US Army Distributed Simulation Capabilities

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Abstract

Budget reduction, debt ceiling, Government costs have become a big problem to the United States government and politicians. This issue has arisen because of the possible debt ceiling reaching its limit and the economy not moving forward. This problem has an effect on many areas and departments and one that was not left behind is the Military Forces. Because of their high expenditures, alternatives of training were studied for an effort on reducing training costs. By integrating simulated training to the military training, it was found that cost could be reduced significantly without compromising the quality of the training.

Introduction

The 75th Training Commands has five divisions across the United States with an approximate of 5,000 soldiers. Its main mission is to train all military forces across the United State prior to departing to the War. The 75th Training Command trains an average of 50 to 75 missions every year with an annual budget of $18 million.

Due to the U.S. government cutbacks and shortage of funds, the Department of Defense has taken the initiative to relook into different alternatives of training that are more cost effective and that would be as efficient as today's model of training.

With objectives as leverage economies of scale for training unit personnel, state of the art simulated training while reducing direct and indirect cost, ensuring soldiers safety, providing all possible war scenarios in a same location without requiring troops, equipment and personnel movements.

Methodology

The ability to recognize and effectively solve problems is an essential skill. Army problem solving is a systematic approach to define a problem, develop possible solutions to solve the problem, arriving at the best solution and implementing it. It incorporates risk management techniques appropriate to the situation.
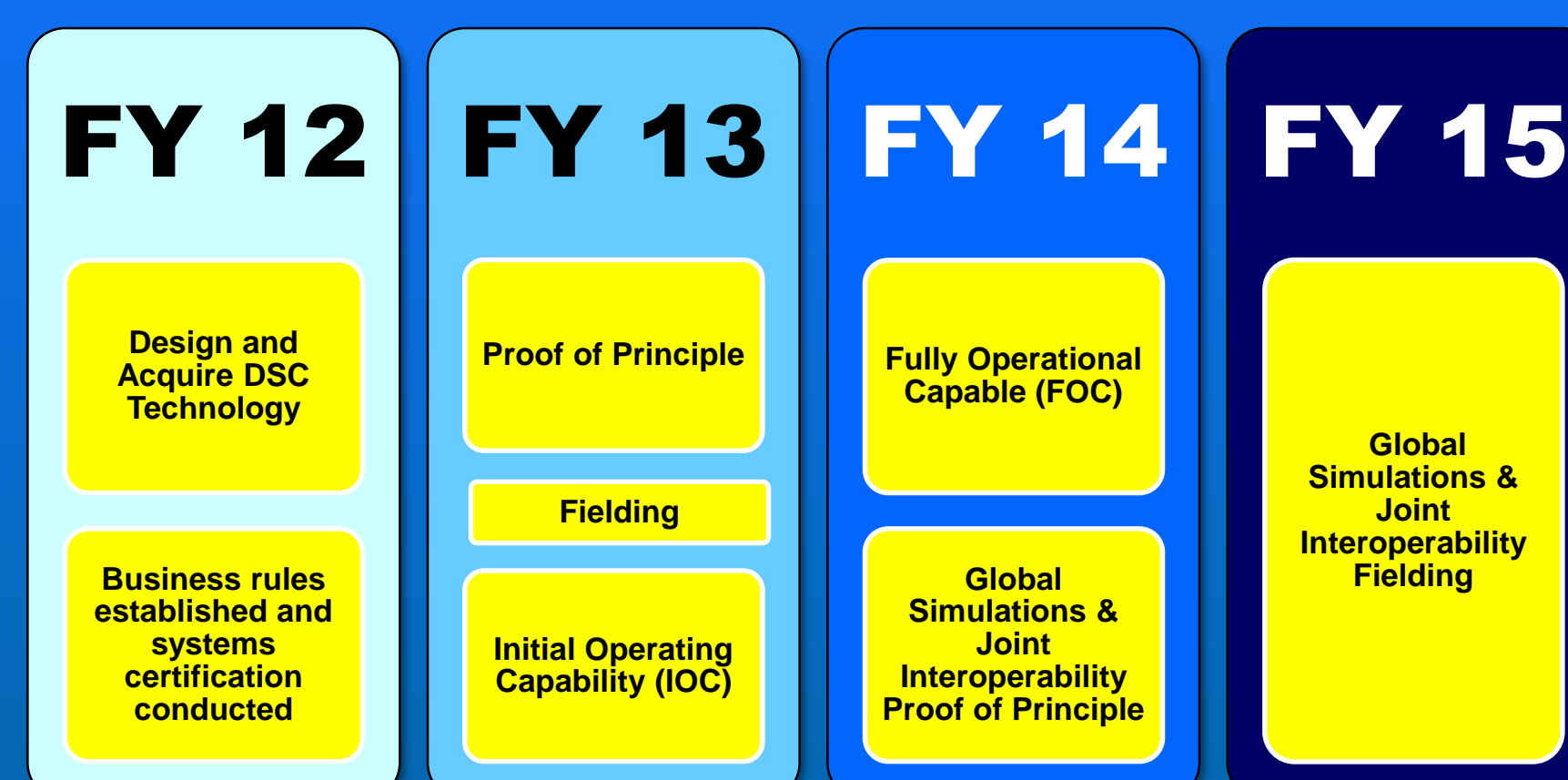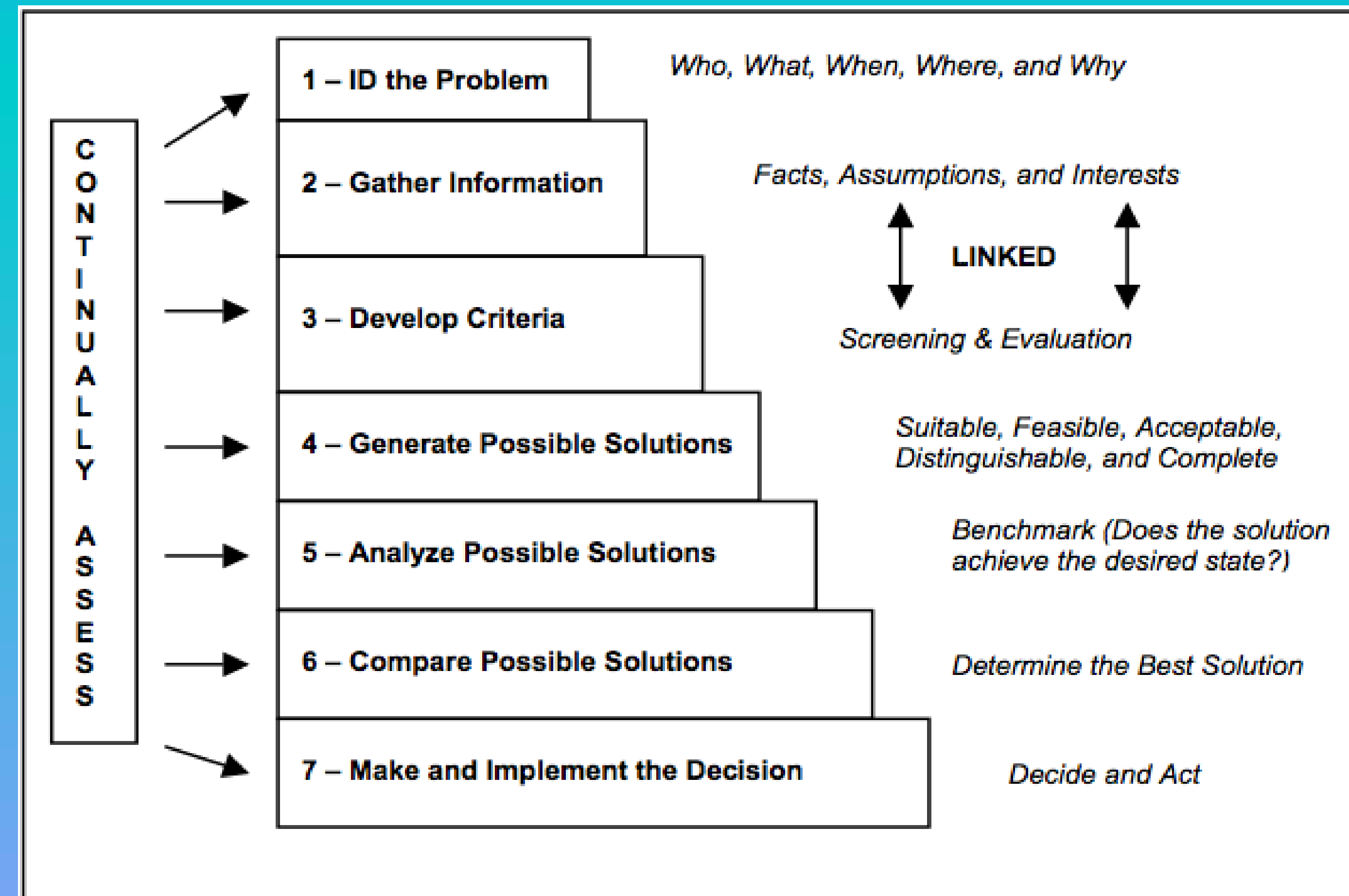

Figure 1. Implementation Phases

Figure 2. Seven Steps of the Army Problem Solving

Discussion

The US ARMY expectations of DSC is to be a training tool with lots of diversity and one diversity that is being very attractive not only to the ARMY, but to any military force in the United States which is the capability of performing joint forces training among all the military branches.

The 75th Training Command has strategically placed training sites in five different locations: Alabama, New Jersey, Illinois, Texas and California. Having a main Mission Training Center as the command control location will allow the other four locations to connect to the network and conduct their simulated training.

The 75th Training Command every year has recurrent training to perform mandated by the US ARMY Reserve Headquarters. For each training travel and per-diem cost are calculated based on the location of the training site. Based in the mission analysis for fiscal year 14, 22 events will cost the 75th Training Command $2,115,200.00 if live training is to be conducted.
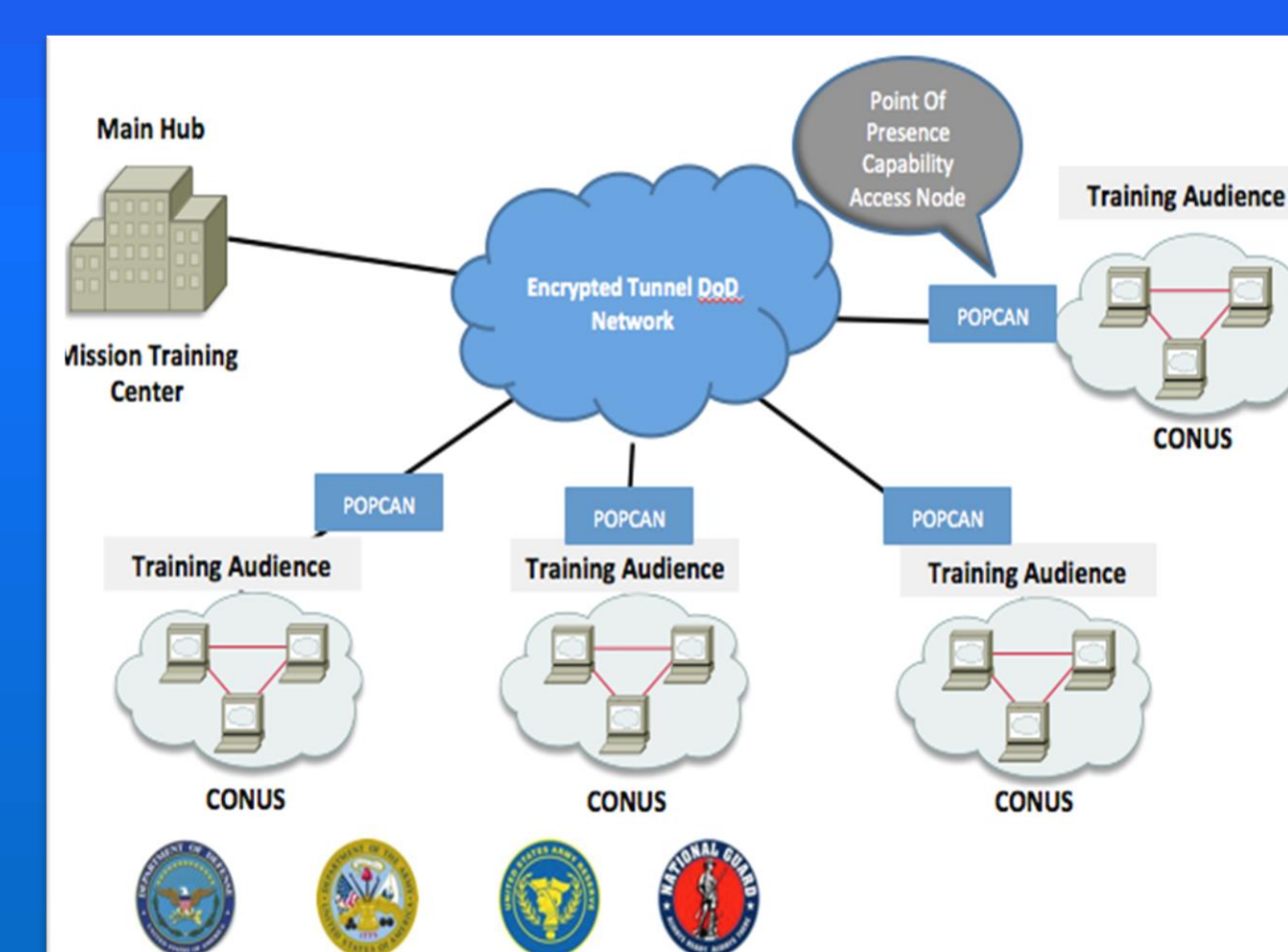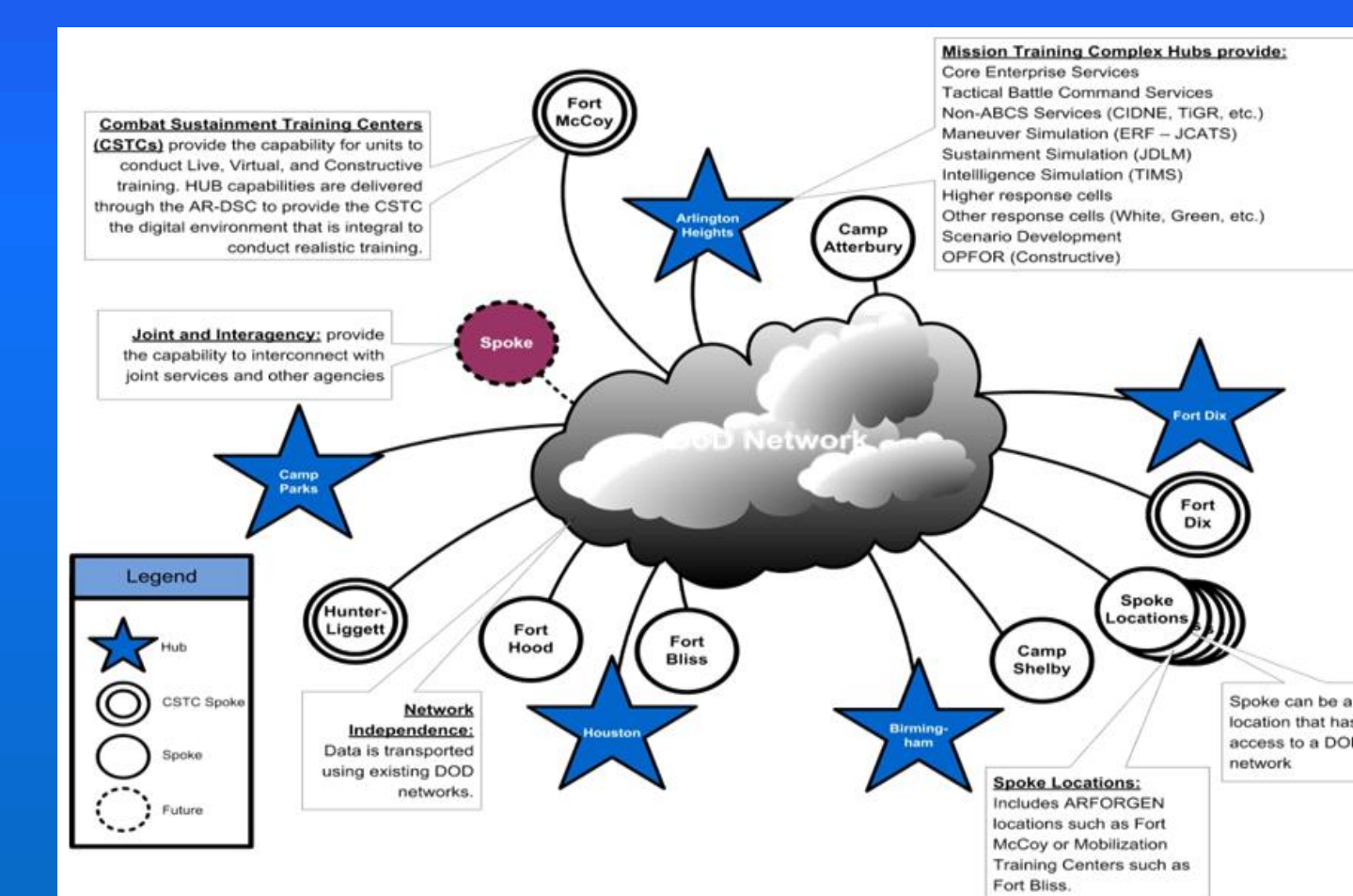

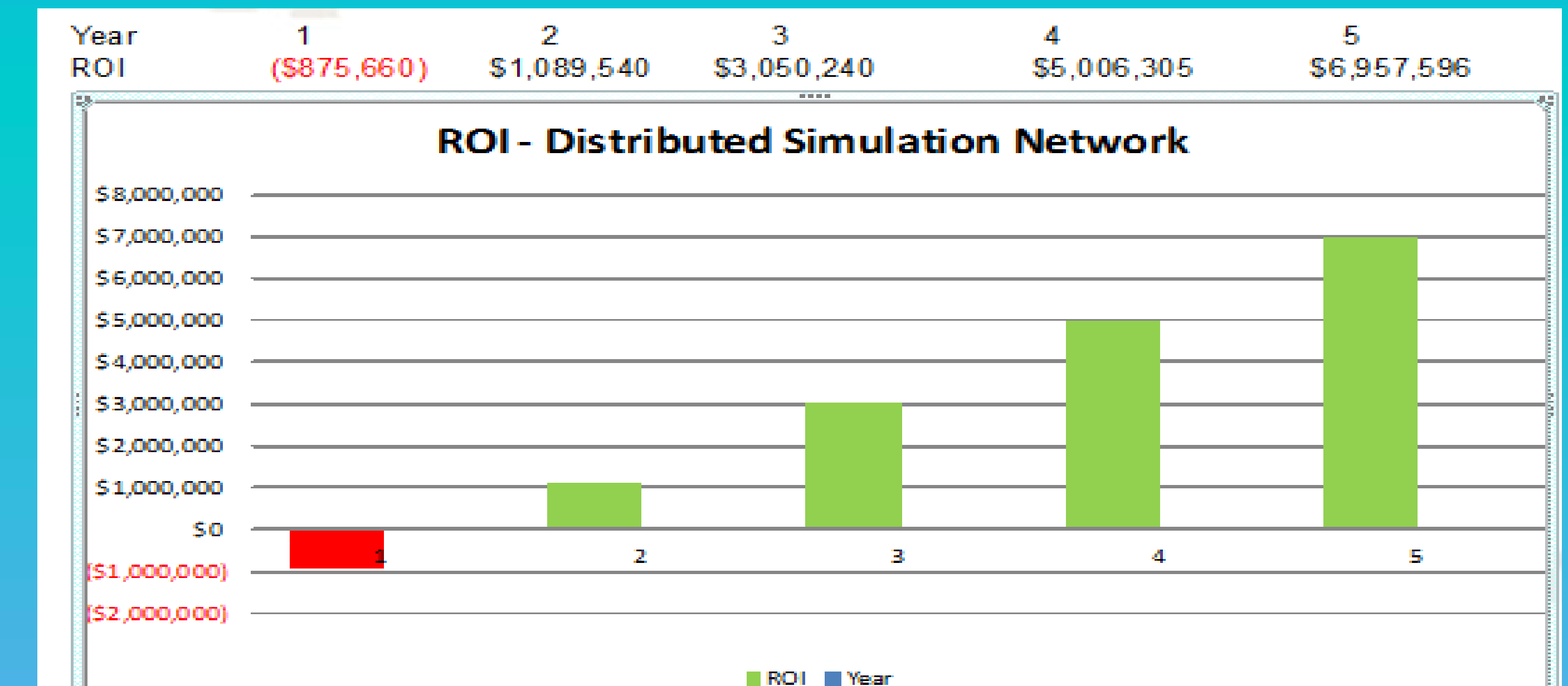Figure 3. Distributed Simulation Capabilities Overview

Figure 4. Area of Coverage

Chart 1. Distributed Simulation Capabilities Return of Investment

Results

The return of investments analysis demonstrate that DSC will save the US Government an approximate of $7 million in a four year plan. Distributed Simulation Capabilities equipment and training investment in the first year would show as a $875,660.00 negative investment. The second year forward, the only investment for DSC is an average of $156,886.00 yearly required for the maintenance of the circuit and operating the DSC equipment.

Conclusions

Distributed Simulation Capabilities is capable of saving the government $1.5 million dollars annually in recurrent events that are mandated by the US ARMY Reserve Headquarters. For all other 50 -75 missions that are a onetime event and their cost are based in their location and magnitude, DSC saved the Government at a minimum of $500,000. The advantage of DSC is the safety; within its training not a single soldier got injured while conducting simulated training. War scenarios just take minutes to be changed instead of all the requirement and movement of equipment that takes in real life training model.

References

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