

Redundant Server Setup

How to configure a redundant server

1. Preliminary:

The redundancy of GuardPoint Pro servers and/or database is employed by high security systems requiring a quasi-total availability of the access control system.

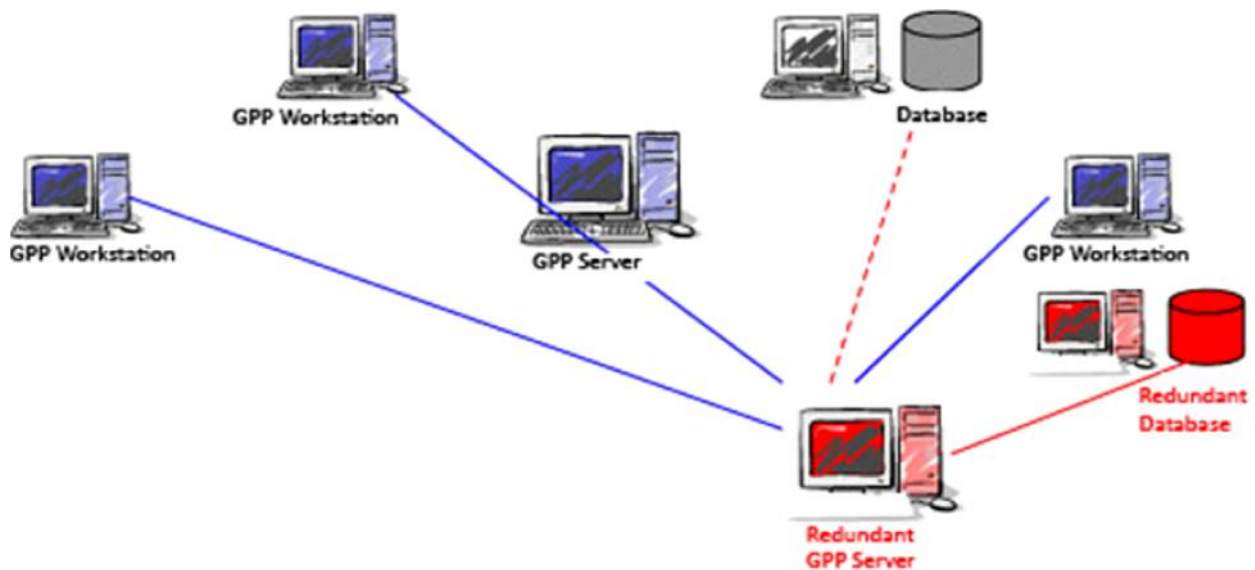
In case of failure of the GuardPoint Pro server, it is possible to guarantee the permanence of the service by switching towards a redundant server.

GuardPoint Pro works thanks to a server, linked to a database. Some workstations can be linked to the server if necessary. The database can be installed on the PC server or on another PC.



The GuardPoint Pro server redundancy principle is to provide the server function in case of failure of the main server.

The database can have also a redundant database by replicating the main database



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3. Hot Server Redundancy

Principle

Since version 1.7.001, GuardPoint Pro is able to manage by itself the failure detection of the main server and switch automatically all the components of the system to a redundant server. To do so, an application called "RedundancyChecker" installed on the backup server, monitors the main server. When main server failure is detected, the RedundancyChecker launches GuardPoint Pro on the redundant server and then closes itself automatically.

By launching GuardPoint Pro on the redundant PC, the operation is the same as described in the cold redundancy chapter, namely:

- Automatically closes GuardPoint Pro Server on the main PC, by a command sent from the redundant server to the main server via spread tool.
- All the controllers are polled now by the GuardPoint Pro redundant server.
- All the workstations swap automatically to the GuardPoint Pro redundant server.

When the main server is operational again, launching GuardPoint Pro on it (manually) automatically closes GuardPoint Pro on the redundant server by a spread command and recovers communication with controller and workstations. To rearm the redundancy, it needs to restart manually the RedundancyChecker on the redundant PC.

CAUTION: If during the swap the backup server is on failure, controllers will continue to work in stand alone mode but workstations could not run normally.

Note: If during the swap the RedundancyChecker does not run on the redundant server, the swap could be done. The customer must ensure by himself that this application runs on the redundant server (e.g. by installing a watchdog, an application to run it as a service, etc.)

The data source must be SQL type. For duplicate data source configuration (i.e. replication or mirroring) see Chapter 4 to automatic swap to the secondary data source.

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4. RedundancyChecker version 1.2 Setting - Cont.

If the ping to the third PC succeeds, it means that the suspected scenario a) is true and the redundant PC network connection is ok. Therefore GuardPoint Pro is then launched on the redundant server

But if the ping to the third PC fails, it means that the suspected scenario b) is true: the redundant PC network connection is in failure whilst the main server may be still working. Therefore in this case no action is initiated. Obviously, it is possible to install the RedundancyChecker utility on the main server in the same way, to check if GuardPoint Pro on the redundant PC is running.

The ApplicationName option is optional and allows to force the process closure of a local application (e.g. GuardPointPro.exe) before launching GuardPoint Pro locally.

After the RedundancyChecker utility has detected a problem on the remote PC and then started GuardPoint Pro locally, it automatically closes itself

Note: For installations not using the server redundancy functionality, the RedundancyChecker utility can be configured to run as a watchdog for the local GuardPoint Pro application (e.g. if you close the application by mistake). To do so, simply set in the RedundancyChecker.ini, the options ThirdPartyIP and ServerIP with the IP address of the local PC. In this way, the RedundancyChecker will not close itself after starting GuardPoint Pro locally.

Example for RedundancyChecker.ini

```
[RedundancyChecker]
```

```
NumRetry = 3
```

```
Interval = 5
```

```
TimeOut = 1000
```

```
PingTimeOut = 1000
```

```
ServerName = MAINSRV
```

```
ServerIP = 192.168.168.58
```

```
ThirdPartyIP = 192.168.168.60
```

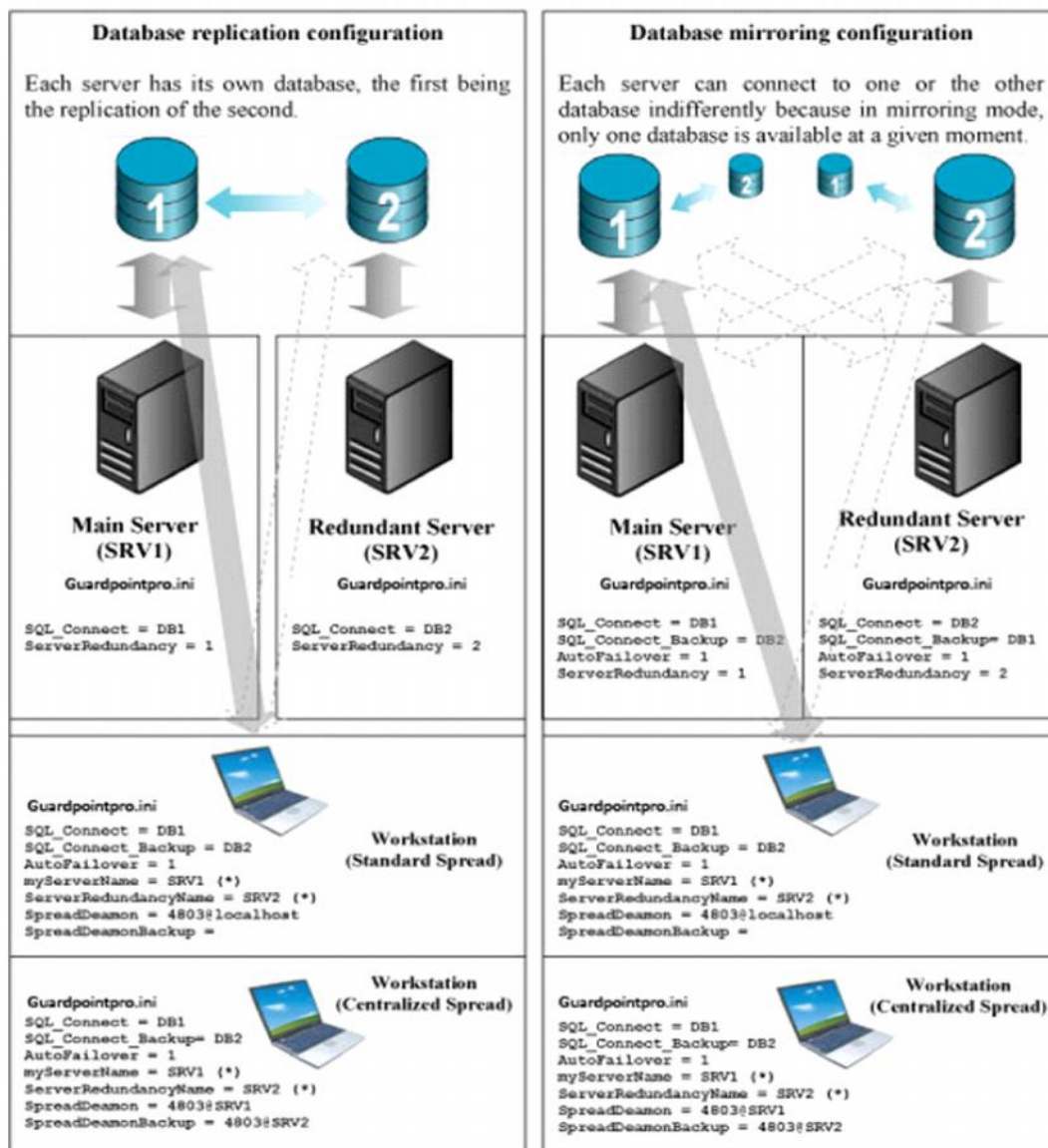
```
PathExe = C:\Program Files\GuardPointPro\GuardPointPro.exe /us=1000 /pw=2000
```

```
ApplicationName = GuardPoint Pro.exe
```


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Server and Workstation Settings



(*) Relevant only for Multi Site