Critical Infrastructure Protection

Infrastructure is the basic physical system of a nation or country. Transportation, communication, sewage, water, gas and electrical system, agriculture, heat and public health are the examples of infrastructure. Critical infrastructure is the preparedness of the critical situation in infrastructure. The economy of any country is based on these resources if these resources is compromised then the country’s economic condition is shattered. In the modern age, the infrastructure is computerized and this can be easily compromised by cyber army of the enemy country. Our objective is to prevent these cyber-attacks for the welfare of our country.

How the infrastructure is critical?

The system and networks that makes up the infrastructure are interconnected to each other so the disruption in any part can cause destruction. For example if a computer virus disrupt the distribution of natural gas then it will cause the reduction of the electrical power generation, electric power is the need of our communication system it will also destroy, so there will be a big destruction in computerized organization and telecom sector. Road traffic, air traffic, rail transportation is also affected.

What infrastructure sectors can be spoiled?

In a country the various sectors are responsible to perform their duties which are as follows

* Banking and finance
* Transportation
* Power
* Information and comm.
* Emergency services
* Fire department
* Law enforcement
* Public work

What is the importance of this analysis?

In the past the systems and network of the infrastructure were physically and logically independent and separate but now they are dependent and interconnected to each other. The resources are also correlated to each other, as the interlinked capabilities helps to make the economy more efficient but the vulnerabilities has also been increased. Due to this threat the total infrastructure has needed to be secure and reliable. This is only possible when a critical infrastructure protection organization is established which take the complete responsibility for its protection.

National infrastructure protection plan

The different entities of National CIP work together as a partnership between the govt. and public sectors. For each of the identified major sectors federal govt. and corporate sectors are responsible for development a sectors NAIP. They build their own plan for the protection of critical infrastructure. The process include the assessment of

* Protection
* Vulnerabilities
* Risk
* Mitigation

Department of Defense and CIP

The department of defense is responsible for the protecting its portion of govt. critical infrastructure, first DoD have to identify its own critical assets and provide assurance through analysis, assessment, and premeditation. The ten defense critical infrastructure sectors that are provided by the DoD. These include:

* Financial services
* Transportation
* Public work
* Global information and grid command control
* ISR
* Health affairs
* Personnel
* Space
* Logistic
* Defense industrial base

DoD special functions

* Policy and strategy
* Intelligence support
* Industrial policy
* Defense security
* Information assurance
* Research and development
* Education and awareness

DoD CIP lifecycle:

There are six phases of DoD lifecycle

* Analysis and assessment
* Remediation
* Indication and warning
* Mitigation
* Incidence response
* Reconstitution