TCPWave DDI IPAM Manager

A single solution catering to your DNS, DHCP, and IP address requirements.

Overview

TCPWave DDI IPAM Manager is a comprehensive solution designed to streamline and optimize the management of DNS, DHCP, and IP Address Management (IPAM) functions within enterprise networks. With a focus on reliability, scalability, and flexibility, TCPWave DDI IPAM Manager offers a range of features to meet the diverse needs of modern IT environments.

Microsoft Management

TCPWave DDI IPAM Manager offers extensive support for Microsoft environments (DNS & DHCP), facilitating seamless integration and management of DNS and DHCP services within Microsoft Active Directory (AD) environments.

Key features include

1. **AD Integration**

   TCPWave DDI IPAM Manager integrates seamlessly with Microsoft Active Directory, synchronizing DNS and DHCP configurations with AD domain controllers for centralized management and authentication.

2. **Dynamic Updates**

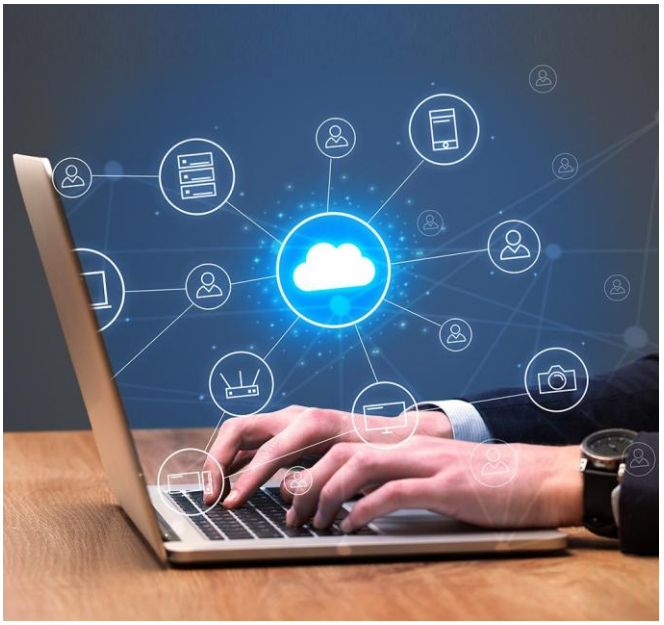
   The solution supports dynamic DNS updates, enabling automatic registration and resolution of hostnames within AD-integrated DNS zones, simplifying administration, and reducing manual overhead.

3. **DNS & DHCP Failover**

   TCPWave DDI IPAM Manager provides built-in support for DNS & DHCP failover in Microsoft environments, ensuring high availability and reliability of DNS & DHCP services across redundant server configurations.

Cloud Management

TCPWave DDI IPAM Manager offers comprehensive support for cloud environments, empowering organizations to efficiently manage DNS, DHCP, and IPAM services across hybrid and multi-cloud infrastructures.



Key capabilities include

1. **Native Cloud Integrations**

   TCPWave DDI IPAM Manager seamlessly integrates with major cloud platforms, including AWS, Akamai, Google, Azure, Cloudflare, DYNDNS, Neuster and NS1, enabling centralized management of cloud-based resources and services.

2. **Cloud Hosted Subnets Discovery**

   TCPWave DDI IPAM Manager can communicate directly with the AWS console to discover all cloud-hosted VPCs across all regions, which are added as subnets on the TCPWave DDI controller.

3. **Policy-Based Management**

   Administrators can define policies to govern DNS, DHCP, and IPAM configurations across cloud instances, ensuring consistency and compliance with organizational standards.

High Availability (HA) Resiliency

TCPWave DDI IPAM Manager ensures business continuity and minimizes downtime through robust High Availability (HA) mechanisms.

Key features include

1. **Active-Active Configuration**

   TCPWave DDI IPAM Manager supports an active-active configuration, distributing the workload across multiple instances to prevent single points of failure and maximize system uptime.

2. **Automatic Failover**

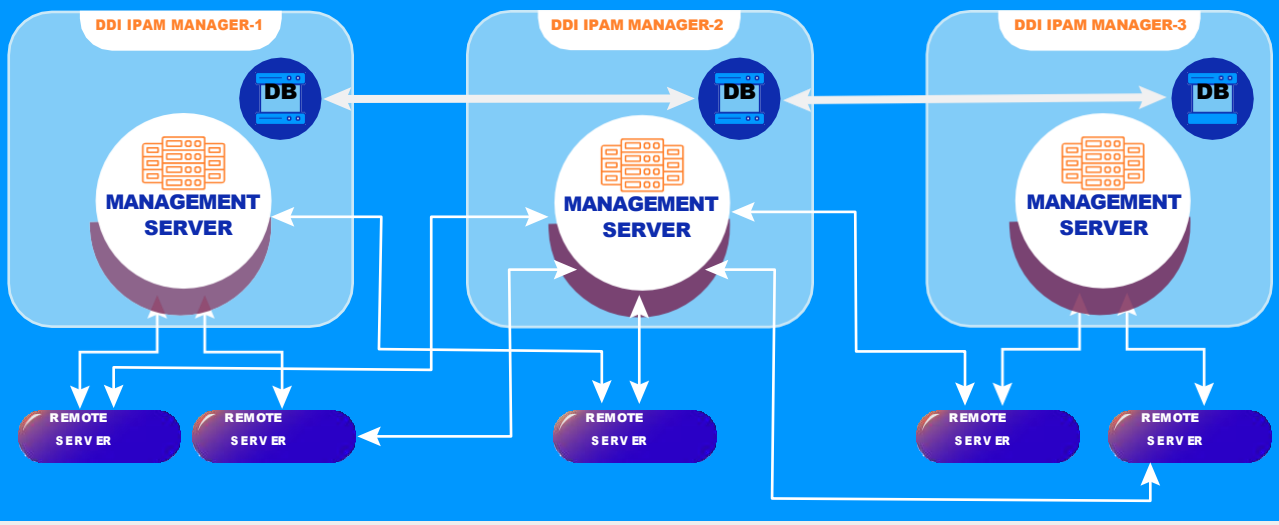
   In the event of a failure in one instance, TCPWave DDI IPAM Manager seamlessly transitions operations to a standby instance, minimizing service disruptions.

3. **Health Monitoring**

   The system continuously monitors the health and performance of all components, proactively identifying potential issues and taking corrective actions to maintain optimal operation.

TCPWave uses Galera-Cluster to provide HA database synchronization. Databases synchronize automatically under transaction control. Management servers can be located across the globe for disaster recovery. DDI Remotes connect to the nearest management server and automatically reconnect in an outage, enabling the users to connect to the nearest server. "Split Brain" is mitigated by utilizing Servers/Remotes to verify communication issues and outages. Automatic DB recovery occurs after restoration.

Example "All Active" configuration with three Management Servers



DNS/DHCP Remote Distribution

- The remote servers will connect to the closest server when they are initially installed. Similarly, when a Management Server goes down, the DDI remotes connected to it will redistribute to other Management Servers.
- IPAM HA should be configured with an odd number of IPAM Servers.

API Integration

TCPWave DDI IPAM Manager offers extensive API support, enabling seamless integration with third-party applications and automation frameworks.

Key highlights include

1. **RESTful APIs**

   TCPWave DDI IPAM Manager provides RESTful APIs for easy integration with popular programming languages and frameworks, allowing administrators to automate routine tasks and customize workflows.

2. **Integration with Third-Party Applications**

   The solution integrates with leading orchestration platforms such as Ansible, Terraform, ITSM, vRA enabling organizations to automate provisioning, configuration, and management tasks across their infrastructure.

3. **Custom Integration**

   Administrators can develop custom integrations using the flexible API framework, tailoring the solution to meet specific business requirements and workflows.

Discovery

TCPWave Discovery is a comprehensive solution designed to provide organizations with visibility and insight into their network infrastructure. It offers a range of features to discover, map, and manage network assets efficiently.

Key highlights include

1 Automated Discovery

TCPWave Discovery automates the process of discovering network devices, including servers, switches, routers, and other infrastructure components. By leveraging various discovery protocols and techniques, it ensures comprehensive coverage of the network environment.

2 Asset Inventory

TCPWave Discovery maintains a centralized inventory of all discovered assets, including hardware specifications, software versions, and configuration details. This comprehensive asset database serves as a foundation for effective network management and planning.

3 IP Address Management (IPAM)

In addition to device discovery, TCPWave Discovery provides IP address management capabilities, allowing administrators to efficiently allocate and track IP addresses across their network infrastructure. It helps prevent IP address conflicts and ensures efficient utilization of available address space.

4 Integration with Network Management Systems

TCPWave Discovery seamlessly integrates with leading network management systems, such as TCPWave DDI IPAM Manager and third-party platforms, enabling organizations to leverage discovered data for network monitoring, configuration management, and automation.

Workflow Management

TCPWave DDI IPAM Manager streamlines operational workflows and enhances productivity through intuitive management interfaces and workflow automation capabilities.

Key functionalities include

1 Role-Based Access Control (RBAC)

The solution offers granular RBAC controls, allowing administrators to define roles and permissions tailored to their organization's hierarchy and security policies.

2 Workflow Automation

TCPWave DDI IPAM Manager enables automation of common tasks and processes through customizable workflows, reducing manual effort and ensuring consistency in configuration changes and deployments.

3 Auditing and Compliance

The system provides comprehensive audit trails and reporting capabilities, enabling administrators to track all changes made to DNS, DHCP, and IPAM configurations and ensuring compliance with regulatory requirements.

Reports

TCPWave DDI IPAM Manager offers a range of reporting and analytics features to provide insights into network utilization, performance, and compliance.

Key highlights include

1 Predefined Reports

The solution includes a library of predefined reports covering essential metrics such as IP address utilization, DNS query statistics, DHCP lease status, and compliance audits.

2 Scheduled Reporting

TCPWave DDI IPAM Manager supports scheduled report generation and distribution, enabling administrators to automate the delivery of reports to stakeholders on a regular basis.

TCPWave®

Secure, Smart, and Scalable Networks

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