



**ORGANIZATION :**

Ministry of Housing &  
Local Government (KPKT)

**DOMAIN :**

kpkt.gov.my

**INDUSTRY :**

Government

**UNIT PURCHASE :**

2 Units

**RESULT :**

- Increase security by hardened FreeBSD kernel
- Increase productivity DNS management
- Manage domain using GUI

**PROJECT OVERVIEW**

Ministry of Housing and Local Government (KPKT) is an organization under the federal government Malaysia. KPKT serves as the implementation of programs and activities to improve the quality of life for city residents. KPKT support and control ninety-eight domains such gerik.gov.my, lbjt.gov.my, mbas.gov.my and more domains of Local Authority in Malaysia. Thus a reliable and secure DNS is important to handle as many as ninety-eight domains.

**CHALLENGE**

KPKT support portal project for ninety-eight domains of Local Authority of Malaysia but this organization does not have proper Domain Name System (DNS) management. Their client need to directly contact the admin in KPKT that manage DNS system to update or make changes to their DNS. KPKT also having difficulties in handling the request from the client and unable to provide restricted access so that their clients can make changes to only their own domains. KPKT also having difficulties in handling the request from the client and unable to provide restrict update resources record od DNS. In addition, previous DNS server is not tuned and hardened for security thus lead to easy prey for the hackers. Meanwhile KPKT has big responsibility in protecting DNS management and official information of the government from unauthorized access. The administrator also having difficulties to manage their DNS system as it is based by command line. Besides admin need to manually record all the changes that had been made on the DNS system.

**SOLUTION**

Two units of DNSVault has been installed to helps KPKT handle more than ninety-eight domains that currently configured inside both DNSVault. By using advance user management and permission, KPKT was able to provides each of their client with their own access to the DNS management. Client were able to give access to their customer so that their customer can access and manage their own domains. The access control can be configure whether the customer can directly edit. There is no more complicated command or syntax to edit and configure DNS, each client can independently manage their own domain using the user-friendly GUI provided by DNSVault. This result in increase productivity and reducing error in the task of managing DNS. In addition, DNSVault increase the security by hardened FreeBSD kernel and also provides auto protection against DNS attack and more reliability when the server is under attack and automatically break the attempt to do DNS amplification attack. Therefore, client does not have to worry about safety of DNS management data stored by KPKT DNS server. DNSVault also provides better performance with shorter response time. DNSVault help KPKT gave best performance to client in DNS query and highest reliability for the normal DNS services query per day .