



MicroStrategy Customer Managed Cloud

SERVICE GUIDE

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1. Overview

The MicroStrategy Customer Managed Cloud (“CMC”) is a cloud service that empowers organizations to deploy and manage MicroStrategy ONE analytics solutions within their own cloud infrastructure. This offering provides access to containerized images of the MicroStrategy Cloud Platform, optimized for deployment in cloud environments. It also includes CMC Support and performance advisory services, as detailed below.

CMC enables organizations to deploy and manage the full suite of MicroStrategy ONE analytics solutions within their own public cloud environments, such as Amazon Web Services, Microsoft Azure, and Google Cloud Platform, or within private data centers. CMC is built to address the specific needs of enterprises in highly regulated industries, including banking, healthcare, and government, as well as Independent Software Vendors (ISVs) requiring extensive customization capabilities. Regulated enterprises often manage sensitive data, such as financial information, protected health information, and critical business information, and have strict internal policies that prevent them from relinquishing control of the security of data processed in their cloud applications. Compliance demands may necessitate full operational control over data management, including encryption, access control, and incident response, which typically excludes vendor-managed services. CMC empowers organizations to flexibly deploy and manage MicroStrategy ONE, leveraging the full power of cloud-based capabilities while maintaining complete control over their data infrastructure.

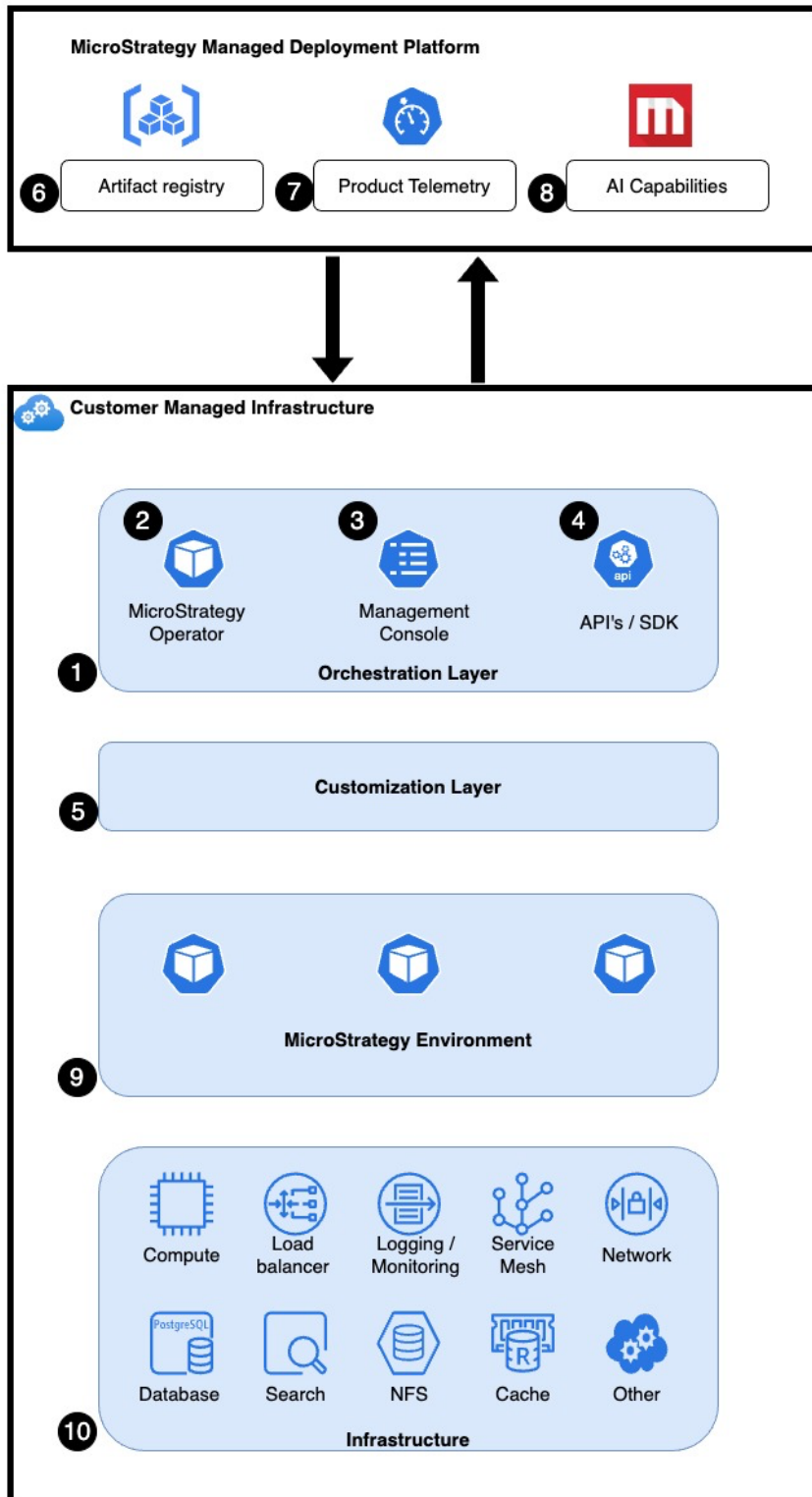
The MicroStrategy ONE cloud platform delivers business intelligence and AI-powered analytics at scale for top brands, supporting pixel-perfect reports, bespoke apps, mobile data experiences, and self-service analytics from a cloud-native architecture. Beyond dashboards, MicroStrategy integrates AI analytics into daily workflows with patented HyperIntelligence, offering instant insights via natural language queries. With no-code, low-code, and pro-code options, MicroStrategy ONE maximizes digital transformation value by empowering employees, partners, and customers.

The MicroStrategy Semantic Graph creates a shared understanding of data and business rules across an organization, allowing for data to be sorted in real-time according to patterns pre-mapped by the platform engine. Objects created in the Semantic Graph are reusable, inheritable, and privacy-aware, enabling efficient management with minimal resources and avoiding technical debt. The MicroStrategy ONE platform provides access to AI-powered workflows, wide range of data sources, cloud-native technologies, and unparalleled performance to speed up time from data to action.

2. CMC Product Description

2.1 CMC Architecture Diagram:

The components of the CMC architecture are described in 2.2 Foundational Components



2.2 Foundational Components:

CMC is built on Docker containers and uses Kubernetes for deployments. Container-based deployment enhances efficiency by using lightweight containers that help to optimize resource use and reduce overhead. This approach accelerates deployment processes, offering rapid scalability for fluctuating workloads. It allows consistent application performance across various environments and facilitates portability across diverse platforms. Ideal for microservices, containers allow for independent development and scaling of application components while providing secure isolation. Additionally, containerization supports DevOps and CI/CD methodologies, promoting frequent and dependable software releases.

CMC includes several key layers and components.

Orchestration Layer (1): The Kubernetes orchestration layer manages the deployment, scaling, and operation of containerized applications within a Kubernetes environment. This allows customers to deploy their applications on their own managed infrastructure, adhering to stringent ingress and egress rules. By utilizing Kubernetes, customers can execute their automation locally without requiring connectivity back to external services. Within the Orchestration Layer, MicroStrategy provides **MicroStrategy Orchestration Layer** tools that facilitate CMC operations:

- A. MicroStrategy Operator (2):** The MicroStrategy Operator manages the lifecycle of a MicroStrategy environment, including provisioning, changing settings, and upgrading, using Kubernetes API and tools.
- B. Management Console (3):** MicroStrategy provides a graphic user interface that enables CMC customers to deploy, manage, and maintain the MicroStrategy ONE platform without extensive integration work.
- C. APIs / SDK (4):** MicroStrategy provides an abstraction layer so CMC customers can deploy and manage the MicroStrategy ONE platform through familiar tools like REST APIs and SDKs. This layer simplifies the platform's deployment, upgrade, and management for CMC customers.

Customization Layer (5): The Customization Layer allows customers to transform and customize their deployments. This includes updating hostnames, modifying Kubernetes policies, and adding third-party agents as part of the deployments. This capability ensures that the MicroStrategy deployment codebase remains isolated, preserving customizations after each upgrade.

Artifact Registry (6): MicroStrategy provides a service where all artifacts (images, automation scripts) that are used to deploy the MicroStrategy ONE platform are stored.

Telemetry (7): To continually support and enhance the MicroStrategy ONE platform, MicroStrategy captures telemetry data of CMC deployment. The details are provided in [7. Telemetry Data](#).

AI Capabilities (8): The “AI Power User,” “AI Consumer User,” “AI Architect User” provide artificial intelligence capabilities as a part of CMC (“AI Capabilities”). These capabilities are described in detail in [8. AI Capabilities](#).

MicroStrategy Environment (9): MicroStrategy provides a containerized MicroStrategy environment that is deployed and managed by the customer. This set of Kubernetes pods constitutes the core services of MicroStrategy, providing essential business intelligence functionalities of the MicroStrategy ONE analytics solution in a cloud-native architecture.

Infrastructure (10): Infrastructure encompasses a set of customer-managed components and services that are necessary to run CMC. These include compute, database, network, load balancers and other items, that are specified in the CMC Prerequisites shared with customer.

3. Roles and Responsibilities:

Customer	Infrastructure Setup	Infrastructure Updates and Upgrades	Software Deployment and Maintenance
	Day-to-Day Operations	Scaling, High Availability, Disaster Recovery	Infrastructure Security and Compliance
	CI/CD automation	MicroStrategy Administration	Customization
Shared Responsibility	Resource Configuration		MicroStrategy Updates
	Artifact Registry	MicroStrategy Orchestration Layer	MicroStrategy Security Patches and Upgrades
MicroStrategy	Technical Support	AI Capabilities	Quarterly Service Review
	Documentation		

In the CMC, MicroStrategy provides artifacts (described above) related to the deployment and management of MicroStrategy ONE. Customers are responsible for maintaining and managing the MicroStrategy ONE application along with all the surrounding infrastructure components. Below are the details related to the roles and responsibilities.

3.1 Customer Responsibilities:

- **Infrastructure Setup:** Customers are responsible for setting up and managing the cloud environment, including VMs, storage, networking, Kubernetes clusters, and security configurations, according to the specifications listed in the CMC Prerequisites and customer's internal requirements.
- **Infrastructure Updates and Upgrades:** Customers are responsible for upgrading the cloud infrastructure to ensure it stays current and secure. Detailed information on required and recommended infrastructure components and their respective versions can be found in the deployment document.
- **Software Deployment and Maintenance:** Customers manage all MicroStrategy ONE deployments, upgrades and patches, as well as other software required to run CMC. Detailed information on required and recommended software and their respective versions can be found in the deployment document.
- **Day-to-Day Operations:** As the infrastructure is managed by customers, all day-to-day operations are owned by the customer's infrastructure teams. This includes, without limitation, tasks such as:
 - Logging, monitoring, and alerting to ensure system health and performance.
 - Infrastructure vulnerabilities mitigation.
- **Scaling, High Availability, Disaster Recovery:** Setting up and managing scaling, high availability, and disaster recovery configurations. This includes configuring auto-scaling groups, implementing failover mechanisms, and creating regular backups and recovery plans, to safeguard data and ensure business continuity.
- **Infrastructure Security and Compliance:** Ensuring the CMC environment meets applicable security and compliance requirements. This involves, among other tasks, implementing encryption, access controls, monitoring mechanisms, and regular system scanning and penetration testing to protect sensitive data and comply with industry regulations.
- **CI/CD automation:** Implementing Continuous Integration and Continuous Deployment (CI/CD) pipelines to automate the deployment process. Customers must also maintain these pipelines to ensure they are effective and adapt them as necessary to accommodate updates and changes in their deployment processes.

- **MicroStrategy Administration:** Administering the MicroStrategy ONE platform. Customers are responsible for configuring the platform to meet their organizational needs.
- **Customization:** Setting up proper server settings such as timeouts, memory allowances, etc. Deployment, administration, and maintenance of any customizations made to MicroStrategy services such as MicroStrategy Library or MicroStrategy Web.

3.2 Shared Responsibilities:

- **Resource Configuration:** Both MicroStrategy and the customer share responsibilities for configuring resources to ensure optimal performance and security.
 - **MicroStrategy's Role:** Provides guidelines and best practices for configuring resources such as CPU, memory, and storage to support MicroStrategy ONE deployments effectively.
 - **Customer's Role:** Implements the recommended configurations in their cloud environment, ensuring that resources are allocated according to MicroStrategy's guidelines.
- **MicroStrategy Updates:** MicroStrategy provides software updates (see the Technical Support Policy & Procedure), and customers are responsible for applying these updates to their deployments.
 - **MicroStrategy's Role:** MicroStrategy is committed to providing the latest updates with security fixes, therefore all customers are required to take advantage of the fixes and new features. For each Product license, we will deliver to you every quarter, at no charge and at your request, an update and or upgrade as part of the Technical Support Services subscription.
 - **Customer's Role:** Applies the provided updates, including security fixes, to their MicroStrategy ONE deployments, ensuring that their environment remains current and benefits from the latest improvements. The maximum update cadence needs to adhere to the MicroStrategy ONE Update policy, detailed in [Point 6](#) of this guide.

3.3 MicroStrategy Responsibilities:

- **Artifact Registry:** MicroStrategy maintains an artifact registry where container images, HELM charts, and other artifacts are stored and managed. This ensures that all necessary components are readily available for deployment.
 - **Container Images:** MicroStrategy is responsible for developing and providing container images of MicroStrategy services. These images are essential for deploying MicroStrategy applications in a containerized environment.
 - **HELM Charts:** MicroStrategy provides HELM charts to define, install, and upgrade complex Kubernetes applications. These charts facilitate the deployment of MicroStrategy services.
- **MicroStrategy Orchestration Layer:** To facilitate operation of containerized application, MicroStrategy is responsible for developing and providing:
 - **MicroStrategy Operator:** MicroStrategy provides operator to manage the lifecycle of a MicroStrategy environment.
 - **API Layer:** MicroStrategy provides an API layer that offers programmatic access to its services, enabling automation and integration with other systems.
 - **Management Console:** MicroStrategy provides a console with a graphical user interface, which enables CMC customers to deploy, manage, and maintain the MicroStrategy ONE platform without extensive integration work.
- **MicroStrategy Security Patches and Upgrades:** See the Technical Support Policy & Procedure.
- **Technical Support:** MicroStrategy offers troubleshooting, consulting, and guidance for deployment and configuration problems for CMC, and product support for MicroStrategy ONE platform issues. The details of responsibilities from MicroStrategy side are listed in [4. Support](#) of this guide.
- **Quarterly Service Review:** Based on infrastructure telemetry data collected from the CMC private cloud environment, MicroStrategy provides tailored recommendations to ensure MicroStrategy ONE deployments are fully optimized for peak performance and efficiency. The details of responsibilities from MicroStrategy side are listed in [7. CMC Advisory Service](#) of this guide.
- **AI Capabilities:** MicroStrategy's AI capabilities leverage artificial intelligence and machine learning to enhance analytics capabilities. This service enables customers to gain deeper insights faster and enable chatbot-driven workflows.

The details of responsibilities from MicroStrategy side are listed in [8. AI Service](#) of this guide.

- **Documentation:** MicroStrategy provides comprehensive documentation to guide customers through various processes, including deployment, pre-requisites, and upgrades. This documentation is crucial for ensuring successful implementation and maintenance of the MicroStrategy ONE platform.
 - **CMC Prerequisites:** Information on the requirements that need to be met before deploying MicroStrategy services, such as hardware specifications, software dependencies, and network configurations.
 - **Deployment Documentation:** Detailed instructions on how to deploy MicroStrategy services, supported versions of infrastructure components in specific MicroStrategy ONE release, step-by-step procedures, and troubleshooting tips.
 - **Upgrade Documentation:** Guidelines on how to upgrade existing MicroStrategy deployments, including backup procedures, upgrade paths, and post-upgrade validation steps.

4. Support

4.1 CMC Support

As a CMC customer, you will receive CMC Support, where our Cloud Support engineers will provide ongoing assistance throughout your CMC Service term. CMC Support only includes troubleshooting issues with: Container Images, Helm Charts, Artifact Registry, API layer, Management Console, MicroStrategy ONE Updates, Security Patches, and MicroStrategy AI Capabilities.

Standard Support for the Containerized Cloud Platform version of MicroStrategy Products is included with the licenses for those Products according to your contract with MicroStrategy and our Technical Support Policies and Procedures, available at <https://www.microstrategy.com/legal/terms>. All CMC customers are entitled to four Support Liaisons as defined in the Technical Support Policies and Procedures.

MicroStrategy CMC Elite Support is available as an add-on to standard CMC Support. A subscription to CMC Elite Support provides benefits such as enhanced initial response times for P1 and P2 issues, and four additional Support Liaisons (eight total). Details about MicroStrategy's CMC Support Offerings can be found in the table below.

If a support issue is logged and determined through the diagnosis that the stated issue is due to a customer-specific customization of the CMC deployment or the MicroStrategy environment, the Cloud Support team will provide the customer with available options to resolve the issue. These solutions may require the purchase of

MicroStrategy Professional Services for additional assistance depending on the complexity of the issue.

	CMC Support	CMC Elite Support
Designated Cloud Technical Account Manager	Yes	Yes
Number of designated Support Liaisons	4	8
Architect Education Passes	0	8
Initial response times for P1 and P2 issues * Priority definitions as provided in the Technical Support Policy and Procedures	P1 < 2hr P2 < 2hr	P1 < 15 minutes P2 < 1 hour
P1 and P2 issues updates	As status changes or daily	P1 every 1 hour, P2 as status changes or twice a day
Case management meetings	No	Weekly
Quarterly Service Advisory	Via email	Via meeting
Location based 24x7 support	No	Yes

Support Exclusions:

Customers are responsible for troubleshooting infrastructure-related issues, such as Kubernetes cluster failures, storage issues, and network misconfigurations.

4.2 MicroStrategy ONE Platform Support

MicroStrategy provides support to address software defects, issues related to performance, and feature enhancements. Standard Support for the containerized platform version of MicroStrategy ONE product is provided with the licenses for such Products pursuant to your contract with MicroStrategy and our Technical Support Policies and Procedures. The Technical Support Policies and Procedures document is available at <https://www.microstrategy.com/legal/terms>.

5. MicroStrategy ONE Updates

MicroStrategy Product Updates: A product update is any subsequent commercial release of a MicroStrategy Product generally available to customers under an active subscription to Technical Support. Updates do not include new Products that MicroStrategy markets separately. CMC customers are required to remain current with updates to the MicroStrategy ONE platform. MicroStrategy releases a new version every quarter with the latest platform updates and security fixes. MicroStrategy will only support the two most recent versions. CMC customers are expected to stay current with the MicroStrategy ONE releases by regularly updating to the newest versions.

If customers do not stay up to date, MicroStrategy will not be able to support any upgrades from versions older than the last two releases (n-2). Consequently, environments running on unsupported versions will be considered out of support, and MicroStrategy cannot guarantee a resolution for any issues unless the MicroStrategy ONE platform is upgraded to a supported version.

CMC Security Updates: MicroStrategy releases a monthly security update package containing the updated base images of used components to ensure high-security standards. These monthly patches include only the most recent product version and will not be available for earlier product updates. To maintain optimal security, MicroStrategy strongly recommends that customers always update to the latest available version.

Infrastructure Upgrades Responsibility: Infrastructure upgrades are not included as part of the Management Console. Customers are responsible for ensuring their supporting infrastructure (e.g., Kubernetes Clusters, Storage, Databases etc.) is kept up to date.

Guidance from MicroStrategy: MicroStrategy offers guidance on supported infrastructure versions with each new release, helping customers stay informed about the required infrastructure configurations. For more details on supported infrastructure versions and requirements, please refer to the deployment document.

6. Telemetry Data

To continually support and enhance the MicroStrategy ONE platform, MicroStrategy captures infrastructure telemetry data that includes infrastructure configuration and specifications, system usage, performance indicators, error rates, status of environments, and crash and error reports. This data collection is automatic with a manual alternative, ensuring that MicroStrategy ONE environments remain fully functional and optimized. The collected telemetry data contains no Personally Identifiable Information (PII) or business-sensitive information, ensuring the privacy and security of customer data.

MicroStrategy also gathers product usage data to help us understand how our features are utilized across different environments, providing insights into interaction patterns and feature engagement. This data enables us to make informed decisions in refining our product and aligning development with real-world use cases, ensuring continuous improvement and relevance. Product usage data is anonymized and does not contain any personally identifiable information (PII) or business-sensitive details, ensuring your privacy and data security. We follow industry best practices and adhere to strict data protection standards to safeguard all collected information and ensure it is solely used to enhance product quality and performance.

MicroStrategy requires daily infrastructure telemetry data via the automated upload mechanism. If this automated collection is disabled, a manual upload must be performed at least once a month. Additionally, before seeking any technical support from MicroStrategy, customers must upload the latest infrastructure telemetry data. If customers do not share or upload infrastructure telemetry data, MicroStrategy may not be able to support or troubleshoot issues with CMC or MicroStrategy ONE platform.

7. Quarterly Service Advisory

MicroStrategy is dedicated to helping CMC customers optimize the performance of their MicroStrategy ONE deployment and identify areas for improvement. Once a quarter, MicroStrategy experts conduct an advisory service, which may include an overview of infrastructure system resources and tailored recommendations based on observed trends to meet each customer's unique needs. During these quarterly reviews, MicroStrategy experts also evaluate open support cases and enhancement requests.

8. AI Capabilities

AI Capabilities are designed to accommodate various user roles, and provide AI-assisted data exploration, automated dashboard design processes, and SQL generation tools. The AI Capabilities within the framework of the MicroStrategy analytics platform augments the platform's data processing and presentation capabilities. The use of AI Capabilities may have limitations which impact the effectiveness, quality and/or accuracy of output from your MicroStrategy ONE analytics solution in CMC and should not replace human decision-making. You remain responsible for judgments, decisions, and actions you make or take based on the output of your MicroStrategy ONE analytics solution in CMC.

The AI Capabilities are managed by MicroStrategy and delivered from an environment outside of your CMC. To use the AI Capabilities, you must enable connectivity between your CMC and the MicroStrategy AI Capabilities. MicroStrategy will provide information on how to set up and connect the AI Capabilities. Penetration testing on the components powering the AI capabilities is not permitted. Detailed information about the AI Service can be found in the MicroStrategy AI Security Whitepaper, available at <https://www.microstrategy.com/research-and-reports/microstrategy-ai-security-whitepaper>.

For frequently asked questions about MicroStrategy AI, visit <https://www.microstrategy.com/en/enterprise-analytics/ai-chatbot-for-apps>

