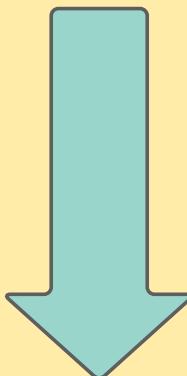# System Engineering Analysis (SEA) Documents

Sequential Driven Documents

Detail in Document

High Level

↓

In Depth

Technology/SEA Assessment:
-Determines if an SEA is required on a project based on the presence of technology
-Assists in service package identification
-Determines if previously prepared documents from other projects can be leveraged

Alternative Analysis:
-Only required for the technology aspect of a project
-Documents all options for technology to solve project purpose and objective
-Balances construction and maintenance costs
-Documents why an alternative was selected

Concept of Operations:
-High level summary of the vision of the proposed technology system
-Identifies stakeholders and users and defines roles and responsibilities
-Documents all discussed wants and needs of stakeholders and users and documents which ones will be included in the project
-Creates the Validation Plan requirements based on selected wants/needs. Validation will be complete at the end of design to document if/how each want/need was fulfilled on the project.

System Functional Requirements:
-Documents how the project intends to implement the functional requirements established in the applicable service package(s)
-Specifies any project specific functional requirements

High Level System Design:
-Creates a visual showing how all of the different elements communicate and what is communicated between them

Detailed Level System Design:
- Identifies if additional design of the system is needed which may include: networking, hardware, or software development

Testing and Integration:
- Documents how the installed system will be stood up and how it will then be tested per device type
-Documents integration procedures

Independent Documents

Additional Agreements:	Standard Operating Procedures (SOP):	Maintenance Plan:	Validation Plan:
-Compiles all completed agreements	-Documents step by step instructions on how to operate the proposed system	-Documents what routine maintenance is required -Defines roles and responsibilities of routine maintenance -Documents financially how the system will be maintained -Identifies the utilities related to the project -Used for asset management	-Completed any time after the Concept of Operations is complete -Documenting how the design fulfills all wants/needs established in the Concept of Operations -Documents an changes that occurred throughout design