

Here's how to set up authentication on MongoDB securely on Ubuntu in accordance with the CIS benchmarks:

1. Enable Authentication:

- Edit the MongoDB configuration file (/etc/mongodb.conf) with root privileges.
- Locate the security section or add one if it doesn't exist.
- Set the authorization parameter to enabled. This enforces user authentication before accessing the MongoDB server.

YAML

```
security:
  authorization: enabled
```

2. Choose an Authentication Mechanism:

- The CIS benchmarks likely recommend using either SCRAM-SHA-1 or LDAP for authentication.

3. SCRAM-SHA-1 Authentication:

- This is the default authentication mechanism in MongoDB and utilizes usernames and passwords.
- Create user accounts with strong passwords for authorized users:

```
mongo
use admin
db.createUser(
  {
    user: "username",
    pwd: passwordHash("strong_password"),
    roles: [ { role: "userAdminAnyDatabase", db: "admin" } ]
  }
)
```

- Replace "username" and "strong_password" with your desired credentials.
- passwordHash is a helper function to securely hash the password before storing it.

4. LDAP Authentication:

- If you have an existing LDAP server for user management, you can configure MongoDB to

integrate with it for authentication.

- Refer to the official MongoDB documentation for detailed LDAP configuration steps:
<https://www.mongodb.com/docs/manual/core/security-ldap-external/>

5. Secure Password Management:

- Enforce strong password policies with minimum length and complexity requirements.
- Consider using a password manager for secure storage and retrieval of user credentials.

6. User Privileges:

- Beyond authentication, implement authorization controls to restrict user access to specific databases and collections within MongoDB.
- Use roles and access control documents (ACDs) to define granular permissions for users.

Additional Resources:

- CIS MongoDB Security Benchmarks (reference security guides that mention them): While not available directly online, you can find references and explanations in security guides that reference CIS benchmarks. Search for "CIS MongoDB Security Benchmarks Ubuntu".
- MongoDB Documentation on Authentication:
<https://www.mongodb.com/docs/manual/security/>
- MongoDB Documentation on Authorization:
<https://www.mongodb.com/docs/manual/core/authentication/>

Remember:

- Consult the specific CIS MongoDB benchmarks for your Ubuntu version for detailed recommendations on authentication methods and configuration.
- Regularly review and update user accounts and their privileges to ensure they align with changing needs.
- Secure communication channels using TLS/SSL encryption for added security, especially when using SCRAM-SHA-1 authentication.