AWS Managed Blockchain

Topics : AWS
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Amazon Managed Blockchain is a fully managed service provided by Amazon Web Services (AWS) that makes it easy to create and manage scalable blockchain networks using popular open-source frameworks. Here are key aspects of Amazon Managed Blockchain:

1. **Blockchain Networks:**
    - Amazon Managed Blockchain supports popular open-source blockchain frameworks, such as Hyperledger Fabric and Ethereum.
    - It enables you to create and manage multiple blockchain networks with ease.
2. **Managed Infrastructure:**
    - AWS takes care of the underlying infrastructure, including hardware provisioning, networking, and software installation.
    - This allows developers to focus on building applications and smart contracts.
3. **Decentralized and Scalable:**
    - Managed Blockchain provides the benefits of decentralization, allowing multiple parties to transact without the need for a central authority.
    - It is designed to scale easily as the number of participants and transactions increases.
4. **Security and Identity Management:**
    - Amazon Managed Blockchain integrates with AWS Identity and Access Management (IAM) for access control.
    - It provides a managed certificate authority to create and manage cryptographic keys, ensuring secure communication between nodes.
5. **Smart Contracts:**
    - Managed Blockchain supports smart contracts, which are self-executing contracts with the terms of the agreement directly written into code.
    - Smart contracts can be written using popular programming languages, such as Go and JavaScript.
6. **Fully Managed Voting API:**
    - Managed Blockchain includes a fully managed voting API that allows members to vote on adding or removing members, changing network configurations, and approving or

rejecting proposals.

7. **Blockchain Explorer:**
    - Amazon Managed Blockchain provides a blockchain explorer that allows you to view and query the blockchain ledger.
    - It offers visibility into transactions, smart contract executions, and participant information.
8. **Integration with AWS Services:**
    - Managed Blockchain integrates seamlessly with other AWS services, such as Amazon CloudWatch for monitoring, AWS CloudTrail for logging, and AWS Key Management Service (KMS) for key management.
9. **Consensus Mechanisms:**
    - Managed Blockchain supports different consensus mechanisms based on the chosen framework. For example, Hyperledger Fabric supports Practical Byzantine Fault Tolerance (PBFT) and Ethereum supports Proof of Work (PoW) and Proof of Authority (PoA).
10. **Use Cases:**
    - Common use cases for Amazon Managed Blockchain include supply chain transparency, financial transactions, asset tracking, and any scenario where multiple parties need to transact securely without a central authority.