure environment allowed by current technology... and we keep upgrading this environment as technology evolves.

Our Challenge....

Ask your current website host to give you the details of their environment..... **then schedule a move to AMSYS web hosting immediately.... so that you can sleep soundly tonight.**