SMART WAY TO THE CLOUD

Overview of definitions, characteristics, service and deployment models, as well as Unit4’s cloud services
“Cloud computing” or the use of cloud-based services is simply obtaining access to computing resources that are operated in the cloud. The National Institute of Standards and Technology (NIST) defines five essential characteristics, three service models, and four deployment models:

**The characteristics**
The characteristics of the “cloud” are described by NIST as:
- On-demand self-service
- Broad network access
- Resource pooling
- Rapid elasticity
- Measured service

**Service models**
The above characteristics are bundled into three levels/types of service:

1. Infrastructure as a Service (IaaS)
   This level of service allows an organization to control and deploy the operating system, storage, and applications as well as negotiate limited control of some network components (e.g. host firewalls).

2. Platform as a Service (PaaS)
   This level of service allows an organization to control applications and possibly configuration settings but not manage or control the network, servers, operating systems, or storage. An organization would likely be able to build applications in the cloud using programming languages, libraries, services, and tools supported by the provider.

3. Software as a Service (SaaS)
   This level of service allows an organization to use the cloud provider’s applications in the cloud with no control over the network, servers, operating systems, storage or the operations aspects of the applications themselves. The applications are accessible from various Client devices through either a thin Client interface, such as a web browser (e.g. web-based email), or a program interface.

Using these concepts, the distinctions made are important in understanding “who controls what” in the context of each type of service offering (SaaS, PaaS or IaaS).
Deployment models

Within the different types of cloud services, there are also different modes of deployment:

- **Public cloud.** The cloud infrastructure is used by the general public. It is owned by the cloud provider using servers located on its premises.

- **Private cloud.** The cloud infrastructure is exclusively used by one organization and any combination of resources may be owned, managed and operated by either the organization or a cloud services provider. The cloud infrastructure may be “on” or “off” premises.

- **Community cloud.** The cloud infrastructure is exclusively used by a specific community (e.g. hospitals, healthcare providers). Any combination of resources may be owned, managed and operated by an organization, a stakeholder in the community or a cloud service provider. The cloud infrastructure may be “on” or “off” premises.

- **Hybrid cloud.** The cloud infrastructure consists of two or more separate and distinct cloud infrastructures (private, community, or public). They use the same technology to permit application and/ or data portability between clouds. For example, web servers in a public cloud may display nonsensitive data, which interacts with sensitive data stored or processed in a private cloud.
Microsoft Azure is a public cloud computing platform, offering a range of cloud services to Clients. Government institutions or business organizations ("Clients") can choose from a series of services to develop new, or run existing, applications, while using features and computing resources associated with cloud-based services.

The various offerings under the Azure “umbrella” allow Client applications to operate in their own “space” in the cloud but at the same time, if necessary, to interact with other on-premises or cloud applications.

To conceptually understand what is being provided, it may be easier to think of Azure in terms of three areas: “offerings”, “components” and “services”.

• The first concept is easily recognized, since Azure can be generally viewed as providing two distinct “offerings”: Platform as a Service ("PaaS") and Infrastructure as a Service ("IaaS").

• Each of these offerings has several “components”.

• And, within each component, there are one or more “services”.

Infrastructure-as-a-Service
Microsoft’s IaaS offering has three components:
I. Compute – The IaaS Compute component provides virtual machines and containers as services.
II. Storage – The IaaS Storage component provides different ways to store data.
III. Networking – There are multiple options for distributing network traffic using Microsoft Azure.

Platform-as-a-Service
Platform as a Service (PaaS) is a complete development and deployment environment in the cloud, with resources that enable you to deliver everything from simple cloud-based apps to sophisticated, cloud-enabled enterprise applications:
I. Compute – having role-based virtual machines and containers.
II. Web & Mobile – provides web apps, API apps, API Management, Mobile Apps, Logic Apps, and Notification Hubs as service offerings.
III. Developer Services – enabling the developer with specific services, such as Virtual Studio.
IV. Integration – standard integration services.
V. Media Services – managing media streams and web content.
VI. Data – data storage services and management.
VII. Analytics & IoT – Analytics services, Big Data and data factory concepts.
VIII. Hybrid Services – Different services to enable combining on-premises environments with Azure-based environments.
IX. Security & Management – services to ease managing the platform in a secure manner.
Unit4 has a 30+ year experience in developing software for enterprise customers. In that time, Unit4 moved from on–premises deployment models, to hosting and currently SaaS.

Unit4 offers SaaS to its customers and operates those SaaS solutions on the variety of Microsoft Azure IaaS and PaaS services in a public cloud model.

Unit4 Global Cloud Operations provides a complete technically-managed solution for different Unit4 solutions deployed in the cloud. This end-to-end service includes infrastructure, hardware, system software, monitoring, management and maintenance of the entire solution, including back-ups, disaster recovery and software updates.

Unit4 provides two main Global Cloud offerings: Unit4 SaaS and Unit4 Managed Cloud. The first has the characteristics of a completely standardized software service, with the possibility of customer specific configurations, customizations, interfaces and reporting. Because it is highly standardized availability, response times and compliancy are better than the second option: Unit4 Managed Cloud. Aside from the KPIs, the main differentiator for Unit4 Managed Cloud is that customers can consume supported releases of a solution as specified in their solution’s contract (Unit4 SaaS customers are upgraded on a 6 months’ cadence).

Please note that not all Unit4 Solutions are available in both models, please read through the respective service catalogues for more information.

Terms and conditions
Unit4’s terms and conditions are available online https://www.unit4.com/about/terms-and-conditions

On the web, you can find our Contractual terms:

- General Terms of Business in Appendix A
- Definitions in Appendix B
- Global Tiered Support Terms in Appendix C
- Global Cloud Services – Service Level Agreement (SLA) in Appendix D

Our Service terms are also available on the web:

- Global Cloud Services – Service Description in Appendix E
- Solution-Specific Cloud Service Descriptions in Appendix F

On the same page, you will also find details of our principles, policies and practices, including: 1) security, data and cloud, 2) information and policies, and 3) corporate governance.
About Unit4

Unit4 is in business for people. We’ve specialized in software for service organizations, where people make the difference, since the early 1980s. Today, we build the smartest enterprise applications on the planet. Our technology is central to the organizations we serve – it improves efficiency and productivity, and allows people to spend more time on meaningful work. Using the latest AI, machine learning and digital technologies, our customers can make more sense of business-critical data than ever before. Our cloud ERP, financial management, corporate performance management and industry-focused solutions generate rapid value in the strategic processes of organizations from sectors including professional services, higher education, public services and not-for-profit – helping each person to create better value for themselves, their organization and their customers.