

High-Availability Solutions for Discrete Manufacturing

Can your company risk an interruption to its operations?

The Big Picture

- Meets your business requirements for recovering data and applications at a specified point and time—whether the interruption is due to system maintenance, natural disasters, or site failures
- Continuously monitors system and site operations to ensure 24-hour visibility into computer operations and stress points that cause outages
- Notifies designated personnel of any failure or indication of impending failure
- Automates recovery of key applications such as Exchange, SQL, and Oracle, locally or remotely
- Enables replication of production data to a local or remote disaster recovery site to provide the highest level of data protection and recovery

Across various sectors of the discrete manufacturing industry, companies place tremendous importance on keeping their software applications up and running. Manufacturers juggle a host of tools and processes to ensure that the production floor operates uninterrupted, and that other departments such as sales, engineering, and shipping and receiving can operate efficiently. These companies in sectors such as automotive, aerospace and defense, and semiconductor manufacturing rely on technology to manage efficiency down to the penny—constantly adjusting processes based on changing dynamics of the day's operations.

High-tech systems have enabled factories to significantly increase productivity and streamline manufacturing efficiencies, but if they go down these systems can bring the production floor to a screeching halt. And that can exact a heavy cost to the business. For example, if a manufacturing execution system (MES) goes down, the impact could impede the ability to track materials and inventory levels, prevent the company from maintaining records, or even lead to a complete halt in production.

And because manufacturers are increasingly integrated with their suppliers and distributors, application downtime anywhere along the line can impact several companies within the supply chain. Of course, when production problems affect organizations outside your own, the financial implications escalate. Availability of applications and data now implies more than your own ability to operate; it's suddenly an advantage to keep you ahead of competitors trying to attack your company's reliability.

How EMC can help

EMC[®] software enables manufacturing companies to achieve ongoing operation of enterprise applications, reducing planned or unplanned outages while maintaining data integrity. EMC software solutions monitor applications, data, and services and provide reliable restart and failover mechanisms. Our solutions are suited for use across functional areas, from manufacturing and purchasing to shipping and receiving.

EMC offers a full range of software products and services for high availability, data replication, and data backup in a manufacturing environment.

Factors for assessing high-availability needs

At EMC we can help you determine the most cost-effective means of achieving high availability based on recovery point and time objectives by considering the following factors:

- Which applications are critical to your business should your manufacturing environment experience an outage?
- Based on application criticality, where is the recovery location? Locally within the same data center? Remotely across the country? Or a combination of both?
- What are your recovery-point objectives? Can your manufacturing business recover with limited data loss, or must you always recover with no data loss?
- What are your recovery-time objectives? How quickly should manufacturing operations be available after an outage?

High availability: EMC AutoStart™ monitors and automates the restart process of your application and data services on an alternate local or remote server for UNIX, Linux, and Windows environments. AutoStart also automates the failback of your services, applications, and data—managing both failover directions and ensuring consistent and error-free business continuity. As a critical component of EMC’s replication and business continuity strategy, AutoStart leverages EMC’s best-of-breed replication technology, enabling customers to eliminate lengthy or unexpected outages and downtime.

Data replication: Remote replication comes in all shapes and sizes, from simple server-based replication such as EMC RepliStor® for Windows environments to powerful array-based replication solutions such as EMC SRDF®. The decision of when and where to use each is best made through a careful examination of your application service-level requirements: functionality, performance, availability, and economics. In many cases, you won’t have a single requirement across all applications, but will instead need to deploy multiple solutions that work side by side and allow you to transition between them.

Data backup: EMC NetWorker™ provides another critical element for data availability. NetWorker provides high-performance backup and recovery for disk and tape, with support for major operating systems, applications, and hardware platforms. Backups play a critical role in ensuring continuity of operations along with other means of data protection, such as replication. NetWorker ensures your data is properly backed up and can be rapidly restored.

Professional services and support: EMC offers world-class professional services and support to assist your business with a high-availability solution.

Take the Next Step

To learn more about EMC high availability for discrete manufacturing, visit <http://software.EMC.com> where you can find the following information:

- Product data sheets for EMC AutoStart, EMC SRDF, EMC RepliStor, and EMC NetWorker
- A 20-minute recorded discussion that describes how to achieve high availability for your manufacturing environment

You can also call us at **800.607.9546** (outside the U.S.: +1.925.600.5802).



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