



## ARF

A High Availability solution  
for Bull NovaScale server  
ranges in Linux environments

# Application Roll-over Facility (ARF)

**Application Roll-over Facility, a solution developed by Bull, enables system administrators to easily move an application and its environment from one system to another in order to manage system workload issues, for maintenance purposes or in the event of hardware failures. The ARF facility provides low cost and easy-to-install application availability for the NovaScale Intensive and Universal range of servers in Linux environments.**

Application Roll-over Facility (ARF) is based on a standard cluster architecture with at least two nodes (servers or partitions) sharing one or several disk sub-systems. In case of system failure or for maintenance or administration purposes, the services associated with an application or a node can be activated on the backup node. ARF can also be proposed as a disaster recovery solution by using mirroring functionalities. Furthermore an attractive license price independent of the number of processors and partitions enables cost reduction.

### Easy node installation and configuration

The use of simple menus and the ability to quickly propagate the node definition across all the cluster nodes combined with the possibility to initiate snapshot creation for saving the topology and the cluster configuration all contribute to easy node installation and configuration. In addition automatic or manual failover of one or several

applications from one node to the backup node facilitates system operation.

### A scalable solution

One or several nodes can be easily added to the cluster to rapidly adjust to workload changes on the system. In addition the number of nodes in the cluster is not limited.

### Non-stop monitoring

Permanent checking of the availability of each node is provided through a heartbeat mechanism.

In addition the system administrator is immediately notified in case of failure. Event logging is enabled through trace files.

### Professional services

Bull proposes a complete range of services from consulting to operational support, based on years of experience in business continuity on large production servers.



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# ARF technical specifications

At the heart of this solution, Bull NovaScale servers provide mainframe-class functionalities. These functionalities enable business continuity thanks to component redundancy, failure prevention and error auto-correction mechanism.

## Architecture

Supported servers	Bull NovaScale servers with minimum of Linux Red Hat EL 4
Maximal number of supported nodes	Unlimited
Heartbeat	Ethernet
Supported disks	Bull StoreWay FDA, EMC Clariion (CX or AX) or Netapp disk subsystems
Components taken into account	Applications, nodes, disks
Addition of a node to the cluster	Yes
Disaster Recovery	Yes, "Remote Data Replication" between StoreWay FDA disk subsystems

## Functionalities

Type of application failover	Automatic or manual
Time for detection and application failover	<2mn
Concurrent access to a database	No
Failover configuration	Simple recovery scenarios
Application reintegration to original node after recovery	On system administrator decision
Application failover between partitions	Yes
Supported applications	One restriction: applications not supporting IP aliasing
Several applications on the same node	Yes, each of them accessible with its own network address

## Cluster management

Node installation and configuration	Webmin
Propagation of a node configuration across all the cluster nodes	Yes
Snapshot creation	Yes
Event traceability	Yes with log files
Management console	No
Visualization of the cluster status	Yes with ARF Watch – Consult us for availability date
Workload management	Yes with DDFA

## Licenses

License type	1 license per node, depending on NovaScale Series
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