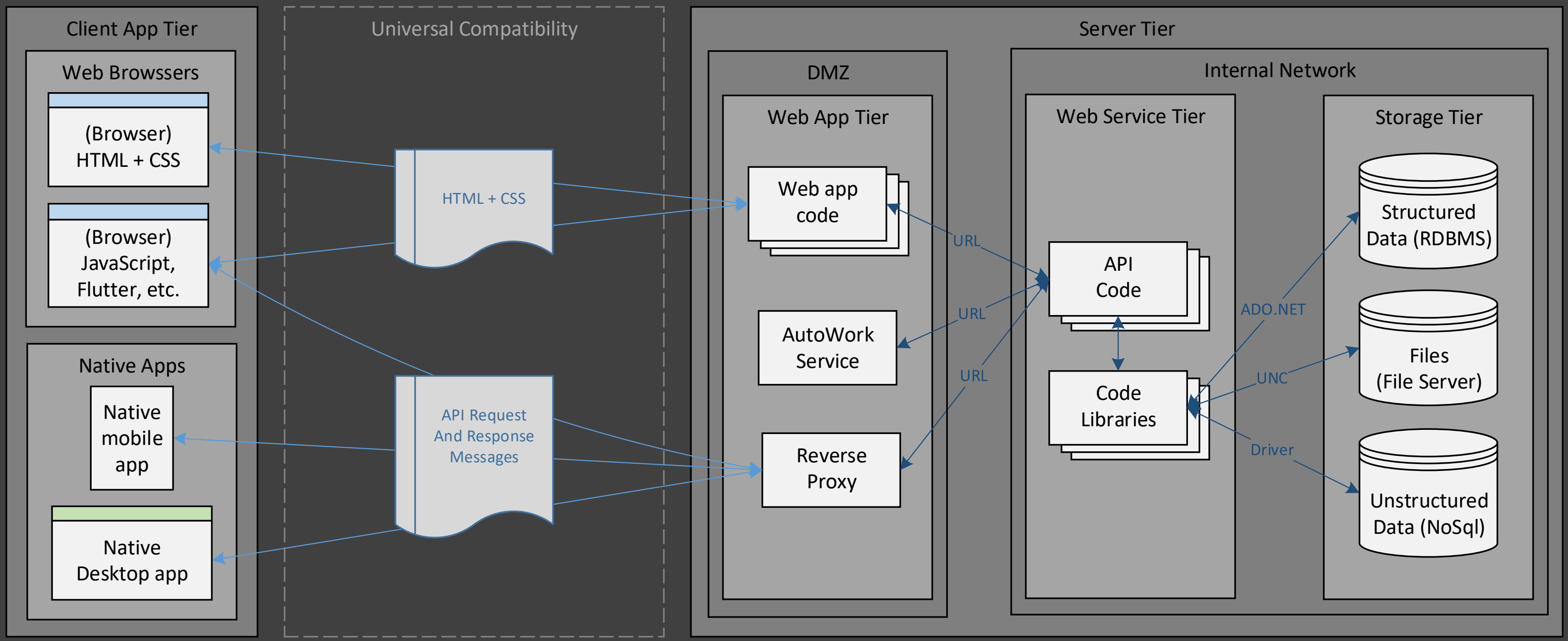
Universal Compatibility



The client app tier requires the maximum level of compatibility across different platforms and programming languages

Message-based API's are used to exchange request and response messages between the client apps and the server API's.

The message-based API's create a form of bi-directional communication between the client applications and the server tier, transporting far more information in each direction than is possible with traditional method calls.

The objective of universal compatibility is to reduce the time, effort and cost to support a software system over its useful life by eliminating the need to develop and maintain client SDK's for each supported programming language. The universal compatibility of

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the message-based API's allows any application, built using any major programming language, and running on any platform to all use a single instance of a web service that is universally compatible with all of them – with no client SDK's required. This is accomplished by treating the messages as formatted text with no strong data types and no serialization/deserialization. Any programming language that can work with XML is able to create and read the API messages. The lack of client SDK's does require good documentation of each API method, but that would have been a requirement in any event.

Avoiding the use of SDK's also provides a very clear demarcation of responsibility between the API's and the client applications. The use of SDK's tend to blur that line since they were developed by the provider of the API's but were embedded within the code of the client applications. Not being responsible in any way for the code of client applications also helps to reduce the support costs of the system.

Compatibility Verification

Compatibility can only be tested manually by creating applications using many different programming languages running on many different platforms, all of which call a single instance of the web service API's.

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