



Freedom of Information Act Publication Scheme	
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Title	MPS Strategic Cloud - Supplier Workshop: PaaS & Multi-Tenancy
Version	V1.0
Summary	<p>By 2014/15 the MPS needs to reduce spending by £600m, compared to 2010/11. To assist in delivering this reduction a number of change programmes are underway focusing on reducing inanimate costs.</p> <p>The Strategic Cloud programme is looking to deliver a next generation cloud based replacement for current legacy MPS applications, focussing particularly on the high volume front end operational policing systems.</p>
(B)OCU or Unit, Directorate	Directorate Of Information
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No Vetting



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Strategic Cloud Market Engagement Workshops

PaaS & Multi-Tenancy



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Cloud Architecture – Aims

Business

- Incident based
- Separate, unconnected, interactions with individuals and communities
- Borough based policing

PAG as national model for policing – services available to all Forces under a standard subscription model

- Business processes as flow of information through activities**
- Proactive risk management supported by collaboration, knowledge management, analytical capabilities and information sharing

Information

- Paper based systems
- Silo data storage supporting business functions not the enterprise
- Re-keying, redundancy and data quality issues
- Lack of standards
- Inflexibility - new requirements equals new data silos

•Single enterprise data stores for structured and unstructured data

- Data services supporting multiple activities with data shared and re-used across activities
- Data modelled to reflect the provenance of data and its retention needs within legislation and business processes

Application

- Silo applications supporting specific business functions
- Procurement and support of complete application, including platforms, functionality and solution.
- Tactical application solutions

Flexible re-usable services

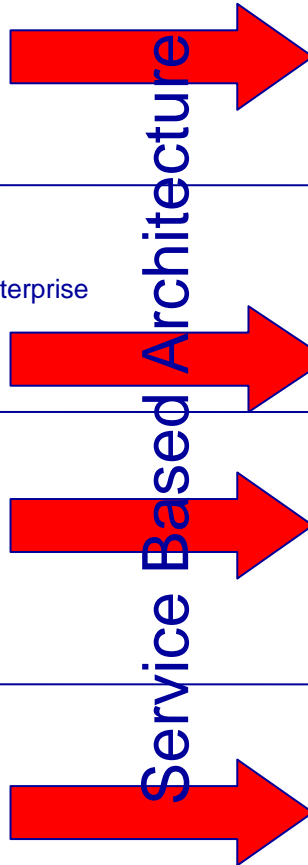
- Standard horizontal software platforms built to support multiple PAG activity needs.**
- Business processes call existing business and data services to provide agile and flexible processes
- Orchestrated PAG activities not applications (SOA type model)
- Separation of data from activity

Infrastructure

- Silo physical infrastructure or traditional hosting.
- Silo cost and support models.
- Low utilisation of assets.
- Desktop and limited mobile.
- Obsolescence.

IaaS and PaaS - G-Cloud or broad public sector

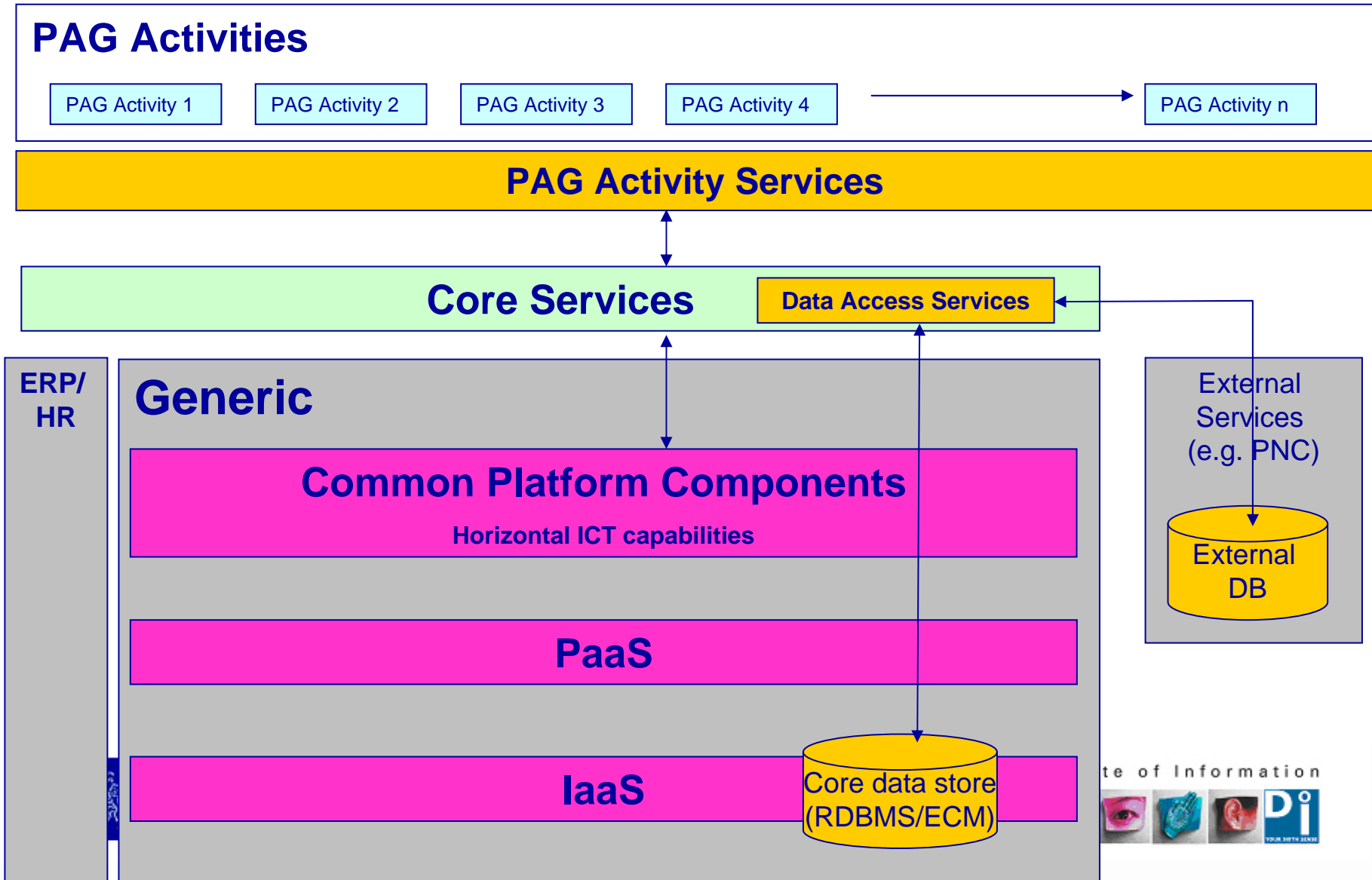
- Abstraction of infrastructure from services – not an 'MPS' private cloud but as broad as possible**
- Cloud service characteristics (scalability, elasticity and high availability)**
- Virtualised UI services to enable multiple devices delivering information at point of need in business process**



Cloud characteristics

- MPS require
 - On demand self-service
 - Elastic and scalable
 - Consumption-based pricing model
 - Agile application changes
 - High SLAs
 - Secure management of information
- Which could imply
 - Shared infrastructure
 - Rich PaaS
 - Private (Community) Cloud
 - Multi-tenancy
 - Standards-based
 - External accreditation

Generic Services

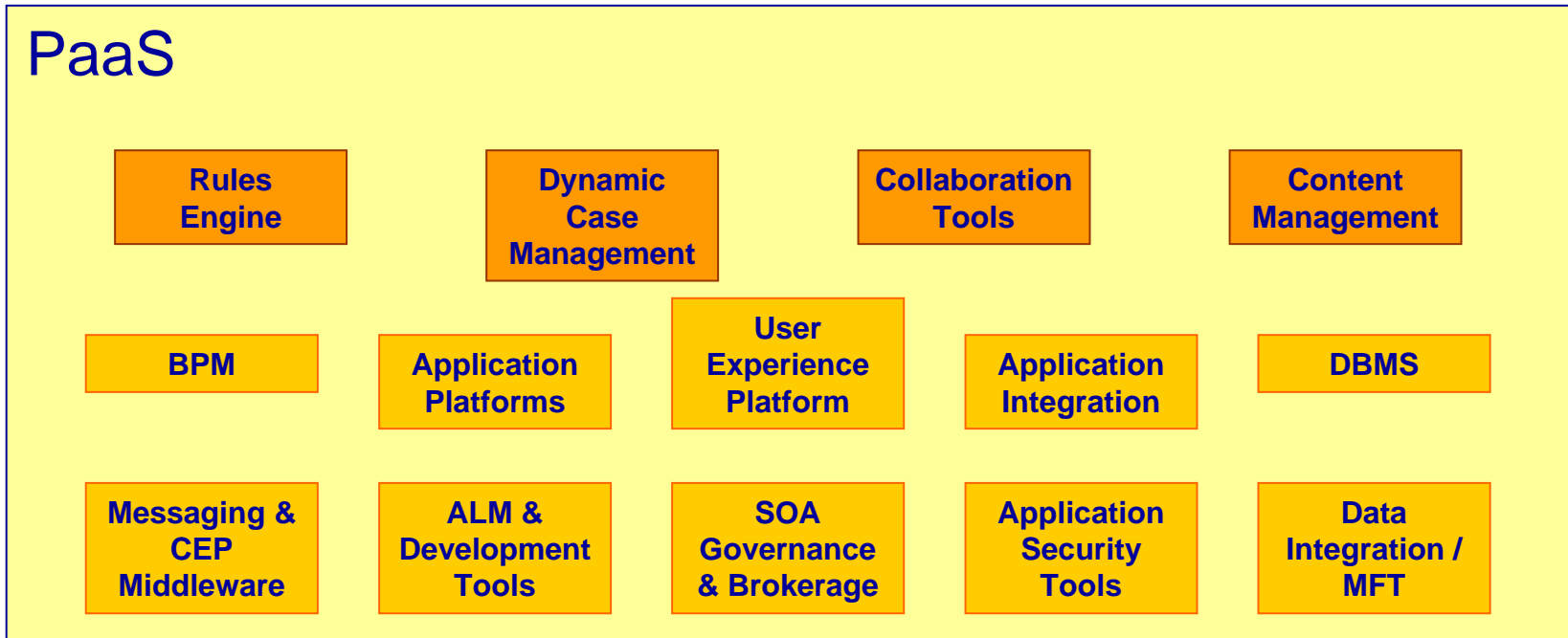


Infrastructure as a Service

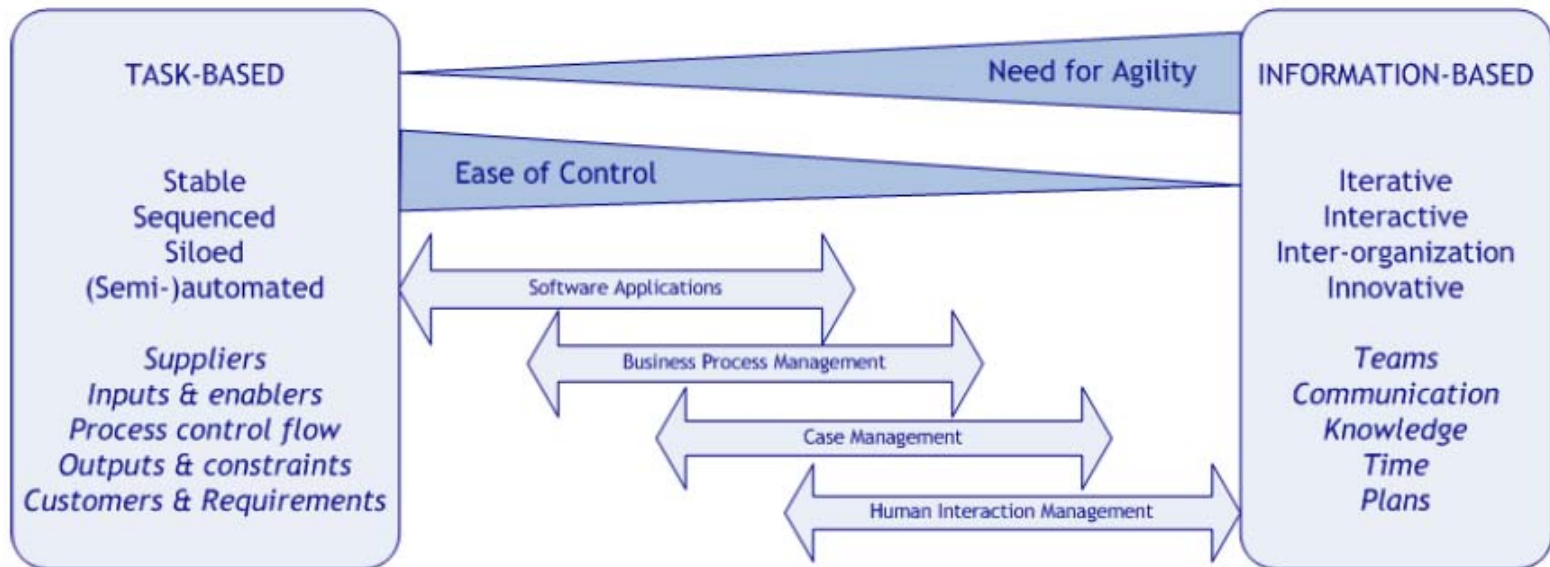
- Availability – 24x7 – no planned / unplanned downtime for some services
- Performance – support end-to-end response times (for most critical services will require maximum of 1-2 seconds)
- Security – meet all security requirements
- Elasticity – ability to meet peak demands – in emergency situations with short notice
- Backup & Disaster Recovery – ensure **no** loss of information and ability to support continuous running.

Platform as a Service Components

PaaS

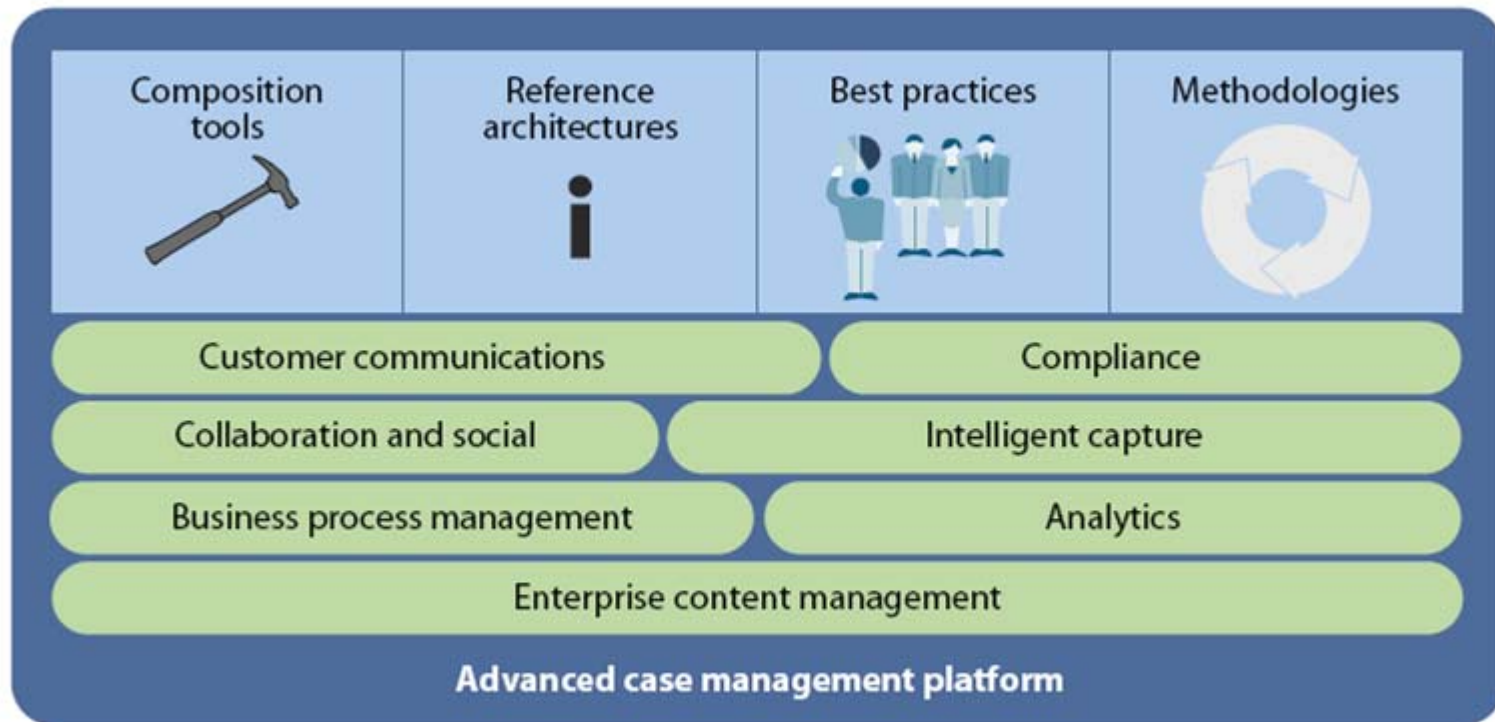


Policing processes are unpredictable



Source:
www.bptrends.com

Platform for Adaptive Case Management



55755

Source: Forrester Research, Inc.



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Common Components

Common Platform Components

Email

Contact
Management

GIS

Alerts &
Notifications

Video/Audio
Management

Calendar

Office
Applications

Reference
Data
Management



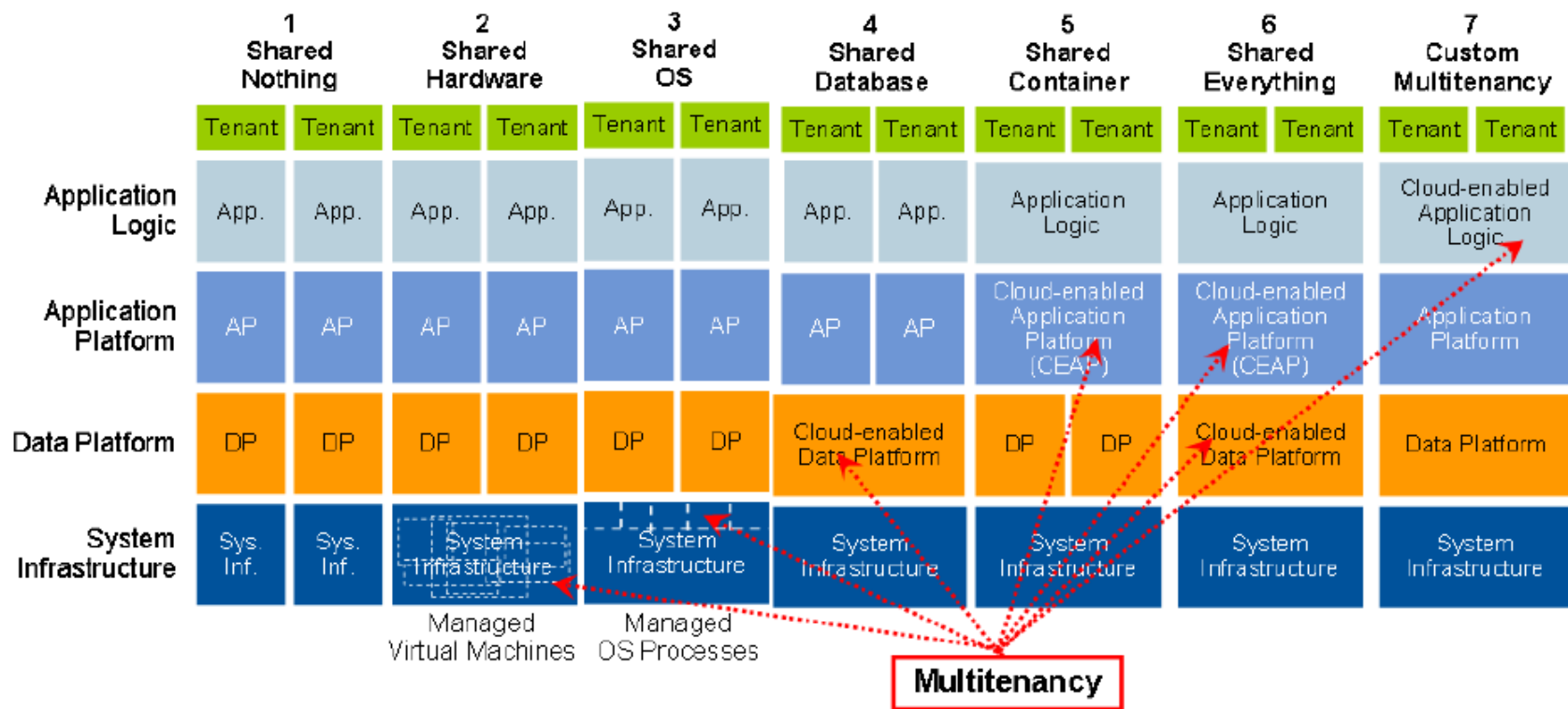
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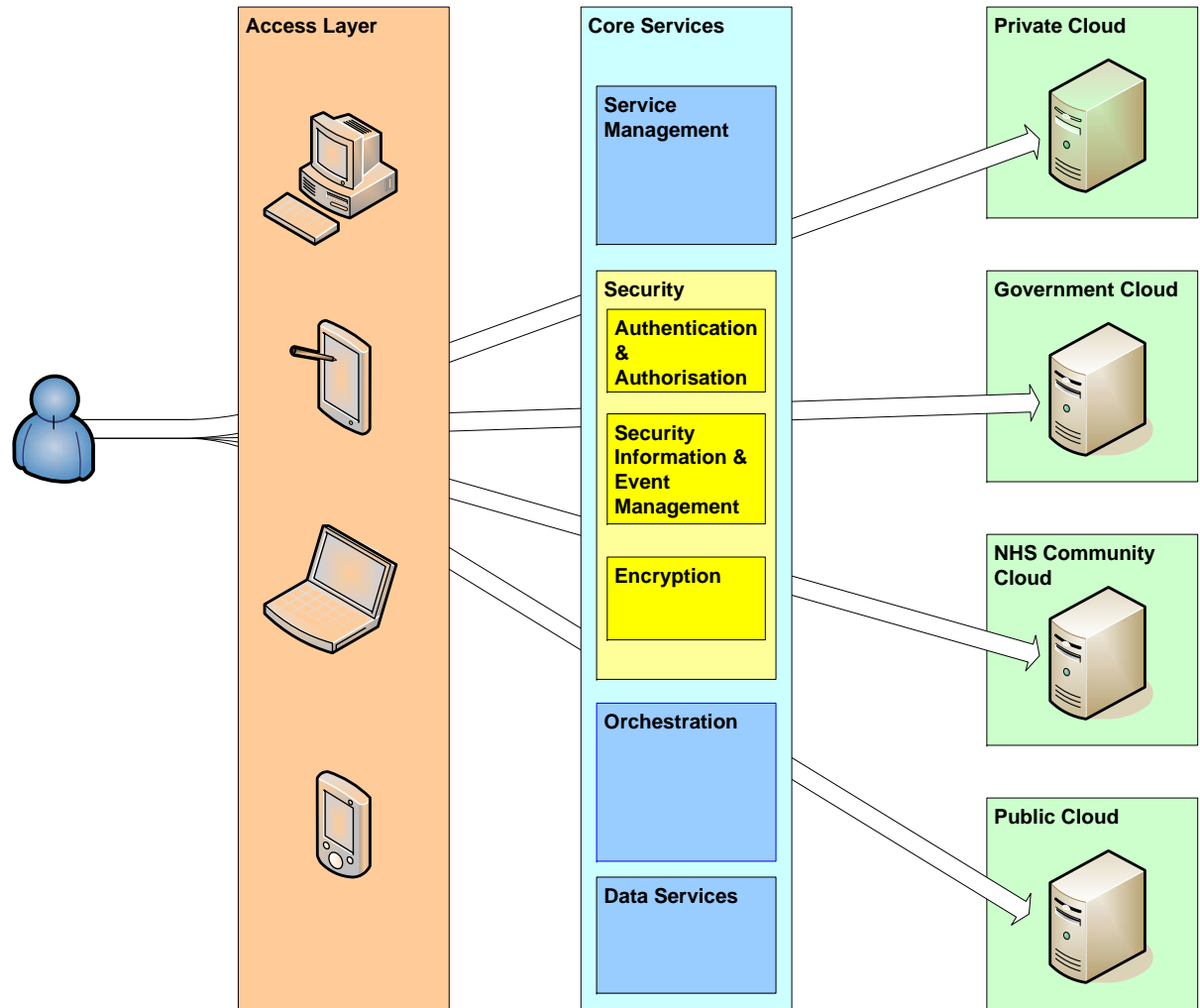
Reference Architecture for Multitenancy



Source: Gartner (August 2010)

• *Driven by metadata*

Core Services implement Access Security



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Standards

- PAG Models
 - Governed by Police Forces
 - Publicly available
 - <http://pra.npia.police.uk/>
- Government standards
 - Support emerging G-Cloud standards
- Industry standards



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