# STRATUS everRun® SOFTWARE

## Affordable, easy-to-manage software to support your always-on applications

If you were asked to come up with a list of applications that absolutely had to be continuously available, odds are that you would not struggle to build the list. Most likely, your list has grown over the last few years—and it continues to grow. At Stratus, we've seen the need for always-on applications become more pervasive across all markets, and all industries globally. But what's driving this demand? The obvious reasons are financial losses and long-term damage to an organization's reputation when businesses go down.

In today's competitive climate, organizations must operate and deliver top-notch services 24/7/365, externally and internally. If your service goes down in manufacturing, your lines cannot function and productivity and revenue take a hit; in building security and automation environments, the premises and individuals that need to be protected are at risk from internal and external threats; in healthcare and public safety, lives are at risk. And there are other considerations driving the need for continuously available applications, including the constant struggle organizations face to comply with regulations, mitigate disaster and plan for business continuity. All these factors contribute to an increasing demand for reliable, continuous availability of your most critical applications, with no tolerance for intermittent service disruptions and associated lost revenue.

> "The everRun solution for P2000, offers us the extreme level of availability we need for our critical access control system at the airport."
>
> **Rob Benstein**
> Public Safety and Operations Director
> Gerald R. Ford International Airport

## Key Benefits

- Proactive risk avoidance with constant replication to prevent downtime
- Protection against localized power failures, building-wide problems or physical machines failures
- Quickly satisfy business requirements and optimize resource utilization
- Realize continuous application availability without configuration complexity
- Achieve low TCO through industry-standard infrastructure and flexible storage options
- Eliminate downtime with the added benefits of virtualization

## What Exactly is "Availability"?

The term "availability" is a characterization of how reliably a computing system can function and perform the tasks it was designed to run. It is measured as a percentage of time within a given time span (for instance, a year) that your applications are operational and accessible to users. But not all availability is created equally. Different solutions provide different levels of availability:

1. **Backups and restores**: Basic backup, data-replication, and failover solutions and procedures are in place to recover services in the event of a failure or disaster. These solutions do not prevent downtime but focus on recoverability which translates into 99% to 99.9% availability.

2. **High availability**: Typically implemented through clustering, these solution applications are accessible a very high percentage of the time. Users perceive little or no perceived interruption if there is a failure and high availability translates into 99.95% to 99.99% availability.

3. **Continuous availability**: Even if there were to be a failure, application operations are not interrupted. Downtime is eliminated and data is not lost in the event of a failure or localized disaster. These solutions focus on preventing downtime which translates into 99.999% availability.

| Availability Solution | Backup and Restores | | High Availability | | Continuous Availability |
|---|---|---|---|---|---|
| Availability Level | 99% | 99.9% | 99.95% | 99.99% | 99.999% |
| Downtime Per Year | <4 days | 8+ hours | 4 hours | <1 hour | 5 min |
| Total Cost of Downtime Per Year | $22.8M | $2.27M | $1.138M | $228K | $22.7K |

At first glance, there may not appear to be a huge difference among these percentages of 9s. However, when considering that Aberdeen Research recently found that downtime now costs an organization an average of $260,000 per hour, the cost differences become readily apparent.

Note the large difference in the cost of downtime between 99.99% and 99.999%. Just a 0.009% difference in downtime means a 10X cost difference. The value of greater availability is evident.

## Achieve Continuous Application Availability with everRun

Stratus everRun simplifies the process of making applications available—not just some of the time, but all of the time. everRun's software based solution links two servers together via a virtualization platform that pairs protected virtual machines together to create a single operating environment. The entire application environment, including data in memory, is replicated by everRun, ensuring applications continue to run without interruption or data loss. If one physical machine should fail, the application continues to run on the other physical machine without any interruptions or data loss. If a hardware component fails, everRun substitutes the healthy component from the second system until the failed component is repaired or replaced.

With everRun® Monitor powered by Sightline Assure® you can extend your availability protection with a single, unified view of the complete everRun stack—from the hardware upon which everRun resides, to the operating systems and software applications running on top of everRun. In addition, it can provide visibility into the status and health of many external devices, such as network components, workstations and edge devices (cameras, controllers, NVRs, etc.), all of which are critical parts of your total solution needed to keep your operating environment running at all times.

## Safeguard Applications From Major Downtime Due to Catastrophic Events

Availability protection isn't limited to threats against the server and storage systems or operating systems. Unplanned downtime can result from localized power failures or building-wide problems. With everRun SplitSite, you can easily protect against downtime from the complete loss of a site or a facility.

everRun SplitSite's synchronous data replication across multiple sites ensures if disaster strikes in one location, applications and data are immediately available, up-to-date, and fully operational at another location, without the need for IT staff at the second location. And when the failed site is returned to service, everRun SplitSite automatically resynchronizes all disk drives and virtual machine memory.

## Optimize Application Environments to Achieve Maximum Availability

With everRun, you are able to realize the value of continuously available applications without the configuration complexity that comes with traditional solutions. There is no need to design your applications to be HA aware, or to manage the connectivity between servers or configuring shared storage where data resides.

Utilizing KVM open-source virtualization technology, everRun enables you to consolidate physical servers and reduce your operating costs while protecting your applications from down-time. everRun also supports a wide variety of commodity, Intel-based x86 server hardware, and allows you to leverage existing IT competencies within your organization.

## Stratus Service—We're Here for You

Stratus provides industry-leading service and support 24/7/365 worldwide. Our expert service professionals, backed by our advanced technology, monitor, diagnose, and troubleshoot problems from Stratus Customer Assistance Centers (CACs) throughout the world. Should an issue arise, you'll be notified immediately via email, text or SNMP alert.

Stratus's Professional Services team is here to help you in many ways. Stratus delivers a wide range of technology-enabled services that include comprehensive development and support for end-to-end, multi-vendor environments. Our capabilities allow you to supplement your IT resources with customized solutions that address your unique business requirements. Call on us for focused, modular services delivered by experts devoted to planning and implementing systems that protect the availability of your business operations. Our trusted availability advisors work with your staff to perform technology assessments, make recommendations and implement solutions. Most importantly, we help you define and manage an availability strategy and business continuity plan that exceeds business line requirements and industry compliance standards.

## Conclusion

For solutions that must not fail—at the edge of the network, in any industry, in any size organization—everRun is the continuous availability solution you can rely on to meet your ever increasing demands in this always-on world. Trust Stratus, the proven leader in application availability for over 35 years.

"By making our control system continuously available, we can deploy our operations staff to the locations where they are needed around the city. The cost savings resulting from this efficient use of staff resources paid for the Stratus software in a short time frame."

**John Joyner**
Senior Manager
City of Santa Rosa