

Fault Tolerance

Ensuring Highly Reliable For Your TV Station

Reliability is the single most important criterion to consider when evaluating a play-out system.

With a long history in designing the software, our company puts best-of-breed reliability into every aspect of Etere: the software for to manage all aspects of a TV station. From the start, Etere has been designed to stay up and running even under adverse conditions, and requires zero maintenance to achieve that level of reliability. All Etere software are redundancy and Fault Tolerance.

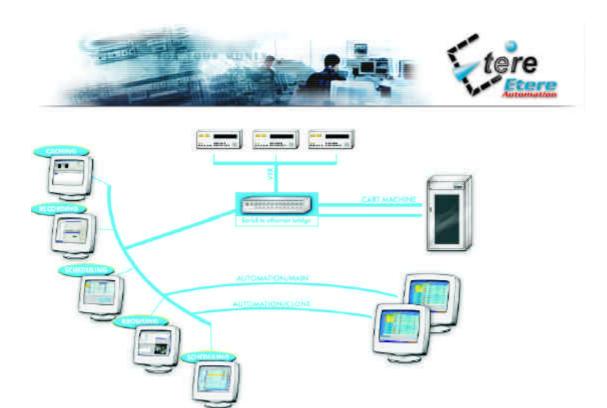
Fault-Tolerant Architecture Based on Best-of-Breed Functions

Etere's system is optimized to provide complete reliability for the infrastructure of a

business, integrating industry-standard software and hardware. The integrated system's fault tolerance is based on its functions:

- 1. Etere runs on Microsoft **Windows 2000/XP** Server software, designed for 99.999 percent uptime.
- 2. Etere systems are deployed using industry-standard Hardware.
- 3. Because of its open architecture, Etere system runs on a choice of industry-standard servers, built with components that maximize reliability.
- 4. Etere system can operate independently from the data networking LAN.
- 5. The server software optimizes the reliability of the integrated solution through its self-monitoring software capabilities.





By eliminating single points of failure in both hardware and software, the Etere system architecture delivers industry-leading reliability for businesses that rely on critical connections with customers.

Windows 2000 & Windows NT

Etere system runs on Microsoft Windows 2000/NT server software in a locked-down, totally controlled environment. The Windows 2000/NT Server Family is the most reliable set of server operating systems Microsoft has ever produced. The software is designed for 99.999 percent uptime (sometimes referred to as "five nines"), which translates to downtime of less than five minutes per year.

The developers who built the Windows 2000/NT server family targeted 24x7x365 uptime. Field experience, as well as independent testing, proves that the servers are achieving that level of reliability. Market researchers at the Aberdeen Group found that Windows 2000/NT Servers delivered 99.95 percent uptime right out of the box, before the servers were fully optimized or the

IT staff had become accustomed to the new operating system.

In its report on Windows 2000 servers, consulting firm DH Brown Associates says, ."Windows 2000 clearly takes a major step up in the enterprise food chain and now resides legitimately on the same field as UNIX competitors. This will give broad classes of users the confidence to deploy higher-end applications on [the Microsoft] platform". Windows 2000/NT has been engineered to prevent both planned and unplanned outages. The developers conducted tests with many software





applications, including anti-virus software and multiple software and hardware drivers. To keep systems up and running, Windows 2000/NT greatly reduces the number of maintenance tasks such as installing hardware and software, which require rebooting the computer. Other reliability tools include a resource-partitioning feature that prevents application failures from forcing reboots, and an improved Task Manager that lets administrators kill entire process trees to completely shut down a "misbehaving" application. Lastly, to reduce the amount of time systems are offline, when a system fails or is taken down for maintenance, new boot options let administrators quickly restart the system. For Microsoft, much of the work to improve Windows reliability and availability went into improving the operating system software, both to reduce causes of failures and eliminate the need to take the system down for maintenance tasks. For further information on the reliability of the Windows 2000/NT Server Family, visit www.microsoft.com

Hardware Suggested

To ensure high reliability, Etere systems are deployed using industrystandard hardware, for example: Moxa, Intel Server Adapter, With an Etere system built on affordable hardware, customers can feel confident, knowing that their industrial-strength hardware components will last a lot of years, even with heavy usage.

Standard PC Servers

Because of its open architecture, Etere can be installed on any industry-standard server. ETERE is expanding its co-operations with the major video-servers manufacturers. With those components, servers are configured to stay running in the event of power interruptions or surges, environmental temperature changes, drive failures, or other hardware or software problems. The inherent reliability of the server, combined with the operating system and applications software, means that the system stays running even when other information technology at the company experiences an unexpected problem.

LAN Integration

Etere system ensures that the business important connections stay open, even if the network goes down. TV stations stay connected because Etere system can operate independently from the company's data network. Even if the company failures with the e-mail system, network congestion due to large file downloads or desktop PC problems, Etere system stays up and continue to run.





Etere Software

Etere system software provides redundancy in all critical system operations. The system is built on the Microsoft Data Engine, the heart of Microsoft SQL Server, an extremely robust database utilized by missioncritical applications worldwide. The system monitors the server process, and in case of failure, automatically restarts the server without intervention. In the rare event that a particular trunk or station fails, Etere system is designed so that the problem does not affect the rest of the system and is quickly rectified. Etere is able to monitors its own status and e-mails administrators for any key system events. In the unlikely event that a specific trunk or station has a problem, Etere restarts the software "thread" that is managing that trunk or station without affecting any other trunk, station, or user. Therefore a disconnect at a particular station need not cause problems with the rest of the system, and the problem can be corrected for a particular user without affecting the rest of the company's users. Etere system is designed for zero maintenance, and personnel are not required to monitor the system or perform routine maintenance.

Etere System Reliability

Your system creates and maintains your most vital business, and it is instrumental to employees productivity, customer satisfaction, and business expansion. With a reliable system, you can be confident that you will not experience business interruptions that are costly to your business. Etere has been designed to provide mission-critical reliability, using standard hardware and software components from industry leaders such as Microsoft and Intel, Moxa, etc., as well as server and client software engineered for redundancy and fault tolerance.

About Etere

Born in 1980, Etere is a symbol of leadership, technology and dynamism, both in Italy and all over the world. ETERE provides the most powerful, flexible and highly reliable software solution. The Etere solution is a complete, easy-to-use solution that is ready to meet your entire automation, recording, archiving, scheduling, traffic and media asset management needs. Customer is the focus of all ETERE's new marketing, research and development choices. And the challenge goes further on: ETERE intends to anticipate market requirements, fostering new research and development of its software. Future is, for ETERE, uninterrupted effort to anticipate the times and to make real those solutions which, for others, are still future.

For major information regarding ETERE solutions, visit our web site: www.etere.com

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