



# Disaster Recovery Application Switcher (DRAS)

- SEAMLESSLY SWITCH BETWEEN DATACENTERS
- MINIMIZE DOWN TIME
- ACHIEVE YOUR RECOVERY TIME OBJECTIVE

Demonstrating an organisations ability to invoke a disaster recovery plan is a regulatory requirement for certain institutions and needs to be performed on a regular basis.

However, reconfiguring DNS so that clients are redirected to the D/R data centre instead of the production data centre (and back again) is a labour intensive error-prone task, especially when there are hundreds of applications that need switching. Even a commercial IPAM solution only reduces the technical complexity involved, it does not remove the need to actually modify DNS records.

Many organisations have separate server and network/telecoms teams, and DNS does not easily fit into either teams' responsibility. When a service needs to be migrated, the DNS changes are often performed by a DNS operator who has to be available at unsociable hours to perform the change. This can sometimes lead to extended outages and risks breaching the business RTO (Recovery Time Objective) if the appropriate personnel are not available in times of an emergency. If lesser skilled staff are utilised, errors can be introduced because of the technical complexity of the DNS changes.

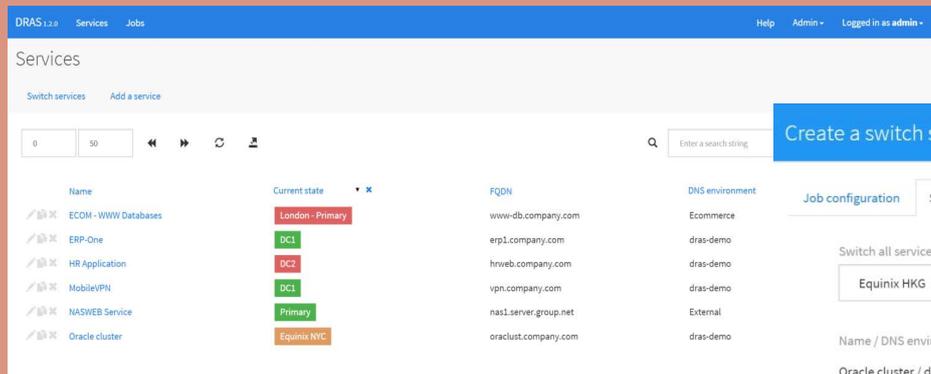
**What is needed is a way to de-skill the process so that the operations team or service desk can perform these DNS changes themselves without introducing additional risk to the process.**

With Calleva Networks DRAS (D/R App Switcher) the DNS records that are required to run the application services in different modes can be predefined, and IT support teams can be empowered with the ability to switch the records into whichever mode is required (live, D/R, pre-prod, test, etc.).

## Benefits

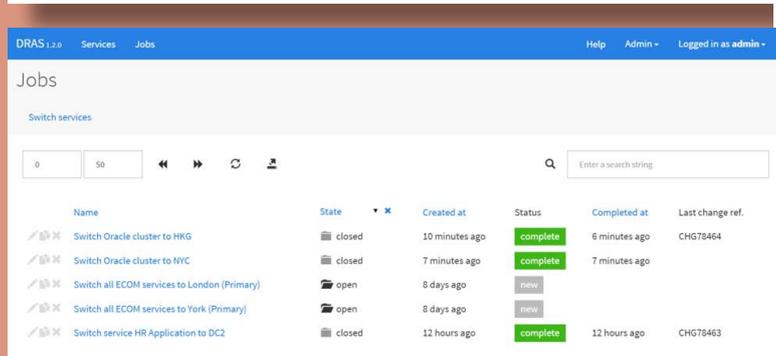
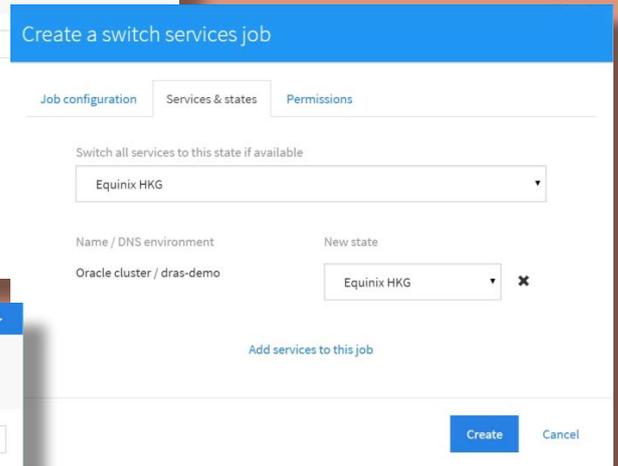
DRAS provides a number of benefits:

- Hide the underlying complexity of the IPAM/DNS system so that lesser skilled operators can switch services
- Define repeatable D/R plans that can be used for D/R tests as well as for real-world scenarios
- Track and audit D/R switches
- Delegate permission to switch services to different teams
- Reduce the risk of an error being introduced by eliminating manual typing of DNS names/aliases/IP addresses
- Meet Recovery Time Objectives by reducing down-time during a D/R event
- Bulk switch hundreds of DNS records with a few mouse clicks



◀ Fig. A

▼ Fig. B



◀ Fig. C

## Product Overview

DRAS uses modern development techniques to provide a lightweight responsive interface and will run in a virtual environment on CentOS 7 (other platforms can be supported if required).

### Service Definition

DRAS can either modify the DNS “A” record for a service DNS name (it’s FQDN – Fully Qualified Domain Name) by changing its IP address or it can modify the DNS “CNAME” record (which is essentially an alias) to point to the relevant DNS “A” record.

The IP addresses (if using “A” records) or host names (if using a “CNAME”) can be associated with a user defined “state”, the state can reflect whatever terminology is used within the business, e.g. primary DC, backup DC, a location, DC1/DC2 etc.

States can also be given a colour code, so if a service is currently running in D/R mode it can show up in a different colour on the services page (Fig. a).

Permissions can be granted to different groups of users to enable specific operations to be delegated to different teams.

### Switch Job Definition

A service can be switched by creating a “switch job”. A switch job can contain a single service, or multiple services (for instance where an application encompasses various different front-mid-backend services, they can all be switched together if so desired). Jobs can be executed immediately or pre-defined in advance to create D/R plans that are only used in the event of an emergency or D/R test.

As part of the switch job, the state that services will be switched into needs to be specified; this can be set individually for each service or a common state can be specified. Multiple services can also be added to each job (Fig. b).

### Job Execution

When a job is executed, the status page shows the result. Switch jobs can be viewed from the jobs page (Fig. C).

### IPAM System Integration

DRAS currently integrates with Infoblox using standard API functions, but other platforms will be supported in the future.

### Next Steps

To arrange for a demo or discuss your requirements, contact us today...

