**What is Azure Service Fabric?**

Azure Service Fabric is a distributed systems platform that makes it easy to package, deploy, and manage scalable and reliable microservices and containers

- enables you to build and manage scalable and reliable applications composed of microservices

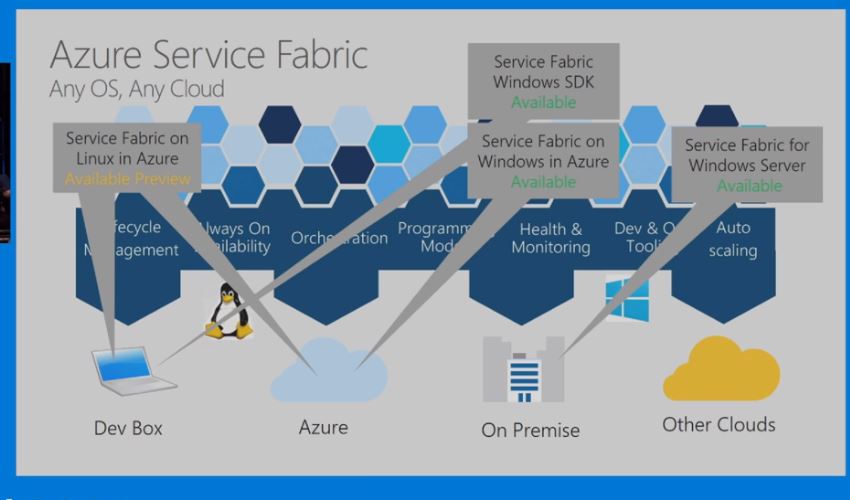
- Services runs at high density on a shared pool of machines called as cluster

- provides a sophisticated, lightweight runtime to build microservices running in containers

- Microservices are distributed, scalable, stateless, and stateful.

**Features of Service Fabric**

* Applications composed of microservices
* Container deployment and orchestration
* Any OS, any cloud
* Stateless and stateful microservices for Service Fabric
* Application lifecycle management



**Service Fabric Consist –**

**Code Packages**

Exe

dependencies.dll

**Config Packages**

Xml/yml files

Json file

**Service packge**

nodes

Containers

**Service Fabric programming model overview**

Service Fabric offers multiple ways to write and manage your services.

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Programming models Provided by Service Fabric -

**1. Guest executables**

simple executable (written in any language) that can be run as a service

Services uses the Service Fabric APIs

**2. Reliable Services**

Reliable Services is a light-weight framework for writing services that integrate with the Service Fabric platform and benefit from the full set of platform features

Reliable Services can be stateless or statefull

**3. ASP.NET Core**

ASP.NET Core is a new open-source and cross-platform framework for building modern cloud-based Internet-connected applications, such as web apps, IoT apps, and mobile backends

**4. Reliable Actors**

Reliable Actors is a Service Fabric application framework based on the Virtual Actor pattern.

An actor is an isolated, independent unit of compute and state with single-threaded execution.

**5. Containers**

Service Fabric can also deploy services in containers.

Service Fabric supports deployment of Linux containers and Windows containers on Windows Server 2016

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