# SERVICE DESCRIPTION

CoreMedia Content Cloud - Service

Version: May 2022





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### 1. Context

This document provides information on cloud services for CoreMedia Content Cloud - Service provided by CoreMedia pursuant to an agreement between CoreMedia and the Subscriber for CoreMedia Content Cloud - Service.

The following optional add-on software components can be used with CoreMedia Content Cloud - Service:

- CoreMedia Commerce Hub
- CoreMedia Marketing Automation Hub
- CoreMedia Content Hub
- CoreMedia Experience Feedback Hub
- CoreMedia Connector for HCL Commerce
- CoreMedia Connector for SAP Commerce Cloud
- CoreMedia Connector for Salesforce Commerce Cloud
- CoreMedia Connector for commercetools
- CoreMedia Connector for Salesforce Marketing Cloud

CoreMedia Content Cloud - Service is available for the latest versions of the Product Software at the time of the signature of the agreement.

# 2. On-boarding

### 2.1. Introduction

The CoreMedia on-boarding team will initiate the on-boarding following the signature of the agreement.

On-boarding will start with a kick-off session to identify:

- Scope
- Key Stakeholders

After the kick-off, the CoreMedia on-boarding team will provide an on-boarding plan detailing the tasks and prerequisites.

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### 2.2. Scope

On-boarding includes the following services:

- Planning and further steps: The CoreMedia on-boarding team will coordinate required activities with the CoreMedia Content Cloud Service technical team, particularly setting up required connections to Commerce or other third party systems and Add-Ons.
- Setup of Environments: All Environments defined in the agreement will be provisioned, set up and configured as agreed.
- Access: A root account will be set up and credentials to access the Instance will be sent to the Subscriber's contact person as defined in the kick-off

Additional services, such as custom implementation, training, and architectural guidance, can be provided through a separate services agreement between CoreMedia and the Subscriber, and are not in scope of on-boarding.

### 2.3. Deliverables

The CoreMedia on-boarding team will provide the following deliverables as part of the On-boarding:

### On-boarding Plan

Covered topics include:

- Team roles and responsibilities, especially contact information on Subscriber personnel authorized to contact CoreMedia Support
- Tasks to be performed by either the Subscriber or CoreMedia, following the onboarding

#### System Overview:

- System URLs and access information
- Pointers to relevant documentation
- Configured 3rd party systems
- Overview on the procedure to perform deployment on each relevant Environment type

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### 3. Cloud Infrastructure

### 3.1. Environments

A CoreMedia Content Cloud – Service Instance typically consists of at least one Production Environment and one Development Sandbox. The Production Environment is designed to run mission-critical loads, whereas a Development Sandbox has limited processing capacity, is not subject to backup/restore procedures, does not offer high availability in neither the management nor the delivery tiers, and might differ in terms of the tooling provided for logging, monitoring, or other operational use cases.

Additional Pre-Production environments can be subscribed to separately. Those environments are designed to resemble the Production environment in terms of configuration, network topology and general architecture, and therefore are suitable for acceptance, penetration, connectivity, or security testing by the Subscriber. Such environments are, however, not subject to backup/restore procedures.

Content snapshots can be transferred between Production and Pre-Production Environments and Development Sandboxes upon Subscriber request via the Support team (also see Service Requests).

Additional Development Sandboxes can also be subscribed to separately at additional cost.

All environments (Production, Pre-Production, or Development Sandbox) are equivalent in terms of supported functionality of the underlying Product Software. The capabilities of the Product Software are described in the Product Specification document for the respective CoreMedia product version. Development Sandboxes are designed and optimized specifically for development purposes, and as such, different Cloud Tools and Services might be applicable for Sandboxes than for Pre-Production or Production environments.

CoreMedia will make commercially reasonable effort to meet the following targeted schedule from the date of the Subscriber's notice (via a ticket opened with CoreMedia Support) to provide the following:

- Production Environment and Pre-Production Environment(s) up to seven business days
- Development Sandbox(s) up to five business days

CoreMedia must have received a signed Order Form from the Subscriber before the Subscriber can open a respective request.

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### 3.2. Data Centers

CoreMedia deploys CoreMedia Content Cloud to data centers operated by public cloud vendors (such as Amazon Web Services). These data centers are operated in alignment with the Tier III+ guidelines (as per the Uptime Institute classification).

Upon subscription, the Subscriber must choose a primary geographic region that the CoreMedia platform will be deployed to. Supported regions will be provided by CoreMedia upon Subscriber request.

### 3.3. Storage

#### 3.3.1. Overview

The CoreMedia platform stores

- all user-managed non-binary content and content workflow state in a relational database
- user managed binary content (e.g., images, videos etc.) either in a relational database or on in a Cloud Storage service
- some collaborative content metadata in a NoSQL database
- the indexes for website search and editorial search on block storage devices, equivalent to physical "disk" storage
- application logs in a dedicated log storage service

The backup and restore policies and procedures for this data are described in Backup and Restore.

#### 3.3.2. Limits

By default, virtual machines used to host CoreMedia components are provisioned with at least 20 GB of total disk space to be used for code deployments and configuration. Depending on the system architecture defined during the On-boarding, several components might share a virtual machine, and this provisioned space. More provisioned block storage space is available at Subscriber request, and at extra cost.

The total technical storage limit per Subscriber for all Relational Database instances combined is 100 TB per geographic region.

There is no technical limit on the total size of binary assets stored in one cloud storage instance, however, a single asset's size may not exceed 2 GB.

Aside from the technical limitations, storage allowance depends on the Subscriber's subscription.

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### 3.3.3. Allowance and Redundancy

All Subscriber-managed content (text, binary assets, technical content like settings, templates managed in the main repository), metadata stored alongside the content, and the search index generated from this content, counts towards storage allowance. Content will be duplicated to allow for resilient delivery and storage. The number of copies is dependent on the number of Pre-Production and Production environments, and on the number of Delivery Units ordered. Duplicated content also counts towards the storage allowance.

When exceeding the respective storage allowance, the service will continue to work normally, provided that the technical limits described above are not violated. However, additional charges will apply, according to the price list.

#### 3.4. Access

All access to CoreMedia Content Cloud - Service backend services, particularly CoreMedia Studio, CoreMedia CAEs and CoreMedia Headless Server, is facilitated via secure, encrypted connections.

For Development sandboxes, access is provided by an SSH tunneling solution. Details are described in detail in the CoreMedia Content Cloud – Service manual. To facilitate such access, ssh-rsa public keys must be made available to CoreMedia via a self-service interface. One SSH key provides access to all development sandboxes.

On provisioning of an account, a secure, token-based access link is generated and sent to the Subscriber's principal contact address (either via e-Mail or via another channel, as per agreement between the Subscriber and CoreMedia). The attached root account can invite more backend users via the self-service functionality in CoreMedia Cloud Manager and assign pre-defined roles for access to CoreMedia Content Cloud - Service's various subservices (e.g., CoreMedia Studio editor or Frontend Developer roles).

Invited users will be sent an auto-generated, one-time, token-based access link either via e-Mail or SMS/Text message. Users are required to change their password on first login to the Cloud Manager web interface.

Developers can create an API key based on their password and use the key for programmatic access to the CoreMedia Content Cloud - Service APIs.

# 3.5. Connectivity

#### 3.5.1. Internet

A CoreMedia Content Cloud - Service instance is connected to the internet via the public cloud provider's global internet backbone.

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3.5.2. Secure Connections between CoreMedia Content Cloud - Service and Subscriber's facilities

For Commerce or other third party integration scenarios, the CoreMedia Content Cloud – Service instance must be able to communicate with the Subscriber's Commerce system(s), or other third party systems. This might require any combination of the following measures that the Subscriber must implement in their data center:

- Setup of DNS entries in the Subscriber-owned Hosted Zone(s)
- Allow inbound connections from the CoreMedia Content Cloud Service instance to the Subscriber's eCommerce system on several ports
- Allow outbound connections from the Subscriber's data center and office network to the CoreMedia Content Cloud - Service instance
- Setup and operation of reverse proxy servers (e.g., Apache HTTP Server), or technically equivalent servers
- Modification of the Subscriber's Load Balancer configurations

The exact Subscriber-side requirements vary depending on the Subscriber's infrastructure and security policies and are to be jointly agreed upon during the On-boarding Process described in section On-boarding.

# 3.6. Support for custom domains

To support delivery of content by CoreMedia Content Cloud - Service instances on behalf of the Subscriber under a domain (DNS zone) controlled by the Subscriber, the Subscriber might have to adjust the following:

- Setup of DNS entries in the Subscriber-owned Hosted Zone(s)
- Setup of web redirects when delivery of content from the Subscriber's apex domain (root domain) is required. This restriction is imposed by internet DNS specifications

Subscribers must also make their SSL/TLS certificates available to CoreMedia. Self-service certificate upload is provided in the Cloud Manager. More details on requirements for these certificates are described in detail in the CoreMedia Content Cloud - Service manual, also available via the Cloud Manager.

### 3.7. Access to Subscriber Source Code

The Subscriber is responsible for source code management and must provide read access to the source code repository to CoreMedia.

The supported source management software is git.

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### 3.8. Limitations

Not all configurations and customizations that are technically feasible with the CoreMedia Product Software can be used within a CoreMedia Content Cloud – Service.

### 3.9. De-Commissioning

CoreMedia will sanitize all Subscriber-managed content and backups, within 1 business day after the effective date of contract termination.

### 4. Infrastructure Services

### 4.1. Backup and Restore

#### 4.1.1. Scope

In general, unless otherwise agreed, only data from the Production Environment is subject to backup.

Backups are generally hosted in data centers in the primary geographic region the CoreMedia Content Cloud - Service account is operated in and are maintained for all storage types described above.

#### 4.1.2. Retention

Relational Database, NoSQL Database, block storage, and cloud storage snapshots containing backups are maintained for 1 day by default in a healthy environment. In the case of system failures, longer retention periods are activated automatically to ensure safe restoration once the environment becomes healthy again.

Standard Retention periods of up until 15 days can be set up at the request of the Subscriber, and at extra cost.

#### 4.1.3. Frequency

The following backup frequencies apply for the respective storage types:

- Relational Databases: Hourly incremental snapshots, one full back up every 24 hours
- NoSQL-Databases: Full snapshots every six hours
- Block storage devices: Daily snapshot every 24 hours
- Cloud storage: Continuously as new data arrives

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### 4.1.4. Restore Time Objective (RTO) and Restore Point Objective (RPO)

Restore can take up to one business day (RTO). Restore point objective (RPO) for user-managed content is one hour.

#### 4.2. Database Services

CoreMedia Content Cloud - Service instances use managed database services for data stored in relational and NoSQL databases. CoreMedia proactively monitors the health of these instances (CPU, memory, and disk usage).

Databases are setup redundantly in separate physical locations to provide resiliency and high availability.

Restore procedures on databases need to be authorized, in writing, by the Subscriber before they can be performed.

### 4.3. Network Services

CoreMedia uses monitoring software for key network usage metrics. Total bandwidth usage is reported to the Subscriber monthly.

Network services also include secure configuration of firewalls to prevent unauthorized access to CoreMedia Content Cloud - Service instances.

# 4.4. Scaling

CoreMedia Content Cloud - Service's content delivery automatically scales based on dynamic load, but never beyond the capacity limits ordered by the Subscriber. For planned spikes in dynamic load, the Subscriber may order "Burstable" Delivery Units that will add capacity for the arranged times.

# 5. Support Terms

# 5.1. Designated Contacts

The Subscriber shall name 1 – 5 designated contacts ("Designated Contacts") before using the Support Services. The Designated Contacts are point of contacts between the Subscriber and CoreMedia for Support Services. The responsibility of Subscriber's Designated Contacts includes the following:

- Managing the Subscriber's entire support requests;
- b. Conducting Subscriber's first level support to Subscriber's personnel;
- c. Managing Subscriber's user management (e.g. rights, roles and passwords)

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The Subscriber shall inform CoreMedia if there is a change to any of the Designated Contacts. Except as set forth in this Agreement, the Designated Contacts are the sole point of contact between the Subscriber and CoreMedia.

### 5.2. Support Services

CoreMedia offers Support Services for requests from Subscriber's Designated Contacts in connection to the Product Software, any Add Ons and the Cloud Tools ("the Request"). Support Services will be provided by telephone or by e-mail during business hours. Business hours are Monday to Friday from 9:00 to 17:00 h CET, with regularly applicable statutory public holidays in Hamburg, Germany being excluded (the "Business Hours").

In addition to the Support Services stated above, CoreMedia renders Support Services outside of Business Hours 24 hours 7 days for Severity 1 ("Critical") Requests (as defined below in Severity and Response Times). Such Critical Requests shall solely be reported via phone and will be taken by CoreMedia support personnel.

CoreMedia will assign to each Request the severity level as stated below (the Severity Level"). CoreMedia may be entitled to reject any Requests made by persons other than Designated Contacts or Requests made through unauthorized channels (i.e., phone calls).

### 5.3. Response Time

The Parties agree on the following response time (the "Response Time") in regard to Requests made by Designated Contacts through an applicable authorized channel and in regard to the Severity Level described below. Response Time shall mean the interval of time from when a Designated Contact Request is reported to when a Request is initially accepted by CoreMedia personnel.

### Severity of a Request and Response times

Severity Level	Description
1 - Critical	Partial or complete Production Service failure:  A Production Service is completely down and is not operational, or the operation of a mission critical application is severely impacted by the problem and work cannot reasonably continue. Business operations have been severely disrupted. No procedural workaround is available.
2 - Serious	Significant operations impairment:  A problem has occurred in which a major functionality is severely impaired or use of the Production Service is severely

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	limited, but no Production Service is continuously down. Operations can continue in a restricted fashion, although long-term productivity may be adversely affected. The business impact is significant.	
3 - Moderate	Minor errors which do not affect usability: Situations where there is a problem, but the CoreMedia Content Cloud – Service is still usable. The problem can be reasonably circumvented. Adverse effects on business operations are limited.	
4 - Minor	errors/suggestions without immediate effect on the Subscriber's operations Minor problems that have minimal business impact. A condition or Documentation error that has no significant effect on the Subscriber's operations. A suggestion for new features or an enhancement regarding the CoreMedia Content Cloud – Service.	

CoreMedia will use commercially reasonable efforts to respond to each Request according to the following targeted Response Times:

Severity Level Response Time		
1 - Critical	2 hours	
2 - Serious	4 business hours	
3 - Moderate	8 business hours	
4 – Minor	2 business days	

### 5.4. Errors and Defects

In the event of errors or defects of the Services, the Subscriber shall inform CoreMedia as soon as possible, in as much detail as possible and with a description of the symptoms of the errors or defects, of the conditions of use, preceding instructions and other measures taken by the Sub-scriber. The Subscriber shall follow CoreMedia's instructions with regard to the reporting of errors or defects and shall use the guidelines, checklists, web forms specifically provided by CoreMedia from time to time.

CoreMedia is not obligated to remedy any errors or defects that are caused (in full or in part) by unauthorized alterations or modifications to the Services made by the Subscriber or the Sub-scriber's Users or due to the Subscriber equipment or facilities.

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CoreMedia can refuse to remedy the error or defect if the Subscriber is in arrears with respect to unpaid and undisputed amounts due to CoreMedia.

Upon reasonable prior notice to the Subscriber, CoreMedia reserves the right at any time and from time to time to modify or amend the Support Services (or parts thereof).

### 6. Service Level

### 6.1. Monthly Report

CoreMedia will provide the Subscriber with a monthly report on the availability of the CoreMedia Content Cloud – Service covered by this Agreement as stated below. This reporting forms the basis for any potential service level credits.

### 6.2. Service Level Credit

The following service level credits shall apply if CoreMedia is not compliant to the agreed "Service Level Objectives – Delivery" ("Service Level Credit"):

	Definition
Service Level Objective – Delivery	99.5 % per month
Specification	Service Level Objective – Delivery defines the availability of Delivery Units and active Burstable Delivery Units (the "Availability"):  Availability is considered to be given if the CoreMedia Content Cloud – Service is no longer able to answer Subscriber queries, i.e. when all redundant Delivery Units are no longer available (following also "Unavailable").  Availability is determined by monitoring.  The following times are excluded from Availability:  Failures caused by Subscriber adaptations or inappropriate use.  Failures caused by third-party systems provided by the Subscriber  Failures caused by exceeding the Usage Limits.  Planned and communicated maintenance times as stated in section 5.5 of Exhibit 2.

If the Service is Unavailable in accordance to the Service Level Objective – Delivery, the following Service Level Credit shall apply:

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Availability	Service Level Credit
The Service Level Objective Delivery is Unavailable within a billing month for more than 3.5 hours	10% of the fixed CoreMedia Content Cloud - Service Fees for that month (not taking into account additional Fees for Add Ons, Additional Services, Professional Services)
The Service Level Objective Delivery is Unavailable within a billing month for more than 7 hours	10% of the fixed CoreMedia Content Cloud - Service Fees for that month (not taking into account additional Fees for Add Ons, Additional Services, Professional Services)

The Service Level Credits will be paid to the Subscriber within 8 weeks after issuing the credit note. Credit note will be issued within 4 weeks after providing the reporting form.

### 7. Product Maintenance

CoreMedia shall make maintenance releases available to the Subscriber for the Product Software and any Add Ons with which errors or defects will be remedied or other program corrections made. In this context, CoreMedia is also entitled to remedy errors or defects by means of so-called workarounds or patches, which represent a provisional solution to a problem.

CoreMedia shall make minor and major releases of the Product Software and any Add Ons available to the Subscriber. Major releases are versions of the Product Software and any Add Ons available with additional and/or modified functionality, and also contain fixes for errors or defects. Minor releases contain smaller functional improvements, fixes for errors or defects, and/or smaller adaptations.

Minor and major releases that CoreMedia makes available to the Subscriber pursuant to this Agreement are deemed to be a constituent part of the Product Software and any Add Ons and are subject to the conditions of this Agreement.

Documentation of the minor and major releases shall be supplied in German – or insofar as the development and administrator manuals are effected, in English – and in printable form.

The obligation to provide Product Maintenance services refers exclusively to the Product Software and Add-Ons listed on the Order Form. CoreMedia shall maintain Product Software and any Add Ons in its up-to-date version for a period of three years from publication of the new version (End of Regular Support). CoreMedia will not supply Product

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Maintenance for old-er versions unless explicitly agreed upon between CoreMedia and Subscriber.

# 8. Monitoring and Response

#### 8.1. Overview

The CoreMedia Support Team monitors production systems 24/7 and reacts to the alerts triggered by the various system checks.

The CoreMedia Support Team also handles tickets issued by the Subscriber and may redirect them to the relevant Level 2 Team as required.

The CoreMedia monitoring checks the availability of all hosts and ports, and the status of the system infrastructure (CPU, memory, disk, network).

For Pre-Production and Production environments, CoreMedia monitors all CoreMedia services provided.

CoreMedia services are: Content Application Engine (CAE), Content Management Server, Master Live Server, Replication Live Servers, Workflow Server, Studio, Cloud Manager, Headless Server, User Changes Application, Search Feeders, and Search Engine.

CoreMedia monitoring includes host and service availability checks, system component status and specific application health checks for the services listed above.

CoreMedia also monitors Subscriber defined data points and health checks implemented by the Subscriber, provided that

- Information on application-specific behavior, custom health checks, or custom data points have been made available by the Subscriber to CoreMedia prior to transitioning to production
- These customizations have been approved by CoreMedia

### 8.2. Incident Management

To manage Incidents, the CoreMedia Support will use a Trouble Ticketing System (TTS), which supports all activities concerning Incident management processes. It is also used as a reference system for information regarding all incidents and problems of the services delivered by CoreMedia Support.

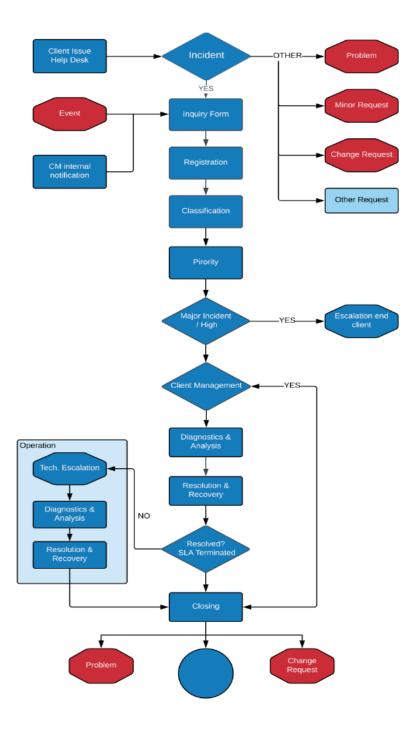
When Incidents are detected by CoreMedia Monitoring, the Service Team will create a respective ticket and proactively inform the Subscriber, and communicate impact, timelines, and planned steps to mitigate the issue.

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Incidents can also be reported by the Subscriber through phone, email or web interface (Cloud Manager), taking into account the Support Terms defined in Support Terms.

The incident model adopted by CoreMedia is based on ITIL V3, and is described in the following flow chart:



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### 8.3. Tools

Additional tools are available to the Subscriber to help provide deeper error tracing and troubleshooting and detailed insight into system usage.

### 8.3.1. Performance/Monitoring Dashboards

CoreMedia provides role-based access to performance dashboards with detailed information about

- CPU,
- memory,
- disk,
- network,
- and other various metrics.

### 8.3.2. Log Aggregation

CoreMedia provides access to a log aggregation tool to help Subscriber review logs and correlate events across the landscape, including application logs and related infrastructure logs.

### 8.4. Monthly Reporting

A Subscriber report is generated monthly to provide the Subscriber with data which measures the Subscriber's usage metrics of the PaaS for the previous month. This includes the following:

#### Website availability and dynamic load

The uptime percentage and dynamic load (average / max) for the content delivery.

#### Infrastructure incidents

Detailed reports on incidents concerning Subscriber related infrastructure.

### **Traffic and Storage**

Traffic (CDN) bandwidth and Storage used on a monthly base.

### 8.5. Capacity Monitoring and Planning

CoreMedia reviews the overall health, performance and utilization reporting to determine if increases in capacity are required. If the data justifies the need to increase capacity, CoreMedia will proactively recommend capacity changes to the Subscriber.

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#### 8.6. Infrastructure Maintenance

To maintain optimal performance, reliability and security, CoreMedia performs regular scheduled maintenance activities.

These maintenance activities are scheduled to be done during business hours (according to Hamburg Time) and its start and end date are determined by a Maintenance Window. The regular maintenance window length is approximately an hour. During a regular Maintenance Window, no down-time for the (internet-facing) content delivery is planned to occur. However, there will be a brief interruption of the Management Services (particularly CoreMedia Studio). Users will have to re-login after completion of the Maintenance Window.

### 8.6.1. Impacting Maintenance

Whenever service impact is expected during any maintenance activity scheduled by CoreMedia, CoreMedia will use commercially reasonable efforts to provide at least 3 business days notice to the Subscriber.

### 8.6.2. Emergency Maintenance

In the event of a critical issue within the Instance infrastructure, which puts the appropriate functionality or security of the Instance at risk, CoreMedia reserves the right to execute the necessary infrastructure maintenance, informing the Subscriber at least 48 hours before the necessary downtime, if any. This downtime is not counted towards the system availability as per the Service Level Objectives for CoreMedia Content Cloud – Service.

# 9. Deployment Services

### 9.1. Definition

In this context, "Deployment" means a Subscriber-initiated rollout of the Subscriber's applications to one or more Production Environments of the CoreMedia Content Cloud – Service Instance.

### 9.2. Overview

The CoreMedia Content Cloud - Service includes deployment services as follows:

#### 9.2.1. Development Sandboxes

CoreMedia performs an initial deployment of the current (most recent) release of the Product Software, detailed in the agreement.

After the initial deployment, the Subscriber can perform deployments through the respective self-service offered in the Development Sandboxes and/or Cloud Manager, and is responsible for performing such deployments.

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#### 9.2.2. Pre-Production Environments

Deployments to Pre-Production Environments can be performed through the respective self-service offered in the Cloud Manager.

#### 9.2.3. Production Environment

CoreMedia performs all deployments to the Production Environment.

Prior to a deployment to the Production Environment the applications must have:

- passed any automated tests that are part of the Deployment Services
- passed tests performed by the Subscriber in the staging environment including at least:
- Functional Tests
- Performance Tests

The Subscriber must sign-off on the applications to be deployed in a Production Environment, by confirming that the application was tested and is correct with regards to functional and non-functional requirements

Up to two (2) deployments per month are included in the service.

### 9.3. Development Infrastructure

CoreMedia provides Cloud Tools and Services for:

- 1. Building deployment packages for deployment to the environments
- 2. Performing automated tests
- 3. Deployment of applications to the Development Sandboxes
- 4. Deployment of applications to the Pre-Production Environment(s)

### 9.4. Service Requests

Handling Service Requests imposed by the Subscriber, and exceeding standard volumes provided with the service, may be charged for as "Ops-Points", according to the current price list. The following standard service requests will be charged at the following amount of Ops-Points:

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Type of Request	Pts.
Content transfer from Production to Pre-Production	10
Content transfer from Pre-Production or Production to Development Sandbox	5
Content transfer from Development Sandbox to Pre-Production or Production	5
Deployment to Production Environment	5
Deployment to Pre-Production Environment <sup>1</sup>	5
Custom workflow upload	2
Custom user role reconfiguration	5
Custom CDN cache reconfiguration	3
Custom domain support initial setup	10
Custom domain support reconfiguration	5
Commerce Adapter reconfiguration	5
Other requests <sup>2</sup>	n/a

### 9.5. Process Definitions

### 9.5.1. Deployment to Production Environments

Deployments to Production Environment are performed by CoreMedia. All deployments are performed during business hours. Staging environments might be unavailable during deployment windows. In Production Environment, backend processes and editorial work may be interrupted. CoreMedia will apply reasonable effort to avoid delivery component downtime, but temporary performance degradations might occur during deployment.

- Subscriber requests a deployment with desired deployment window timing and all required information. The preferred way of doing so is via the self-managed interface in the Cloud Manager, which makes sure that all required information is provided. Alternatively, such a request can be provided via standard Support ticket.
- 2. CoreMedia Support will check for availability of the desired Maintenance Window, and for completeness of the information provided in the request.
- If the desired window is available, Support will confirm the Maintenance Window.
   Otherwise, Support will offer alternative dates and times and clarify and align with Subscriber.

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<sup>1</sup> Self-service interface available

<sup>2</sup> depending on effort



- 4. If required information is missing in the request, Support will gather the missing information from Subscriber.
- 5. Once both parties have agreed on the Timing of the Maintenance Window and all required information are available, the Maintenance Window is confirmed by Support. This needs to be the case on EOB of the business day before the scheduled Maintenance Window.
- 6. CoreMedia performs the deployment during the agreed-upon Maintenance Window
- 7. CoreMedia notifies the Subscriber on completed deployment

#### 9.5.2. CoreMedia Product Software upgrades

CoreMedia provides to the Subscriber a workspace as source code that can be configured and customized to the Subscriber needs, as well as secure access to binary software artifacts as required (described in Product Maintenance).

The Subscriber manages the source code for its configured and customized workspace in its own source code management system.

When CoreMedia releases a new software version, it makes a new version of the workspace available to its Subscribers. Code-level dependencies to versioned platform artifacts are included in the workspace releases.

The Subscriber is responsible for upgrading their configured and customized workspace to the new release. The custom applications resulting from building the upgraded workspace can then be deployed to the provided environments.

# 10. Security

### 10.1. Access to CoreMedia Content Cloud - Service Instances

Only permanent and specially trained members of the CoreMedia Cloud Operations team and CoreMedia Support are given access to a Subscriber's cloud resources (virtual machines, load balancers, networking and CDN configuration, etc.). Access to the cloud environments is always secured by Two-Factor-Authentication.

### 10.2. Instance isolation

A customer Instance is provisioned in a logically separate Virtual Private Cloud (VPC), with dedicated infrastructure that is not shared across different Subscribers.

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### 10.3. Network Infrastructure Security

Network-related security measures include network firewalls and a Web Application Firewall to detect and mitigate DDoS attacks.

In general, network components are configured prohibitively, meaning that only those network routes and ports are configured that are required for the components to communicate properly, and that correct function of the service is ensured.

All components are deployed into separate Virtual Private Cloud environments to ensure isolation. If required, secure peering is used to facilitate communications between Virtual Private Cloud instances.

CoreMedia employs industry best practices to mitigate typical attack scenarios, which includes

- Cross-site scripting attacks
- Distributed Denial-of-Service attacks (DDoS)
- Volumetric Attacks
- SQL injection

Default rules are in place in the application firewalls to mitigate those attacks. At the request of the Subscriber, additional specific rules (for example, URL pattern matching, IP-range or Geo-based constraints, size constraints) can be put in place.

# 10.4. Application Security

CoreMedia employs industry best practices to detect typical vulnerabilities in both core and Subscriber-supplied code, which includes automated static code analysis and regular scans for dependencies on third-party software with known vulnerabilities as per the Common Vulnerabilities and Exposures (CVE) database.

In the case of detected vulnerabilities, CoreMedia will inform the Subscriber and jointly decide on mitigation strategies.

# 10.5. Penetration Testing

Internet-facing systems of the CoreMedia Content Cloud – Service platform are subject to penetration testing. A third party performs these penetration tests regularly on a CoreMedia Content Cloud – Service reference environment.

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Subscribers may perform their own penetration tests or vulnerability assessments, provided that they inform CoreMedia, via a ticket or in writing, no less than 10 business days before scheduled start of the test procedures.

# 11. Roles and Responsibilities

The following roles and responsibilities shall apply for the services provided by CoreMedia to the Subscriber. Only services where CoreMedia is marked with "R" for responsible are part of CoreMedia's Cloud Services obligations to the Subscriber. All other responsibilities are the Subscriber's obligation.

- R - Responsible - A - Accountable - C - Consulted - I - Informed

Topic	Subscriber	CoreMedia
Provisioning		
System sizing	R/A	С
Cloud instance provisioning: Dev, Staging, Prod	I	R/A
Network configuration	I	R/A
Security configuration	С	R/A
Security		
Network infrastructure security	I	R/A
Operating system security	1	R/A
Application access security	R	R/A
Security of customizations	R/A	С
Incident Management		
Capturing of incidents (phone/email/ticket)	1	R/A
Categorization of incidents	1	R/A
Incident Management infrastructure	1	R/A
Development and QA		
Customization development	R/A	С
Customization functional testing	R/A	I
Customization load testing	R/A	I
Customization penetration testing (security)	R/A	С
CI for test and production environments	С	R/A
Application handover, staging and go-live		
Code deployment to Dev	R/A	С

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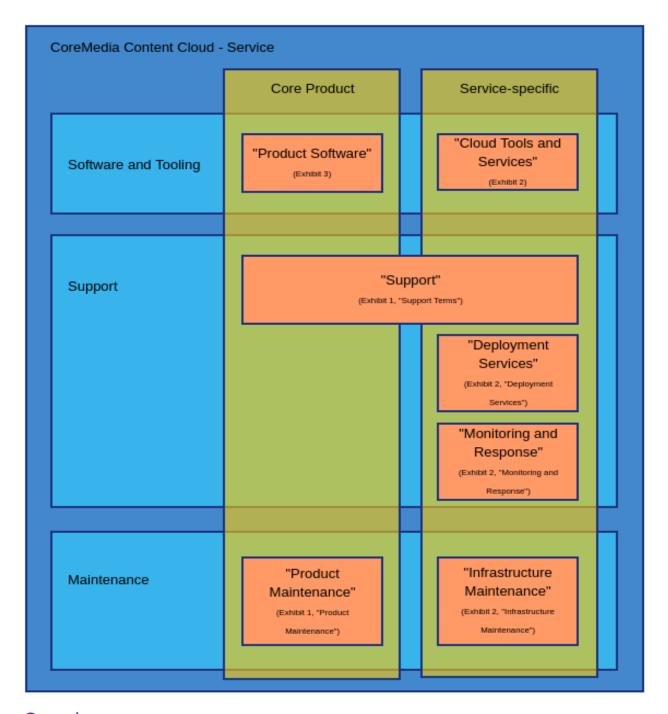


Code deployment to Staging	R/A	С
Code transition to production	С	R/A
User acceptance test spec and implementation	R/A	С
Production and Staging operations		
Platform-level monitoring (CPU, Memory, Network, Disk)	I	R/A
Application-level monitoring	С	R/A
Ensuring platform uptime (CMS Servers, Search, CAE, Studio)	I	R/A
Ensuring function of customizations	R/A	I
Infrastructure and OS-level maintenance	I	R/A
Customization maintenance and upgrades	R/A	I
Prod instance scaling	С	R/A
Prod backups/restore, disaster recovery	1	R/A

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# Annex 1 - The CoreMedia Content Cloud - Service



### Overview

The CoreMedia Content Cloud – Service is a Platform as a Service ("PaaS") and depicted in the diagram above.

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### **Definitions**

- 1."Add-On" refers to one or more additional functionalities of the Product Software which can be selected by the Subscriber, and which is subject to an additional fee. These additional functionalities are not necessary to run the Product Software. If such Add-Ons are subject of this Agreement, it is set out in the relevant Order Form (Section 3). The specific functionality of the respective Add-Ons is described in Exhibit 3 Product Description (Section "Add-On Functionality").
- 2."Affiliated Company" means any entity that directly or indirectly Controls, is Controlled by, or is under common Control with a Party.
- 3."AUP" means the then-current acceptable use policy for the Services attached hereto as Annex 2, as updated from time to time with notice from CoreMedia.
- 4."Burstable Delivery Unit" means a Delivery Unit that provides additional delivery capacity for plannable periods of expected higher traffic. A Burstable Delivery Unit is available for one month (30 days) within a contractual year. Provisioning of Burstable Delivery Units must be ordered by Subscriber no less than seven business days before the additional capacity is needed. A Burstable Delivery Unit is functionally equivalent to a Delivery Unit. If multiple Burstable De-livery Units are ordered the capacity can either be requested for multiple non-overlapping months or multiple Burstable Delivery Units can be requested for the same period within one contract year. Unused Burstable Delivery Units expire at the end of a contract year and cannot be carried over.
- 5."Cloud Tools" means additional software components, tools, and APIs that are provided exclusively to Subscribers to the PaaS, but are not part of the Product Software or any given Add On.
- 6."Concurrent User" means named editorial users who interact with the CoreMedia Content Cloud Service at any given point in time. The quantity is defined on the Order Form. For the avoidance of doubt, the total number of users logged in to the Production Environment at any given point in time count towards the total number of Concurrent Users.
- 7."**Control**" means control of greater than 50% of the voting rights or equity interests of a Party.
- 8."Delivery Unit" means provisioned cloud infrastructure for content delivery purposes. The delivery capacity is represented by number of requests per second (requests/s) that the infrastructure is able to handle.
- 9."Development Sandbox" means an Environment designed to be used to
- 1. develop customizations and integrations,

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- 2. perform functional testing of said customization and integrations
- 3. perform upgrade/configuration and transitioning tests.

The number of Development Sandboxes is defined on the Order Form. The right of use of the Product Software or any Add Ons in a Development Sandbox is solely granted in connection with a subscription for a Production Environment.

- 10. "**Documentation**" refers to the user and/or developer manuals for the Product Software and Cloud Tools and Services.
- 11."**End-Subscriber**" means those entities or Affiliated Companies, as applicable, authorized by the Subscriber in accordance with this Agreement to use the CoreMedia Content Cloud Service.
- 12."**End User**" means an individual that Subscriber permits to access and use a Subscriber Application.
- 13. "Environment" means a logically separate installation of a complete and self-sustained copy of CoreMedia Content Cloud Service within a Subscriber's Instance. Environment is the more generic term for either a Development Sandbox, a Pre-Production Environment, or a Production Environment.
- 14. "Extra Service Hours" are charged at extra fees if a Subscriber is requesting Deployment Services to an extent that exceeds the amount agreed to in the Order Form. The Subscriber will be informed when a extra charges apply, and is required to confirm that request.
- 15. "Geographic Region" means a separate geographic area as defined by the provider of the public cloud services a CoreMedia Content Cloud Service Instance is deployed to.
- 16. "Incident Management" is the process to restore the CoreMedia Content Cloud Services to operation within expected and normal parameters as described in section Service Level. In this process, CoreMedia identifies, analyzes, and corrects incidents and coordinates with Subscriber as defined in section 5. Support Terms.
- 17."Indemnified Liabilities" means any (a) settlement amounts approved by the indemnifying Party, and (b) damages, fines, penalties, deficiencies, losses, liabilities (including settlements and judgments) and expenses (including interest, court costs, reasonable fees and expenses of attorneys, accountants and other experts or other reasonable fees and expenses of litigation or other proceedings or of any claim, default or assessment) up to an amount of one times of the Fees paid CoreMedia under this Agreement in the one year period preceding the event giving rise to the claim.
- 18. "Infrastructure Maintenance" means services and activities rendered by CoreMedia in order to ensure appropriate functionality of the Services, to reflect changes in technology,

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industry best practices, and secure operations as described in section Infrastructure Maintenance above.

- 19. "Instance" is the technical term for the account of the Subscriber in the CoreMedia Content Cloud Service. An Instance typically has at least on Production Environment and one Development Sandbox.
- 20."Max Requests" means the maximum number of dynamic requests per second that the Delivery Units can handle based on CoreMedia's reference implementation with a typical load pattern. Performance is largely determined by content, Subscriber's implementation and customizations, and load patterns. A dynamic request is a request that passes through to the CoreMedia delivery application because the global CDN does not hold a cache entry for that particular request ("cache miss").
- 21."Ops-Point" is a measure of effort required to fulfill typical service requests ("Deployment Ser-vices") from the Subscriber that require manual intervention from CoreMedia, and that are not performed by the Subscriber using self-service facilities of the CoreMedia Content Cloud Service as described in the Service Description.
- 22. "Primary Geographic Region" is a concrete geographic region that the CoreMedia Content Cloud Service components are deployed to.
- 23."**Pre-Production Environment**" is an Environment intended to be used for non-production purposes to
- 4. perform testing,
- 5. perform production-like analysis or
- 6. train editorial or operations staff.

The quantity is defined on the Order Form. The right of use of the Product Software or any Add Ons in a Pre-Production Environment is solely granted in connection with a subscription for a Production Environment.

- 24."**Production Environment**" is an Environment intended to be used to deliver mission-critical production workloads.
- 25."**Product Maintenance**" means new releases of the Product Software or any Add On available to Subscribers described in section 7. Product Maintenance.
- 26."**Production Service**" means the delivery of content generated and managed by the Services that is deployed in a Production Environment, i.e., the application and infrastructure intended to make the service available to End Users.

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- 27."**Professional Services**" means training, implementation, and expert consultation services pro-vided by CoreMedia for all aspects of the PaaS.
- 28."**Product Software**" means the sum of all software artifacts (core components, Add-Ons, tools) that constitute the "Product Software", as described in Exhibit 3 Product Description.
- 29. "Sites" means the combined total number of shops, languages, internet digital websites or any other clustered set of content, represented by a published content item of type "Site Indicator" in the Production Environment, or an equivalent technical content item in case the Subscriber has customized the respective application logic.

Example: The Subscriber operates an internet digital website reachable at mysite.com in language English, and an Italian translated version of that presence at mysite.it. Additionally, the Subscriber operates a single-language internet digital website myothersite.org with different content. The total number of Sites is "three" (3) in this example.

- 30. "Site Packages" are pre-defined bundles that grant the Subscriber the right to operate one Site in each of the countries listed in the respective package, as defined in Exhibit 3, section "Site Packages". Additional Sites in the sense of the above definition, which are not covered by a Site Package, are counted separately.
- 31."**Storage**" means the total storage space used for any type of content managed within a Sub-scriber's CoreMedia Content Cloud Service Instance, cumulative for all Environments.
- 32."Subscriber Content" means any content provided by the Subscriber or any of the Subscriber's Users and that is stored in, or run on or through, the CoreMedia Content Cloud Service.
- 33."**Subscriber Indemnified Materials**" means Subscriber Content, Third Party Content or Third Party Services.
- 34."**Support Services**" means support services rendered by CoreMedia via telephone and electronic ticketing system, referring to the Product Software, any Add On or Cloud Tools as de-scribed in section 5. Support Terms.
- 35."Third Party Content" means all software, data, text, images, audio, video, photographs and other content and material, in any format, that are obtained or derived from third party sources outside of the system boundaries of a CoreMedia Content Cloud Service Instance that the Subscriber may access through, within, or in conjunction with the Subscriber use of, the PaaS. Examples of Third-Party Content include, but are not limited to, data feeds from social network services, RSS feeds from blog posts, CoreMedia data marketplaces and libraries, dictionaries, and marketing data.

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- 36."Traffic" means the total amount of data transferred from Subscriber's CoreMedia Content Cloud Service Instance to the internet, and includes traffic incurred through both editorial users, website users, or developers, for preview, search, all other service components, and for development purposes.
- 37."Overage Storage" means storage which exceeds the storage as set out in the relevant Order Form. If the amount of storage used (measured once a month) exceeds the amount subscribed to as per the Order Form, then "Overage Storage" will be charged monthly based on the then applicable price list without the need of a further Order Form.
- 38."Overage Traffic" means traffic incurred which exceeds the traffic as set out in the relevant Order Form. If the amount of traffic included in the subscription (accumulated during the month) is exceeded, then "Overage Traffic" will be charged monthly, based on the then applicable price list without the need of a further Order Form.
- 39."Usage Limits" means the number of Concurrent Users, Sites, Traffic, Storage, Delivery Units and Burstable Delivery Units detailed in the Order Form and restricting the use CoreMedia's Services (in the Order Form also called "Licensing Model"). The number of Concurrent Users as set out in the relevant Order Form refers to a specified number of Users, and the CoreMedia Content Cloud Service cannot be accessed by more than that number of Users at the same time. If Usage Limits are exceeded, Service Level Objectives may degrade, and additional charges might apply automatically. It is referred to "Overage Traffic" and "Overage Storage".
- 40."User(s)" means those employees and contractors, as applicable, authorized by the Subscriber or on the Subscriber behalf to use the Services in accordance with this Agreement. For Services that are specifically designed to allow the Subscriber's clients, agents, subscribers, suppliers or other third parties to access the Services to interact with the Subscriber, such third parties will be considered "Users" subject to the terms of this Agreement.
- 41."User Data" means any and all personal information and data that: (a) a Party or its Affiliated Companies or their respective representatives or Users input into the Services; or (b) is generated by a Party's and/or its' Affiliated Companies' use of the Services or a Party's End Users' engagement or interaction with the Services.

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# Annex 2 – Acceptable Use Policy

Subscriber agrees not to, and not to allow third parties to use the Services:

- to violate, or encourage the violation of, the legal rights of others (for example, this
  may include allowing Subscriber's Users and End Users to infringe or misappropriate
  the intellectual property rights of others in violation of the Digital Millennium
  Copyright Act);
- to engage in, promote or encourage illegal activity;
- for any unlawful, invasive, infringing, defamatory or fraudulent purpose (for example, this may include phishing, creating a pyramid scheme or mirroring a website);
- to intentionally distribute viruses, worms, Trojan horses, corrupted files, hoaxes, or other items of a destructive or deceptive nature;
- to interfere with the use of the Services, or the equipment used to provide the Services, by customers, authorized resellers, or other authorized users;
- to disable, interfere with or circumvent any aspect of the Services;
- to generate, distribute, publish or facilitate unsolicited mass email, promotions, advertisings or other solicitations ("spam").

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