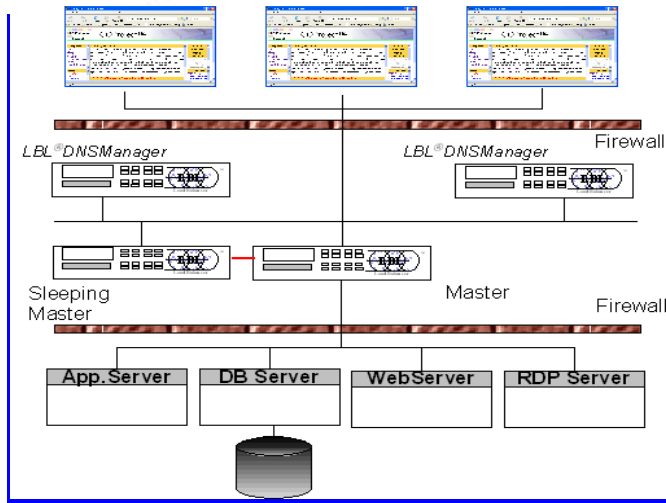
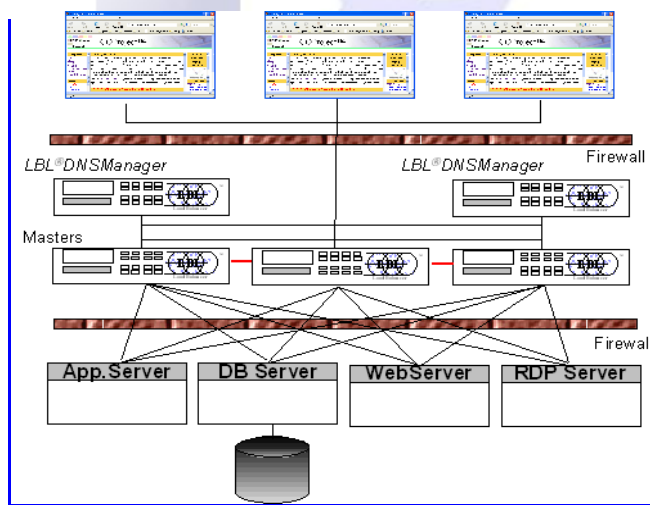
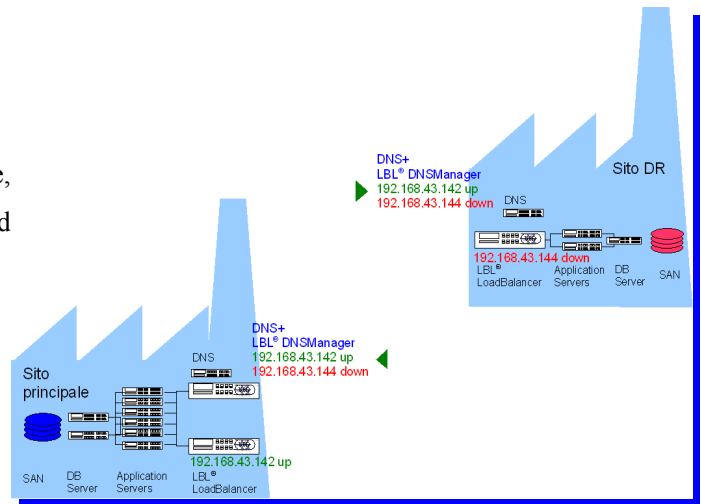


**LBL® Application Availability Infrastructure** is a suite of tools engineered to maximize high availability of application services. *LBL® Application Availability Infrastructure* comes from a long experience in many mission-critical projects that contributed the product to achieve typical features of simplicity and reliability in this area. *LBL® Application Availability Infrastructure* includes several products released in commercial distributions: **LBL®Monitor**, **LBL®LoadBalancer** Platform, **LBL®LoadBalancer** Standard HA, **LBL®LoadBalancer** Enterprise HA, **LBL®DNSManager**, **LBL®Surface Cluster** Work Flow & Decision Engine.



is the new and innovative product that allows you to constantly checking the status of application services. **LBL®DNSManager** keeps constantly multiple nodes DNS for you always have the most current image network status and services associated with it.

makes possible the realization of highly reliable infrastructure, Business Continuity and Disaster Recovery in a simple and effective.



**LBL®DNSManager** is also the perfect complement to **LBL®LoadBalancer** Enterprise can manage different roundrobin addresses dynamically to clients presenting the actual availability routing. This solution is a viable alternative where no provision is made to use Firewall with features roundrobin.

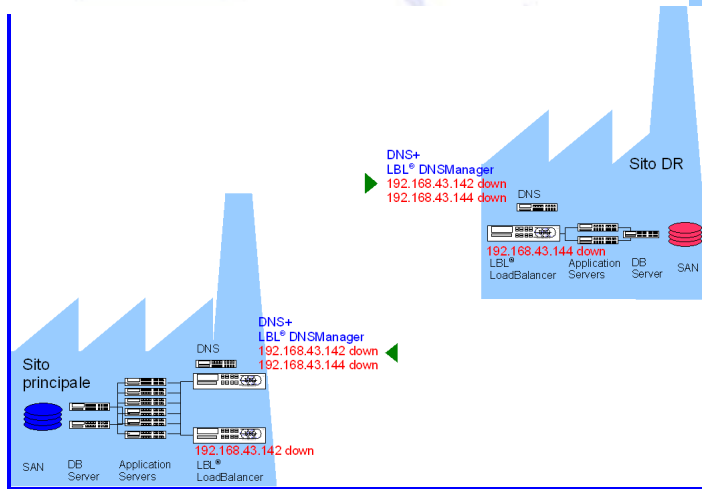
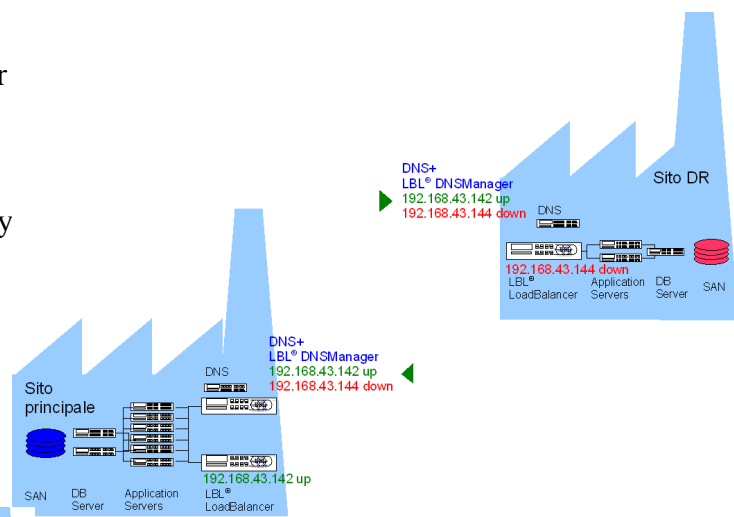
**LBL®DNSManager** is released to cooperate with the BIND DNS \*\*\* (https://www.isc.org/) and MS DNS \*\*\* providing DNS services.

\*\* Results not typical. The availability depends on various factors, including hardware architectures, software applications, mission-critical processes and professional services  
\*\*\* BIND, MS DNS "round robin DNS or firewall roundrobin" not part of TCOProject®

**LBL®DNSManager** can be implemented in many ways within datacenters. Among all, disaster recovery scenario is undoubtedly the most representative. Of all the tasks required to perform shift of services from one site to another, certainly host-name <math>\leftrightarrow</math> addresses adaptation is the most critical one. **LBL®DNSManager** handles this task in complete autonomy while avoiding both human error and mistakes caused by possible negative-cache clients (negative-cache prevention). By constantly verifying the application availability on configured sites, **LBL®DNSManager** is able to automatically set the DNS entries as soon as a state-changing event occurs. As an example of such scenario let's consider the depicted schema consisting of two sites, in which the "secondary" site should be made available to the clients as soon as the application services result active and ready for delivery.

The initial state consists of two DNS, one for each site. In the picture on the right, LBL®DNSManager monitors the activities on the primary site. Both DNS will respond to dnslookup queries with the actual address on which services availability is detected.

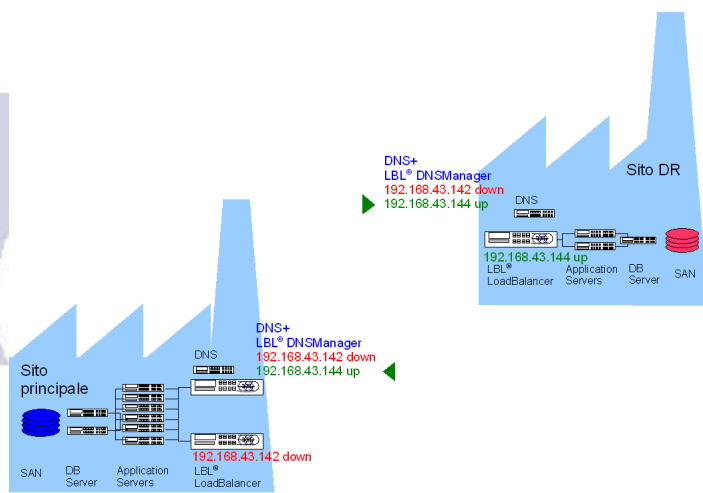
**nslookup www.tcoproject.dev**  
Address: 192.168.46.111  
Name: www.tcoproject.dev  
Addresses: 192.168.43.142



**LBL®DNSManager** instances - both on the main and secondary sites - will constantly continue to monitor application services activities to detect the occurrence of a change of state. Upon detection of a failure on the primary site, **LBL®DNSManager** will provide to update the DNS namespace and related areas.

The situation will persist until one of the two addresses and its related applications will be back online. Detecting once again a change in the state of services, **LBL®DNSManager** will roll back the DNS zone entries by dynamically associating the new address. In response to dnslookup queries, now the returned data will be modified with the new address without any human intervention:

**nslookup www.tcoproject.dev**  
Address: 192.168.46.111  
Name: www.tcoproject.dev  
Addresses: 192.168.43.144



\*In the pictures, LBL®LoadBalancer is depicted by a physical system for presentation simplicity. LBL®LoadBalancer is a software product.

\*\*Theoretical results. Availability is determined by various factors, among which hardware architectures, backend software applications, mission-critical processes and professional services

\*\*\*Round Robin DNS & FireWall are not part of the TCO Project® solution

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