SCM

Wavenet Subscription and Content Manager (SCM)

The Wavenet Subscription and Content Manager (SCM) specialises in service creation and delivery for both content and subscription services and handles supporting functions such as subscriber charging, consent management and content personalisation.

The SCM enables Communication Service Providers (CSPs) to leverage new sources of revenue and is developed based on a service-oriented architecture that allows for greater flexibility, with wider options for scaling, and optimising service exchanges between CSPs, content and service providers, as well as consumers.

THE CSP CHALLENGE

It is increasingly apparent that CSPs cannot afford to compete only on price differentiation in the market in the long run, as this leads to commoditisation of their core service offerings such as SMS, voice and data. There is an emergence of new players in the telecommunications space, catering to specific consumer needs or niche markets. Here, the old model of competing on price reductions have become unsustainable and offering 'differentiation' in terms of services has become key to carving out profitable niche markets. CSPs need to be quick, dynamic and efficient in creating, executing, evaluating, and fulfilling services with effective charging mechanisms such as when offering different content in bundles.

The content space is also increasingly encroached by OTT players such as Netflix that supplies digital content over a CSP's data infrastructure. There is truly little investment needed by these OTT players, and CSPs are side lined to a "dumb pipe" role. CSPs can therefore either look at partnering with digital content providers, such as Telefonica's partnership with Netflix, or BT's partnership with Amazon Prime video. This would provide CSPs the muscle power needed to cash-in on digital content and subscription services used by consumers, either by offering these services on top of their existing data packages or as an inclusive offering.

You may find that most vendors in the market supporting such requirements offer a 'one size fits all' approach and with little flexibility due to their platforms being highly dependent, on tightly integrated modules. This offers poor overall management, starting with service creation, provisioning and charging.

THE SOLUTION

Wavenet SCM (Subscription and Content Manager) specialises in service creation, delivery and charging as well as content management, consent and subscription management. It also allows CSPs to integrate with other multi-vendor backend supporting systems such as billing systems, loyalty systems and CRMs helping CSPs to produce new sources of revenue.

Unique selling propositions of SCM:

⊕ Reduced time-to-market achieved with dynamic package creations, provisioning and subscription logics.

⊕ Manages consent for subscription services, allowing customers to provide approvals and subscribe to CSP's value-added services.

⊕ Assists CSPs in attracting new customers and retaining existing customers by having the flexibility to define price plans, charging and discounts to match the SCM the current market conditions.

⊕ Offers better access and richer subscriber user experiences through multiple service subscriptions.

Wavenet SCM Components

Wavenet
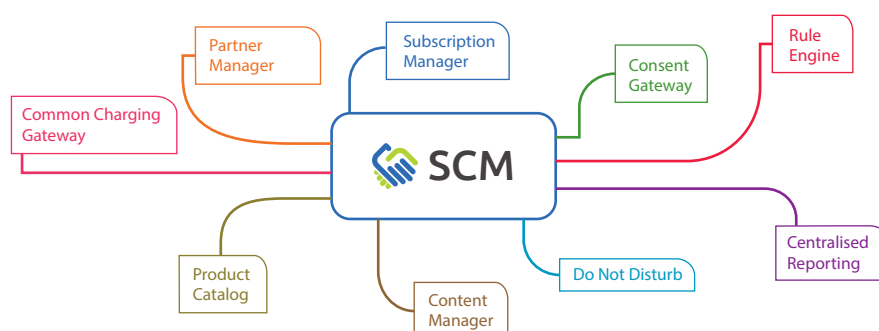
Partner Manager

The SCM platform enables onboarding third parties as service partners or content partners, with the ability to manage role-based privileges and user authentication to access and manage content and services handled by the SCM modules.

Features and capabilities of Partner Manager:

- Single sign-on for all Wavenet services.
- Role-based access control.
- Inbound provisioning.
- System audits and password management.
- Application and permission management.
- User authentication.
- Outbound provisioning.
- Multi level user management.
- Manage companies and departments.
- LDAP integration.

Product Catalog

A comprehensive Product Catalog is available for both network and partner services, including capabilities for, definition of product, service lifecycle management and associated price plans.

Features and capabilities of the Product Catalog:

- Managing service information.
- Manage product lifecycle.
- Product provisioning channels.
- Single point of product configuration and management.
- Create and manage pricing plans.
- Availability of dockerized version of Product Catalog
- Export catalog Information.
- Product order channels.
- Manage various bundle products.
- Ability to query products by external systems via APIs.
- Fallback, installation and micro-charging.

Rule Engine

The Rule Engine of SCM manages multiple permutations of different rules for provisioning of services. For example, network subscriptions service allowance, addressing use cases such as usage-based discounts and anomaly detection.

Features and capabilities of the Rule Engine:

- General rule-based actions. E.g. service availability, charging eligibility, add and remove from blacklists, consent on third party request etc.
- Anomaly rules for alerting on anomalies.
- Availability of dockerized version of Rule Engine
- Availability of coupon codes
- Rule-based discounts. Eg: Subscription bundles, usage-based discounts, promotion discounts, content based discounts, multi-partner discounts
- Minimise fraudulent requests with real-time and offline/batch process.
- Support notification rules

Subscription Manager

A comprehensive Subscription Manager allows CSPs to manage end-to-end subscription processes with a wide range of related actions such as subscription configurations, logics for subscriptions and notifications.

Features and capabilities of the Subscription Manager:

- Standard interfaces for integrations. E.g. content repositories, consent gateways, third-party applications, loyalty systems, etc.

- Manage subscriptions based on lifecycle states such as grace period, etc.

- APIs for multi-channel service subscription support.

- Availability of dockerized version of Subscription Manager

- Manage positive/negative consent for subscriptions and renewals.

- Validation of conditions such as blacklists, DND and other variables for subscription process.

- Triggering of notifications corresponding to subscription activity.

- Charging management mechanism for active subscriptions

Consent Gateway

As much as subscribers enjoy the availability of services offered by a CSP, they would also expect adequate protection from any form of ambiguous service requests. Subscribers will want to provide their explicit consent to provisioning of services, and to pay for what is only agreed by them in order to safeguard their consumer rights. Wavenet SCM provides the Consent Gateway to address this requirement.

Features and capabilities of Consent gateway:

- Consent can be requested via SMS, USSD and Web*.

- Digital channels – support redirection URL and access token based on which customer can be redirected to get consent.

- Legacy channels – incorporate auto consent by generating consent IDs and attach transaction.

*Roadmap product

Content Manager

The Content Manager supports management of multiple content formats such as images, text and video. It includes options for content upload, categorisation, moderation, price and service setting along with reports based on number of downloads.

Features and capabilities of the Content Manager:

- Single/bulk upload by third-party Service Provider (S/P) Content Provider (C/P).

- A content repository for Content Provider to onboard and be part of content ecosystem.

- The Content Manager web GUI allows CP/SPs to upload service content.

- Upon the content approval, the CP/SP can broadcast content to subscribers (news alert/jokes).

- Authentications can be implemented with CAM/Identity servers with user hierarchies.

- Standard interfaces for integrations.

- Content categorisation and metadata management for efficient classification and search e.g. content name, genre, etc.

- Content moderation, publishing and management.

- Content moderation functionality can be enabled where an authorised user must approve or reject content.

- The options to search/edit/modify/delete content are available (the moderation function can be enabled during content modification).

- Provide the supporting infrastructure and platform for CPs to have own content listed and bundled with any CSP service.

- Availability of dockerized version of Content Manager

Common Charging Gateway

A unified charging gateway which aggregates and processes charging requests from a multitude of service applications in the service ecosystem prior to billing by OCS/CBS.

Features and capabilities of the Common Charging Gateway:

- Common interface to connect applications using REST.
- Pre or Post- paid user check (REST/MAP).
- CDR for charging transactions.
- Immediate Event Charging (IEC).
- Enable/disable charging based on number or service.
- Availability of dockerized version of Common Charging Gateway

- Pre or Post- paid user check (REST/MAP).
- CDR for charging transactions.
- Session and event-based charging support; duration, volume etc.
- Session Charging with Unit Reservation (SCUR).
- Diameter based direct debit, credit refunding and balance check support.

Centralised Reporting

A centralised reporting and analytics module for product transactional reporting, monitoring and analytics to provide valuable insights to third-party applications.

Features and capabilities of Centralised Reporting:

- Standard product reports.
- Hourly service provider-wise report.
- Content Download Report Partner wise.
- CDR search API.
- Stream process support.

- Hourly action-wise Report.
- Hourly service-wise report.
- Real-time TPS count report.
- Content download report category-wise.

- Hourly operator-wise charging request amount.
- Daily/Monthly subscription report.
- DB optimization.
- Batch process.

Do Not Disturb (DND)

Wavenet's DND prevents abuse or misuse of services by third-party content providers or service providers by ensuring the subscribers have control over receiving promotional messages and activations.

Features and capabilities of Do Not Disturb:

- Single/bulk upload to add/remove subscribers to/from DND database.
- Availability of dockerized version of Do Not Disturb (DND)
- REST API support.

- SMS notification to admin group on bulk upload success/failure list with reasons.
- Logs and reports.

List Management

The List management feature helps service providers to categorize Blacklists and, Whitelists, group MSISDNs and categorize device models.

Features and capabilities of the Content Manager:

- (+) Manage Device Based Blacklist
- (+) MSISDN Group and Service Group Based Whitelist /Blacklist
- (+) Temporary Blacklist

- (+) Global Blacklist Management
- (+) Service-wise Blacklist / Whitelist

Key Benefits of Wavenet's Subscription and Content Manager

- (+) CSPs are able to offer a wider variety of dynamic and tailored service bundles to subscribers with potential for DCB (Direct Carrier Billing). These offerings result in better monetisation opportunities with customisable service bundles.

- (+) Offers a wider range of use cases that can be exploited in multiple industries. Third-party content providers can focus on creating content while s CSPs are able to focus on creating value added services to subscribers.

- (+) Facilitates a seamless service experience, by delivering flexibility to choose, subscribe and manage content/service with timely updates.

- (+) Content service providers can be a part of the digital ecosystem that fosters collaboration, wider distribution and tap into new markets which would otherwise have been out of reach. The flexibility of the SCM allows providers to execute seamless partnering, service creation, publishing, approval, charging and subscription lifecycle management.

Deployment in Kubernetes (K8s)

Wavenet's kVAS solution, also known as Kubernetes VAS, is a natural evolution and upgrade from its consolidated Unified VAS (uVAS) application platform. SCM, being a part of the kVAS stack offers Telco Operators with scalability and resilience to handle high volumes of subscription requests, renewal and charging requests as well as concurrent content fetching. These are managed by creating new runtime environments with minimal interruption to the existing service pods. Redundancy is further managed by spinning up pods and containers inside a different node within the cluster to handle any failures.

Benefits of kVAS

- (+) Better, faster and more resilient VAS services orchestration

   Ability for the pods to work as independent microservices allows the operator to seamlessly cater traffic growth.

- (+) Automated deployments through CI/CD

   kVAS deployed in k8 clusters running on a Telco Cloud Environment allows seamless feature updates or release upgrades to be deployed to Docker images in running pods with minimal effort.

- (+) No infrastructure overheads

   Legacy methodologies involves the requirement of having a centralized infrastructure which is too expensive to maintain. Wavenet kVAS can easily be deployed on any already available Cloud environments of Telcos, be it private or public cloud.

- (+) Leverage third party integrations and canvas-based design

   Our latest solution ahasa, a Kubernetes based deployment tool allows Telcos to leverage their own applications or of third-parties and other assets which can be onboarded using its low code enabled drag and drop solution designer.