

TM Forum Open APIs Conformance Certification



Company Name:

China Telecom Corporation Limited.

Product Name and Release Version:

China Telecom CNOS-BSS

TM Forum Open API Name and Release Version:
TMF672 – User Role Permission Management V4.0.1

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1. What Product or Solution does your API support?

China Telecom CNOS (New-Generation Cloud Network Operation System) is an enterprise-level operation system that integrates and upgrades the existing OSS (for network operation), BSS (for business operation), and MSS. It is one of the main carriers for China Telecom's digital, automated, and intelligent operation management, and an important component of China Telecom digital platform.

The capabilities provided by various capability centers and applied in various application scenario in the CNOS are uniformly aggregated and encapsulated through the atomic capability platform to achieve capability sharing. CNOS and the data middleware enable the interconnection and sharing of production data, and empower production operation through the big data and AI capabilities of the data middleware. Meanwhile based on the unified technology platform of PaaS components, IaaS, and general capabilities of the business centers, cloud deployment and development operation are integrated.

The User Role and Permissions Management API (TMF672) serves as core capability of CNOS Certification Center. It manages two main resources: UserRole and Permission. It supports creation, query, partial update of user role and permission resources, implements granting of access privilege for manageable assets between granter and grantee users. It defines privilege and entitlement model for asset-oriented access control, and provides 8 categories of event notifications for permission and user-role lifecycle changes. CNOS uses this API to realize standardized role-based access control, support asset-oriented privilege assignment, cross-system permission synchronization, and integrate with user management and identity authentication subsystems.

2. Overview of Certified API

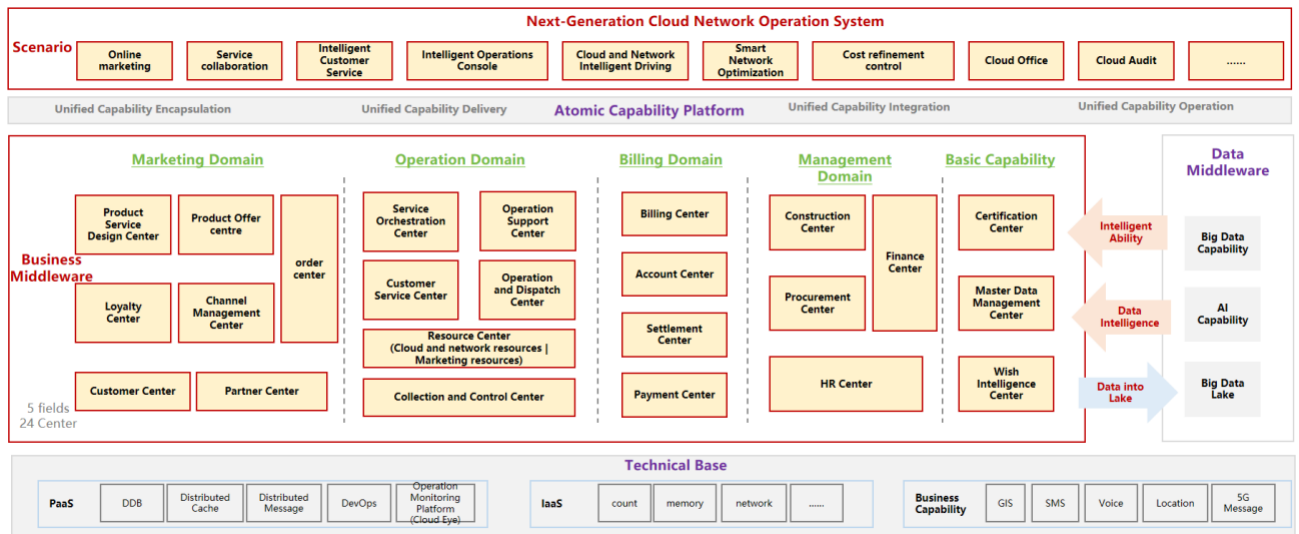
- TMF672 User Roles and Permissions Management API

The User Roles and Permissions Management API REST specification provides standardized management for user role and permission resources. Two core managed entities are defined: `UserRole` which aggregates a set of entitlements, and `Permission` which represents the

access authorization granted by granter to grantee on manageable assets. It supports CRUD-related operations: list, retrieve, create and partial patch update for user role and permission resources. It implements asset-oriented privilege assignment model, supports role-based authorization and direct privilege granting. It adopts meta-attributes (`@type``, `@baseType``, `@schemaLocation``, `@referredType``) to realize polymorphism and schema extension. Eight notification events are defined covering create / attribute change / state change / delete events for both Permission and UserRole. This API is applicable for identity access control, asset permission allocation, cross-system privilege synchronization scenarios..

3. Architectural View

The following Diagram shows the technical architecture of China Telecom CNOS(Next-Generation Cloud Network Operations System) :



4. Test Results

Click here to view the test results: <CHINATELECOM-TMF672-v4.0.0-HTMLReport.html>