

## Core Technology Tenets for 1,3,5 Years On

### **APIs**

APIs are driven, either by internal need (as an artifact from integrating custom code with COTS applications or tools) or an external driver (such as one defined by a service provider). The marketplace for services and solutions will move to a cloud and open environment, and APIs, either defined by a vendor or community, will be governed by a set of conventions in order to be handled by registries, and eventually then, discoverable via search. This will precipitate the development of IDEs and tools that will “speak” such standards and integrate to these API registries, and during the transition to an open API structure, a management handler, or “orchestrator” (such as a predefined API bus to which developers will connect to) will be leveraged. This will act as a bridge to cloud brokerage services as cloud migrates from public and private instances to a hybrid offering. In that same vein, developing a similar orchestrator, or API bus for your organization will assist in standardizing interfaces among services (hopefully mirroring generally accepted best practices in the public/open space) that will allow easier migration of services to-and-from cloud solutions. This has the added benefit of supporting IoT activates, which is expected to mirror the self-organizing and open-architecture that APIs are pushing towards.

### **Cloud**

As predicted within vendor and community strategies, the migration of enterprises, and in particular TWDC, is best suited for a hybrid solution. This addresses scalability and availability issues at a very basic level, but allows, with such an architecture to focus more on the management and governance of data of which these services and applications generate and access. As most of these services are vendor driven, the push to develop a strong and flexible API strategy among developer in consort with service providers (vendors or the open community) will be paramount to this being a success. While mobile, wearable and IoT technologies intend to primarily leverage cloud services, ensuring that your organization has a good handle on management and use of the cloud, it's interfaces and issues around data handling should be the primary focus within the next three years. In parallel, cloud services are starting to shed the single, monumental provider sourcing, and are becoming nimbler as microservices, provided by a myriad of independent cloud providers, and the dissipation of those larger providers catalogs into providing ‘everything’ as a service in order to capitalize

### **Mobile, Wearables and IoT**

Device convergence is occurring in the non-server and non-desktop world, where mobile platforms, wearables and Internet of Things (IoT) devices will share a common core of technology in order to interoperate, and proprietary solutions from various vendors will fade as consumer demand will require “playing well” in an ecosystem. However, this is requiring both the community of developers and those vendors to develop standards and APIs from which that interactivity can start and be built up from. Those manufactures that push what is mobile to commodity, white-label status with low cost white label devices that will require developers of content to make their products delivered on those platforms to a level of parity to be consistent and responsive. This will require adhering to standards already in use (HTML5) but also ensuring that new development avoids the use of platform specific or proprietary components that reduce the footprint our solutions can be accessed with. Our development should strive to support a coherent and unified user experience that takes best advantage of the delivery methods (hybrid cloud) and service types (EaaS and microservices) in order to future-proof our solutions and allow them to adapt more readily to changes in technologies and demand form these platforms.