Invitation to OASIS CAMP
A Cirrus View (high level)

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International Cloud Symposium
The Intersection of Policies, Standards & Best Practices for Robust Trusted Public Sector Cloud Deployments

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Cloud Application Management for Platforms (CAMP) Purpose

Define models, mechanisms, and protocols for the management of applications in, and their use of, a Platform as a Service (PaaS) environment.
CAMP Focus

The OASIS CAMP Technical Committee is advancing an interoperable protocol used to package and deploy applications in the Platform as a Service (PaaS) cloud.

CAMP defines interfaces for:

- Self-service provisioning
- Monitoring
- Control
Questions & Discussion Points

- What are the pain points in PaaS application management?
- What should be standardized?
- What shouldn’t be standardized?
Standard Interface for PaaS Application Management

- Enable Eco-System Consisting of:
  - Common Tools
  - Plug-Ins
  - Libraries and Frameworks
- Enable vendors to offer greater value-add
Self Service

Platform Implementation implements the API and manages the services of the underlying platform to meet the requirements specified through the API.

PaaS Customers/Users deploying and managing their applications.
Current State

- No Existing PaaS Application Management standard
- Proprietary APIs are proliferating
- Each PaaS management API causes friction between clouds, limiting growth of the market
  - A standard alleviates customer concerns and increases adoption
- Customers will prefer early adopters of a Platform standard over the slower adopters
  - Implementation of the standard itself will be a “feature”
Motivation

- Interoperability
- Portability
- Consensus Management API
  - Enables providers to invest resources in other, more valuable areas
  - Serves as a basis for innovation and value-add
Goals

- Simplicity
- HTTP/RESTful based
- JSON
- Interoperability

- Extensibility
  - Platform vendors can still extend the standard for their own value added features (no lowest common denominator)

- Portability
  - Application Packaging
  - Tools
  - Skills
Anticipated Audience

- Vendors supporting cloud applications in a PaaS environment
- **Software architects and programmers**, who design, write, integrate, and deploy cloud applications using a PaaS architecture
- **Policy administrators** who create and govern policy for services and applications in a PaaS environment
- Vendors making **products** used to integrate applications and services (hardware and software), such as Enterprise Service Buses (ESB)
CAMP Use Case: Mobility

- Managing Application Lifecycle Consistency Across Clouds
  - Starting, stopping, snap-shotting, suspending, resuming, patching, deleting, and application
- Monitoring Support Across Clouds
- Changing Configuration and Runtime Parameters
CAMP Use Case: ADE on Desk Top

Desktop ADE

Platform Deployment Package

Platform

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CAMP Use Case: ADE on Platform

Develop application in an analytic development environment (ADE) in the cloud

- Deploy to Cloud
Application Life Cycle

Proceeds through multiple stages:
- Uploaded
- Deployed
- Instantiated
- Suspended

These transitions are controlled through the CAMP interface
CAMP Protocol

- Based on REST principals
- HTTP
- JSON serialization
- Extensible to accommodate vendor extensions
- Authentication via Transport Layer Security
Humble Deliverables

- Platform Management architecture and interface specification that includes a model for managing the lifecycle of applications and a protocol binding defined using REST and JSON

- Optionally, other relevant non-standards track deliverables, such as tutorials and primers
Out of Scope

- Topology and Orchestration (TOSCA is)
- Application-level Cloud Services (SaaS)
- Non-management interfaces to platform services.
- Language-specific and/or platform-specific (e.g. .Net, Java EE) facilities and interfaces
- Mechanisms and interfaces to manage infrastructure resources (IaaS), although hooks to such interfaces may be defined
“…We care about interfaces to ‘black boxes’ so they can connect through ‘services’ to other capabilities that can then be orchestrated to provide end user functionality.

We can then switch them out without having to reinvent the entire stack.”

DHS
Reminder

- What are the pain points in PaaS application management?
- What should be standardized?
- What should not be standardized?
“Send PaaS to CAMP”

- All participants have opportunity to influence the standard
- Our first meeting 23 October
- Lots of work to be done (Extensibility, Packaging, Testing...)
- [www.oasis-open.org](http://www.oasis-open.org) for more information

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