

Essential Port Numbers for DevOps Engineers

Common Protocols and Services

- 1. **HTTP**:
 - Port: 80
 - **Purpose**: Unsecured web traffic.
- 2. **HTTPS**:
 - Port: 443
 - Purpose: Secure web traffic (TLS/SSL).
- 3. **SSH**:
 - Port: 22
 - Purpose: Secure shell access for remote administration.
- 4. **FTP**:
 - Port: 20 (data transfer), 21 (control)
 - Purpose: File Transfer Protocol.
- 5. **SFTP**:
 - **Port**: 22
 - Purpose: Secure FTP via SSH.
- 6. Telnet:

- **Port**: 23
- **Purpose**: Unsecured remote administration (rarely used now).

7. **DNS**:

- Port: 53
- Purpose: Domain Name System resolution.

8. **SMTP**:

- **Port**: 25, 587 (with encryption), 465 (deprecated)
- Purpose: Email sending.

9. **IMAP**:

- **Port**: 143 (unencrypted), 993 (encrypted)
- Purpose: Retrieve emails (modern email clients).

10.**POP3**:

- **Port**: 110 (unencrypted), 995 (encrypted)
- Purpose: Retrieve emails (older protocol).

DevOps and Automation Tools

1. Jenkins:

- **Port**: 8080 (default)
- Purpose: Continuous Integration/Delivery.

2. Docker:

- **Port**: 2375 (unencrypted), 2376 (encrypted)
- Purpose: Docker API.

3. Kubernetes API Server:

- **Port**: 6443
- Purpose: Communication with Kubernetes API.

4. Terraform Enterprise:

- Port: 8800 (default)
- **Purpose**: Backend services.

Databases

1. MySQL:

Port: 3306

• **Purpose**: MySQL database.

2. PostgreSQL:

• **Port**: 5432

• **Purpose**: PostgreSQL database.

3. MongoDB:

• **Port**: 27017

• **Purpose**: MongoDB NoSQL database.

4. Redis:

• **Port**: 6379

• Purpose: In-memory data store.

5. Elasticsearch:

• Port: 9200 (HTTP), 9300 (Node communication)

• Purpose: Search and analytics engine.

Cloud and Monitoring Tools

1. Prometheus:

• **Port**: 9090

• Purpose: Monitoring and alerting.

2. Grafana:

• Port: 3000

• **Purpose**: Data visualization and dashboards.

3. Consul:

• **Port**: 8500 (HTTP API), 8600 (DNS queries)

• Purpose: Service discovery and configuration.

4. Vault:

• Port: 8200

• **Purpose**: Secrets management.

5. **Zabbix**:

• **Port**: 10051 (server), 10050 (agent)

• Purpose: Monitoring.

Version Control

- 1. Git (SSH):
 - Port: 22
 - Purpose: Secure Git operations.
- 2. **Git (HTTPS)**:
 - **Port**: 443
 - **Purpose**: Secure Git operations via HTTPS.

Messaging and Queueing Systems

- 1. RabbitMQ:
 - Port: 5672 (AMQP), 15672 (Management console)
 - Purpose: Message broker.
- 2. Kafka:
 - Port: 9092
 - Purpose: Distributed messaging system.

Miscellaneous

- 1. **NTP**:
 - Port: 123
 - **Purpose**: Network Time Protocol.
- 2. **LDAP**:
 - **Port**: 389 (unencrypted), 636 (encrypted)
 - **Purpose**: Directory services.
- 3. **SNMP**:
 - **Port**: 161 (queries), 162 (traps)
 - **Purpose**: Network monitoring.
- 4. **RDP**:
 - Port: 3389
 - Purpose: Remote Desktop Protocol (Windows).