

# CONTINUITY ENGINE BATTLECARD

## SALES FAQ FOR NEVERFAIL PARTNERS

### Key Resources

- Web page: <https://neverfail.com/product/continuity-engine/>
- Datasheets, case studies, and white papers: <https://neverfail.com/resources/>
- Installation Guide, including technical requirements: <https://extranet.neverfailgroup.com/login.asp> (Must have login to the Neverfail Extranet)
- Glossary of terms: <http://www.drj.com/resources/tools/glossary-2.html>
- Plug-in Discovery Document (Request from Neverfail sales team)
- OEM Branding Information Document (Request from Neverfail sales team)

### Product Description

Continuity Engine (CE) software is designed to ensure continuous availability of mission critical IT systems. The technology allows for the restoration of failed systems within a very short period of time – seconds to minutes. It delivers near instantaneous failover with near-zero recovery times. CE proactively monitors the health of your applications, ensuring they are always in a healthy state and in a healthy site. That site can be at the primary site, a secondary site or even a tertiary site. Simply put, we can help our customers prepare for and protect their applications from disaster without missing a beat.

Unlike our competitors' offerings, CE is application aware. This means it can detect anomalies at the application level, whether they be caused by the application itself, hardware, or network connectivity, and then react very quickly. The system is hardware agnostic and can restore the application configuration on a local server or on a remote server, which can be in the Cloud or a customer-owned or third party facility.

CE can take actions to prevent downtime as well, including restarting of services.

It is tightly integrated with VMware, which enables several key functions, including the ability to initiate vMotion migrations of production servers to other hosts, use the vCenter inventory of Virtual Machines (VMs) so they can be deployed with Continuity Engine protection, and physical to virtual deployments using VCenter Converter. CE is integrated with SRM which enables users to tie CE deployments to an SRM recovery plan or playbook.

### Business Issues Addressed with Solution

Disasters can happen at any time. Power outages, floods, earthquakes, terrorism and even human error and maintenance windows can interrupt the delivery of critical services quickly. Most business applications are so critical that they can't take any downtime though, or there is a very small window given for allowable downtime. These are typically applications that power a business such as ERP, databases, e-commerce, email, emergency management, building management and manufacturing systems. All are deemed critical to providing essential services to the business. These types of applications require very low RPO (Recovery Point Objectives) and RTOs (Recovery Time Objectives) in order to maintain business continuity.

In addition, many organizations require continuous availability locally and remotely. Customers are now faced with protecting the business from local outages due to physical loss of a server and also the physical loss of a datacenter. This leads to the need for having systems available in multiple locations.

## Primary Benefits

- Fast and predictable application recovery from catastrophic outages
- Restore data quickly and easily
- Enables users to deploy and manage CE via single pane of glass
- Uses minimal bandwidth
- Failover a geographic location and/or entire application stack
- Leverages VMware (if applicable) to increase recoverability and deployment options
- Protects any application that runs on Windows

## Key Selling Features

Short Recovery Time: CE provides excellent, best-in-the-business recovery times, which are measured in terms of Recovery Time Objectives

- (RTO) and Recovery Point Objectives (RPO).
- Recovery Time Objective is a measure of how long you can afford to be down.
- Recovery Point Objective is a measure of how much data you can afford to lose in a given amount of time.
- Application awareness
- User continuity
- The ability to fix an issue before failover
- One button switch back in seconds to minutes

CE provides very short recovery points and recovery times – seconds to minutes – depending on the specific nature of the customer's infrastructure, available bandwidth, system configuration, and other factors.

## Characteristics of a Good Prospect

Any organization that depends on a set of mission critical Windows applications to operate can benefit from using CE. Our customers range from large enterprises to single server shops; however, the typical target customer is an SMB. The best prospects have an internal IT team. It requires that the customer have personnel who understand their underlying network infrastructure and IP routing, and they need a remote data center (premise or cloud) as their backup facility with a physical or virtual infrastructure in both the local and remote facilities that can support their bandwidth, storage, and computing horsepower requirements. Neverfail professional services does assist with new CE deployments, but the customer (or an agent of the customer) needs to be knowledgeable about their environment as well.

## Market Size and Growth Prospects

The DRaaS and cloud-based business continuity is forecasted to grow from \$1.68 billion in 2016 to \$11.11 billion by 2021 by analyst firm MarketsANDMarkets (<http://www.marketsandmarkets.com/PressReleases/recovery-as-a-service.asp>) Forrester Research reported the following: "During the past few years, enterprise DRaaS adoption has grown steadily to 19% today, with another 22% planning to adopt."

SMB and Mid-Market is the bullseye. They require local availability and/or disaster recovery for VMs hosted in the following ways:

- On premise
- On premise and replication to a compatible third party cloud provider
- A compatible third party cloud and replication to another compatible third party cloud provider

## Common Business Triggers

Most customers come to Neverfail after a failure event has occurred for their organization, to a colleague's organization, or when there is a major news story about a similar organization that suffered a debilitating IT service outage.

The causes of such events include human errors, hardware failures, application failures, and loss of data due to natural disasters and

the like. For example, in the aftermath of Hurricane Sandy, the company experienced a huge uptick in sales since many businesses were directly affected by the storm, and if they weren't affected directly, they realized that their existing disaster recovery plan was inadequate.

In general, about 40% of our customers are being proactive and wish to prevent the possibility of an outage, about 50% are afraid that an outage is a near term possibility, and about 10% have been actually hit by a disaster.

CE customers are usually "greenfield sites"; they may be building their data protection models or building a new disaster recovery site. Neverfail has on occasion replaced Double-Take or other systems, but the most common case is that the customer is building out a new data center, adding new office facilities, or some similar type of expansion.

Other business triggers include:

- Moving away from physical server to all virtual
- Want to use a cloud for their premise recovery in case of a datacenter failure
- No DR site but wish to implement one
- Want to move all VMs into the cloud
- No skills to implement BC/DR
- Serious down-time caused financial loss
- Want to move internal services to OPEX
- Regulatory compliance like audits, SOX, HIPPA, COOP, etc.
- SLA requirements to their customers , or BCDR requirements as part of contract delivery

## Common IT Triggers

- IT unable to restore applications systems in a reasonable time
- Need application awareness
- Need local availability and disaster recovery
- Has many different types of applications needing protection
- Has physical server and virtual machines that need a BC/DR
- SLAs can't be established or effectively tracked when it is
- Not satisfied with current solution

## Leading Questions

- What availability challenges do you face today?
- What is your current disaster recovery solution?
- What Hypervisor are you using today? (If they use VMWare, do you have distributed sites with multiple vCenters or just one?)
- Is there a desire to move DR into the cloud?
- What applications are critical to your business?
- What happens today when those applications go down?
- How long does it take today to recover?
- What impact does that have on your company and/or customers?
- How often do you test for DR? How long does that take?
- What are the alternatives you are evaluating?
- How much of your team's time is spent repairing applications, issues, etc?

## Probing Question Matrix

Audience	Problem Probing Questions by Audience	Solution Probing Questions	Customer Value Probing Questions
End-User	<p>SLAs are not currently achievable</p> <p>We need to have systems that are offsite up and running as fast as they are onsite</p>	<p>Could you use a solution that can recover your critical systems in seconds to minutes?</p> <p>Is RPO/RTO in seconds to minutes important to you?</p>	<p>Continuity Engine provides real-time replication and incredibly fast failover to ensure that you're RPO and RTOs are measured in seconds to minutes.</p>
End-User	<p>We just don't know when there is a problem with an application.</p>	<p>Would you like to know when there are infrastructure, application and network anomalies that can impact delivery of the business service?</p>	<p>Continuity Engine is application aware. Its monitoring watches key resources, network connectivity and application performance. If these thresholds do not meet the desired condition, Engine can take actions to restore the business service.</p>
End-User	<p>Don't have the expertise to build-out a DR Site.</p>	<p>Would you like Neverfail build you BC/DR deployment for you?</p>	<p>We have a full service PS organization that can deploy this in or environment or into the Cloud.</p>
End-User	<p>We have many types of applications not just the major apps.</p>	<p>Is a BC/DR technology that has a customizable framework to protect any Windows application a value added?</p>	<p>Continuity Engine has an Application Management Framework (AMF) that allows you to customize Engine to any application quickly and easily.</p> <p>If you have a special application that requires many deployments, you can speak with Neverfail professional services about producing a Plugin to the Engine AMF that will define the application protection rules automatically.</p>

## Success Stories

- A mineral resources company based in Jettah Saudi Arabia had a five hundred year flood of their datacenter in the desert. It wiped out all their Exchange Servers for the executive team. They called Neverfail and installed Engine into new DC and replicated their Exchange servers to a Maryland DC in the United States. They were able to failover Exchange in 1 minute and failback in 1 minute over a 2M MPLS network.
- A cancer research not for profit in Washington, DC had a failure of the external web server that collected 75K in donations per day. They were down for 2.5 days. Once they installed CE, they had continuous availability for IIS server in order to ensure the donations keep coming in.
- A small auto parts retailer had a server outage of their database server that housed their inventory. They were down for three days. They implemented Engine for HA and DR and replicated their critical databases and exchange servers to an alternate DR site in their internal cloud. Now they are protected from local and datacenter outages.
- An Insurance company in New York suffered with a complete outage of their datacenter during Hurricane Sandy. Their building and primary datacenter were not accessible for over a month. Though they thought they had a workable DR plan, in execution they could not restore critical systems in their upstate NY recovery center effectively. They implemented Engine which now provides them with HA and DR for both local outages of the application and catastrophic loss of the datacenter with recovery in just a couple of minutes.
- A US military branch needed a continuously available mobile communication system for their troops in combat. If their primary

system was ever down for any reason, they needed a second mobile system to pick up so troops could continue to plan, communicate, and execute. They deployed Neverfail Engine to clone their production system onto the secondary unit to ensure 100% uptime on communication.

- A Fortune 500 financial institution lost all internal messaging for more than 48 hours when their clustered solution failed to transition their workload to a DR site. They deployed Neverfail Engine in a cross-country DR implementation and shorted the RTO for their messaging service to less than 4 minutes with no visible impact or downtime to the users.

## Handling Objections

### **We don't have hard and fast RPO/RTOs.**

That's OK. Continuity Engine is designed to get you back up and running as quickly as possible. It also supports application awareness, push-button failover/failback, the ability to fail-the-farm, and tertiary failovers.

### **This seems like a complicated product.**

What's complicated is the process for failover and failback. However, after 20 years of Neverfail being in the BC/DR business, we have reduced it to a very easy to understand and use deployment model. After implementation, management is simple since Continuity Engine has the intelligence to handle many different types of failure events to keep your applications available.

### **We don't have the skills to rollout a solution like this.**

We have an amazing team that covers Cloud, BC/DR, networking, Unified Communications and Workspace deployments. Our PS team can roll out a solution for you and get it operational quickly and easy.

### **We don't have a DR site or we don't have the equipment for the solution.**

That's OK. You can use the Cloud as your DR site.

### **We will have to buy multiple copies of the application software we are protecting**

CE's clone-based architecture makes exact copies of your production server. It has the same name, in HA mode, same IP, same applications and same Windows SID. And because the passive nodes are not exposed to the production network until failover, you generally do not need to have additional application licenses. Essentially you are recovering the same server locally or at a different location. You may, however, need a Windows license but that depends on the Microsoft license agreement you have in place.

## Typical Use Cases

Protection of mission-critical databases, including SQL Server and others, is the most common use case we see in the field. There are many third party applications that don't have BCDR capabilities incorporated into them. CE's open architecture enables us to provide BCDR capabilities for anything that runs on Windows. Essentially, we can cluster-enable any Windows application.

Here are three different ways of using Continuity Engine:

### **Local HA (Pair)**

A customer wants to protect his application in the local datacenter and be able to proactively detect application, service, network, and hardware anomalies. They also want to ensure the application server has enough resources to operate effectively. If these do not meet a predefined set of rules they would like to take proactive action to either remedy the issue or failover to another node in the cluster.

### **Disaster Recovery - DR (Pair)**

A customer wants to be able to failover to an alternate site location and restore their applications in seconds to minutes and replicate back the production workload back to the primary datacenter. Then execute a seamless switchback bringing the production workload back to the original datacenter.

### **Local HA and Disaster Recovery (Tertiary)**

Tertiary provides the best of both and is implemented as a trio configuration. There is a pair (Primary, Secondary) locally and one additional node (Tertiary) at an alternate location providing protection from hardware, application, network and human errors locally

and full site outages (power loss, natural disasters) remotely.

## OEMs as Partners

The OEM space comprises about 50% of CE sales and continues to have huge potential. For example, an ISV offering applications used in mission-critical environments (for example, 911 call center systems) can incorporate CE into their offering to provide continuous availability as a differentiating feature. Working with Neverfail means that the OEM can focus on their core business and devote all their time, energy, and budget to developing and marketing their own products as opposed to developing a sophisticated BCDR subsystem.

CE is fully brandable for our OEM partners and they can make CE an integral part of their application. We can also develop custom plugins that detect the OEM application and automatically install the correct rule sets to support that application.

## Key Competitive Positioning Points

Competitor	Continuity Engine Advantages
Double-Take Availability	Application Awareness, Tertiary, HA/DR in a Single Package, Deeply Integrated with VMWare
Zerto	Application Awareness, HA/DR in a Single Package, Deeply Integrated with VMWare, Physical Server Support, Protect Applications on Any Hypervisor Platform
Stratus EverRun	Deeply Integrated with VMWare, Physical Server Support, Protect Applications on Any Hypervisor Platform
WSFC w/Always On Active/Passive	Application Awareness, Tertiary, HA/DR in a Single Package, Can Function of High Latency or Congested Networks, Deeply Integrated with VMWare, Protects Any Application on Windows
Always On Availability Groups	Seconds to Minutes RPO, Application Awareness, HA/DR in a Single Package, Can Function in High Latency or Congested Networks, Deeply Integrated with VMWare, Protects Any Application on Windows, Full Reseeding Not Required After Failover
Exchange Database Availability Groups	Seconds to Minutes RPO, Application Awareness, HA/DR in a Single Package, Can Function in High Latency or Congested Networks, Deeply Integrated with VMWare, Protects Any Application on Windows, Full Reseeding Not Required After Failover
ArcServe RHA	Faster RTO, Failover Logic is Straightforward, Automatic Application Detection for Major Windows Apps.
SRM	Seconds to Minutes RTO, Application Awareness (Without Another VMWare Application), Tertiary, HA/DR in a Single Package, Physical Server Support, Protect Applications on Any Hypervisor Platform *
VMWare HA	Application Awareness (Without Another VMWare Application), Tertiary, HA/DR in a Single Package, Physical Server Support, Protect Applications on Any Hypervisor Platform, No Single Point of VM Failure *
VMWare FT	Physical Server Support, No Single Point of VM Failure *

\*VMWare HA and FT provide protection at the VM level. Therefore if there is a VM level corruption the replicated VM will recover with this corruption. To minimize the risk they must be used with SRM. We typically position Continuity Engine as a complement of these technologies that improve the overall protection

## Plugin Development

### Application Management Framework

CE incorporates an Application Management Framework (AMFx) to manage plugins. The AMFx provides additional functions while maintaining the traditional stability of CE software. You can use the AMFx to install and remove plugins on the fly while CE continues to provide protection to currently installed applications.

The AMFx also employs sponsorship for protected applications' files and services. With sponsorship, multiple plugins can share files or services. When removing a plugin, sponsorship prevents removal of a shared file or service that is still required by a remaining plugin. CE uses a special System plugin to monitor the server performance. The System plugin enables users to configure a variety of counters and assign actions when associated rules are exceeded.

The AMFx supports Service Monitoring, Task Management (Automation), File Filters, and Rules.

## Plugins

Plugins are simply pre-defined rules for protecting applications and are based on the AMFx architecture. They set up services to monitor directories and files to be replicated, as well as performance metrics to ensure that servers are operational and synchronized during the transition process.

CE plugins:

- Detect anomalies at the hardware, application, and network level.
- Keep track of available resources. These are implemented as defined threshold rule sets that are actionable.
- Run recovery actions when the threshold rules (counters) are not within acceptable range for a predetermined amount of time. These
- Recovery actions include: Notification, Switchover, Service Restart, Application Restart, VM Restart, vMotion, and Storage vMotion.
- Simplify CE deployment on protected applications. They allow CE to detect and install the right plugin automatically without any user intervention at the time of CE deployment.

Plugins can be customized to support any third party application if the relevant ISV(s) provides APIs to Neverfail that can detect a range of motions with the application like:

- Measuring the application performance level
- Measuring if the application is responding to service requests
- Additional tasks that detect failure conditions
- Discovery automation to detect changes in the datasets and add them to the file filters

Plugins must be developed by Neverfail professional services. Best practice is to develop a plugin if the ISV has a fixed repeatable process that will reduce the deployment time for CE. Note, however, that users can configure service, file filter, and resource monitoring rules without AMFx-designed plugins via the EMS UI and with the Advanced Management Client.

The Plugin Discovery Document is available upon request.

## The Plugin Development Process

- The ISV must first fill out the Plugin Discovery Document and send it to the Neverfail Project Manager.
- The ISV must provide an evaluation license and download link for the product in order for Neverfail Professional Services to complete the research, development, and QA phase of the engagement. If this is not possible, we are open to other alternatives; for example, the ISV could provide a pre-configured VM.
- The development will focus on the Application Management Framework (AMF) capabilities. This includes protecting a list of services, directories, registry keys, and, if available, performance counters exposed via the application.
- Neverfail will provide estimates to our partner on the time and effort to deliver plugins
- Upon partner approval, work will begin. Delivery is based on Neverfail's development schedules.
- Plugins will be delivered to the partner for a 30 day evaluation period, during which changes can be made. Neverfail assumes that the partner will be ready to test the plugin when it is delivered.
- During the delivery phase, any client validation efforts that extend beyond thirty (30) calendar days with no notification of defect will be considered as partner- or client-accepted work.
- Payment for the development of any plugin(s) is due upon initiation of development unless other arrangements have been made and a suitable addendum is attached to this Scope of Work.

**Exclusions:** Any development effort outside of the scope of AMF capabilities will be considered a separate engagement. Such an additional engagement will be scoped and priced as a separate and distinct project.

**Important: Neverfail does not offer APIs that allow partners to write their own plugins. All plugin development must be done by Neverfail.**

## Custom Branding

Partners may wish to brand their own version of CE. The branding process requires a professional services engagement and will cover a variety of areas, including:

- Advanced Management Client
- Tool Tray
- SCOPE
- Configuration Wizard
- Uninstall
- EMS Management Server
- Web Services

## The Custom Branding Development Process

- The partner fills out the OEM Branding Information document and sends it to the Neverfail Project Manager.
- The partner provides Neverfail with the required icons, images, and logos in the specified formats and resolutions.
- Neverfail will provide estimates for time and effort required to deliver the custom-branded version of CE.
- Upon partner approval, work will begin. Delivery is based on Neverfail's development schedules.
- Neverfail will deliver the custom-branded version of CE to the partner for a 45 day evaluation period, during which changes can be made. Neverfail assumes that the partner will be ready to begin testing when the customized version is delivered.
- During the delivery phase, any client validation efforts that extend beyond forty five (45) calendar days with no notification of defect will be considered as partner- or client- accepted.
- Neverfail provides full QA and regression testing as part of the development process. The custom-branded CE packages are held to the same standard as the standard Neverfail-branded product. When we release the custom-branded version, it is functionally equivalent to the most current version of CE. Occasionally, we may delay the release of a custom-branded version to coordinate its release with a new release of the standard product.

ISV partners may wish to employ their own licensing process in conjunction with the Neverfail license process. This may be accommodated, but would require in depth consultation in order to ensure a smooth process and user experience.

Special terms related to custom branding are to be negotiated with the Neverfail sales team and are out of scope for this document

## Closing a Sale

CE is a technical sale and IT people will be involved in making the purchase decision, although business people may approve the budget or initiate the search for a business continuity solution.

CE is a point solution for a very specific problem and a purchase usually involves a fairly limited number of people. More than half of our customers do not do a PoC. They will see a demo and then make a purchase decision. For those that do a PoC, carrying out their tests usually takes only a few hours of working time once all the systems are set up.

Most CE sales close in eight to twelve weeks, although some deals close very quickly — as fast as a single day.

## Proofs of Concept (PoC), Pilots, and/or Demos

The PoC means different things to different people in different parts of the world. In some places, prospects say PoC but what they want is a demo, and others may want a PoC but call it a pilot. Be sure to obtain clarity from prospects, especially those outside the US, on their expectations for a PoC, demo, or pilot.

Here is how we define these terms at Neverfail:

## Proofs of Concept (PoC)

A PoC is an installation of Continuity Engine in either the customer's on premise lab or in a sandbox within the Cloud. The primary intent of the PoC is to validate the basic recovery functions of the system.

Typically, a Neverfail sales engineer performs following functions in that test environment:

- Managed switchover and managed switchback between the active and passive nodes.
- Service failure that triggers an automated switchover and managed switchback.
- A failover (full loss of active connectivity) and a managed switchback.

A typical PoC can be completed in less than half a day. However, note that performing a PoC with physical servers can take some planning and may take the better part of a full business day to complete. In addition, sometimes a customer may want to do an evaluation for up to 30 days.

Refer to Section 1 of the PoC Requirements document to better understand the boundaries for the execution of a PoC.

The Process to Request a Engine Evaluation:

1. The sales team will need an account on the Neverfail extranet provisioned for the prospect and a login for the end-user.
2. Extranet credentials will be automatically emailed to the end-user.
3. The end-user will download Continuity Engine from the Extranet.
4. The PoC will start in evaluation mode with a 2 day built-in key. If time to carry out a PoC not sufficient to finish a POC, the SE can request an additional trial license authorization for completing the POC of up to 30 days.
5. If **migration** is intended, then must request and will need to procure a Neverfail Migrate license key which is time-bombed at 90 days.
  1. When a migration job is completed, the Continuity Engine license will expire.
6. If full Continuity Engine protection is desired then a perpetual/full license is to be procured.
  1. Continuity Engine protection is achieved once the license key is added

## Demos

A demo is an online presentation that highlights the basic functionality of the product within a limited time schedule, typically 30-60 minutes. Demos are done by a Neverfail sales engineer or sales executive over the web.

## Pilots

A Pilot is similar to a PoC but, instead of using a test environment, pilots are conducted in a production environment. Typically a prospect will agree to buy a one or two Continuity Engine licenses including Neverfail professional services to perform a production installation. While this is a limited deployment, the goal is to have a successful rollout which will lead to a bigger opportunity with the customer after an agreed upon time period.

## Technology, Architecture & Deployment Options

### Can a customer purchase CE as a standalone product?

Yes. CE can be purchased on its own and does not require any other Neverfail products or services to be useful.

### Does a customer need any special third party hardware or software to use CE?

CE is a Windows application and requires Windows servers.

CE runs on any physical or virtual Windows server with any hypervisor, including Microsoft Hyper-V and VMware.

CE is storage agnostic.

**PLEASE NOTE:** CE has not been tested with Windows Storage Server as its is marketed as a Windows OEM and is applied to specific hardware manufactures. The standard edition of Windows Storage Server has failover and data deduplication built-in.

## Can a customer use this product with someone else's cloud services?

Yes, but with some important caveats. CE works well with AWS, RackSpace, vCloud Air, and many other third party clouds, but it does not work with Azure and some more restrictive cloud providers. Check with Neverfail product management if there is any doubt about compatibility with a third party cloud provider.

## How is CE delivered?

The customer should only deploy with the assistance of Neverfail professional services.

The customer will have access to the Neverfail Learning Management System (LMS) for certification training that will improve the customers overall experience with CE. Always encourage customers to take NCA (Neverfail Certified Administrator) and NCIE (Neverfail Certified Implementation Engineer) training course immediately after acquiring the software.

In addition, the customer will also have a health check included in the cost of each CE license. This should be executed in the six months after installation is completed. This allows NF sales to have a touch point with them shortly after implementation.

We do offer a subscription pricing model. See price list.

We deliver updates electronically and the installation of the updates using a wizard-driven system. We notify customers about the availability of updates via email.

## How can I be sure CE is working properly?

A CE Health Check is a professional report Neverfail provides to customers for a CE pair or trio. The report will show:

- CE Configuration Settings: Public, Channel and Management IPs, Static Routes, File and Registry Replication Filters, Protected Set of Services, Failover settings, Split-Brain Avoidance Settings, Rollback configuration, Alerting setting, Fast Check, Orphaned Files, etc.
- Performance Analysis: this is made based on data collected by Scope and will show the customer key performance indicators like CPU, Memory, Disk, etc.
- Log Analysis: This contains relevant events extracted from CE and Windows (System and Application) logs.

A CE Health Check is included at no additional cost to purchasers of CE licenses and we typically run the Health Check about six months after deployment.

## What about training?

The Continuity Engine Certified Administrator course provides users with in depth training in all aspects of administrating a Continuity Engine deployment. It covers the following topics:

- Basic Overview with Features and Benefits
- A Discussion on the Engine Architecture
- How to Access the Cluster
- Basic Configuration of a Cluster
- Basic Administrative Tasks
- How to Switchover and Failover
- Proper Shutdown and Restart Procedures
- Data Rollback Operations
- Troubleshooting
- How to Engage with Support

Each course has a Flash-based ILS session along with in-depth knowledge base articles expanding on course concepts. The course

prepares anyone new to Continuity Engine to handle day to day operational support for the system. The course is delivered through the Neverfail Learning Management System and is conducted via a web portal service.

Continuity Engine Certified Administrator training is included at no additional cost to purchasers of CE licenses.

### Supported OS's

v7.1	v8.0	v8.1, v8.2	v8.5
Windows Server 2008 R2	Windows Server 2008 R2	Windows Server 2008 R2	Windows Server 2008 R2
Windows Server 2012	Windows Server 2012	Windows Server 2012	Windows Server 2012
Windows Server 2012 R2	Windows Server 2012 R2	Windows Server 2012 R2	Windows Server 2012 R2
		Windows Server 2016	Windows Server 2016 with ReFS
NOTE: These are for 64 bit Windows. Linux and Windows Domain Controllers are not Supported.			

v6.7	CP v6.7
Windows Server 2003	Windows Failover Cluster Windows 2012 R2, Windows 2012, 2008 R2, 2008, 2003 for File Servers
Windows Server 2008	
Windows Server 2008 R2	
	SQL Server SQL 2008 R2, SQL 2008, SQL 2005 with Windows Failover Cluster 2008, 2012, 2012 R2
	Exchange 2007 up to SP3 SCC and CCR with Windows Failover Cluster 2008, 2012, 2012 R2
NOTE: These are for 32 bit Windows. Linux and Windows Domain Controllers are not Supported.	

### Supported Deployment Infrastructure

- Server roles/applications for which protection will be installed automatically are:
  - SQL Server 2008 SP4, SQL Server 2008 R2 up to SP3, SQL Server 2012 up to SP3, SQL Server 2014 up to SP1, SQL Server 2016
  - Exchange 2010 SP3, Exchange 2013 up to and including SP1, plus
    - ForeFront for Exchange
    - Symantec Mail Security
  - SharePoint 2007 SP2, SharePoint 2010, SharePoint 2013 up to and including SP1
  - File Server
  - Internet Information Server
  - VMware vCenter Server 6.0 up to and including 6.0 Update 2
  - vCenter Server 5.1 Update 2, vCenter Server 5.1 Update 3, vCenter Server 5.5 Update 1a, vCenter Server 5.5 Update 2,
  - vCenter Server 5.5 Update 3, vCenter Server 5.5 Update 3a, and vCenter Server 5.5 Update 3b
  - VMware View Composer 5.3, VMware View Composer 6.1
- Additional supported plugins
  - Neverfail ITCE for Business Application

### How Does Neverfail Continuity Engine Allow Patching of the Passive Nodes

<https://support.neverfail.com/hc/en-us/articles/360000099248-When-to-Use-Neverfail-Patch-Management-Options>