HUMBER

Technical Management Practices

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Agenda

- Deployment Management
- Infrastructure and Platform Management
- Software Development and Management

Deployment Management

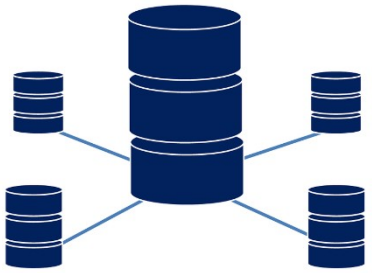
- The purpose of the deployment management practice is to move new or changed hardware, software, documentation, processes, or any other component to live environments. It may also be involved in deploying components to other environments for testing or staging.

- Deployment management works closely with release management and change control, but is a separate practice.

Definitive Media Library (DML) & Definitive Spares (DS)

- Definitive Media Library is “Secured library in which the definitive authorized versions of all media CI’s are stored and protected”

- As the name implies Definitive Media Library (DML) is a repository for all the media in its definitive state. What it essentially means is that media from this library has the proper versioning and it can be trusted



- It typically includes software, it’s related/supporting components such as webpages, images, clips etc. and it’s related supporting documentation & licenses

- Before a software can be used in operations environment, it must first be checked into DML to make sure that it has correct version and that it is free of any inconsistencies and viruses

- Definitive Spares (DS) contains definitive hardware so that in the event of a failure hardware can be replaced quickly

Deployment Management

Different Approaches for Deployment Management

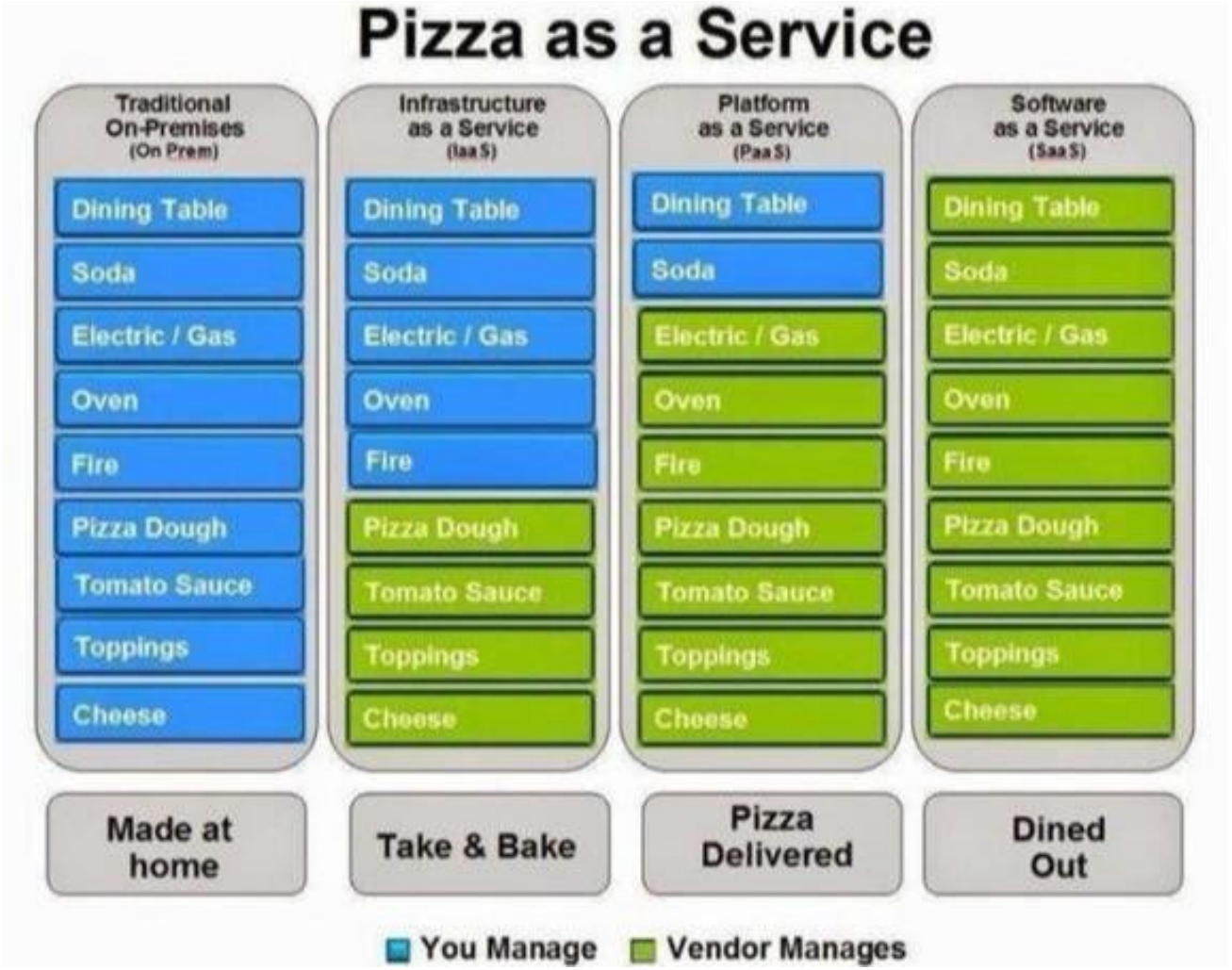
- **Phased deployment:** The new or changed components are deployed to just part of the production environment at a time, for example to users in one office, or one country.
- **Big bang deployment:** New or changed components are deployed to all targets at the same time.
- **Continuous Delivery:** Components are integrated, tested, and deployed when they are needed, providing frequent opportunities for customer feedback loops.
- **Pull deployment:** New or changed software is made available in a controlled repository, and users download the software to client devices when they choose.

Infrastructure and Platform Management

- The purpose of the infrastructure and platform management practice is to oversee the infrastructure and platforms used by an organization. When carried out properly, this practice enables the monitoring of technology solutions available to the organization, including the technology of external service providers.

- IT infrastructure is the physical and/or virtual technology resources, such as servers, storage, networks, client hardware, middleware, and operating systems software, that provide the environments needed to deliver IT services.

Pizza as a Service



Cloud Service Models

Cloud service models include:

- **Software as a service (SaaS)** The consumer can use the applications running in the cloud infrastructure without having to control or even manage the underlying cloud infrastructure.

- **Platform as a service (PaaS)** The consumer can deploy onto the cloud acquired applications created using programming languages, services, libraries, and/or tools supported by the supplier without having to control or even manage the underlying cloud infrastructure. They have control over the deployed applications and sometimes the configuration settings for the application and hosting environment.

- **Infrastructure as a service (IaaS)** The consumer can get processing, storage, and/or any other computing resources without having to control the underlying infrastructure.

Cloud Deployment Models

- **Private Cloud:** This type of cloud may be located within the organization's premises or outside of it. It is a cloud infrastructure or platform to be used exclusively by a specific organization which, at the same time, can have one or several consumers.

- **Public Cloud:** This type of cloud is located on the cloud provider premises. It is provisioned for open use and may be owned, managed, and operated by any type of organization interested in using it.

- **Hybrid Cloud:** This cloud infrastructure is a composition of two or more distinct cloud infrastructures that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability.

Software Development and Management

The purpose of the software development and management practice is to ensure that applications meet internal and external stakeholder needs, in terms of functionality, reliability, maintainability, compliance, and auditability.

The software development and management practice encompasses activities such as:

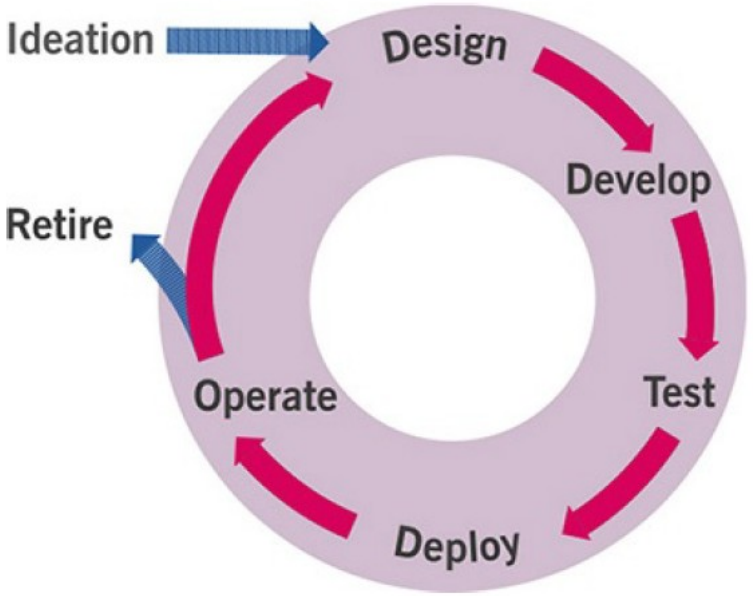
- Solution architecture
- Solution design (user interface, CX, service design, etc.)
- Software development
- Software testing (which can include several components, such as unit testing, integration testing, regression testing, information security testing, and user acceptance testing)
- Management of code repositories or libraries to maintain integrity of artefacts
- Package creation, for the effective and efficient deployment of the application
- Version control, sharing, and ongoing management of smaller blocks of code

Software Development and Management

The two generally accepted approaches to software development are referred to as the waterfall and Agile methods.

Software management is a wider practice, encompassing the ongoing activities of designing, testing, operating, and improving software applications so they continue to facilitate value creation.

Software components can be continually evaluated using a lifecycle that tracks the component from ideation through to ongoing improvement, and eventually retirement.



Review