



**SELF SERVICE CLOUD AND IOT**

**MANAGEMENT PLATFORM**

## MONETIZE THE CLOUD

Powua is a Cloud Management Platform (CMP) that allows software and services to be provisioned, monitored and billed through a consumption-based mechanism.

Powua supports defined service models including SaaS (Software as a Service), IaaS (Infrastructure as a Service) and PaaS (Platform as a Service).



STORE



PROVISIONING



METERING



BILLING

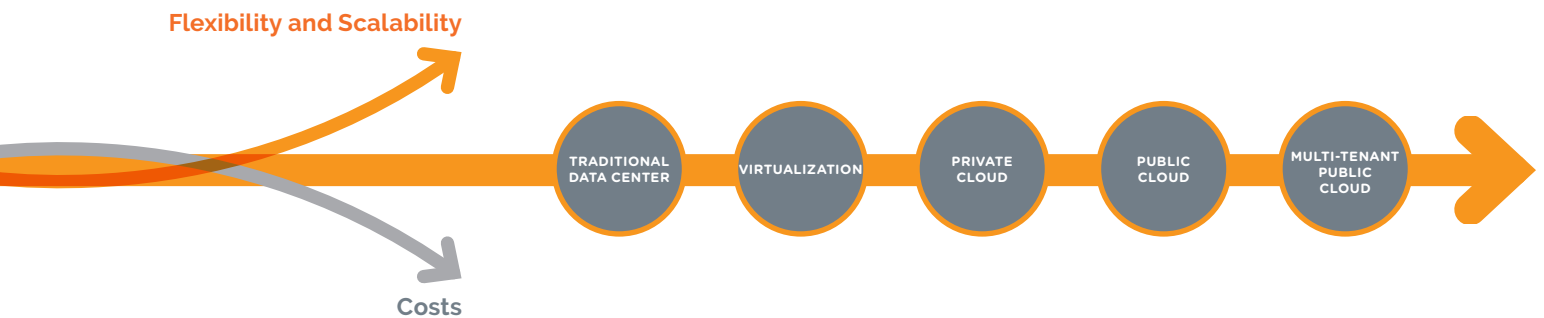
## OPENING NEW BUSINESS OPPORTUNITIES

Powua is geared towards organizations that need to implement Private/Public Cloud, Hybrid Cloud or Community Cloud infrastructure including, but not limited to, Independent Software Vendors, Internet Service Providers, Cloud Providers, the Public Sector and institutions like universities or associations.

With Powua, enterprises can utilize a pay-per-use model to offer their software and services. Through the Powua Console, organizations have full control of their applications while autonomously and cost effectively managing their store and catalogs.

The Powua Console allows the billing model for each product/service to be configured independently and with great flexibility. Software customers experience immediate benefits by receiving commercial offerings through a pay-per-use model that reflects their needs and only paying for what they actually consume. In addition, customers have the ability to track and manage expenses per product/service purchased from the available catalogs and establish spending limits or caps per user or per product/service.

In the case of Public Services, the Console can measure the usage of each product/service and autonomously set and manage the spending caps per user or per product/service.



## WHY POWUA?

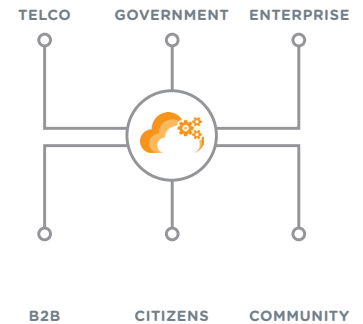
The complexity of managing cloud platforms and the inadequacy of existing system management solutions render effective delivery of cloud services extremely difficult. To solve this business problem, we have created a Cloud Management Platform - Powua - to deliver an end-to-end solution for managing Public and Private clouds.

Powua allows organizations to transform the delivery of services in the cloud, creating real business opportunities. This includes flexibility, cost-effectiveness and ease of handling for Private clouds, metering/measuring resource consumption, rendering pricing policies more flexible and opening up service offerings for Private and Public clouds.

## VALUE PROPOSITION

Powua assists organizations in establishing Private and/or Public cloud offerings, while controlling their IT spending and ensuring maximum returns on technology investments. Organizations that wish to pay for IT resources consumed during the course of normal business activity by actual real-time usage can take advantage of Powua's patented technology without worrying about software product updates or hardware technology refresh cycles. Powua provides these organizations with the necessary IT resources to ensure expedient time to market for their respective products and services. Powua also works with organizations looking to employ Private clouds in order to enhance employee collaboration, productivity and agility in meeting the needs of the business.

On the Cloud Service Provider side, Powua assists organizations that wish to deploy their solutions through the cloud in order to reach a broader audience. As a Cloud Management Platform, Powua acts as a revenue accelerator to ensure that the right individuals are consuming the right resources/solutions at the right time. This will motivate them to act while employing a localized pay-per-use methodology to ensure maximum return on an IT spend.



### BENEFITS FOR LARGE ORGANIZATIONS



Define flexible and highly customizable rules for infrastructure and application cost allocations (chargebacks)



Helps to adopt cloud virtualization technologies and simplifies online provisioning



Define and implement hybrid scenarios with applications/infrastructure that are connected to their own data center and web services



Frees up IT resources from infrastructure and application management problems

### BENEFITS FOR SERVICE PROVIDERS & DEVELOPERS



Various business cloud models available - all offering quick and easy cloud services



Eliminates manual tasks for environments and services management, which reduces errors and increases efficiency



Innovative commercial policies based on pay-per-use as well as on recurring/consumption patterns



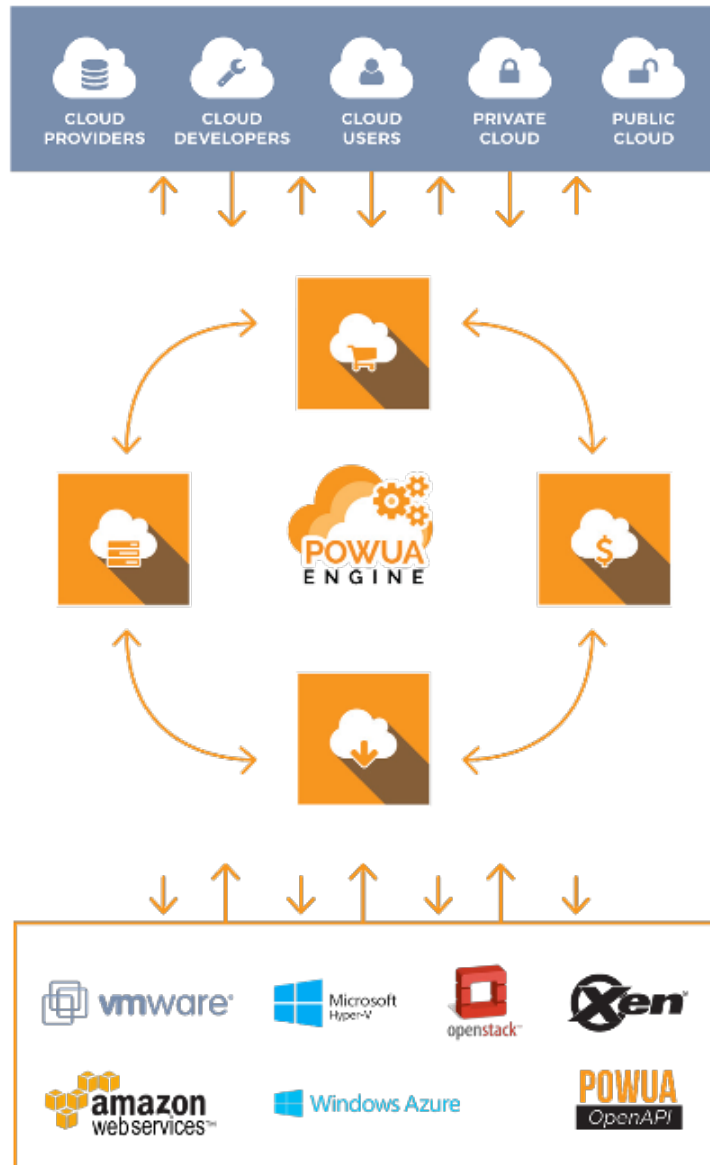
Measures the real use of resources and applications through standard API, making it easy to deploy and configure

## HOW IT WORKS

From a Cloud User perspective, using Powua is extremely simple:

1. User goes to the eStore to see which services are available and their respective consumption schedules
2. User chooses the services needed and purchases a set amount of credits
3. Powua automatically provisions the services
4. Through the Powua Console, the User controls and verifies the amount of credits used by the services selected

Cloud Providers and Application Service Providers can also monitor the use, performance and billing of services through the same easy-to-use Powua Console.



### POWUA® ENGINE: PATENTED

Powua is an apparatus and method for sharing and/or making accessible the computational calculation power between calculators connected in a network. Powua allows users to access distributed computing power from wherever they are through a simple Internet connection.

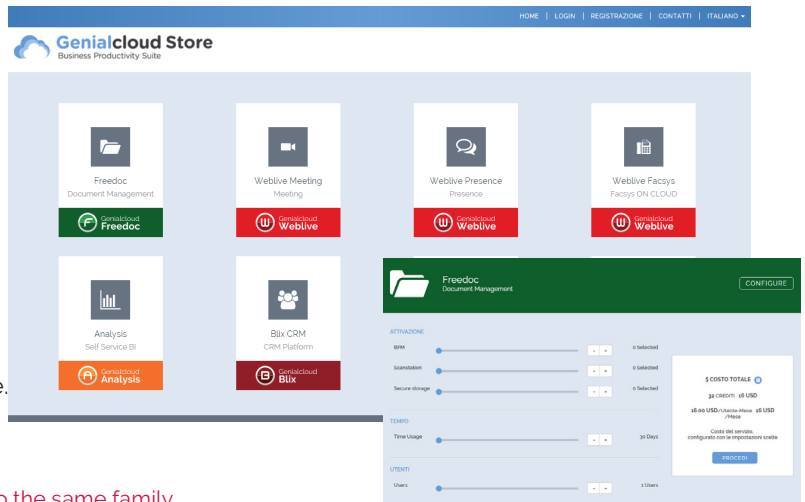
As a cloud management platform, supported software and services interact with parallel-distributed processors or calculators to speed up processing time for operations including, but not limited to, provisioning, metering and billing that would otherwise occupy a local CPU for a long time. Powua subdivides the operation and distributes it to many processors simultaneously.



## STORE

### Self service eStore

Powua Store offers products and services via a permissions-based web catalog, through which users can select their desired services. Fully configurable to render differentiated services for different categories of users, Powua Store allows for the mapping of complex organizations for a Private Cloud or different types of customers for a Public Cloud. Equipped with security functionality and integrated with electronic payment systems, Powua Store also carries out the functions of a portal application that publishes useful information in the form of reports to users such as: summary of the services purchased; services available; budget resources allocated; economic budget; resource consumption and economic aspects linked to the consumption of the same.



### POWUA 3.0 NEW FEATURES

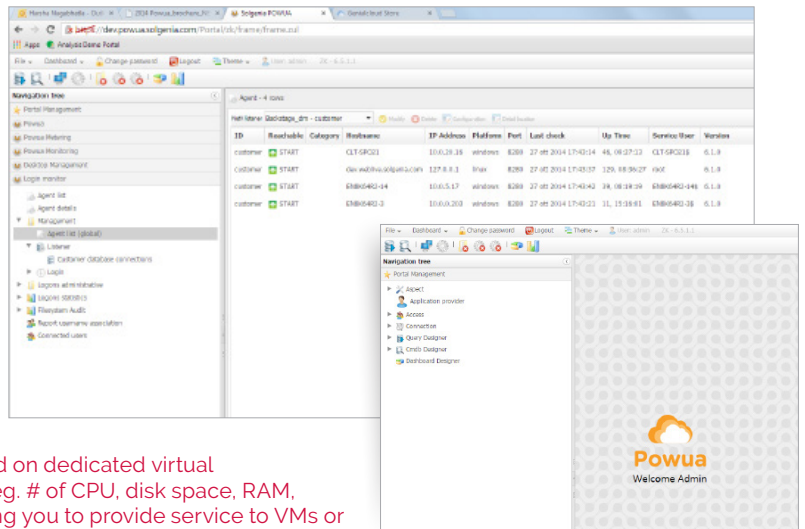
- Configure additional products in the Store that belong to the same family,
- New Upgrade Levels functionality lets a user buy a product and then purchase an additional product (ie. an upgrade) from the previously purchased product and not as a new purchase.
- Configure new time units for a product (days, weeks, months, years).
- Define custom time units based on the default units (eg. Quarter = months\*3)
- Create a log for all the main actions executed by a user (eg. Login, access to a product, etc.)
- New Administrative Operator can now fulfill the following processes on behalf of a customer: Registration, Service Configuration & Purchase, Service Modification, simple User Configuration & Management, disable/enable a user account, change their credit amount, disable/enable/suspend/lock/remove a customer order.



## PROVISIONING

### Automate the deployment of services

Powua Provisioning enables an autonomous methodology of provisioning selected products/ services through the Powua Store. Powua Provisioning is natively integrated with leading virtualization environments (VMware; Hyper-V; XEN) to allow a quick and effective deployment of selected services, eliminating the need for manual intervention, any associated costs and human errors. Its functional richness and ease-of-use allow for simple configuration and the elimination of errors caused by manual intervention - thereby increasing the security of managed cloud platforms.



### POWUA 3.0 NEW FEATURES

- A product in the Store can be configured to be deployed on dedicated virtual infrastructure. Physical attributes of this infrastructure (eg. # of CPU, disk space, RAM, Network I/O) can be configured by the end user, allowing you to provide service to VMs or within a set of VMs.
- Out of the box connectors to Microsoft Azure and OpenStack.
- New service deployment for multi-site/regions option (for public and private cloud) available for users during the purchase process.

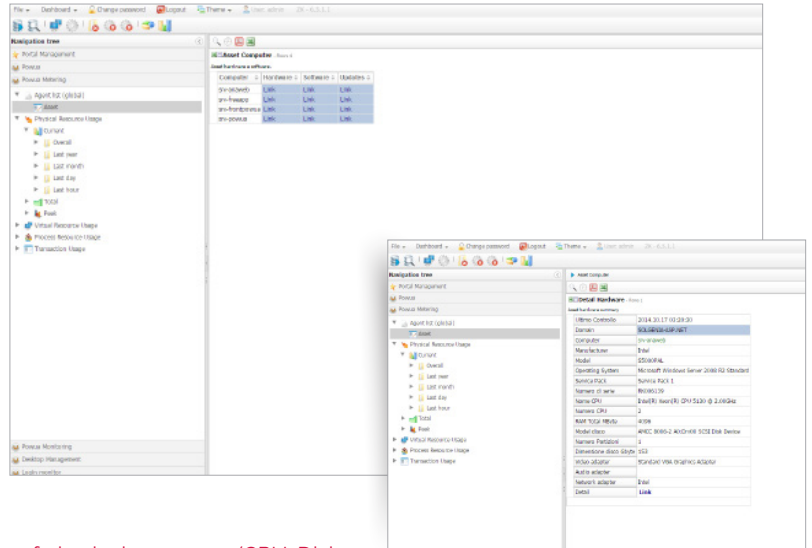


## METERING

Accurately measure the use of resources

Powua Metering allows an organization to measure, with desired granularity, the resource usage of selected products/services. It is able to collect real-time information on consumption made by individual users respective to physical resources (CPU cycles, storage, bandwidth, memory, etc.) and applications (usage times, number of transactions, modules utilized, etc.). It can then assist in defining a methodology for the consumption rate and apply that rate to individual users, groups of users or organizations as a whole.

In addition, Powua Metering allows you to configure clear and easy-to-read dashboards that collect, aggregate, monitor, measure and display resource consumption by the various types of Powua users.



### POWUA 3.0 NEW FEATURES

- Agent based technology is able to capture consumption of physical resources (CPU, Disk, RAM, Net) for each single machine or each process running on it.
- This consumption data can be aggregated into custom hierarchical models in order to visualize it or simulate consumption costs.

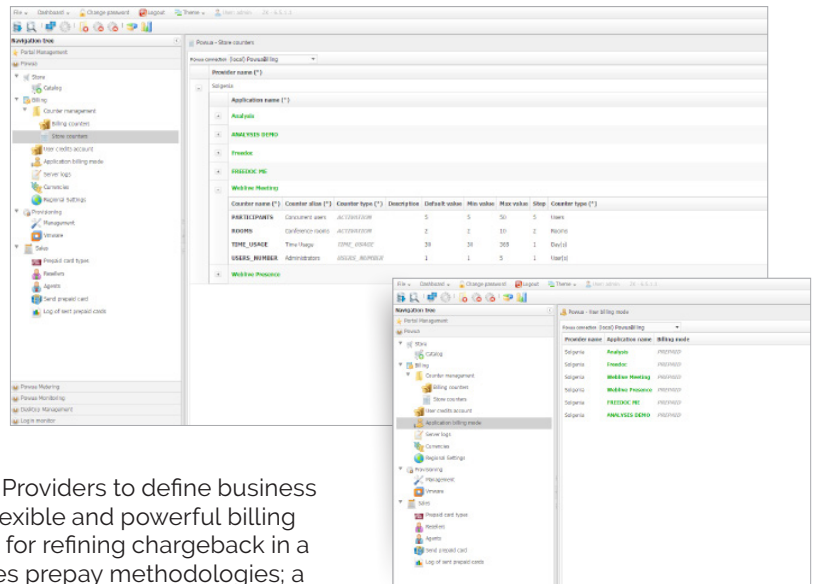


## BILLING

Do business in the cloud

Powua Billing manages the valuation of resource consumption by users that is measured through Powua Metering. It's based on a credit system established by service providers that applies to the use of each service, and its consumption of respective resources and infrastructure Powua Billing allows organizations to define complicated business policies in response to the complex business needs of cloud service providers as well as chargeback policies for internal departments or business units in a Private cloud.

This model provides unique versatility and flexibility because it allows an organization to separate the enhancement of trade and consumption methodology from traditional currency. The result is an agile and flexible solution that enables cloud Service Providers to define business policies. In the case of Private cloud, Powua Billing is a flexible and powerful billing engine that is used to redefine and design trade policies for refining chargeback in a complete and easy management module. Powua enables prepay methodologies; a flat recurring rate option, consumption-based payment system or a combination of the two. In addition, Powua supports electronic payment systems including credit cards and PayPal. From the respective Control Panel, a user can monitor and verify their credits utilized by the services selected and see a detailed explanation of the credits used up in their account.



### POWUA 3.0 NEW FEATURES

- New counters available for billing rules (that translate physical/resource consumption into costs, using credits). Credits are charged to each customer based on their usage of infrastructure, following billing rules and models defined for each service.

## POSITIONING STATEMENT

For Private and Public cloud providers alike, Powua delivers a complete unified, web-based Cloud Management Platform for organizations to set up and manage their own eStores - through the development of software and service catalogs, provisioning of these goods and services, metering their usage and billing the consumption by either a flat rate or a pay-per-use model. Only Avantune is uniquely positioned to successfully enhance the end-user experience by providing business and cloud solutions.

## SUPPORTED PLATFORMS AND SERVICES:

### Operating Systems:

- › Windows 2003 or higher
- › Linux Red Hat

### Databases:

- › MySQL

### Application Servers:

- › Tomcat
- › JBoss
- › GlassFish

### Certified Virtualization Systems:

- › VMware
- › Hyper-V
- › XEN

## TECHNICAL BENEFITS

- › Independent from hardware and virtualization systems
- › Automatic and autonomous provisioning of services
- › **100% cross-platform Java:** Powua is 100% Java to ensure the installation of each system module on any platform/hardware that supports Java 1.6 runtime or higher
- › **Multi-tenant architecture:** Powua allows managing multiple providers.
- › **"Deployability" of system modules on different physical/virtual systems:** The entire system is divided into installable modules on different platforms to ensure the highest level of flexibility in the distribution of workloads
- › **System modules run completely independent:** Each module is independent and can be used individually in all situations where system integration with third-party products is necessary.
- › **Availability of each module's functionality via web services:** All modules are similar to real services that one can interact with through web services (HTTP and HTTPS), in order to ensure the highest level of openness and integration into existing environments.
- › **Administrative interaction is entirely web-based:** The administrative console for all management system modules is completely web-based, using HTML5/AJAX interaction to ensure a comparable experience to one obtained through a client-server console.



Powua is a Self Service Cloud and IoT Management Platform.

Powua is geared towards organizations that need to implement Private/ Public/ Hybrid Cloud. It supports all service models, included SaaS (Software as a Service), IaaS (Infrastructure as a Service) and PaaS (Platform as a Service)

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Avantune is a global cloud self service solutions provider. The innovative offering supports private, public, or hybrid cloud models, offering ease of use, independence from platforms, systems and devices in use.

The Company operates two distinct business divisions: Genialcloud, a self service business suite and Powua, a self service cloud enablement platform, which represent a complete and integrated offer that support companies and cloud providers in improving productivity, renew their business model, cut costs and increase efficiency and productivity of its employees and customers.

With central office in Toronto, the company operates in Italy, United States and Mexico.