Internal Management Business

Unlike electronic channel business, internal management business primarily involves banking activities related to internal staff, servers, self-service terminals, and other physical endpoints. The security requirements and standards for these operations are established independently by the bank.

Infosec has provided application security products and solutions for banks' internal DNS systems, ensuring the secure and stable operation of their internal management business.

Internal DNS Application Solution for Banks Demand Analysis

The bank's internal production network operates a dedicated DNS system providing domain name resolution services for production systems. As the number of production systems going live continues to grow, the standalone DNS system faces increasing pressure and heightened risks.

1. The bank's requirements for the production system DNS transformation are as follows:
2. No modifications to the existing DNS system;
3. Deploy new SDNS systems at both the primary production center and the disaster recovery center;
4. Production system DNS addresses to the SDNS addresses at both the primary production center and the disaster recovery center;
5. Newly added business systems primarily resolve via the primary production center's SDNS, while existing business systems resolve via the primary production center's SDNS with transparent forwarding to the original DNS system.

Solution Architecture

Addressing the bank's existing network structure and business requirements, Infosec has introduced a corresponding load balancing optimization solution to comprehensively resolve issues such as load balancing and application acceleration. This solution employs Infosec's application delivery system (load balancer) to provide intelligent DNS services for the DNS disaster recovery system. This enhances the platform's concurrent processing capacity and application service high availability, enabling the DNS service within the production system to deliver fast access speeds and 24/7 public service. The physical deployment method employs a single-arm access switch configuration, as illustrated below:
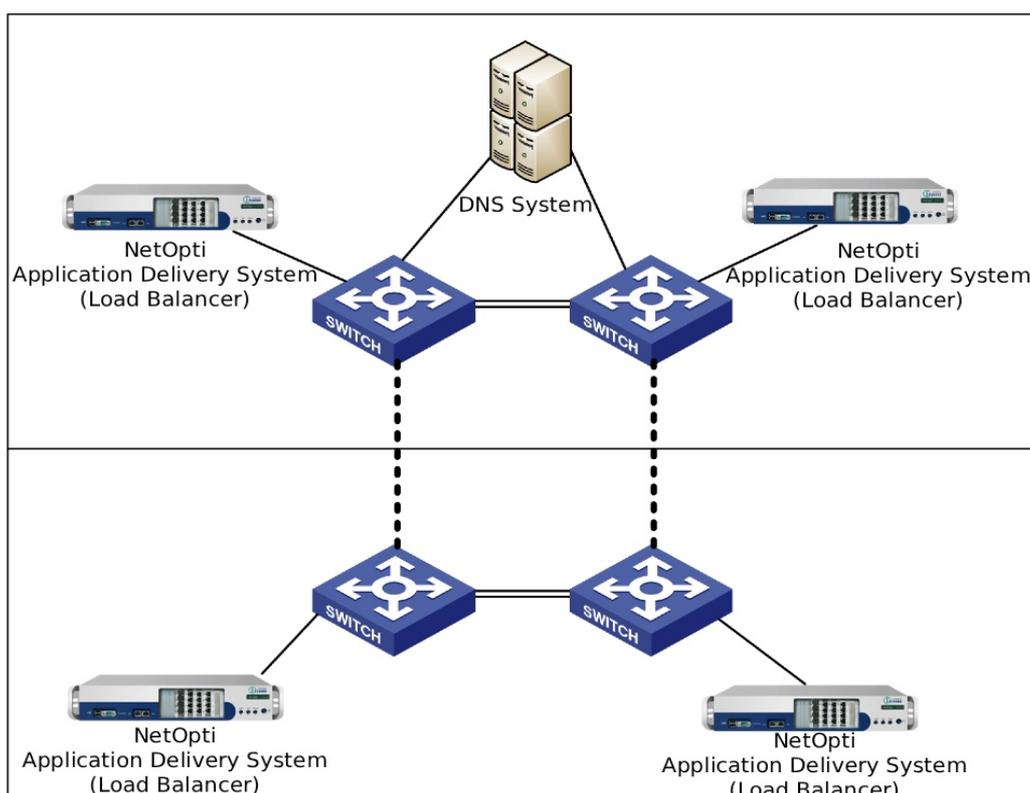
▪ Solution Description

The Infosec NetOpti Application Delivery System (Load Balancer) is deployed in bypass mode, ensuring simple implementation with no impact on existing network structures.
Infosec NetOpti guarantees stable application operation through its load balancing technology, enabling multiple servers to concurrently handle user requests. This approach maintains service quality while boosting the internal DNS platform's processing capacity.

Through pre-configured intelligent health check mechanisms, it promptly identifies application servers unable to process requests normally. Subsequent user requests are redirected to functional servers, preventing single-server failures from disrupting overall service delivery and ensuring high application availability.

The Infosec NetOpti Application Delivery System (Load Balancer) operates logically (not physically) between users and application servers. The workflow for internal systems accessing the DNS system is as follows:

Existing internal systems access DNS

New internal systems access

Internal System

1
2

4
3

NetOpti
Application Delivery System
(Load Balancer)

DNS System

Internal System

1
2

NetOpti
Application Delivery System
(Load Balancer)

DNS System
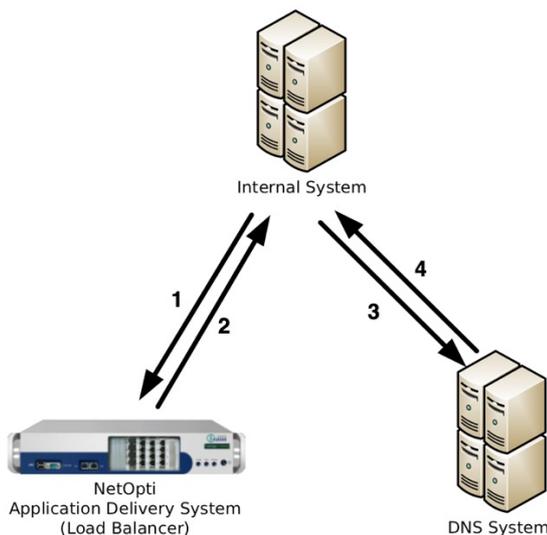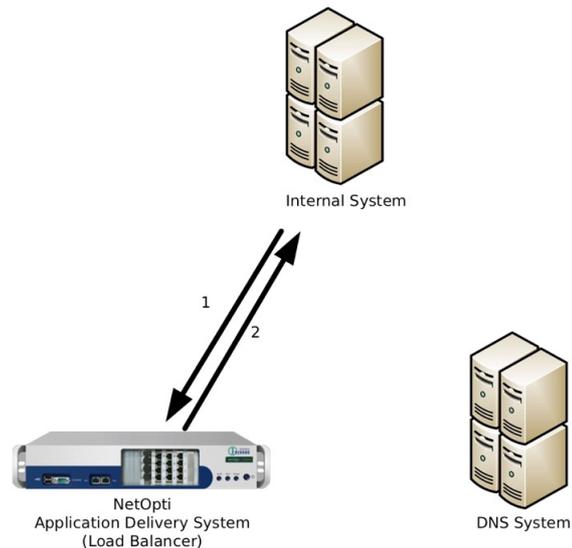
▪ Solution Advantages

- Simple deployment structure
- Resolves DNS performance scaling issues in production environments
- Addresses same-location disaster recovery challenges

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