Resource Requirements for Deployments

This section provides the CPU, memory, and disk space requirements for the IoT FND application, database, and tunnel provisioning servers for each of the IoT FND deployment types.

Bare Metal Server Deployment Resource Requirements

The following table shows the CPU, memory (RAM), and disk space requirements for the IoT FND application server in a bare metal server deployment for mesh management.

For improved device scalability and device performance, we recommend that you cluster application servers as follows:

- For deployments with between 2,000 routers/2,000,000 endpoints and 6,000 routers/6,000,000 endpoints: Two application servers
- For deployments with more than 6, 000 routers and 6,000,000 endpoints: Four application servers

Table 1: IoT FND Application Server Resource Requirements in a Bare Metal Server Deployment

Nodes Deployed	CPU	Memory (RAM GB)	Disk Space (GB)
Up to 25 routers and 10,000 endpoints	2	16	100
Up to 50 routers and 50,000 endpoints	4	16	200
Up to 500 routers and 500,000 endpoints	4	16	250
Up to 1,000 routers and 1,000,000 endpoints	8	16	250
Up to 2,000 routers and 2,000,000 endpoints	8	16	500
Up to 6,000 routers and 6,000,000 endpoints	8	16	500
Up to 8,000 routers and 8,000,000 endpoints	8	32	500

The following table shows the CPU, memory (RAM), and disk space requirements for the IoT FND database server in a bare metal server IoT FND deployment.

Table 2: IoT FND Database Server Resource Requirements in a Bare Metal Server Deployment

Nodes Deployed	CPU	Memory (RAM GB)	Disk Space (GB)
Up to 25 routers and 10,000 endpoints	2	16	100
Up to 50 routers and 50,000 endpoints	4	16	200
Up to 500 routers and 500,000 endpoints	8	32	500
Up to 1,000 routers and 1,000,000 endpoints	12	48	1000
Up to 2,000 routers and 2,000,000 endpoints	16	64	1000
Up to 6,000 routers and 6,000,000 endpoints	20	96	1000
Up to 8,000 routers and 8,000,000 endpoints	32	160	2000

The following table shows the CPU, memory (RAM), and disk space requirements for the TPS in a bare metal server IoT FND deployment.

Table 3: Tunnel Provisioning Server Resource Requirements in a Bare Metal Server Deployment

Nodes Deployed	CPU	Memory (RAM GB)	Disk Space (GB)
Up to 25 routers and 10,000 endpoints	2	4	50
Up to 50 routers and 50,000 endpoints	2	4	100
Up to 500 routers and 500,000 endpoints	2	4	100
Up to 1,000 routers and 1,000,000 endpoints	2	4	100
Up to 2,000 routers and 2,000,000 endpoints	2	4	100
Up to 6,000 routers and 6,000,000 endpoints	2	4	100
Up to 8,000 routers and 8,000,000 endpoints	2	4	100

VM Deployment with Oracle Resource Requirements

The following table shows the CPU, memory (RAM), and disk space requirements in a VM deployment with Oracle.

Table 4: Resource Requirements in a VM Deployment with Oracle

Nodes Deployed	CPU (Virtual Cores)	Memory (RAM GB)	Disk Space (GB)
Up to 2,000 routers and 2,000,000 endpoints	24	96	1500

VM Deployment with Postgres Resource Requirements

The following table shows the CPU, memory (RAM), and disk space requirements in a VM deployment with Postgres.

Table 5: Resource Requirements in a VM Deployment with Postgres

Nodes Deployed	CPU (Virtual Cores)	Memory (RAM GB)	Disk Space (GB)
Up to 25,000 routers	24	96	800
Up to 15,000 routers	16	64	500
Up to 10,000 routers	10	32	500