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MEN & MICE xDNS REDUNDANCY

Secure your DNS across multiple platforms

DNS (Domain Name System) is the most critical aspect of any network's availability. When DNS services are halted, or slowed down significantly, networks become inaccessible, leading to damaging losses in revenue and reputation for enterprises.

Maintaining DNS Redundancy for Network Resilience

To ensure uninterrupted, up-to-date availability of DNS services, many enterprises implement a system of DNS redundancy. DNS redundancy basically involves replicating and holding copies of critical DNS master zones in multiple locations. This enables the successful mitigation of the consequences of DNS configuration errors, distributed denial-of-services (DDoS) attacks, or other forms of harmful DNS infrastructure failure.

DNS redundancy is most effective when identical, critical DNS master zones are distributed across diverse DNS platforms, on-premises and in the cloud. This helps to:

1. Remove the danger of exposure to a single point of DNS failure.

2. Reduce traditional master-slave DNS redundancy vulnerabilities, where slave zones can't be changed if the master becomes unavailable (Diagram 1).

3. Improve infrastructure resilience by hosting critical zones with multiple providers, ensuring continued service availability and updates of changes if one DNS service provider becomes unavailable (Diagram 2).

Though holding exact copies of critical DNS master zones across multiple DNS service provider platforms is considered the best solution for ensuring uninterrupted DNS availability, the complications involved in maintaining it pose a whole range of new risks to DNS availability.

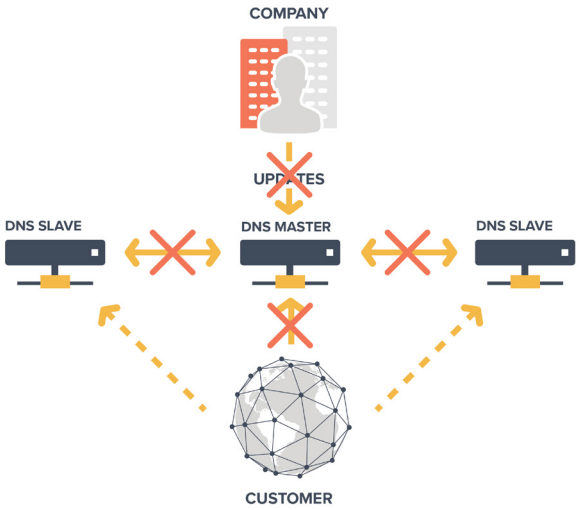

Diagram 1

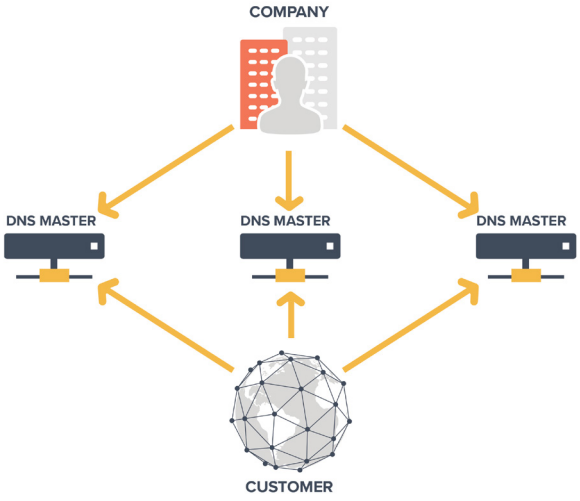

Diagram 2

The Risky Business of Maintaining DNS Redundancy

As illustrated in Diagram 2, updates to identical DNS master zones held in different locations can be done manually. Yet, in practice, DNS availability is too easily compromised by the complexity of tasks and scope for error involved in making, and replicating, identical DNS updates manually. The situation is exacerbated by the number of DNS service provider platforms involved and the accompanying:

- lack of centralized views
- lack of workflow automation
- difficulty of coordinating multiple platform APIs

This inability to view, synchronize and update identical zones' data simultaneously can, in itself, lead to errors and conflicts in DNS configuration and result in a network outage – the very event that DNS redundancy is intended to prevent. Additionally, utilizing multiple APIs for automating similar tasks related to identical zones, creates an unnecessary, and potentially harmful, extra layer of complexity.

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PROTECT YOUR DNS WITH MEN & MICE xDNS REDUNDANCY

Breaking new ground in the battle against DNS disruption, the Men & Mice xDNS redundancy feature provides the abstracted tools necessary to replicate and synchronize critical DNS master zones across multiple DNS service provider platforms, on-premises, in the cloud, or in a multi-cloud environment.

Men & Mice xDNS redundancy provides a unified view and centralized management of your DNS data, regardless of the DNS service provider platform. Network administrators and other authorized users can use xDNS to perform necessary updates to your network's DNS, as well as benefit from building automation with the powerful Men & Mice API, instead of having to dig around in different DNS platforms and deal with coordinating conflicting APIs. (Diagram 3)

xDNS leaves you free to augment, distribute and adapt your DNS redundancy as you see fit. Combined with the flexibility of building automation on top of the Men & Mice Suite, xDNS gives you the freedom to move your redundant DNS services around, or better distribute your DNS load, between external DNS providers of your choice, if and when necessary.

Singular on the DNS, DHCP and IP Address Management (DDI) market, the Men & Mice Suite's enterprise-grade, back-end agnostic architecture supports **BIND, Windows DNS, Azure DNS, Amazon Route 53, NS1, Dyn and Akamai Fast DNS.**

HOW xDNS REDUNDANCY WORKS

Using the Men & Mice xDNS feature, create a zone redundancy group by selecting critical zones from DNS servers and services such as **BIND, Windows DNS, Azure DNS, Amazon Route 53, NS1, Dyn and Akamai Fast DNS.**

Once an xDNS zone redundancy group has been created, xDNS assists the administrator in creating identically replicated zone content, resulting in multiple identical master zones. Additional zones can be added or removed from the xDNS group as required.

All changes initiated by the user through Men & Mice, both the UI and API, will be applied to all zone instances in the group. All changes made externally to zones existing in the xDNS group, will be synchronized to all zones in that particular xDNS group. However, if DNS record conflicts arise, xDNS will alert the user and provide an option on how to resolve conflicts before the group is re-synced.

If an xDNS zone is not available for updating, for instance if one DNS service provider experiences an outage, that zone will be marked as out-of-sync. Once the zone becomes available again, it will be automatically re-synchronized and will receive all updates that were made while the DNS service was unavailable.

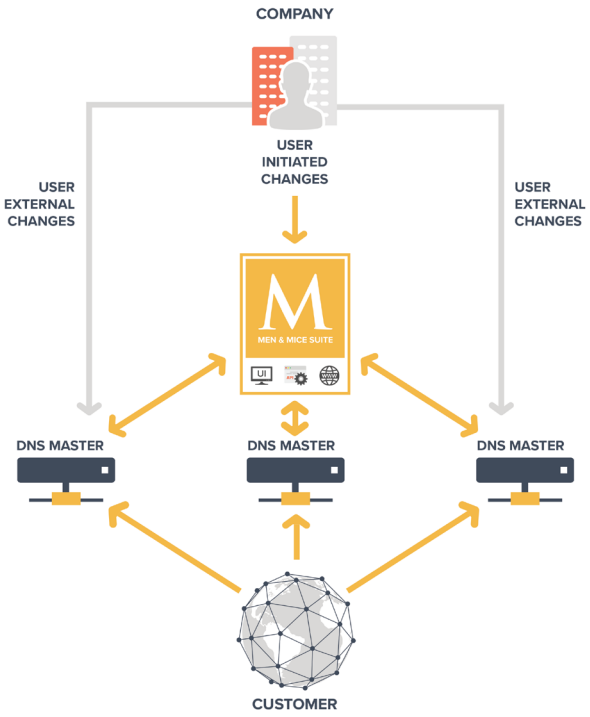

Diagram 3

xDNS – MAKING DNS REDUNDANCY TRULY RESILIENT

DNS redundancy is a great concept on paper, but a daunting challenge in practice. Men & Mice xDNS redundancy enables the centralized replication and synchronization of multiple DNS zones, across multiple DNS service provider platforms, ensuring x-tra high network availability and x-treme system redundancy.

By providing a level of abstraction that builds automation, provides centralized views, eliminates human error and removes conflicting DNS service provider platform complexities, Men & Mice xDNS takes the 'daunt' out of DNS redundancy, making your network truly resilient, and well-protected from the consequences of DNS configuration errors and DDoS attacks.

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