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Patent Search

Invention Title	METHOD AND SYSTEM FOR DATA STORAGE ACCESS BASED ON BLOCKCHAIN AND CLOUD PLATFORM
Publication Number	14/2024
Publication Date	05/04/2024
Publication Type	INA
Application Number	202441023641
Application Filing Date	26/03/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMMUNICATION
Classification (IPC)	H04L0009320000, H04L0009060000, H04L0047780000, H04L0067100000, H04L0047700000

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Abstract:

A blockchain-enabled service-based cloud native function (CNF) application architecture including a physical cloud infrastructure that includes computing resources, an application service mesh network including CNF that communicate with each other, and a blockchain-supported network slice orchestration of one or more network slices managed by a slice coin orchestrator, each network slice being an instantiated logical network, is defined by a smart contract deployed on a blockchain network. The slice orchestrator transacts smart contracts transferring tokens that are configured to be exchangeable for instantiation of a network slice, defined as slice coins, with each slice the plurality of slice coins being configured to regulate at least one of access to and use by the one or more network slices to at least one of the computing resources and applications of the application service mesh network.

Complete Specification

Description: A blockchain-enabled service-based cloud native function (CNF) application architecture including a physical cloud infrastructure that includes computing resources, an application service mesh network including CNF that communicate with each other, and a blockchain-supported network slice orchestration of one or more network slices managed by a slice coin orchestrator, each network slice being an instantiated logical network, is defined by a smart contract deployed on a blockchain network. The slice coin orchestrator transacts smart contracts transferring tokens that are configured to be exchangeable for instantiation of a network slice, defined as : coins, with each slice coin of the plurality of slice coins being configured to regulate at least one of access to and use by the one or more network slices to at least one of computing resources and the CNF applications of the application service mesh network. , C , C , Claims: 1. A blockchain-enabled service-based cloud native function (CNF) application architecture comprising:

physical cloud infrastructure comprising computing resources, the computing resources comprising:

a processor;

memory positioned in communication with the processor; and

a network communication device positioned in communication with the processor;

an application service mesh network comprising a plurality of CNF applications configured to communicate with each other, each application of the plurality of applications being executable on the physical infrastructure;

a blockchain-supported network slice orchestration of one or more network slices managed by a slice coin orchestrator, each network slice being an instantiated logical network, is defined by a smart contract deployed on a blockchain network, and comprises:

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Page last updated on: 26/06/2019