The Next Generation Air Transportation System, or NextGen, is a transformative change in the management and operation of how we fly, which will reduce delays, save fuel and lower carbon emissions. This comprehensive initiative integrates new and existing technologies, including satellite navigation and advanced digital communications. Airports and aircraft in the US national airspace system (NAS) will be connected to NextGen’s advanced infrastructure and will continually share information in real-time to improve air transportation’s safety, speed, efficiency and environmental impacts. The combined initiatives that make up NextGen will provide a better travel experience.

SWIM
SYSTEM WIDE INFORMATION MANAGEMENT

NextGen transformation requires streamlined data communications capabilities and the ability to manage the efficient flow of information through the NAS. That is where System Wide Information Management (SWIM) comes in. SWIM is the platform that shares up-to-date and identical information among pilots, air traffic controllers, airline dispatchers, the military, government agencies and other users of the NAS. SWIM also processes information from different kinds of systems, such as airport operational status, weather information, flight data, status of special use airspace and airspace system restrictions.

By establishing the common processes and infrastructure needed for Next Gen systems interoperability, SWIM will provide the flexible and secure information management architecture necessary for information sharing. It uses commercial, off-the-shelf hardware and software to support a service-oriented architecture that facilitates the addition of new systems and data exchanges.

SWIM is being implemented in segments. Core services will be added as required to support the implementation capabilities associated with the segments. SWIM core services will enable NAS users to request and receive location-specific information when they need it.

www.faa.gov/nextgen/swim