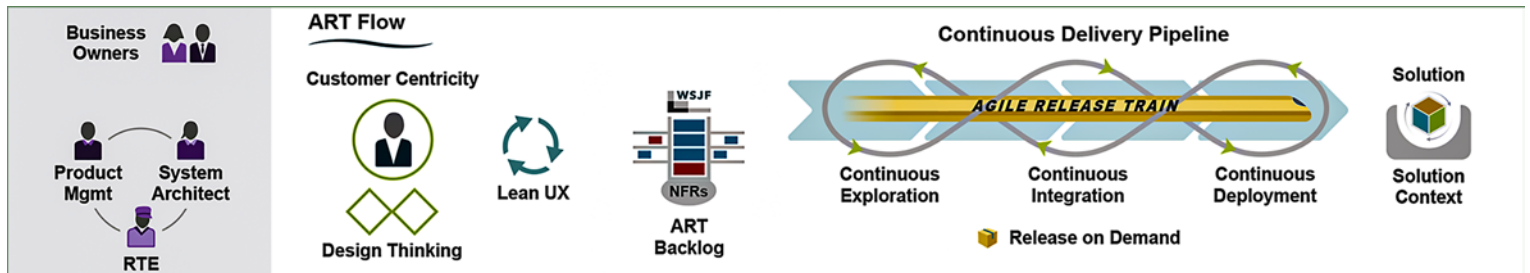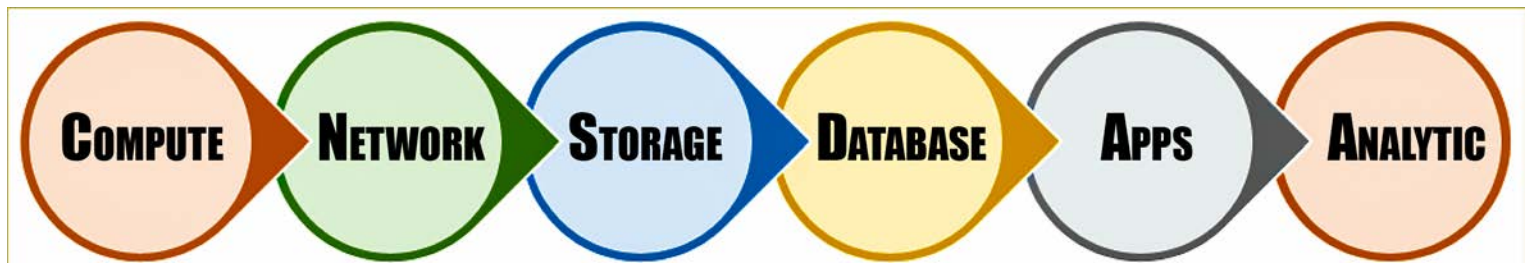# HOW SAFE, CLOUD COMPUTING, AND ITIL CAN BE USED TO QUICKLY INNOVATE WITHOUT WATERFALL

The demand to quickly identify, create, deliver, operate, and maintain innovatively new Information Technology (IT) products and services is pervasive throughout the world, and the ability to do so is key to organizational success, budgets, and sustainability. However, the design, development, and operation of innovatively new IT products and services is immensely complex, costly, risky, and fraught with extremely high failure rates undermining the success of enterprises, firms, portfolios, projects, and teams. There are numerous competing IT management frameworks to ensure the successful design, development, and operation of new IT products and services; some are counterproductive; and the IT framework quagmire has narrowed to a few major ones. A popular solution to fast and successful development of innovatively new IT products and services is the powerful combination of the Scaled Agile Framework (SAFe), Cloud Computing Services, and the Information Technology Infrastructure Library (ITIL). The combination of these IT framework powerhouses enables organizations to quickly elicit customer needs, deliver minimum viable products (MVPs), apply leading indicators, and rinse and repeat in small fast cycles until optimal success is achieved.
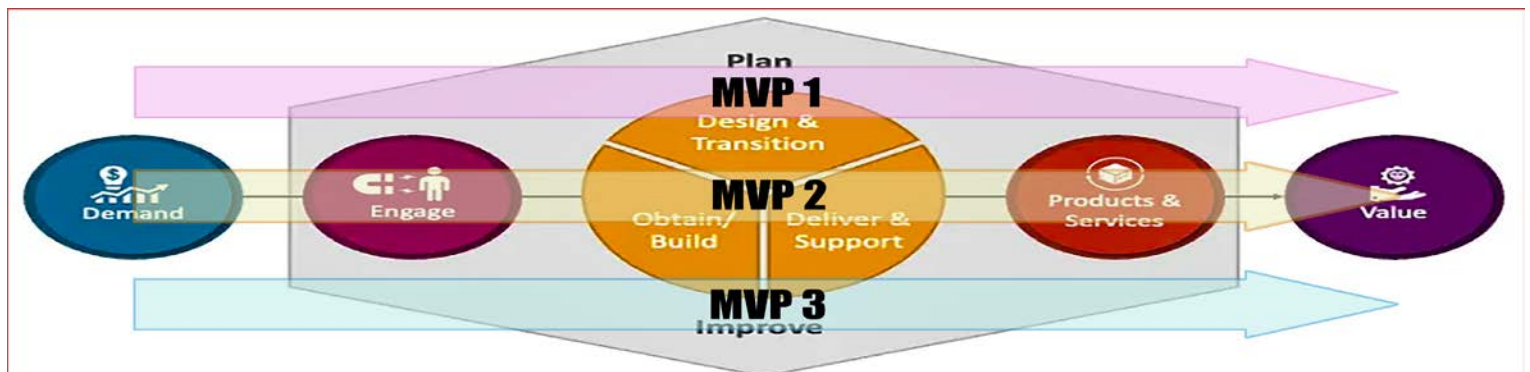
SAFe is an enterprise IT agility framework to apply lean and agile thinking principles and practices to portfolios, large solutions, and teams of teams cooperating to rapidly solution small MVPs to converge upon customer needs in short lead and cycle times. Cloud Computing Services are virtualized data centers, servers, storage, databases, networks, and applications to rapidly prototype scalable virtual private clouds (VPCs) with short lead and cycle times without physical or capital-intensive IT assets. ITIL is a de facto international IT reference framework and common language to strategize, design, transition, operate, and continually improve organizational IT infrastructures such as data centers, networks, middleware, applications, help desks, etc. All three frameworks evolved to support lean and agile thinking principles and practices to rapidly field innovatively new products and services with extremely short lead and cycle times to optimize customer satisfaction, user experience, quality, and security. SAFe, Cloud Computing Services, and ITIL acknowledge the key to organizational success is to speed up the design and delivery of innovatively new products and services rather than slowing them down with multi-decade billion-dollar lifecycles.

Agile Release Trains (ARTs) are heartbeat of SAFe to Rapidly Prototype Virtualized MVPs With Short Lead & Cycle Times

Virtual Private Clouds (VPCs) are heartbeat of Cloud Computing to Rapidly Prototype MVPs With Short Lead & Cycle Times

Incident Management Service Levels are heartbeat of ITIL to Rapidly Prototype Virtual MVPs With Short Lead & Cycle Times

This short exercise clearly illustrates the convergence of SAFe, Cloud Computing Services, and ITIL for rapidly prototyping innovatively new product and service MVPs especially when they manifest themselves as Cloud Computing Services or VPCs. The goal of lean and agile IT frameworks is to identify customer problems, create small VPCs, deliver them to customers with the fastest lead and cycle times possible, collect leading measures, and rinse and repeat often until customer needs are met. Customer needs are highly uncertain, unpredictable, and volatile, and the only way to tease out hidden tacit inexpressible needs is by rapidly cycling through multiple smaller MVPs with SAFe, Cloud Computing Service VPCs, and ITIL as quickly as possible. Gone are the days when mountains of business requirements and models are gathered to predict customer needs far into the future to load into detailed integrated master schedules (IMSs) to be implemented with long linear multibillion dollar waterfalls. **Slow glacial waterfall products and projects are not the key to satisfying customer needs in the 21st century, but rather lean and agile frameworks like SAFe, Cloud Computing Services, and ITIL to cycle through rapid, inexpensive, and low risk MVPs.**