



Practical Guide to Cloud Management Platforms

<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-management-platforms.htm>

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Speakers



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The Cloud Standards Customer Council

THE Customer's Voice for Cloud Standards!



- Provide customer-led guidance to multiple cloud standards-defining bodies
- Establishing criteria for open standards based cloud computing

2017 Projects

- **PG to Cloud Management Platforms**
- Hybrid Integration Ref. Architecture
- API Management Ref. Architecture
- Security for Cloud Services Ref. Architecture
- Data Residency discussion paper
- Blockchain Ref. Architecture
- Cognitive Computing Ref. Architecture
- And more!

2015 Deliverables

- Web App Hosting Ref. Architecture
- Mobile Ref. Architecture
- Big Data & Analytics Ref. Architecture
- Security for Cloud Computing, V2
- Practical Guide to Cloud SLAs, V2
- Practical Guide to PaaS

2013/2014 Deliverables

- Convergence of Social, Mobile, Cloud
- Analysis of Public Cloud SLAs
- Cloud Security Standards
- Migrating Apps to Public Cloud Services
- Social Business in the Cloud
- Deploying Big Data in the Cloud
- Practical Guide to Cloud Computing, V2
- Migrating Apps: Performance Rqmnts
- Cloud Interoperability/Portability

2016 Deliverables

- Prac Guide to Hybrid Cloud Computing
- Public Cloud Service Agreements, V2
- Cloud Security Standards, V2
- IoT Ref. Architecture
- e-Commerce Ref. Architecture
- Impact of Cloud Computing on Healthcare, V2
- Enterprise Social Collaboration Ref. Architecture

650+ Organizations participating



<http://cloud-council.org>

Defining Cloud Management Platforms

*CMPs incorporate self-service interfaces, provision system images, enable metering and billing, and provide for some degree of workload optimization through established policies**

Functionality

- **Access and authorization management**
- **Resource management** across environments
- **Financial management** relating to subscribed cloud services
- **Service catalogs** to support self-service provisioning or resource approvals
- **Cloud brokerage** – rules-based guidance for asset placement decisions
- **Integration** with the relevant target cloud environments & enterprise systems

Integration Points

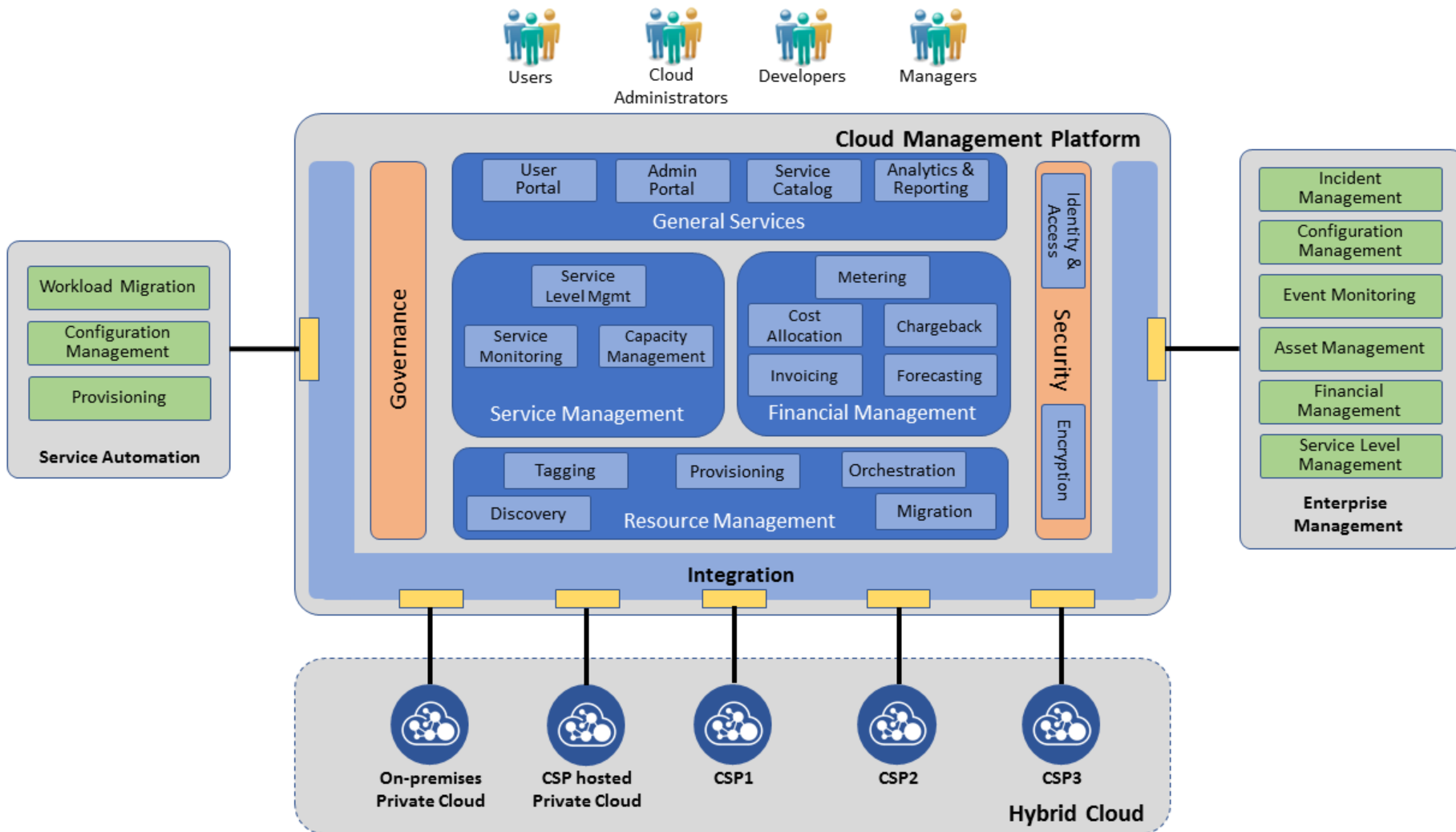
- **Service delivery systems**
- **Identity and access management**
- **ERP and financial systems**
- **Automation Tools**
- **Infrastructure monitoring**
- **Business process rules systems or other business systems**

*Gartner IT Glossary – Cloud Management Platforms

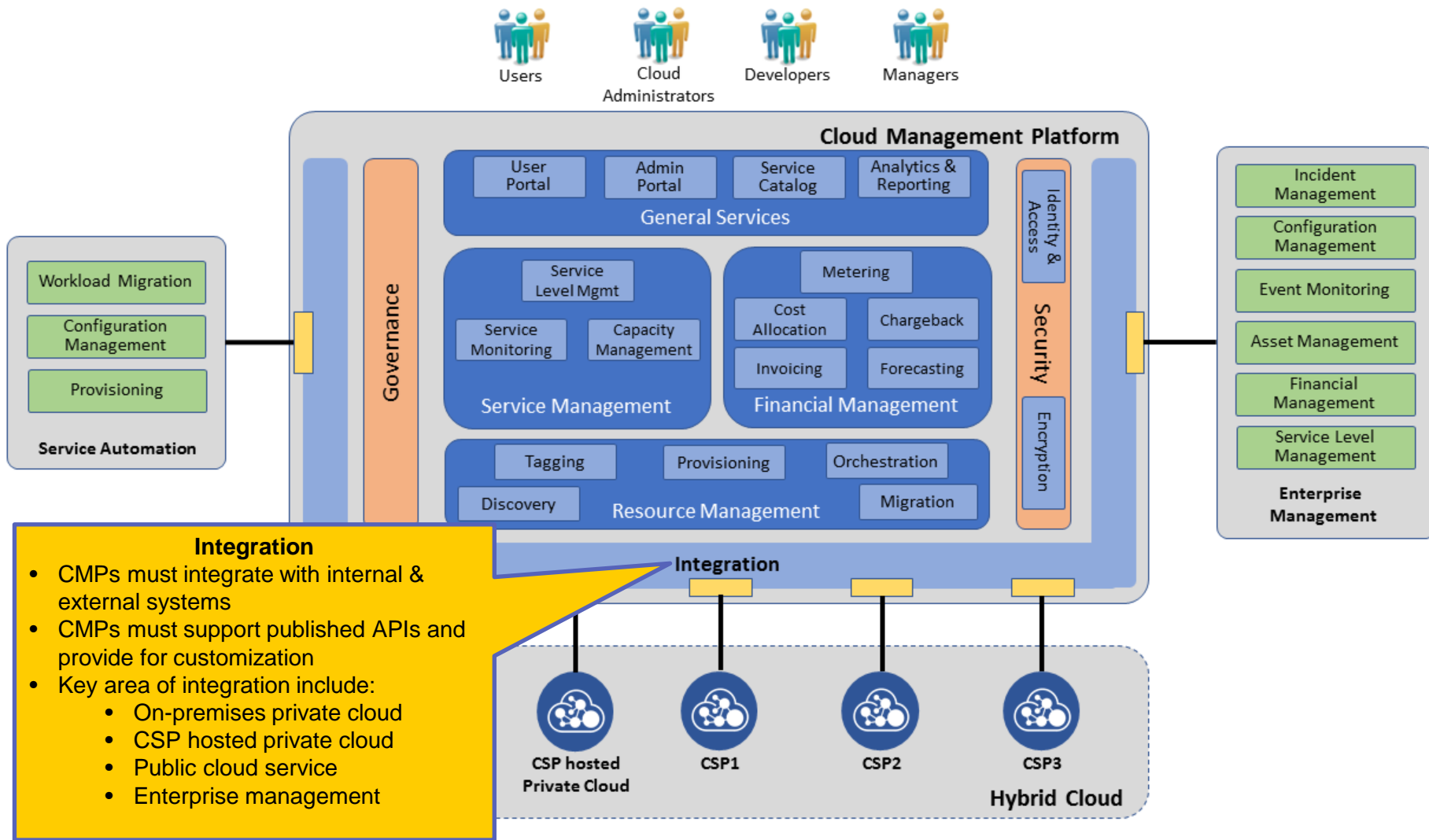
Challenges

- **Governance** – hybrid cloud increases the challenge to effectively maintain visibility of cloud resources, to manage spend (including chargebacks), and to ensure quality of service.
- **Security and protection of PII and other sensitive information** – security and protection of personally identifiable information (PII) and other company confidential information are challenging when applications and data are spread across multiple cloud services
- **Compliance** – maintaining compliance with internal security policies, industry mandates, standards and regulations becomes more challenging with hybrid cloud environments
- **Performance** – hybrid cloud environments can introduce latency and impact the performance of applications and services

Functions of a Cloud Management Platform



Functions of a Cloud Management Platform

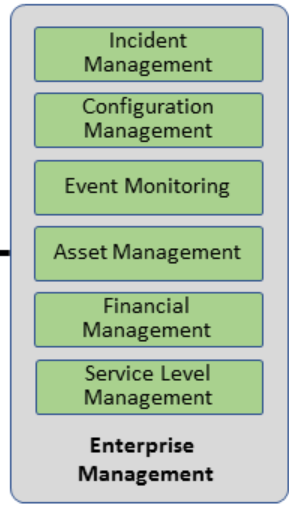
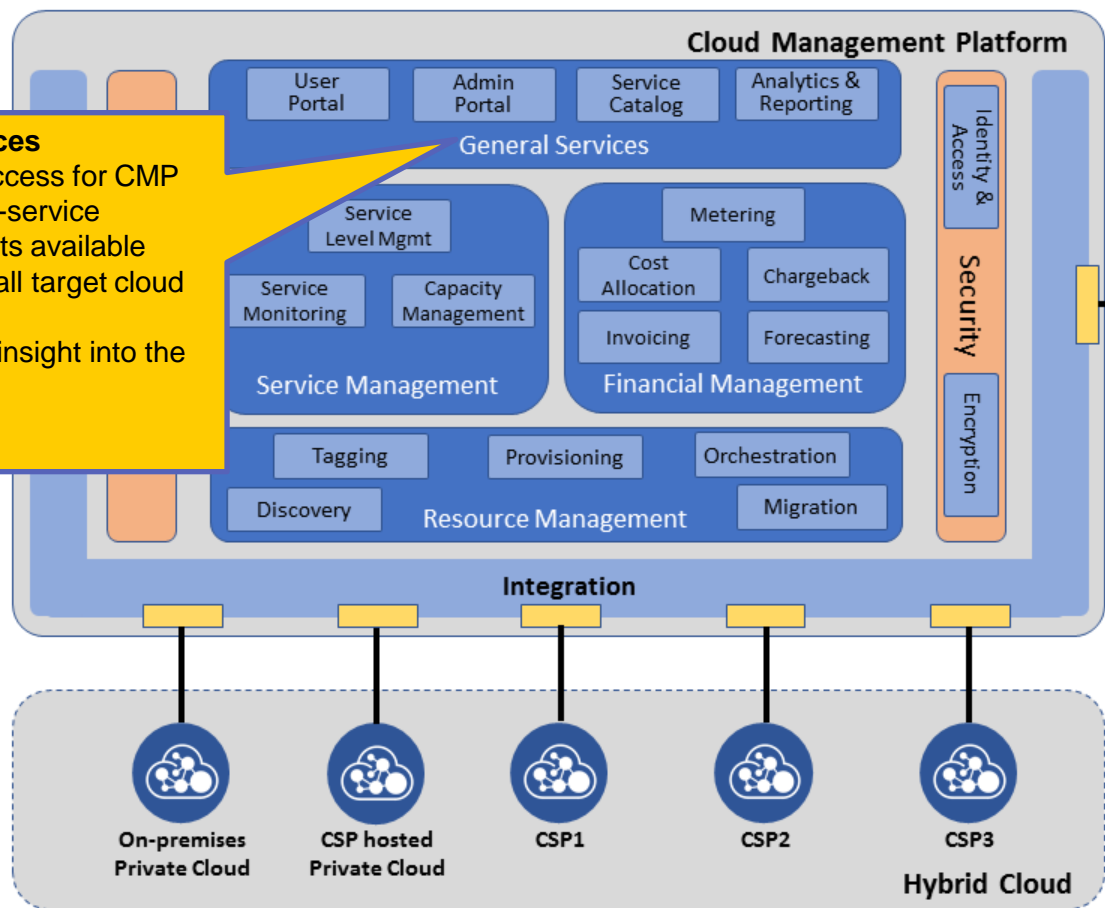


Functions of a Cloud Management Platform

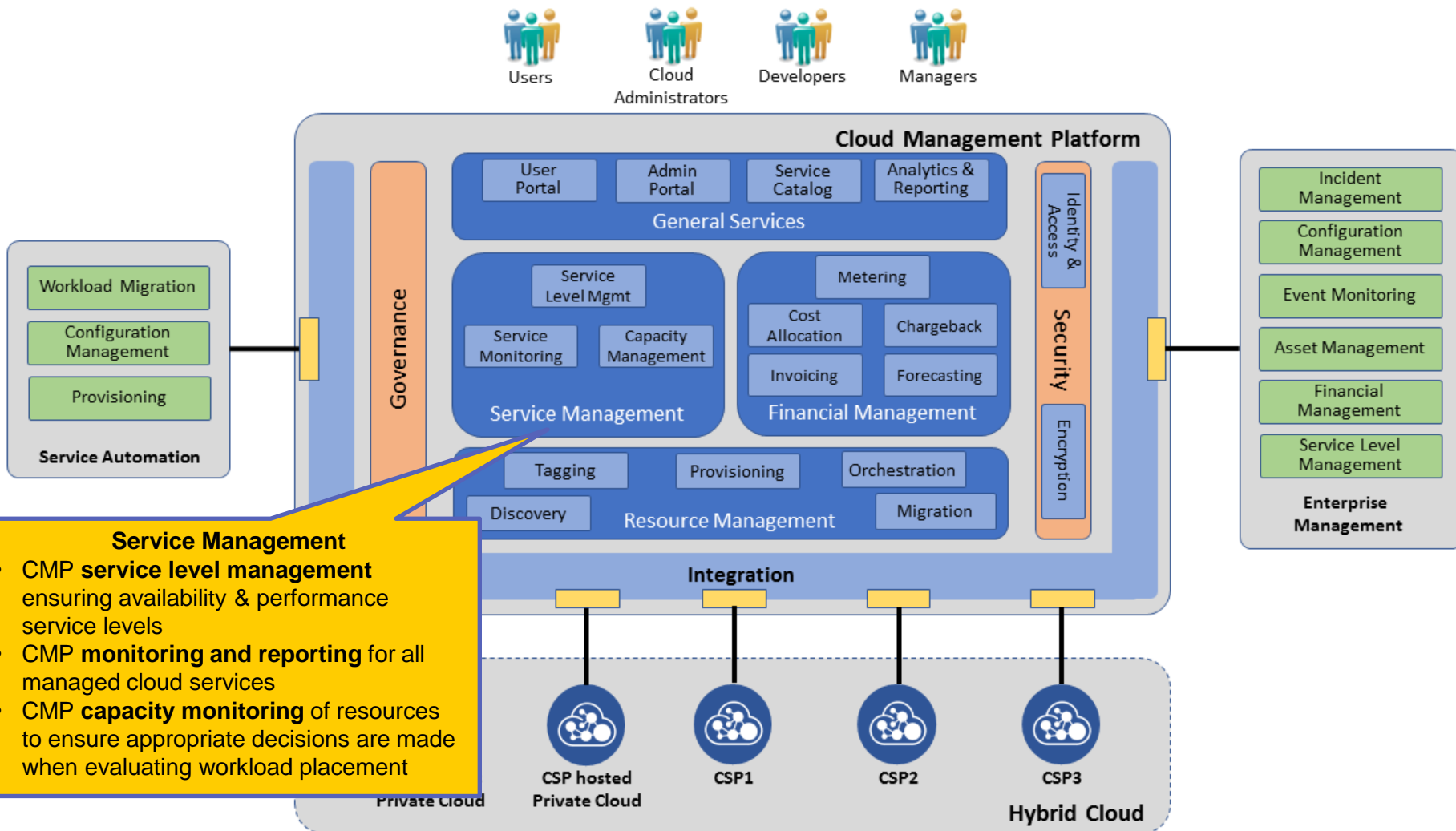


General Services

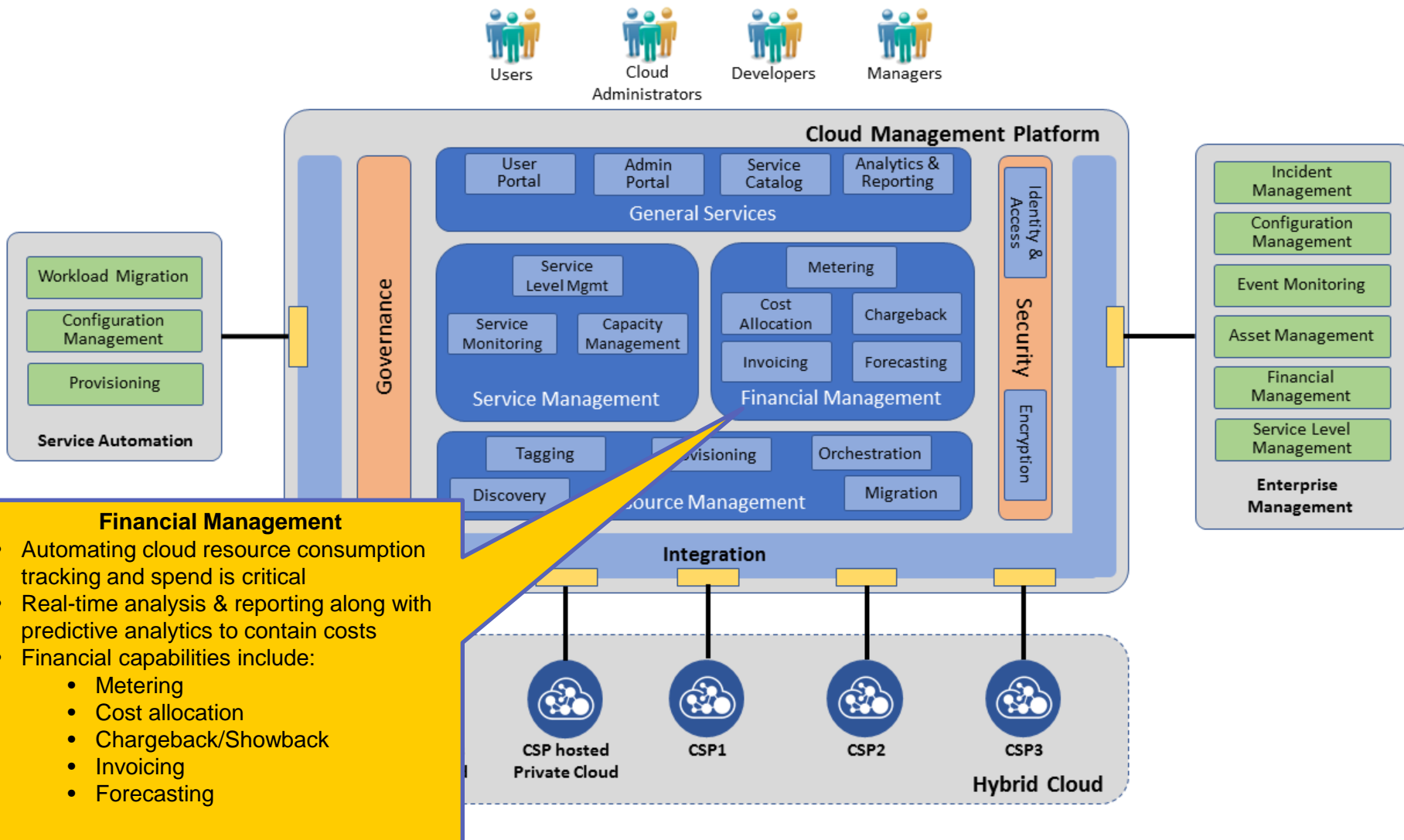
- **Portal:** central point of access for CMP functions and enable self-service
- **Service Catalog:** presents available cloud services spanning all target cloud environments
- **Analytics & Reporting:** insight into the use of cloud services



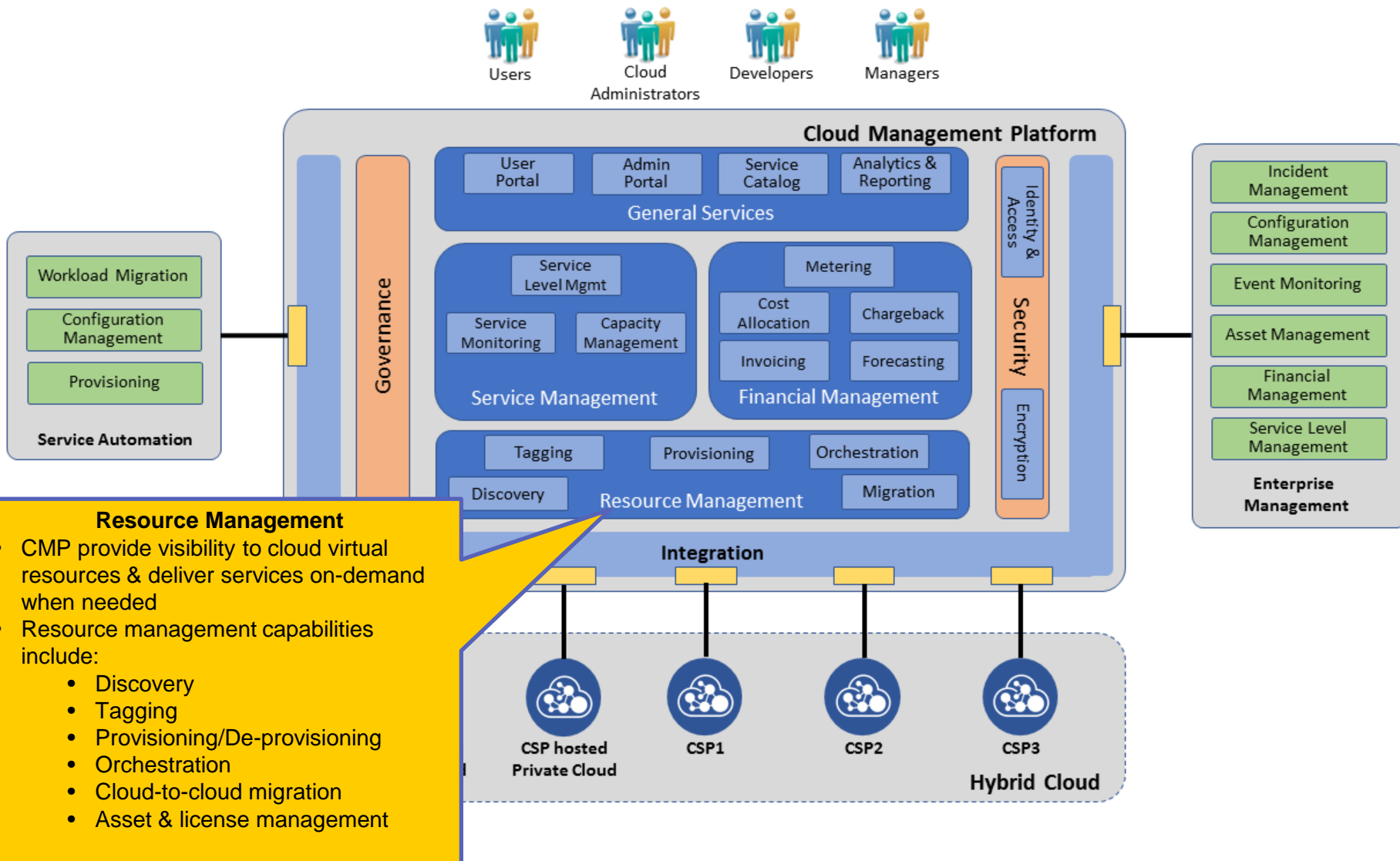
Functions of a Cloud Management Platform



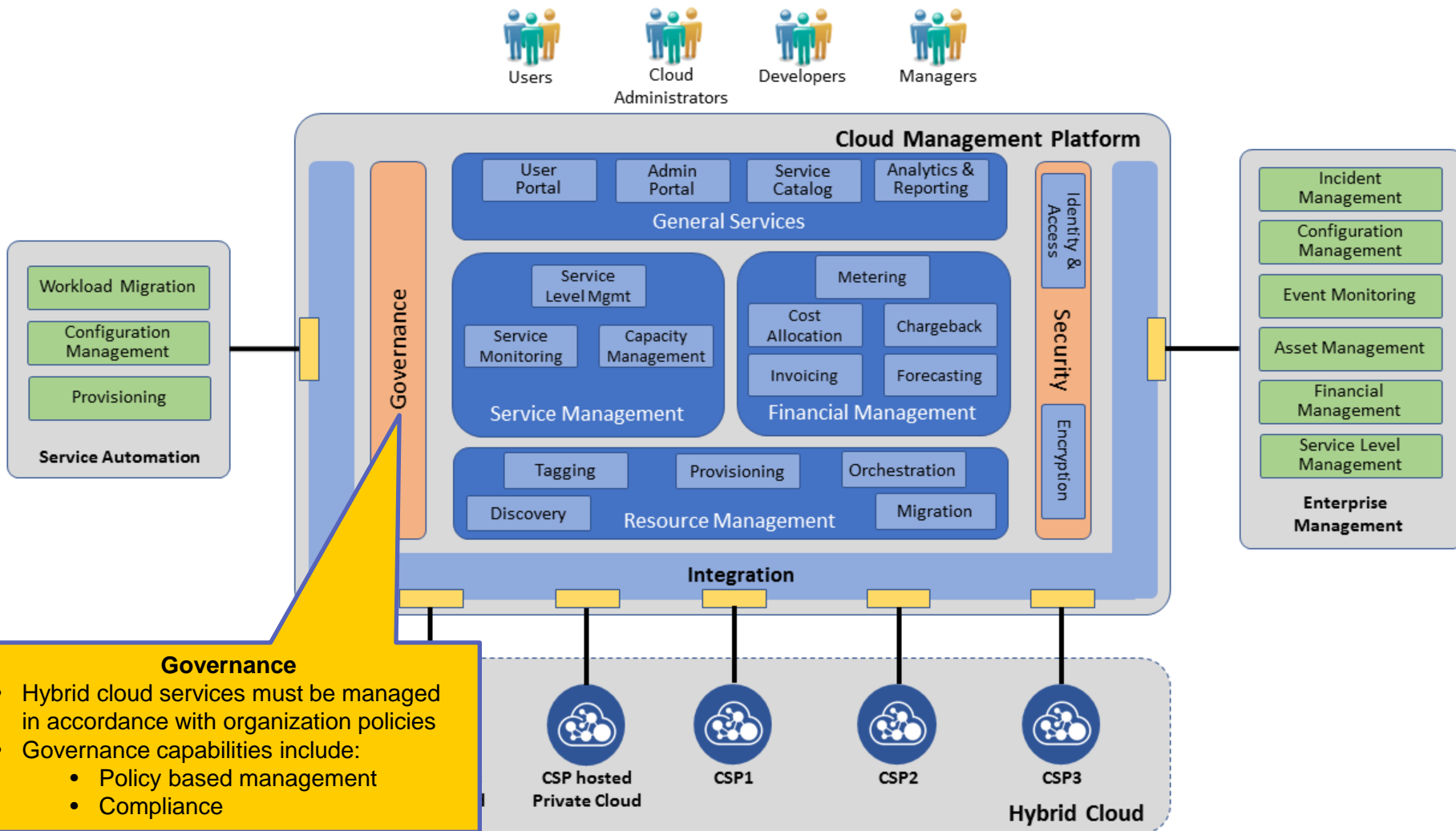
Functions of a Cloud Management Platform



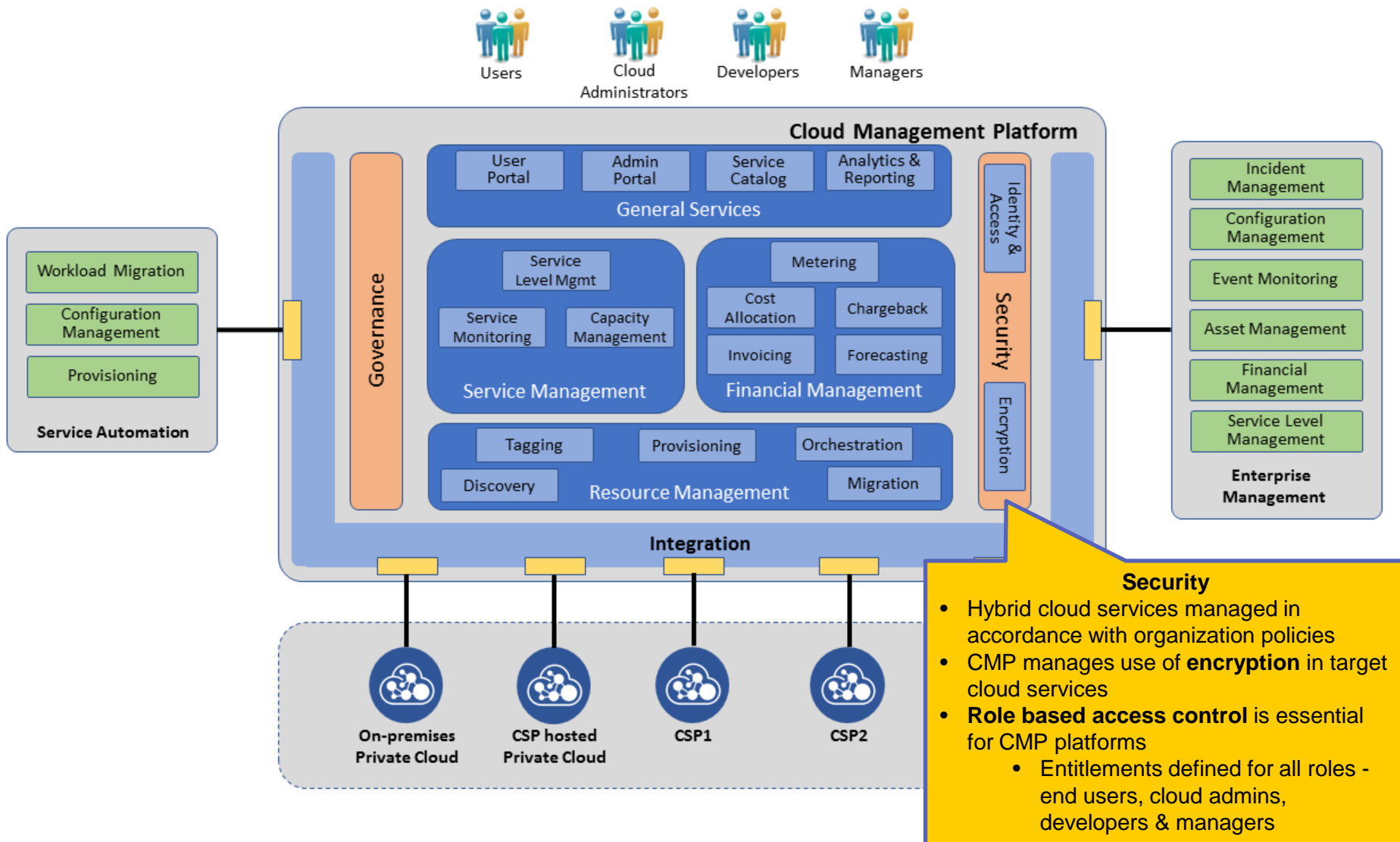
Functions of a Cloud Management Platform



Functions of a Cloud Management Platform



Functions of a Cloud Management Platform



Evaluation Criteria: Technology & Architecture

Criteria	Considerations
CSP & Cloud Infrastructure Integrations	<ul style="list-style-type: none">▪ Single pane of glass view of all cloud services & cloud workloads▪ Integration and abstraction for each public, private, or hybrid cloud service▪ Support for industry standards helps ensure continued interoperability
Agent vs. Agentless Architecture	<ul style="list-style-type: none">▪ Additional management features supported on agent based instances▪ Customers must understand deployment requirements & functional implications to new and existing cloud services
Available Cloud Ecosystem Tool Integrations	<ul style="list-style-type: none">▪ Built-in integrations with existing IT service management tools important for end-to-end interoperable solutions▪ Lack of built-in tool integrations may require development of these interfaces with added cost and risk
API Robustness	<ul style="list-style-type: none">▪ APIs should support a wide range of tasks including cloud instance management, security & user admin, logging and reporting, workflow automation and integration with other tools
Security Design	<ul style="list-style-type: none">▪ Engage with the information security or risk assessment team▪ Understand how candidate CMP vendors approach security in the development of their offerings

Evaluation Criteria: Operational

Criteria	Considerations
CMP Hosting Environment Requirements	<ul style="list-style-type: none">▪ Choice impacts TCO, skill requirements, network connectivity profile and ability to directly control cloud infrastructure
Operations & Service Management Capabilities	<ul style="list-style-type: none">▪ Support for self-service provisioning and delegated operational & cost control for tenant resources
CMP Administrative Capabilities	<ul style="list-style-type: none">▪ Security management, operational visibility, automation control, operational metrics & reporting, tenant resource quota assignments, governance control
Automation, Workflow & Provisioning Orchestration	<ul style="list-style-type: none">▪ Facilitate automation, orchestration of application provisioning and execution of scripts, notifications when pre-configured events triggered
Consumption & Chargeback Support	<ul style="list-style-type: none">▪ Monitor real-time resource consumption and provide cost modeling and metrics to support billing
Infrastructure Optimization	<ul style="list-style-type: none">▪ View/optimize cloud resource or cost footprint▪ Support cross-cloud migrations when pursuing optimization strategy
Product Support & Patch/Release Cycles	<ul style="list-style-type: none">▪ Understand vendor patch release cycles & frequency of releases▪ Impact of SaaS CMP offerings less than on-prem CMP deployments

Evaluation Criteria: Business & Acquisition

Criteria	Considerations
Total Cost of Ownership	<ul style="list-style-type: none">▪ Calculate initial acquisition & recurring operations costs▪ Include additional required integration costs▪ Exit strategies from the CMP solution should also be considered
Product Licensing / Service Subscription Model	<ul style="list-style-type: none">▪ Open source and licensed products for on-prem and SaaS will differ▪ T&C of product support, licensing agreements and SLAs should be carefully scrutinized
Vendor Financial Stability	<ul style="list-style-type: none">▪ CMP market evolving - vendor consolidation, acquisitions and marketplace instability likely to be experienced▪ Switching CMP platforms likely to be costly
Availability & Comprehensiveness of Product Training and Professional Services Offerings	<ul style="list-style-type: none">▪ Important in the product selection phase▪ Wise investments in each category can often save considerable configuration and deployment time

Deployment Considerations

Focus Area	Considerations
Establish Partnerships	<ul style="list-style-type: none">▪ Project success is a team effort: vendors along with tenant and user communities▪ Partnerships for deployment must extend into the enterprise itself▪ Form the team and establish a common vision and goals
Set Reasonable Objectives	<ul style="list-style-type: none">▪ CMP deployment progresses in phases▪ Define use cases focused on business priorities▪ Work on incrementally accomplishing priorities with partners▪ Establish change management for phased additions to CMP solution
Understand Role & Impact of CMP within Cloud Ecosystem	<ul style="list-style-type: none">▪ Integrate with other tools in the infrastructure that supports service management, DevOps, configuration management and financial management▪ SaaS or on-prem deployment solution may impact existing connectivity and service level commitments
Identify Risks & Opportunities Early	<ul style="list-style-type: none">▪ Monitor deployment & operations risks and improvement opportunities▪ Leverage lessons learned, contain cost overruns, and modify plans when needed▪ Understand alternatives when assumptions and outcomes change

Cloud Management Platform Landscape

Vendor	Offerings
BMC	Control-M Cloud Lifecycle Management Cloud Operations Management
Cisco	CloudCenter
CloudBolt Software	CloudBolt
Cloudify	Cloudify Platform
DivvyCloud	BotFactory
Embotics	vCommander
HP	Cloud Service Automation
IBM	Cloud Orchestrator Cloud Automation Manager Cloud Brokerage

Vendor	Offerings
Infosys	Cloud Ecosystem Hub
Morpheus	Morpheus
Red Hat	CloudForms
RightScale	Cloud Management Platform Optima
Scalr	Scalr
Servicenow	Now Platform
T Systems	Cloud Integration Center
VMWare	vRealize Suite

Call to Action



▪ *Join the CSCC Now!*

- To have an impact on customer use case based standards requirements
- To learn about all Cloud Standards within one organization
- To help define the CSCC's future roadmap
- Membership is free & easy: <http://www.cloud-council.org/become-a-member>

▪ *Get Involved!*

- Join one or more of the CSCC Working Groups
<http://www.cloud-council.org/workinggroups>

▪ *Leverage CSCC Collateral*

- Visit <http://www.cloud-council.org/resource-hub>

Additional Resources from the CSCC



- Practical Guide to Hybrid Cloud Computing
<http://www.cloud-council.org/deliverables/practical-guide-to-hybrid-cloud-computing.htm>
- Cloud Customer Architecture for Hybrid Integration
<http://www.cloud-council.org/deliverables/cloud-customer-architecture-for-hybrid-integration.htm>
- Security for Cloud Computing: 10 Steps to Ensure Success v2
<http://www.cloud-council.org/deliverables/security-for-cloud-computing-10-steps-to-ensure-success.htm>
- Cloud Security Standards: What to Expect and What to Negotiate v1
<http://www.cloud-council.org/deliverables/cloud-security-standards-what-to-expect-and-what-to-negotiate.htm>
- Practical Guide to Cloud Service Agreements v2
<http://www.cloud-council.org/deliverables/practical-guide-to-cloud-service-agreements.htm>
- Migrating Applications to Public Cloud Services: Roadmap for Success
<http://www.cloud-council.org/deliverables/migrating-applications-to-public-cloud-services-roadmap-for-success.htm>
- Cloud Customer Architecture for Big Data & Analytics v2
<http://www.cloud-council.org/deliverables/cloud-customer-architecture-for-big-data-and-analytics.htm>

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Thank You!

Join the conversation



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