LINUX

LINUX

NAMESPACE

Habibul Hasan

Linux namespace

@reallygreatsite

01

WHAT IS THAT?

Allows Processes to have isolated view of system resource. More specifically speaking, one process/ app can have get unique instances of PID,NETWORK ETC...

ITS ONE OF THE MAIN FEATURE OF KERNEL

Habibul Hasan

Linux namespace

HOW MANY NAMESPACE AER THERE?

02

1. **PID**
2. **NETWORK**
3. **MOUNT**
4. **UTS**
5. **IPC**
6. **USER**
7. **TIME**

Habibul Hasan

Linux namespace

03

NAMESPACE USE CASES

1. Docker and Container Orchestration
2. Security and Sandbox Environment
3. Virtual Networks and VPNs
4. Multi-Tenancy Environments
5. Kubernetes Namespaces
6. Process Management Tools
7. Lightweight Virtualization

habibul hasan

Linux namespace

04

DOCKER AND CONTAINER ORCHESTRATION

Namespaces form the foundation for containerization technologies like Docker. They allow for the isolation of processes, networks, and file systems, enabling the deployment of lightweight and portable containers. Container orchestration tools like Kubernetes also leverage namespaces to manage and isolate workloads.

habibul hasan

Linux namespace

05

SECURITY AND SANDBOX ENVIRONMENTS

Namespaces enable the creation of sandboxed environments, isolating processes and preventing them from affecting the host system

habibul hasan

06

VIRTUAL NETWORKS AND VPNS

Network namespaces allow the creation of isolated network stacks. This can be used to set up virtual networks for testing, development, or for running multiple VPNs without interference.

Linux namespace

07

KUBERNETES NAMESPACES

Kubernetes uses namespaces to partition resources within a cluster. This allows multiple teams or projects to use the same Kubernetes cluster while maintaining isolation.

habibul hasan

07

MICROSERVICES ISOLATION:

In a microservices architecture, namespaces can be used to isolate services, providing independent environments for different components of an application.

Linux namespace LINUX

WAS THIS HELPFUL?

SAVE THIS POST

MD HABIBUL HASAN
Sr.Software Enginee