



CloudAxis

Cloud Management Solution (CMS)

Features and Benefits

Introduction

The CMS is a subscription management and billing system that enhances existing investments in Microsoft Azure Stack Hub and Apache CloudStack deployments.

The CMS focuses on providing integration and management solutions for functionality gaps across Azure, Azure Stack Hub, Azure Stack Local and Apache CloudStack.

These solutions are aimed at infrastructure providers and organisations alike.



<https://cloudaxis.cloud>



cloudaxis-cms



GCWdRnmUP5

Solutions

The platform works to solve the most common multi-cloud infrastructure challenges.



Multi-Region Management

Multi-cloud and infrastructure environments can quickly become difficult to manage when regions, zones, accounts and tenants are spread across separate platform-specific portals.

The CMS provides a single interface across multiple regions and stack deployments.



Tiered Management and Self-Service

Many cloud management platforms do not provide the distributor, partner and tenant hierarchy required by infrastructure providers and reseller-led service models.

The CMS provides a three-tier model that allows distributors and partners to manage subscriptions, accounts and billing across supported platforms from a single interface.



Subscription Management

Provisioning subscriptions and accounts often requires detailed knowledge of each underlying platform, identity model and operational process.

The CMS simplifies this by providing a delegated self-service workflow, while handling the platform-specific automation securely behind the API.



Billing and Commissions

Infrastructure platforms can expose useful usage and metering data, but operators still need a commercial layer for billing, invoicing, commissions, credits, discounts and customer-specific pricing.

The CMS provides a complete multi-currency billing model that helps service providers turn platform usage into clear invoices, flexible pricing options and transparent distributor or partner commissions.

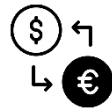
Solutions



SKU Based Pricing

Infrastructure platforms often expose usage in different technical formats, from base meters through to compute, disk, network and service-offering models. Customers, however, usually think in terms of SKUs, bundles and services they can clearly understand.

The CMS provides SKU-based pricing templates that align billing items with the services customers provision, making pricing easier to manage and easier for tenants to understand.



Invoicing and API Integration

Commercial cloud operators need more than raw usage data. They need clear billing records, branded invoices and simple integration with the systems they already use to run their business.

The CMS provides a built-in invoicing service that delivers branded consumption invoices to end users, while exposing API-driven billing integration for finance platforms, external billing systems and downstream reporting workflows.



Cost Management

Operators need a clear view of where cloud services are profitable and where costs are increasing.

The CMS tracks costs across regions and cost centres, then calculates margins during each usage and billing run. This gives providers a clearer view of regional performance, operating costs and overall profitability.



Built-in Calculator

The built-in calculator uses regional and tenant-specific pricelists to generate real-time quotes and estimates.

This helps providers with model costs, support sales conversations and give prospective or current tenants a clearer view of expected consumption charges before services are deployed.

Your platform, your rules

Branding and Architecture

Feature

Description



Offline Operations

We understand that Azure Stack Hub and CloudStack are often used for private, edge and controlled environments. If disconnected operation is required, the CMS is designed to work without internet dependency, subject to configured integrations.



Scalable, Modular Containerization

The CMS is completely containerized and can run on any container runtime at any scale.

The CMS service is a three-tier application providing a portal, API and database tier which can be independently, horizontally, scaled to meet your unique growth and availability requirements.

Containerization brings enhanced security, portability and free's up the organisation from the responsibilities of having to run dedicated virtual machines.

All deployments leverage NGINX reverse proxy and make use of MySQL which provides exceptional multi-geo replication as well as read and write segmentation.



Platform Running Costs

The CMS is designed to provide a scalable management layer across registered cloud and infrastructure regions.

It gives operators a single interface for managing services, usage and billing without needing separate CMS components deployed inside every region. This keeps the platform lightweight, easier to operate and commercially simple, with no additional software costs beyond CMS licensing.







Custom Branding and White Labelling

Our goal is to put your brand first and foremost, there is not a single part of the CMS that cannot be customized to match your brand, and our engagements always include a branding component up front.

Secure Tiered Management

Delegation and Access Control

Feature	Description
	<p data-bbox="245 646 503 672">Three Tier Model</p> <p data-bbox="550 541 1422 642">At the heart of the CMS is the three-tier model. This model provides an ownership hierarchy between Distributors, their Partners and the Tenants managed by either.</p> <p data-bbox="550 684 1450 785">This is perfect for infrastructure providers who already have or want to build strong partner networks across multiple geographies.</p>
	<p data-bbox="245 978 451 1037">User Management</p> <p data-bbox="550 888 1503 1026">The first challenge the CMS overcomes is that of user management. The system provides delegated user management and read-only roles which allow for secure, authorised management and control at all tiers.</p> <p data-bbox="550 1064 1474 1129">For those who wish to use the inbuilt forms authentication. The CMS provides native password recovery and MFA functionality.</p>
	<p data-bbox="245 1283 412 1341">Identity Federation</p> <p data-bbox="550 1232 1474 1404">Azure Stack Hub, Azure Stack Local subscription RBAC relies on Entra ID tenant registration, while CloudStack uses its own account, domain and role model. The CMS abstracts these differences and is fully integrated into multiple cloud native identity providers such as Entra ID, Google and GitHub.</p>
	<p data-bbox="245 1686 451 1745">Secrets Management</p> <p data-bbox="550 1507 1377 1572">Secure delegation depends on clear separation of access between regions, platforms and operational teams.</p> <p data-bbox="550 1612 1503 1785">The CMS uses region-scoped credentials for platform integration, allowing each registered environment to be managed independently. Authentication details, certificates and API credentials are stored securely and used only for the region they belong to.</p> <p data-bbox="550 1824 1503 1925">This approach helps simplify credential rotation, reduce unnecessary access and maintain secure integration across each supported platform.</p>

Consistent Deployments

Subscription Management

Feature / Requirement

Description



Subscription Self Service

Subscription and account management is central to the CMS experience.

The CMS gives operators, distributors, partners and tenants a single place to manage subscriptions and accounts across multiple regions and supported platforms.

Self-service provisioning can be enabled within the guardrails you define, reducing manual administration while keeping control with the platform operator.



Deployment Consistency

The CMS uses standardised provisioning workflows to keep backend platforms clean and consistent.

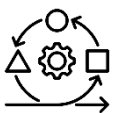
It helps prevent orphaned resources, unmanaged accounts and mismatched service mappings by applying controlled deployment patterns and consistent naming standards across each supported platform.



Platform Registration

One frustration often raised by operators and users is the need to complete platform-specific onboarding before users can safely consume services. Azure Stack Hub requires Entra ID tenant registration for RBAC, while CloudStack requires account, domain, project and API context to be aligned with the target region.

The CMS mitigates this by guiding tenants and administrators through the required registration process and surfacing backend health checks between the CMS and the target cloud platform.









Lifecycle Management

Through the CMS subscriptions can be safely disabled, enabled and repaired without needing manual intervention. Ownership can be modified by tenants themselves.

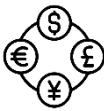



Complete Pricing Control

Metering and Pricing

Feature / Requirement	Description	
	Meter Conversion	The CMS simplifies usage processing by collecting, interpreting and transforming platform usage data into billing-ready records. This includes custom meters and platform-specific usage items that are not always displayed in a consistent commercial billing format.
	SKU Metering	The CMS helps streamline pricing setup by importing the services, sizes and offerings available from each supported platform. These imported items can then be mapped to pricing rules, operating system types, templates, images and other platform-specific attributes that need custom pricing.
	Dynamic Pricelists	The CMS supports flexible pricing at both region and tenant levels. Pricing can be cloned and adjusted quickly, helping operators roll out new rates, customer-specific pricing and regional price changes with less manual effort.
	Discounts, Credits and tier-based pricing	Whether using metering or SKU based pricing, the system allows for credits, tier-based pricing and discounts. All clearly shown on tenant billing reports and invoices.
	Estimate Tool	The CMS provides a built-in estimator which has various uses including planning price rises and providing pre-adoption usage estimates.
	Distributor and Partner Commissions	The CMS incentivizes distributors and partners by providing a transparent tier-based commission structure that helps the platform operator keep track of commission payments.

Intelligent Cloud Billing

Billing and Invoicing

Feature / Requirement	Description
 Multi-currency Support	The solution provides multi-currency support for all major currencies, including API integration with current international exchange rates. Allow custom and automated rate adjustments as needed.
 Billing API	Operators often need billing and invoicing data to flow into their existing finance, reporting and business systems. The CMS provides a secure billing API that makes it easier to integrate invoice records, consumption data and billing outputs with downstream tools and workflows.
 Detailed Invoicing	The CMS provides a single detailed invoice showing consumption, pricing, tax, savings and totals across all regions. Tenants can track invoice status across both current and past invoices and there is delinquent payment management baked into the CMS.
 Budgets	Tenants can set budgets on their consumption and receive custom alerts.

These features and more....



Onboarding Experience

We work with partners to make CMS onboarding clear, structured and practical.

1. Deploy and brand the CMS.
2. Connect your cloud and infrastructure regions.
3. Configure pricing, billing and platform settings.
4. Train your team and support the transition into production.

Conclusion

Regardless of your Azure Stack Hub, Azure Local or Cloud Stack deployment pattern, whether online or offline, the CMS removes the pain associated with running a profitable multi-tenant cloud platform while providing a complete turn-key reseller solution to amplify your business and drive adoption.

Your branding, your platform, your terms.

Join us at onboard@cloudaxis.cloud

The screenshot displays the CloudAxis Billing dashboard. The left sidebar contains navigation options: Dashboard, Notifications, Subscriptions, Billing (selected), Relationships, Pricing, Settings, Regions, Settings, and Users. The main content area is titled 'Billing' and includes tabs for BILLING, INVOICES, and COMMISSIONS. It shows summary statistics for 'This Month' (609.97 USD), 'Last Month' (612.43 USD), and 'Selected' (609.97 USD). Below these are filters for Tenant (Preston Law), Subscription (All Subscriptions), and Select Month & Year (2025-04). A table titled 'METER ACTIVITY' lists resource usage with columns for Region, Tenant, Subscription, Resource Type, Meter, Resource Name, and Total Cost (USD). The table is categorized into Managed Disks, Compute, and Network.

Region	Tenant	Subscription	Resource Type	Meter	Resource Name	Total Cost (USD)
Managed Disks						
Australia - North West	City Council	Subscription 1	Managed Disks	P10 Disk (128 GB Premium)	disk-ix-data01	0.00
Compute						
Australia - North West	City Council	Subscription 1	Compute	Standard A7 (Base)	vm-linux2	0.00
Australia - North West	Petes Distributors	Subscription 2	Compute	Standard F2s v2 (Base)	vm-linux3	178.89
Australia - North West	City Council	Subscription 1	Compute	Standard F2s v2 (Base)	vm-linux	224.41
Australia - North West	Preston Law	Sub 1	Compute	Standard F2s v2 (Base)	vm-sql01	188.31
Network						
Australia - North West	City Council	Subscription 1	Network	Dynamic IP Address Usage	pip-linux	18.36