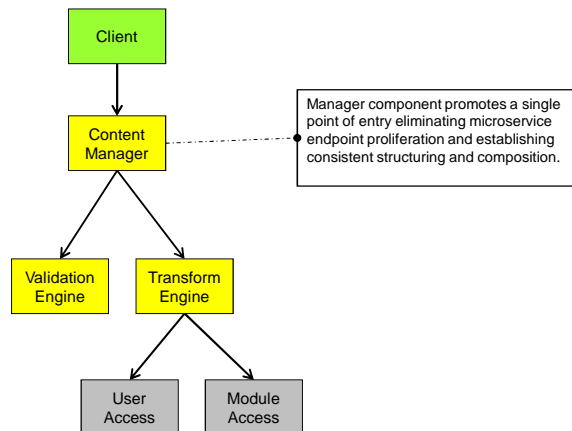**1**

- Notes
  - See the associated document *IDesign Method Overview.pdf* and go to idesign.net for additional details on all the techniques the demo highlights.
  - The following call chain diagram uses the IDesign Method's microservice taxonomy and diagramming notation to express a fictitious Request Content use case from the content management domain.
  - Call chain diagrams in the IDesign Method are the equivalent of blueprints that delineate how developers should explicitly construct the code for the use case.
  - The microservice demo reveals IDesign's recommended approach for expressing such a call chain using the Azure Service Fabric.
  - The demo also includes a service-oriented namespace scheme and associated solution layout appropriate for the Service Fabric's system structure.

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- Demo Highlights
    - Recasting of the Service Fabric's application-biased system structure to express a microservice as an autonomous, deployable unit.
    - A microservice *subsystem* composed of a taxonomy of reusable *component* microservices abiding by a simple set of roles, rules and relationships.
    - A service-oriented namespace scheme and associated solution layout appropriate for the Service Fabric's system structure.
    - Addressing conventions based on the namespace scheme and additional framework support that further simplify the Service Fabric's programming model.
    - Demo includes solutions that target both Azure Service Fabric and .NET using IDesign's breakthrough framework *ServiceModelEx.ServiceFabric*.

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Request Content

Client

Content Manager

Manager component promotes a single point of entry eliminating microservice endpoint proliferation and establishing consistent structuring and composition.

Validation Engine

Transform Engine

User Access

Module Access

4

ServiceModelEx.ServiceFabric
Operational Boundaries

In its basic configuration, ServiceModel.ServiceFabric uses the client's physical process boundary to delineate the Service Fabric cluster boundary, allowing deployment into very small footprints.

Logical microservice boundary as deployable unit.

Client

Content Manager

Validation Engine

Transform Engine

User Access

Module Access

Possible clients

Site

API

EXE

Mobile

IoT Device

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Azure Service Fabric
Logical Boundaries

Logical Service Fabric cluster boundary.

Logical microservice boundary as deployable unit.

Client

Content Manager

Validation Engine

Transform Engine

User Access

Module Access

Possible clients

Site

API

EXE

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3

Azure Service Fabric
Physical Boundaries

Service Fabric cluster node.

Process

Node 1:
- Site
- API
- Content Manager
- Validation Engine
- Transform Engine
- User Access
- Module Access

Node 2:
- Content Manager
- Validation Engine
- Transform Engine
- User Access
- Module Access

Node 3:
- Content Manager
- Validation Engine
- Transform Engine
- User Access
- Module Access

. . .

Node N:
- Content Manager
- Validation Engine
- Transform Engine
- User Access
- Module Access

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